U.S. Department of the Interior
National Park Service

Appalachian National Scenic Trail
Delaware Water Gap National Recreation Area
Middle Delaware National Scenic and Recreational River

New Jersey and Pennsylvania

Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit Final Environmental Impact Statement

August 2012

Volume III

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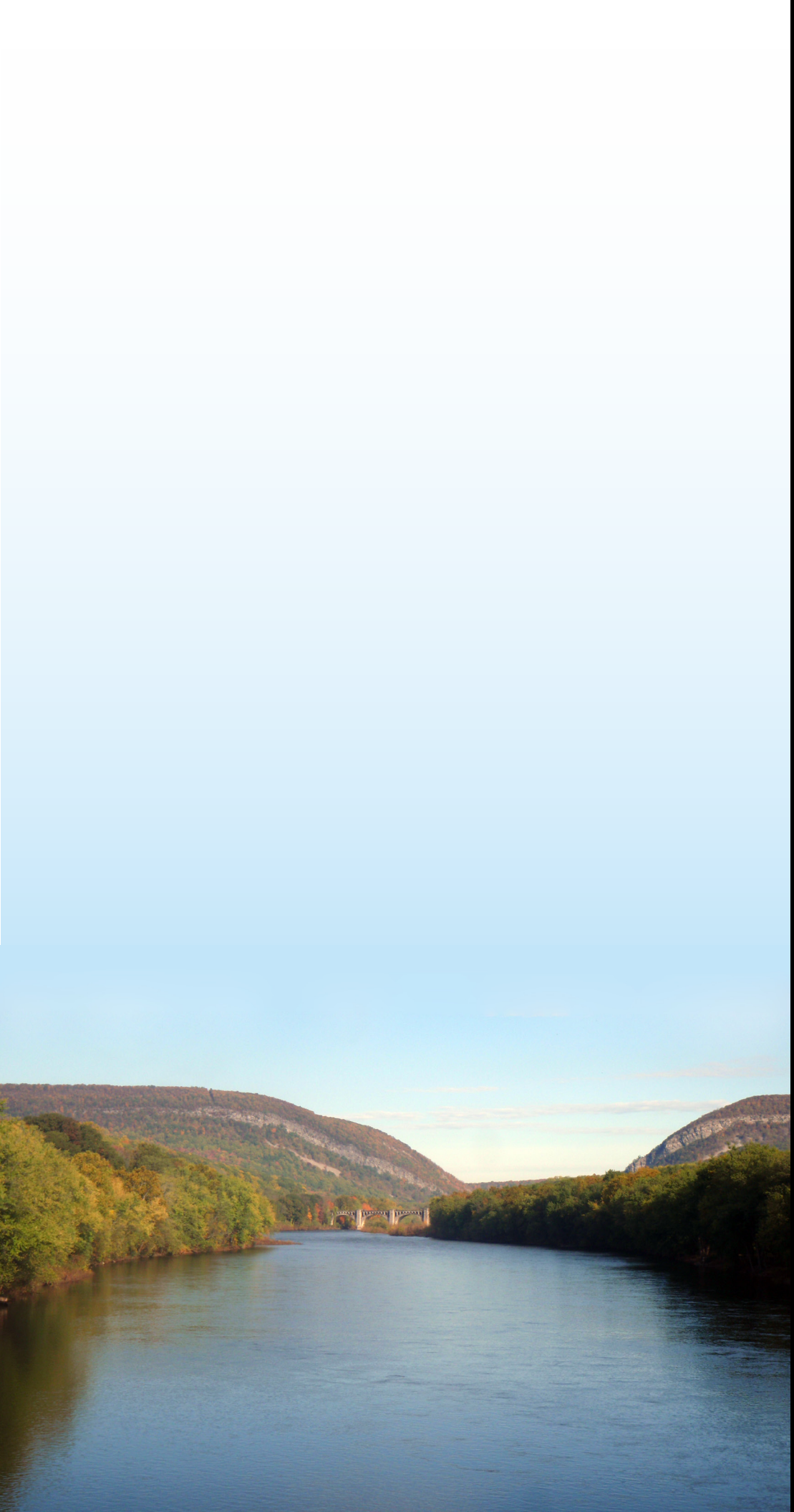

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National Park Service
U.S. Department of the Interior

Appalachian National Scenic Trail
Delaware Water Gap National Recreation Area
Middle Delaware National Scenic and Recreational River

FINAL PUBLIC COMMENT ANALYSIS REPORT

SUSQUEHANNA TO ROSELAND 500 KV TRANSMISSION LINE RIGHT-OF-WAY AND SPECIAL USE PERMIT

DRAFT ENVIRONMENTAL IMPACT STATEMENT

May 2012

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LIST OF ACRONYMS AND ABBREVIATIONS

APPA.....Appalachian National Scenic Trail
DEIS .....Draft Environmental Impact Statement
DEWA .....Delaware Water Gap National Recreational Area
kV .....kilovolt
MDSR.....Middle Delaware National Scenic and Recreational River
NEPA.....National Environmental Protection Act
NPCA .....National Parks Conservation Association
NPS.....National Park Service
PEPC .....Planning, Environment, and Public Comment
PJM.....PJM Interconnection
PPL .....PPL Electric Utilities Corporation
PSE&G .....Public Service Electric and Gas Company
ROW.....Right-of-way
S-R Line.....Susquehanna to Roseland Transmission Line

INTRODUCTION AND GUIDE

Introduction

PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G), jointly known as the applicant, have proposed constructing a double 500,000-volt (500-kV) transmission line, the S-R Line, including crossings of the Appalachian National Scenic Trail (APPA), the Delaware Water Gap National Recreation Area (DEWA); and the Middle Delaware National Scenic and Recreational River (MDSR), in Pennsylvania and New Jersey. Applicant has applied for a permit to allow the construction, maintenance, and operation of the S-R Line across three units of the national park system, and the replacement of their existing 230-kV transmission line. This existing 230-kV transmission line runs from the northwest to the Bushkill substation crossing a small segment of DEWA, and from Bushkill substation across DEWA, MDSR, and APPA, connecting to the Kittatinny substation, and is referred to in this document as the Bushkill-Kittatinny line or B-K Line. The B-K Line towers are approximately 80 feet in height and its right-of-way varies from 100 to 300 feet in width through the Parks. The applicant's proposal would replace the B-K Line with a new set of towers up to 195 feet tall on a widened right of way carrying both the S-R Line and a replacement B-K Line. The replacement B-K Line would be capable of carrying 500 kV, though initially energized at 230 kV. The NPS has prepared a draft Environmental Impact Statement (DEIS) to evaluate the impacts to the natural and human environment from the applicant's proposal and to assist in making a decision on the issuance of permits.

Summary of Public Comment Process

On November 21, 2011, the NPS released the DEIS for the Susquehanna to Roseland Transmission Line (S-R Line) for public review and comment. The DEIS included a description of the proposed project and alternatives proposed, a description of the resources found within the study area, and an analysis of the impacts of the proposed project on these resources. The DEIS was available for public review until January 31, 2012.

During the comment period, three public meetings were held in Pennsylvania and New Jersey from January 24 through 26, 2012. Meetings were held in Bushkill, Pennsylvania (January 24); Stroudsburg, Pennsylvania (January 25); and Lafayette, New Jersey (January 26). Each public meeting had an open house from 2:30 p.m. till 4:30 p.m. and a public hearing from 6:00 p.m. until 9:00 p.m. During the open house, the public was invited to look over the DEIS and ask park staff questions regarding the DEIS. The public hearing began with a meeting overview by the NPS project manager and welcome from the Parks' Superintendents. Formal public comment sessions were then recorded by a court reporter. The evening concluded with a return to an open house. NPS staff were on hand to visit with meeting participants and to answer questions.

A total of 368 individuals attended the public comment meetings in Pennsylvania and New Jersey, and a total of 102 participants spoke during the formal public comment sessions. The number of participants and formal commenters at each meeting was as follows:

- Bushkill, Pennsylvania – 66 participants, 18 formal commenters
- Stroudsburg, Pennsylvania – 88 participants, 27 formal commenters
- Lafayette, New Jersey – 214 participants, 57 formal commenters

The public was able to submit comments on the project using any of the following methods:

- Electronically through the NPS Planning, Environment, and Public Comment (PEPC) website
- In person at the public meetings
- By mailing comments to the NPS
- By emailing comments to the NPS

Nature of Comments Received

Nearly 27,000 pieces of correspondence from all 50 states, the District of Columbia, and 29 countries were received during the public comment period. Approximately 26,000 pieces of correspondence were form letters submitted by the National Parks Conservation Association (NPCA), and the Sierra Club. All form letters submitted by the NPCA and Sierra Club were read to determine if they contained any additional substantive material. Correspondences that did not contain any substantive material that differed from the form letter were included as a signature to the form letter. Correspondences with additional substantive text were considered individual correspondences. Of the correspondences submitted during the public comment process, 908 were not form letters. Of the 1,177 letters on PEPC, 896 were not associated with either the NPCA or Sierra Club form letter submittal.

Approximately 8,388 of the correspondences submitted were from individuals living within the proposed areas for the S-R Line (Pennsylvania and New Jersey), and of these, only 733 were not from the NPCA and Sierra Club submissions. After Pennsylvania and New Jersey, California, Florida, and New York were the states with the greatest number of submittals. Commenters who identified themselves as being outside the United States were mainly from Italy, France, Sweden, and Germany.

Among the comments received, a majority were expressions of support for the no action alternative, general opposition to the project, and opposition to the proposed mitigation. Commenters cited concerns over impacts to natural and cultural resources, as well as the visitor experience as reasons they did not support the proposed project.

These are some of the concerns expressed in the comments received:

- The project violates NPS mandates and policies to protect natural and cultural resources.
- Alternatives for routing and energy production – the park and/or applicant should explore other alternative means of energy production, including local generation, energy conservation, solar power, wind power, and new transmission technologies.
- The proposed project would result in cumulative effects to air and water pollution from the use of coal-fired generating plants.
- The need of the project is either unclear or is not necessary based on the decrease of energy demand within the local area.
- The scope of the project, including the study area, is not adequate to address the true impacts from the line.
- The methodology for establishing impacts was insufficient –commenters noted that the scope and/or method for impact analysis did not adequately assess the impacts of the proposed action.
- The width identified for alternative 2 that would be needed for construction is overestimated and the impacts should be reanalyzed with the narrower width.
- Visitor impacts – the proposed project would alter the experience of those who visit the parks, particularly from visual and sound impacts of the transmission line.

- Homeowners/townships expressed concerns of the placement of the transmission line through populated areas. Safety concerns include the health of individuals, especially the children attending schools along the proposed routes, the impact of construction to emergency vehicles, and cancer clusters.
- Commenters are concerned that the removal of vegetation for the transmission line ROW and the access roads would destroy habitat for many wildlife species, create habitat fragmentation, increase soil erosion, and degrade the water quality of the Delaware River.
- There is a migratory bird corridor that crosses the proposed transmission line routes. Commenters are concerned that there would be an increase in bird-strikes.
- The alternate proposed routes would pass through other park lands including Cherry Valley National Wildlife Refuge, Lehigh Gorge, and other state parks which are used by many locals in the area. Commenters feel these areas should also be preserved, and need to be included in the analysis.
- Wetlands would be impacted along the alternate routes due to destruction of the wetlands, alterations to hydrology, and from filling of wetland areas.
- Commenters suggested alternatives to the applicant's proposed mitigation, including additional specific measures for mitigation.
- Commenters expressed opposition to the applicant's proposed mitigation.
- Commenters expressed concern that cumulative impacts were not analyzed sufficiently.
- Alternatives 3, 4, and 5 are not viable alternatives.

All comments, regardless of their topic, were carefully read and analyzed, and representative examples are presented in this report. Commenters will continue to be notified of the project's progress, and are encouraged to visit the NPS PEPC website at www.parkplanning.nps.gov/dewa to view information pertaining to this project.

Definition of Terms

Primary terms used in this document are defined below.

Correspondence: A correspondence is the entire document received from a commenter. It can be in the form of a letter, email, written comment form, note card, open house transcript, or petition. Each piece of correspondence is assigned a unique identification number in the PEPC system.

Comment: A comment is a portion of the text within a correspondence that addresses a single subject. It should include information such as an expression of support or opposition to the use of a potential management tool, additional data regarding an existing condition, or an opinion debating the adequacy of the analysis.

Substantive comment: Substantive comments are those comments that challenge the impact analysis, provide additional relevant information, dispute information accuracy, cause changes to the preferred alternative, or suggest new viable alternatives.

Code: A grouping centered on a common subject. The codes were developed during the comment process and are used to track major subjects throughout the EIS process.

Concern: Concerns are a written summary of all comments received under a particular code. Some codes were further separated into several concern statements to provide a better focus on the content of the comments.

The Comment Analysis Process

Comment analysis is a process used to compile and combine similar public comments into a format that can be used by decision makers and the S-R Line EIS Team. Comment analysis assists the team in organizing, clarifying, and addressing technical information pursuant to National Environmental Protection Act (NEPA) regulations. It also aids in identifying the topics and issues to be evaluated and considered throughout the planning process.

This report includes a synopsis of concerns voiced by citizens and groups regarding the project. These concerns are captured in "concern statements" followed by a quote from a letter best representing that concern. The representative quotes are not intended to be an exhaustive list of every comment. Due to the volume of comments, this report allows us to summarize the concerns with a representative quote to efficiently identify what concerns will be further addressed in the EIS. The tallies in the report are not exact, but are a representation of the types of comments received on the scope of the EIS.

Some individuals submitting comments choose to list themselves as a member of a group. This does not necessarily mean that the comments represent the official group, but the PEPC system listed the group's name as a result of the individual's reference to it. We are sensitive to that particular aspect of the PEPC system and will treat every comment, group or individual with equal concern in our review of comments.

The comment analysis process includes five main components:

1. Developing a coding structure
2. Employing a comment database for comment management
3. Reading and coding of public comments
4. Interpreting and analyzing the comments to identify issues and themes
5. Preparing a comment summary

A coding structure was developed to help sort comments into logical groups by topics and issues. The coding structure was derived from an analysis of the range of topics discussed during internal NPS scoping, past planning documents, and the comments themselves. The coding structure was designed to capture all comment content rather than to restrict or exclude any ideas.

The NPS PEPC database was used for management of the comments. The database stores the full text of all correspondences and allows each comment to be coded by topic and issue. Some outputs from the database include tallies of the total number of correspondences and comments received, sorting, and reporting of comments by a particular topic or issue, and demographic information regarding the sources of the comments.

Analysis of the public comments involved the assignment of the codes to statements made by the public in their letters, email messages, mailed comments, and comments stated at the public meetings. All comments were read and analyzed.

Although the analysis process attempts to capture the full range of public concerns, this content analysis report should be used with caution. Comments from people who chose to respond do not necessarily represent the sentiments of the entire public. Furthermore, this was not a vote-counting process, and the emphasis was on content of the comment rather than the number of times a comment was received. This report is intended to be a summary of the comments received, rather than a statistical analysis.

Guide to this Document

This report is organized as follows:

Content Analysis Report: This is the basic report produced from PEPC that provides information on the numbers and types of comments received, organized by code. The first section of the report provides a summary of the number of comments that were coded under each topic. The second section provides general demographic information, such as the states where commenters live, the number of letters received from different categories of organizations, etc.

Public Comment Summary: This report summarizes the substantive comments received during the comment process. These comments are organized by codes and further organized into concern statements. Below each concern statement are representative quotes, which have been taken directly from the text of the public's comments and have not been edited; therefore, some spelling and grammar errors were not corrected. Representative quotes further clarify the concern statements.

Correspondence Index of Organizations: This provides a listing of all groups that submitted comments, arranged and grouped by the following organization types as defined by PEPC: business; civic groups; conservation/preservation groups; county government, federal government; non-governmental groups; recreational groups; state government; town or city government; unaffiliated individuals. In many instances, the organization type was not defined by the commenter; therefore, organizations were listed as "Unaffiliated Individuals". Each piece of correspondence was assigned a unique identification number upon entry into PEPC. This number can be used to assist the public in indentifying the way the NPS addressed their comments. This list is organized alphabetically.

Correspondence Index of Individual Commenters: This provides a listing of all of the individuals who submitted comments during the public comment period. Like the previous index, each correspondence was assigned a unique identification number which can be used to assist individuals in identifying the way in which NPS addressed their comments. This list is organized alphabetically. Those correspondences identified as N/A represent individuals who did not submit their first or last name.

Index by Organization Type: This list identifies all codes that were assigned to each individual piece of correspondence and is arranged by organization type. In many instances, the organization type was not defined by the commenter; therefore, organizations were listed as "Unaffiliated Individuals". Those correspondences identified as N/A represent individuals who did not submit their first or last name.

Comment Index by Code: This list identifies which commenters or authors (identified by PEPC organization type) commented on which topics, as identified by the codes used in this analysis. The report is organized by code, and under each code is a list of the authors who submitted comments that fell under that code, and their correspondence numbers. Those correspondences identified as N/A represent unaffiliated individuals.

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CONTENT ANALYSIS REPORT

Correspondence Distribution by Code

CODE	DESCRIPTION	NUMBER OF CORRESPONDENCES	NUMBER OF SIGNATURES
AL1100	No Action Alternative: Supports	567	26339
AL1110	No Action Alternative: Opposes	7	7
AL1700	Deny Permit	3	3
AL1710	Issue Permit	0	0
AL1750	Opposes New Powerline	238	238
AL1751	Opposes Project: Impacts to Park Natural and Cultural Resources	99	99
AL1752	Opposes Project: Impacts to Visitor Use and Experience, Recreation, Visual Quality, and Aesthetics	36	36
AL1753	Opposes Project: Impacts to Socioeconomics, Jobs, and Human Health	29	29
AL1760	Supports New Powerline	23	23
AL1800	Alternatives: Questions the Alternative Development Process	5	6
AL1850	Alternatives: Alternatives Considered but Dismissed	3	3
AL1900	Action Alternative 2: Support	30	30
AL1910	Action Alternative 2: Oppose	17	17
AL1920	Action Alternative 2: Suggest Change to Alternative	1	1
AL1930	Action Alternative 2b: Suggest Change to Alternative	3	3
AL1940	Action Alternative 2b: Support	17	17
AL1950	Action Alternative 2b: Oppose	12	12
AL2000	Action Alternative 3: Support	0	0
AL2010	Action Alternative 3: Oppose	10	10
AL2020	Action Alternative 3: Suggest Change to Alternative	3	3
AL2100	Action Alternative 4: Support	1	1
AL2110	Action Alternative 4: Oppose	9	10
AL2120	Action Alternative 4: Suggest Change to Alternative	2	3
AL2200	Action Alternative 5: Support	3	3
AL2210	Action Alternative 5: Oppose	9	10
AL2220	Action Alternative 5: Suggest Change to Alternative	2	3
AL2500	Suggest New Action Alternative	247	247
AR3000	Archeological Resources: Study Area	0	0
AR4000	Archaeological Resources: Impact of Proposal and Alternative	5	5
AR5000	Archeological Resources: Cumulative Impacts	0	0
AT1100	Appalachian Trail: Comments Specific to Park	4	4
CC1100	Consultation and Coordination:	4	4
CL3000	Cultural Landscapes: Study Area	1	1
CL4000	Cultural Landscapes: Impact of Proposal and Alternatives	10	10

CODE	DESCRIPTION	NUMBER OF CORRESPONDENCES	NUMBER OF SIGNATURES
CL5000	Cultural Landscapes: Cumulative Impacts	0	0
ED1000	Editorial	8	9
FP3000	Floodplain: Study Area	0	0
FP4000	Floodplain: Impact of Proposal and Alternatives	1	1
FP5000	Floodplain: Cumulative Impacts	1	1
GA1100	Impact Analysis: Overall Impacts to Park Resources	140	6,088
GA3000	Impact Analysis: General Methodology For Establishing Impacts/Effects	13	13
GR3000	Geologic Resources: Study Area	0	0
GR4000	Geologic Resources: Impact Of Proposal And Alternatives	8	8
GR5000	Geologic Resources: Cumulative Impacts	0	0
HH3000	Human Health and Safety: Study Area	1	1
HH4000	Human Health and Safety: Impact of Proposal and Alternatives	30	30
HH5000	Human Health and Safety: Cumulative Impacts	1	1
HS3000	Historic Structures: Study Area	1	1
HS4000	Historic Structures: Impact of Proposal and Alternatives	6	6
HS5000	Historic Structures: Cumulative Impacts	0	0
IA1100	Impact Analysis: Topics Dismissed	12	12
IN3000	Infrastructure, Access, and Circulation: Study Area	0	0
IN4000	Infrastructure, Access, and Circulation: Impact of Proposal and Alternatives	3	4
IN5000	Infrastructure, Access, and Circulation: Cumulative Impacts	0	0
MG1100	Generally Opposes Mitigation Proposal	140	140
MG1200	Generally Supports Mitigation Proposal	17	17
MG1300	Recommendations for Mitigation Proposal	34	34
MT1200	Miscellaneous Topics: To Be Re-Coded	1	1
NS1100	Non Substantive Comment	74	75
NS1200	Non Substantive Comment Outside the Scope of Analysis	98	98
PI1100	Public Involvement Process	4	4
PN2000	Purpose And Need: Park Purpose And Significance	5	5
PN3000	Purpose And Need: Scope Of The Analysis	21	22
PN4000	Purpose And Need: Park Legislation/Authority	18	19
PN8000	Purpose And Need: Objectives In Taking Action	3	3
PO3000	Park Operations: Study Area	0	0
PO4000	Park Operations: Impact Of Proposal And Alternatives	6	6
PO5000	Park Operations: Cumulative Impacts	0	0
RF1000	References: General Comments	3	3
RU3000	Rare and Unique Communities: Study Area	0	0
RU4000	Rare and Unique Communities: Impact Of Proposal And Alternatives	1	1

CODE	DESCRIPTION	NUMBER OF CORRESPONDENCES	NUMBER OF SIGNATURES
RU5000	Rare and Unique Communities: Cumulative Impacts	1	1
SE3000	Socioeconomics: Study Area	0	0
SE4000	Socioeconomics: Impact Of Proposal And Alternatives	32	32
SE5000	Socioeconomics: Cumulative Impacts	0	0
SS3000	Soundscapes: Study Area	0	0
SS4000	Soundscapes: Impact of Proposal and Alternatives	1	1
SS5000	Soundscapes: Cumulative Impacts	0	0
TE3000	Threatened And Endangered Species: Study Area	1	1
TE4000	Threatened And Endangered Species: Impact Of Proposal And Alternatives	12	12
TE5000	Threatened And Endangered Species: Cumulative Impacts	0	0
VE3000	Visitor Experience: Study Area	0	0
VE4000	Visitor Experience: Impact Of Proposal And Alternatives	104	6052
VE5000	Visitor Experience: Cumulative Impacts	0	0
VQ3000	Visual Quality: Study Area	1	1
VQ4000	Visual Quality: Impact of Proposal and Alternatives	29	29
VQ5000	Visual Quality: Cumulative Impacts	0	0
VR3000	Vegetation And Riparian Areas: Study Area	0	0
VR4000	Vegetation And Riparian Areas: Impact Of Proposal And Alternatives	11	11
VR5000	Vegetation And Riparian Areas: Cumulative Impacts	0	0
WH3000	Wildlife And Wildlife Habitat: Study Area	1	1
WH4000	Wildlife And Wildlife Habitat: Impact Of Proposal And Alternatives	33	33
WH5000	Wildlife And Wildlife Habitat: Cumulative Impacts	1	1
WS3000	Wild and Scenic Rivers: Study Area	1	1
WS4000	Wild and Scenic Rivers: Impact of Proposal and Alternatives	1	1
WS5000	Wild and Scenic Rivers: Cumulative Impacts	0	0
WT3000	Wetlands: Study Area	0	0
WT4000	Wetlands: Impact of Proposal and Alternatives	4	4
WT5000	Wetlands: Cumulative Impacts	0	0

(Note: Each correspondence may have multiple codes. As a result, the total number of Correspondence may be diffferent than the actual comment totals)

Correspondence Signature Count by Organization

ORGANIZATION TYPE	CORRESPONDENCES	SIGNATURES
Business	14	15
Churches, Religious Groups	4	4
Civic Groups	0	0
Conservation/Preservation	150	6099
County Government	1	1
Federal Government	5	5
Non-Governmental	32	32
Recreational Groups	8	8
State Government	3	3
Town or City Government	5	5
Tribal Government	1	1
Unaffiliated Individual	953	20777
University/Professional Society	1	1
TOTAL	**1177**	**26951**

Correspondence Distribution by Correspondence Type

TYPE	NUMBER OF CORRESPONDENCES
Web Form	696
Letter	339
Transcript	103
Park Form	28
E-mail	6
Petition	2
Fax	1
Other	1
TOTAL	**1177**

Correspondence Distribution by State

NAME	FORM LETTERS	PEPC CORRESPONDENCES	TOTAL	PERCENT
United States				
Alabama	105	1	106	0.4
Alaska	48	0	48	0.2
Arizona	512	2	514	1.9
Arkansas	69	0	69	0.3
California	3516	0	3516	13.1
Colorado	636	1	637	2.4
Connecticut	302	3	305	1.1
Delaware	60	0	60	0.2
District of Columbia	50	4	54	0.2
Florida	1236	2	1238	4.6
Georgia	284	0	284	1.1
Hawaii	85	0	85	0.3
Idaho	60	0	60	0.2
Illinois	898	1	899	3.3
Indiana	281	1	282	1.1
Iowa	133	0	133	0.5
Kansas	122	0	122	0.5
Kentucky	139	0	139	0.5
Louisiana	87	0	87	0.3
Maine	120	2	122	0.5
Maryland	415	1	416	1.5
Massachusetts	613	9	622	2.3
Michigan	593	2	595	2.2
Minnesota	348	4	352	1.3
Mississippi	44	0	44	0.2
Missouri	277	0	277	1.0
Montana	82	0	82	0.3
Nebraska	61	1	62	0.2
Nevada	143	0	143	0.5
New Hampshire	135	0	135	0.5
New Jersey	2670	576	3246	12.1
New Mexico	271	0	271	1.0
New York	1606	46	1652	6.2
North Carolina	444	0	444	1.7
North Dakota	17	0	17	0.1
Ohio	595	0	595	2.2

NAME	FORM LETTERS	PEPC CORRESPONDENCES	TOTAL	PERCENT
Oklahoma	92	2	94	0.4
Oregon	502	1	503	1.9
Pennsylvania	4985	157	5142	19.2
Rhode Island	76	1	77	0.3
South Carolina	136	1	137	0.5
South Dakota	37	0	37	0.1
Tennessee	257	0	257	1.0
Texas	844	3	847	3.2
Utah	108	2	110	0.4
Vermont	93	0	93	0.3
Virginia	465	6	471	1.8
Washington	784	2	786	2.9
West Virginia	86	30	116	0.4
Wisconsin	406	0	406	1.5
Wyoming	30	0	30	0.1
Unknown	0	28	28	0.1
N/A	0	1	1	0.0
TOTAL	**25958**	**890**	**26848**	**100.0**

Correspondence Distribution by Country

NAME	FORM LETTERS	PEPC CORRESPONDENCES	TOTAL	PERCENT
Argentina	1	0	1	1.0
Australia	1	0	1	1.0
Belgium	1	0	1	1.0
Canada	3	0	3	2.9
Costa Rica	1	0	1	1.0
Croatia	2	0	2	1.9
Czech Republic	2	0	2	1.9
Denmark	4	1	5	4.8
Estonia	1	0	1	1.0
Finland	1	0	1	1.0
France	18	0	18	17.3
Germany	12	0	12	11.5
Greece	3	0	3	2.9
Honduras	1	0	1	1.0
Israel	2	0	2	1.9
Italy	21	3	24	23.1
Mexico	4	0	4	3.8
Netherlands	1	0	1	1.0
Nicaragua	1	0	1	1.0
Overseas Military	2	0	2	1.9
Pakistan	1	0	1	1.0
Phillipines	1	0	1	1.0
Poland	1	0	1	1.0
Puerto Rico	2	0	2	1.9
South Africa	3	0	3	2.9
Spain	3	0	3	2.9
Sweden	1	3	4	3.8
United Arab Emirates	1	0	1	1.0
United Kingdom	2	0	2	1.9
TOTAL	**97**	**7**	**104**	**100.0**

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PUBLIC COMMENT SUMMARY

AL1800 - Alternatives: Questions the Alternative Development Process

Concern ID: 37260

CONCERN STATEMENT: Commenters expressed concern over the process upon which the proposed alternatives were created and decided. Some commenters stated that the range of alternatives chosen was too narrow, while others questioned why the routes were chosen and the nature of the relationship between the applicant and federal officials.

Representative Quote(s):

Corr. ID: 1896 **Organization:** American Canoe Association

Comment ID: 259112 **Organization Type:** Unaffiliated Individual

Representative Quote: The no action alternative must be selected, because the NPS failed to consider a reasonable range of alternatives that met the mandate of protecting NPS resources. Since the NPS is required to evaluate a no action alternative, the failure to include other alternatives in the DEIS that avoid all park resources, demonstrates that NPS did not do due diligence in meeting the intent of the DEIS process which requires the NPS to consider a range of alternatives.

A no action alternative must be selected until additional alternatives are considered that identify how the proposal could be built avoiding all or nearly all NPS resources, as it may be impossible to entirely avoid impacts to the Appalachian Trail under any alternative as even underground, there would be short-term impacts.

Corr. ID: 2040 **Organization:** *Not Specified*

Comment ID: 258752 **Organization Type:** Unaffiliated Individual

Representative Quote: I've heard many speakers speak about the environment, about jobs and about the "need for energy reliability". There were three routes and I still don't understand to this day why this one was chosen.

Corr. ID: 2228 **Organization:** National Parks Conservation Association

Comment ID: 258332 **Organization Type:** Unaffiliated Individual

Representative Quote: I call for full disclosure in the final EIS (if this project is not cancelled by wise people in the Executive branch in the nearer future) of exactly what presssure and perks were applied by companies proposing the project to try to entice federal officials in the states being discussed

Response: Alternative development was guided by the NPS's expressed purpose and need (see pages 3-4) and objectives in taking action (see pages 14-16). The alternative development process is described in the DEIS (see pages 33-35). It is normal and appropriate for an agency to have discussions with an applicant about their proposal. Meetings between the applicant and the parks concerning development of alternatives are documented in meeting summaries in the administrative record. The preparers of the EIS (see pages 728-732) were not party to meetings between the applicant and other federal officials. The range of alternatives presented in the DEIS was sufficient. The DEIS analyzed a number of alternative routes and alternative power transmission solutions. Many of these alternatives were dismissed, and a reasonable range of alternatives was carried forward in the DEIS

analysis (see pages 66-68).

Concern ID: 37377

CONCERN STATEMENT: A commenter noted that issues with alternative 3, 4, and 5 have been documented and those documents have been provided to the NPS, namely alternatives 4 and 5 are not functionally equivalent to alternatives 2 and 2b. The commenter is concerned about the lack of mitigation presented for alternatives 2 and 2b when compared to removal of the B-K Line as mitigation for alternatives 3, 4, and 5.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259360 **Organization Type:** Business

Representative Quote: General Comments Applicable to Alternatives 3, 4 and 5 The Applicants' September 13, 2010 comment letter on Alternatives from John Lain to the DEWA EIS Planning Team detailed the many significant problems with Alternatives 3, 4 and 5 and those comments are incorporated herein reference. Additionally, the DVD attached as Exhibit 1 shows critical constraints on these Alternatives that make them infeasible.

Another problem is that Alternatives 3, 4 and 5 are premised on the assumption that the impacts of these possible new routes proposed by the NPS would be substantially "mitigated" by removal of the B-K Line from DEWA. Two major analytical problems result from the inclusion of this assumption about Alternatives 3, 4 and 5 in the DEIS. The problems flow both from the inclusion of the assumption, and from the way the assumption is presented.

The first problem is that DEIS makes no analogous assumption about the possibility of substantial mitigation under either of the other alternatives, namely, those proposed by the companies. The two sets of alternatives are apples and oranges. The decision-maker and reader are unable to draw any reliable comparisons and contrasts between the alternatives proposed by the companies (2 and 2b) and those proposed by the NPS (3, 4 and 5).

As discussed in Section 1.D., Alternative 4 is not functionally eqivalent to Alternative 2 or 2b and would not resolve the grid stability issues that are at the heart of the Applicants' Special Use Permit and ROW application. In the Applicants' comment letter to the NPS on the Alternatives dated September 13, 2010, the Applicants pointed out the critical flaws that made Alternative 4 infeasible. The Applicants hereby incorporate those same comments by reference as nothing presented in the DEIS has changed the Applicants' opinion as to the infeasibility of Alternative 4. In further support of the infeasibility of the construction of Alternative 4, the Applicants have enclosed a DVD of a flyover of critically constrained portions of the Alternatives.

As discussed in Section 1.D., Alternative 5 is not functionally equivalent to Alternative 2 or 2b and would not resolve the grid stability issues that are at the heart of the Applicants' Special Use Permit and ROW application. In the Applicants' comment letter to the NPS on the Alternatives dated September 13, 2010, the Applicants pointed out the critical flaws that made Alternative 4 infeasible.

Response: Alternatives 3, 4, and 5 are reasonably feasible alternatives. NPS included removal of the B-K Line as mitigation to reduce the impacts of these alternatives; the effects of the removal are addressed under each resource topic in chapter 4 of the DEIS. The applicant did not provide the mitigation package for alternatives 2 and 2b until

after the publication of the DEIS; therefore, we could not include it in the document.

AL1850 - Alternatives: Alternatives Considered but Dismissed

Concern ID: 37261

CONCERN STATEMENT: Commenters stated that several alternatives that were considered but dismissed should not have been dismissed under NEPA. NPS must consider a reasonable range of alternatives, including alternatives that only partially meet the objectives, and cannot reject alternatives based on cost.

Representative Quote(s):

Corr. ID: 1737 **Organization:** PEER

Comment ID: 257329 **Organization Type:** Non-Governmental

Representative Quote: THE DEIS EXCLUDES OTHER REASONABLE ALTERNATIVES

The DEIS authors were instructed during 2011 to eliminate alternatives from further consideration in the internal draft of the DEIS that would have routed the proposed new power line so as to require little, if any, crossing of the NRA. Because a wider range of alternatives would complicate and prolong NPS and public review, PPL explicitly requested the elimination of Alternatives 6 and 7.

Prior to seeking a new right-of-way from the NPS, PPL obtained rights-of-way on lands outside of, and on both sides, of the NRA. PPL demands Alternative #2, because only that route forms the most direct link between their rights-of-way outside the NRA. No other route would do. They told the Secretary and his officials to not even consider the alternatives.

The Interior officials carried out PPL bidding by using a subterfuge. They altered the criteria the NPS used to evaluate the range of reasonable alternatives. The NPS tailored the criteria for reasonable alternatives to deftly eliminate #s 6 and 7. Nonetheless, the eliminated alternatives are within the realm of reasonable choices. Whether PPL approved of their consideration or not (and they did want them considered) is immaterial. NPS refusal to consider these alternatives violates both the letter and spirit of NEPA.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259047 **Organization Type:** Non-Governmental

Representative Quote: - Smart grid: The DEIS dismissed this alternative because it allegedly "does not meet the reliability requirements put forth by PJM." Id. (explaining that "smart grids provide automated switching for transmission lines but do not provide the redundancy required to meet improved reliability requirements for the transmission grid"). However, the Park Service is required to consider alternatives that may partially meet the project's purpose and need. In any case, it is unclear whether there are any remaining reliability issues for the S-R Line to resolve.
- Distributed energy generation sites and localized renewable energy: The DEIS declines to consider these potentially viable alternatives because "ordering the adoption of such systems is beyond the authority of the NPS." However, as set forth above, agencies must consider alternatives that are outside of their jurisdiction

to implement.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259046 **Organization Type:** Non-Governmental

Representative Quote: - Underground transmission lines: The DEIS rejected this alternative "because its construction cost would be five to eight times the cost of conventional construction methods" and "blasting the bedrock for an underground line could produce major irretrievable and irreversible impacts on geology." DEIS at 67. However, the Park Service cannot reject an otherwise feasible alternative solely because it is more expensive that the applicant's proposal. The Final EIS should consider whether it may be possible to bury portions of the line without destroying geological formations.
- Superconductor lines (direct current): This alternative was also rejected on cost grounds without any attempt to show that costs of "three to five times that of conventional transmission line construction" would be unaffordable. Id. Nor is there analysis of what impacts would result from new converter stations.
- Aluminum conductor composite core (ACCC): ACCC conductor is designed to carry twice the current of a conventional conductor, with lighter core allowing the use of more aluminum without a weight penalty. In this way, using ACCC has the potential-to enable-longer spans between fewer-and shorter-structures (i.e. towers), and it can increase transfer capacity while improving line and reducing line losses by as much as 30 to 40 percent according to vendors.'2 Nevertheless, ACCC was dismissed from consideration in the alternatives analysis on grounds that "it is not a separate alternative by itself" DEIS at 67. However, to the extent that ACCC has the potential to reduce tower height and perhaps the overall need for towers, it should be given upfront consideration in the EIS, rather than deferring consideration of its use until after the NEPA process is over.

Response: CEQ's regulations implementing NEPA (40CFR 1502.14(c)) direct federal agencies to develop a range of alternatives that meet the NPS expressed purpose and need. The NPS believes that is has developed and presented an adequate range of alternatives within the EIS to satisfy the purpose, need and objectives of the plan as required by NEPA and did not violate NEPA by dismissing alternatives. The rationale for dismissing alternatives from further study remains the same (see pages 66-68). Cost was not a primary reason for dismissal.

AL1920 - Action Alternative 2: Suggest Change to Alternative

Concern ID: 37378

CONCERN STATEMENT: A commenter stated some details in the DEIS regarding alternative 2 are incorrect, including the width that would be cleared for construction and maintained for operation, the existence of access roads currently used, and the proposed access road around Arnott Fen. Commenters noted that the gravel roads used for access roads would not be permanently maintained as stated in the DEIS, and most would be revegetated and restored once construction was complete.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259328 **Organization Type:** Business

Representative Quote: The DEIS states that access roads with gravel surfacing would remain in place and continue to be maintained following construction of the

transmission line (p. 342). This statement is not correct because most of the access roads would be temporary and would be revegetated and/or restored following construction. The Applicants would only maintain permanent access roads on areas that are existing roadways or needed for ongoing maintenance as described in the Construction and Restoration Standards ("C&R Standards") attached as Exhibit 4.

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259347 **Organization Type:** Business

Representative Quote: Alternative 2

There are several statements in the DEIS that either do not correctly state the Applicants' proposal or overstate the impacts of the Applicants' proposal. These mistakes and overstatements often seem to arise from a fundamental failure to acknowledge the character of the existing 230 kV B-K Line and the fact that it has been a part of the landscape shared with the NPS Units (and their visitors) since the moment each of them was created.

The DEIS assumes that a 350-foot wide corridor would have to be cleared (175' on either side of the centerline) for all action altematives (pp. 46, 359, 393). The Applicant has only requested an additional 50 feet of ROW for a .76 mile section that is currently only 100 feet. Therefore, it is legally impossible for the Applicants' to clear a 350 feet ROW contemplated as by the DEIS. In terms of actual clearing within the ROW, it is presently cleared, or scheduled to be cleared with respect to PPL sections, in a range from 100 to 200 feet depending upon the ROW section. Following construction, the Applicants expect to maintain the line to a cleared width of no more than 200 feet. Thus, the only additional ROW clearing that would be needed as a result of Altemative 2 is an additional 25 feet on either side of the centerline for 0.76 mile in PA or approximately 4% more cleared transmission corridor then exists now.

The DEIS mischaracterizes the amount and character of the existing access roads associated with Alternative 2 (p. 38, DEIS Table 3:50). The DEIS does not acknowledge the existence of access roads that are currently being used for maintenance of the B-K Line. These roads are suitable for pickup truck traffic now and would need to be improved for construction traffic, but the necessary improvements are not as severe as the construction of new roads.

The DEIS states that an access road is proposed in the Amott Fen (p. 371). Although this was originally correct, it is important to note that the Applicants have subsequently met with the NPS and USFWS. As a result of these informal consultations an alternate proposed access road to the south of the Fen was identified that would have no impact to the Fen. It is the Applicants' intent to utilize this southern access road, upon final approval from the NPS and using this road results in approximately 0.4 acres less of road impacts.

Response:

NPS primarily used the information presented by the applicant in their proposal. We used a 350-foot ROW based on industry standard for constructing a double 500-kV transmission line safely. It should be noted, the applicant has a 380-ft ROW in some sections of NJ, for the purposes of analysis however we analyzed a uniform 350-ft ROW. The proposal stated that the access roads would be 20 feet wide during construction and narrowed to 15 feet wide permanently; the proposal did not identify permanent and temporary roads. The access road through Arnott Fen was likewise presented in the proposal as the preferred access road route. In their comments, the applicant stated they would use access roads as presented for 2b

which means the road through Arnott Fen would not be used; the NPS will analyze the impacts of this route in the FEIS. We restate that there are no existing access roads and all roads in the proposal would need to be created for this project.

AL1930 - Action Alternative 2b: Suggest Change to Alternative

Concern ID: 37380

CONCERN STATEMENT: A commenter disagrees with several statements for the description of alternative 2b, including a proposed access road through Arnott Fen, the amount of access roads needed, and the location of an access road near the banks of the Delaware River.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259359 **Organization Type:** Business

Representative Quote: The DEIS states that an access road is proposed in the Arnott Fen (p. 371). This is incorrect and the NPS and USFWS have been provided with constructability drawings that show the proposed access is south of the Fen and would have no impact to the Fen.

The DEIS overstates the amount of access roads needed for 2b (p. 38 DEIS Table 3; 56). While 2b could have slightly more access roads than Alternative 2 because more towers are required, the road acreage is essentially the same as shown in Table 2 for Alternative 2.

The DEIS states that access roads would be constructed within 200 feet of the bank of MDSR (p. 646). This statement is incorrect as the closest access road in Pennsylvania is approximately 1,000 feet from the MDSR and the closest access in New Jersey is located approximately 500 feet from the MDSR.

Response: NPS does not agree with the statement that the DEIS is incorrect in proposing an access road in Arnott Fen. We also do not agree with the statement that the DEIS overstates the amount of access roads needed for alternative 2b. On page 382 of the DEIS, we state, “Access roads were designed to avoid impacts on Arnott Fen under alternative 2b.” The table on page 38 of the DEIS shows that the mileage and the acreage of access roads for alternative 2b is slightly less than alternative 2. We do agree with the last statement. The distance from the banks of the Delaware River to the access roads is incorrect, and the updated information will be incorporated into the FEIS. Review under Section 10(a) of the Wild and Scenic River Act is still applicable. Any roads within a 1/4mile of the river bank do not result in protection and enhancement of the values which caused the River to be included in the system.

AL2020 - Action Alternative 3: Suggest Change to Alternative

Concern ID: 37264

CONCERN STATEMENT: A commenter stated that the right-of-way alternative 3 follows does not belong to Metropolitan Edison Company any longer, because the company has released its rights as it crosses the Shebelsky property.

Representative Quote(s): **Corr. ID:** 1326 **Organization:** Law Offices of John "Duke" Schneider and Lara Anne Dodsworth

Comment ID: 256013 **Organization Type:** Business

Representative Quote: We have been informed that the National Park Service has proposed alternative routes to the route preferred by PPL for the transmission line to pass through NPS lands.

A portion of the route shown in Alternative 3 would cross our clients' property. In analyzing Alternative 3 it appears from the plat map that you believe that this alternative route would be located on an existing Metropolitan Edison Company right of way as it crosses our clients' property.

Please be advised that Metropolitan Edison Company has released its right of way which crosses the Shebelsky property by Release dated September 19, 2003 and recorded in Deed Book Volume 2196 at page 9993.

Response: The area referenced in the comment is outside NPS boundaries; however, alternative 3 remains a viable alternative because acquisition of property rights and easements are standard procedure for development of transmission lines.

Concern ID: 37381

CONCERN STATEMENT: A commenter questioned the length of alternative 3 presented in the DEIS. Additionally, the width cleared for alternative 3 (350 feet) should be compared to the actual width cleared for alternative 2, which is overstated in the document, according to the commenter.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259361 **Organization Type:** Business

Representative Quote: The NPS assumes a right of way of 350 feet for Alternative 3 (p. 56). The DEIS should compare this anticipated ROW width with the actual ROW width of Alternative 2 as presented in Section ILB above.

The DEIS states that duration of construction impacts would be less than 8 months (p. 549). This understates the likely construction impacts because the additional 1.1 miles of line, and the construction of new access roads, should be assumed to be greater than Alternative 2.

The DEIS inconsistently states length of Alternative 3 affecting NPS Units by stating on p. 549 that the length is 4.5 miles when correct length is 5.4 miles as correctly stated elsewhere in the DEIS.

Response: NPS used a 350-foot ROW to evaluate impacts from alternatives 2, 3, 4, and 5 based on industry standard for constructing a double 500-kV transmission line safely. We agree with the first statement; alternative 3 encompasses 5.4 miles of NPS land. We will fix this error in the FEIS.

AL2120 - Action Alternative 4: Suggest Change to Alternative

Concern ID: 37401

CONCERN STATEMENT: According to commenters, the DEIS incorrectly states that no new crossings of the Middle Delaware National Scenic and Recreational River would be required,

commenters state that alternative 4 would require a new crossing. Commenters also state that alternative 4 would require widening of the ROW across APPA in the Cherry Valley NWR. Additionally, the width cleared for alternative 4 (350 feet) should be compared to the actual width cleared for alternative 2, which the commenters believe is overstated in the document. They were also concerned that the DEIS included the incorrect assumption that the BK Line would be removed under alternatives 4 and 5.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259362 **Organization Type:** Business

Representative Quote: Alternative 4 would add a new overhead transmission line crossing of the Delaware River at the existing Delaware River Viaduct approximately 2 miles south of DEWA, as compared to crossing the Delaware at an existing transmission line ROW. The DEIS correctly states that no new crossing would be required of the MDSR, but does not reflect the requirement for a new transmission line crossing of the Delaware River in other locations.

Alternative 4 would require an expanded ROW at the existing crossing of APPA in the CVNWR.

The NPS assumes a right of way of 350 feet for Alternative 4 (p. 56). The DEIS should compare this anticipated ROW width with the actual ROW width of Alternative 2 as presented in Section ILB above.

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259325 **Organization Type:** Business

Representative Quote: The DEIS incorrectly assumes that the existing power line would be removed if Alternative 4 or 5 were selected. PJM studied the Susquehanna-Roseland 500 kV Project under the assumption that the Bushkill-Kittatinny 230kV line (the "B-K Line") would remain in service. It should be understood that the S-R Line is required in addition to the existing system of 230 kV lines located in the eastern PA and Northern NJ areas, which includes the B-K Line section. The proposed S-R Line is not a replacement for any part of the existing electric power system.

Response:

NPS verified the Delaware River crossings. Alternative 3 would follow an existing transmission line ROW across the Middle Delaware River where it is designated wild and scenic. Alternatives 4 and 5 would not use an existing transmission line crossing, and the new transmission line would cross in the same location as the Delaware River Viaduct. The alternatives would not result in a new crossing because the crossing transects the river in a segment that is not designated as a wild and scenic river. Alternative 4 would require a widening of the ROW as it crosses the Appalachian Trail; however, the Trail is not within the boundaries of Cherry Valley National Wildlife Refuge at the junction of alternative 4. We used a 350-foot ROW to evaluate impacts from alternatives 2, 3, 4, and 5 based on industry standard for constructing a double 500-kV transmission line safely. Under alternatives 3, 4, and 5, we would require the removal of the B-K Line as mitigation for the impacts the S-R Line would cause. We recognize that the applicant has not analyzed the effort it would take to relocate the B-K Line; however, we contend that the line could be collocated with the S-R Line along the routes of alternatives 3, 4, or 5.

AL2220 - Action Alternative 5: Suggest Change to Alternative

Concern ID: 37402

CONCERN STATEMENT: According to a commenter, the DEIS correctly states that there would be no new crossings of the Middle Delaware National Scenic and Recreational River, but that the crossing proposed would impact the Delaware River Viaduct. The commenter also stated that alternative 5 would require widening of the ROW across APPA in the Cherry Valley NWR. Additionally, the width cleared for alternative 5 (350 feet) should be compared to the actual width cleared for alternative 2, which is overstated in the document, according to the commenter.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259364 **Organization Type:** Business

Representative Quote: The DEIS correctly states that no new crossing would be required of the MDSR, but does not reflect the requirement for a new transmission line crossing of the Delaware River in other locations. This crossing would be at the Delaware River Viaduct which is a significant historic structure.

Alternative 5 would require a significant expansion of an existing ROW at the crossing of APPA, which is located in the CVNWR.

The NPS assumes a right of way of 350 feet for Alternative 5 (p. 56). The DEIS should compare this anticipated ROW width with the actual ROW width of Alternative 2 as presented in Section II.B above.

Response: NPS verified the Delaware River crossings. Alternative 3 would follow an existing transmission line ROW across the Middle Delaware River where it is designated wild and scenic. Alternatives 4 and 5 would not use an existing transmission line crossing, but would cross at the same location as the Delaware River Viaduct where the river is not designated as wild and scenic; therefore, the alternatives would not result in a new crossing. Additionally, the crossing at the Delaware River Viaduct is outside the scope of this EIS, and therefore would not be included in the analysis of historic structures. Alternative 5 would require a widening of the ROW as it crosses the Appalachian Trail; however, the Trail is not within the boundaries of Cherry Valley National Wildlife Refuge at the junction of alternative 5. We used a 350-foot ROW to evaluate impacts from alternatives 2, 3, 4, and 5 based on industry standard for constructing a double 500-kV transmission line safely.

AL2500 - Suggest New Action Alternative

Concern ID: 37266

CONCERN STATEMENT: Commenters suggested several alternative forms of energy generation and transmission instead of the construction of the proposed line. Alternatives for generation mentioned included solar, wind, geothermal, nuclear, hydrogen fuel, and hydroelectric power. Other ideas included demand response, energy conservation, local generation, and allowing the existing lines to expire and removing them.

Representative Quote(s): **Corr. ID:** 8 **Organization:** *Not Specified*

Comment ID: 244266 **Organization Type:** Unaffiliated Individual

Representative Quote: I'd much rather see solar panels and wind turbines in the landscape than bigger power towers. Solar panels don't have to be shiny glass panels anymore (search for "solar paint") and wind turbines can be quite demure now as well (see "vertical axes", "tesla", "squirrel cage" turbines).

Corr. ID: 1352 **Organization:** *Not Specified*

Comment ID: 255859 **Organization Type:** Unaffiliated Individual

Representative Quote: Additional alternatives need to be examined in the final EIS including non-transmission alternatives
-Demand response programs, energy efficiency and conservation, and renewable local energy generation can obviate the need for this line, and do not require the use of ratepayer money to construct obsolete infrastructure projects. Energy demand in New Jersey has dropped over the past three years in part due to such programs and this project has not been updated to reflect that change in energy use.

Corr. ID: 1518 **Organization:** *Not Specified*

Comment ID: 256208 **Organization Type:** Unaffiliated Individual

Representative Quote: I would even go as far as to ask that the right-of-way for the existing transmission lines be allowed to expire and the lines be removed completely.

Corr. ID: 1721 **Organization:** Blairstown Environmental Commission

Comment ID: 257371 **Organization Type:** Town or City Government

Representative Quote: This money could be better invested in renewable energy sources for our state, including solar panels, or fuel cells, or other alternate energy projects.

Has there really been enough creative thought about what a billion dollar investment in clean energy technology might look like? Based upon an estimated $5 per watt installation cost, a $1billion investment would result in 200,000 kW installed capacity, which is equal to 246 million kW-hours per year. Assuming the average home uses 5,000 kW-h per year, that investment could power about 50,000 homes. Those 50,000 homes could also be supplying electricity to the grid during peak usage times when the electricity is most needed.

Corr. ID: 2044 **Organization:** *Not Specified*

Comment ID: 258000 **Organization Type:** Unaffiliated Individual

Representative Quote: Maybe conservation is the way to go. Could we cut down on some of the lights that we use? Some of the electricity? We don't really have to have all of this power. We haven't considered it. Maybe we should. Conservation is the way to go. Not more generation to promote more consumption

And there are better ways to generate electricity, as it's been mentioned before; wind, solar, wave, tidal power, hydroelectric. I think that's the way to go. By all means, I think whatever electricity we generate, I think we should do it closer to where it's consumed, not generating it from the polluting power plants that are in Pennsylvania

Corr. ID: 2346 **Organization:** National Parks Conservation Association

Comment ID: 258484 **Organization Type:** Conservation/Preservation

Representative Quote: Long transmission lines are not the best way to get electrical power. Local generation is cheaper and much less harmful to the environment.

Corr. ID: 2366 **Organization:** National Parks Conservation Association

Comment ID: 258508 **Organization Type:** Conservation/Preservation

Representative Quote: We need to rid ourselves of such energy systems and turn to solar, wind and geothermal renewable energy sources.

Response: The purpose of this document is to respond to the applicant's request for construction and right-of-way permits through the parks. The regional transmission operator, PJM Interconnection, has stated that "there are no suitable lower voltage local alternatives for providing the required relief from the significant transmission system reliability and congestion challenges identified for the northeast portion of the PJM region". The alternatives suggested by the public do not meet the purpose and need or the criteria for the alternatives, as presented in chapters 1 and 2, respectively, in the DEIS.

Concern ID: 37335

CONCERN STATEMENT: Many commenters provided ideas for altering the proposed route of the transmission line, with many stating particularly that they did not want the proposed project to run through the parks. Commenters suggested running the lines along interstates, north of the parks, and in more populated areas.

Representative Quote(s): **Corr. ID:** 2049 **Organization:** *Not Specified*

Comment ID: 257747 **Organization Type:** Unaffiliated Individual

Representative Quote: there is a direct route that they could take, which is Route 80, and I believe Route 280 or 287, 280, I believe. If they would move it to Route 80, the gentleman whose hoping to create 2,600 jobs, an independent study would say take three years and you would have 5,000 jobs. And if they decided to remove the existing lines because then they wouldn't need it as a transmission line, that would extend another year on to that. So you could increase labor, jobs, you could make very -- all of the homeowners that are bordering that that have easements very happy

Corr. ID: 2067 **Organization:** Sierra Club

Comment ID: 257856 **Organization Type:** Conservation/Preservation

Representative Quote: If the line must be built, take a northern route which avoids the parklands of the Delaware Water Gap. Use of settled areas would no doubt be more expensive, but the damage to the wild areas, recreational areas, and scenic areas would be more costly in permanent losses to irreplacable community assets than any money figures based on the need to compensate landowners for a northern route around the Delaware valley.

Corr. ID: 2178 **Organization:** National Parks Conservation Association

Comment ID: 258272 **Organization Type:** Unaffiliated Individual

Representative Quote: I strongly oppose running transmission lines across the Delaware Water Gap. This power line would severely damage the scenery in the

Park, which is what the park was created to preserve.

I realize that the East Coast requires electricity, but surely a path for the transmission lines can be found that does not cross a National Park.

Response: During the alternatives development stage of this project, NPS considered many alternative routes; however, no matter the route, the S-R Line must cross the Appalachian Trail. As stated in chapter 2 of the DEIS, no new crossings of the parks were considered. Following National Electric Safety Code, we also tried to avoid sensitive areas, including residences, schools, businesses, and other protected resources, such as public lands.

Concern ID: 37336

CONCERN STATEMENT: One commenter suggested using helicopters to install the proposed transmission line as an alternative for construction.

Representative Quote(s):

Corr. ID: 1705 **Organization:** *Not Specified*

Comment ID: 257260 **Organization Type:** Unaffiliated Individual

Representative Quote: I suggest that helicopters be used to drop equipment and personnel in very rugged areas and to carry old tower sections out or new ones into the Right of Way.

The power companies should find another way around the park lands to put in this power line!

Response: NPS discusses the use of helicopters for construction of the proposed transmission line in chapter 2 of the DEIS. Helicopter use has limitations, in that they cannot transport monopole towers because they are too heavy.

Concern ID: 37769

CONCERN STATEMENT: Commenters suggested new technologies as alternatives to the proposed 500-kV transmission line, such as placing the transmission lines underground, using wave technology, constructing the lines higher than the tree level so that no ROW clearance would be needed, and doubling up the lines to give twice the capacity.

Representative Quote(s):

Corr. ID: 1223 **Organization:** *Not Specified*

Comment ID: 254726 **Organization Type:** Unaffiliated Individual

Representative Quote: With whichever alternative is chosen, my suggestion is to force the utilities to build an extra-high transmission line, a line high enough that tree clearing below the line will be unnecessary. While there are downsides to doing this, the benefits to the environment far outweigh those issues.

Corr. ID: 1723 **Organization:** *Not Specified*

Comment ID: 257060 **Organization Type:** Unaffiliated Individual

Representative Quote: Where is the study that says that they need 5 times the power transmission capacity?

An alternative would be to double up the existing conductors to give twice the capacity at the same 230kV lines with little or no environmental impact. This has already been done on other ROW's in NJ. Check the lines that run through Cedar Grove in Essex County. They are a double conductor 230kV line.

Corr. ID: 2107 **Organization:** Sierra Club

Comment ID: 258163 **Organization Type:** Unaffiliated Individual

Representative Quote: I would rather see safe nuclear power and go underground then repalnt. It can be done.Wires and Towers are ugly eye sores to see in a pristine place
like the gap. What about the power of the ocean .Wave technology is a good way to sink the line and yank them up for service if needed far out to sea and use existing sites to transfer the power.

Corr. ID: 2191 **Organization:** National Parks Conservation Association

Comment ID: 258287 **Organization Type:** Unaffiliated Individual

Representative Quote: All power lines should be placed underground. It might be expensive to install but money would be save from lines causing fires or being blown down and causing power outages.

Response:

NPS considered alternative technologies during the alternatives development process but it was determined these alternatives were not feasible, as discussed in chapter 2 of the DEIS (pages 67-68). Construction standards (regarding height of the line and the number of lines on the towers) have to comply with industry standards and safety requirements. Tower height has been constrained by the limit imposed by the Federal Aviation Administration (FAA) before a structure is considered a safety hazard of concern, at which point the FAA may make recommendations for lighting. Tower height is somewhat constrained by FAA regulations. Larger towers would require an "obstruction evaluation" by the FAA to determine the effect, if any, that the proposed construction or alteration would have on navigable airspace. However, once issued, a hazard/no-hazard determination has no enforceable legal effect. The FAA is not empowered to prohibit or limit proposed construction it deems dangerous to air navigation. Lighting of the towers and conductors would require additional analysis by the NPS to determine potential impacts to migratory birds, visitor use and experience and scenic resources.

AR4000 - Archaeological Resources: Impact of Proposal and Alternative

Concern ID: 37267

CONCERN STATEMENT: The parks are rich in archeological resources, and commenters believe these resources would be negatively impacted by the proposed transmission line project. Additionally, not all sites within the parks are known. Some of these sites may be eligible for the National Register, and should be protected from this project.

Representative Quote(s):

Corr. ID: 1751 **Organization:** NJ Sierra Club

Comment ID: 257346 **Organization Type:** Non-Governmental

Representative Quote: The taller tower would impair the scenic resources, harm raptor migrations and the construction would have long-term impacts on one of the most archeologically important areas in the country, and countless environmental resources.

Corr. ID: 1811 **Organization:** *Not Specified*

Comment ID: 258626 **Organization Type:** Unaffiliated Individual

Representative Quote: The Delaware Water Gap National Recreaton Area contains many unique historic, archaeological and cultural resources. The National Historic Preservation Act (NHPA) of 1966 requires that federal agencies take action to minimize harm to historic properties. How can we maintain the current intergrity of visitor's experiences if we add blatantly modern components to the 18th - 20th century setting - and, by removing natural vegetation and artificially maintaining the areas in the extended ROW's, change the cultural landscape?

There are sites and structures currently on or still eligible for the National Register, which would be denied the very protection that status would seek to offer. It is difficult to pinpoint with certainty that all sites with potential archeological resources are known. In addition to 300+ years of settlement, initiated by European explorers and early colonists, there had been an extended period when Native people had first lived within this region.

Response: An NHPA Section 110 survey for archeology sites has not been completed for DEWA, but the analysis in the DEIS is based on best available information. Please see the References section of the DEIS for studies used in the DEIS. We agree with the commenters and acknowledge that there are adverse effects on cultural resources, as stated in the DEIS on pages 503-534. Best Management Practices (BMPs), such as avoidance of known archeological sites or development of exhibits and other kinds of interpretive materials, but there will be unavoidable adverse effects that will be mitigated. An agreement with SHPOs will be prepared that will include BMPs during construction to protect newly identified resources.

Concern ID: 37382

CONCERN STATEMENT: A commenter stated that additional information on archeological resources is available and should be incorporated into the EIS.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259353 **Organization Type:** Business

Representative Quote: The intensive Phase I survey identified 25 archeological sites along the alignment for alternatives 1,2 and 2b. Three of these sites (2 prehistoric, 1 historic) were within the APE. The Applicants have asserted that the remainder would not be affected by construction activities (Berger 2010b) by using strategies of avoidance and/or non-ground-disturbing construction techniques. Additional fieldwork conducted in 2011 (Berger 2011) has not been incorporated into this document.

The complete, Section 106 complaint, Phase l/II report detailing the results of the archeological investigations of Alternatives 1, 2 and 2B will be submitted to the NPS in the near future. That report will detail that only two archeological sites (prehistoric) are recommended eligible for the National Register of Historic Places and that the Project will not affect the site as the Project will employ strategies of avoidance and/or non-ground-disturbing construction techniques in that area. All other sites identified were either recommended not eligible or were not evaluated for eligibility because the Project will employ strategies of avoidance and/or non-ground-disturbing construction techniques thereby precluding the need to determine eligibility as the Project will not impact the site and therefore its eligibility is not relevant.

Response: NPS received additional cultural resources reports from the applicant; however, we did not receive them in time to include the data in the DEIS. We will summarize and reference this information in the FEIS.

AT1100 - Appalachian Trail: Comments Specific to Park

Concern ID: 37269

CONCERN STATEMENT: Commenters believe that the scenic values and the experience of hiking the Appalachian Trail would be degraded by the construction of the proposed transmission lines. Additionally, commenters expressed concern about the lack of design details in the EIS, limiting the ability to fully evaluate the impacts to the Appalachian Trail.

Representative Quote(s):

Corr. ID: 1878 **Organization:** Appalachian Trail Conservancy

Comment ID: 257634 **Organization Type:** Non-Governmental

Representative Quote: In short, the action alternatives fail to meet ATC's long-standing criterion that there be "no net loss of Trail values or quality of Trail experience" (see DEIS, "ATC Roads and Utilities Policy," Appendix B, pages B-13 and 14).

It is difficult for ATC to adequately evaluate impacts of the proposed action alternatives for a number of reasons, particularly the lack of detailed information specific to the Appalachian National Scenic Trail on tower heights and locations, rights-of-way (ROW) widths, locations of access and spur roads and other construction operations, and routes of the various alternatives beyond park boundaries. While the Delaware Water Gap National Recreation Area was extensively analyzed, the ANST as a separate and unique unit of the National Park System, was not.

Corr. ID: 1882 **Organization:** Rock the Earth

Comment ID: 259150 **Organization Type:** Non-Governmental

Representative Quote: The Appalachian Trail is one of the most important scenic locations in the United States presenting unique opportunities to millions of citizens and visitors. This "unique opportunity" will disappear when a large industrial development cuts across the Trail. We believe that it is not feasible to design and operate the proposed transmission and generation facilities to be compatible with the surrounding, unique, and unparalleled scenic characteristics of the Trail.

Response: NPS realizes that the proposed transmission line would impact the values of the Appalachian Trail. We analyzed, specifically, the impacts on the experience of Trail users under each alternative in the visitor use and experience section of the DEIS (pages 625-643). We recognize that the DEIS does not present all of the details of the proposed transmission line. We requested this data from the applicant, but were not provided with any additional information. Many details would not be known until detailed engineering design is complete, including exact tower locations, locations of spur roads, locations of wire pulling and pulling and splicing locations, and the locations of the alternatives beyond NPS boundaries. We used the best available data in our analysis. If new information is provided by the applicant prior to completion of the FEIS, it will be incorporated.

CC1100 - Consultation and Coordination

Concern ID: 38308

CONCERN STATEMENT: Commenters stated that additional consultation and coordination for permitting and mitigation measures would be needed for project implementation which were not adequately discussed in the DEIS.

Representative Quote(s):

Corr. ID: 11 **Organization:** Shawnee Tribe

Comment ID: 259414 **Organization Type:** Tribal Government

Representative Quote: We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

Corr. ID: 1234 **Organization:** Pennsylvania Fish and Boat Commission

Comment ID: 259413 **Organization Type:** State Government

Representative Quote: If an alternative other than Alternative 1 is selected and a waterway encroachment application is submitted to the Pennsylvania Department of Environmental Protection (DEP), the applicant would need to further coordinate with DEP, PFBC and other environmental regulation agencies to achieve the appropriate avoidance, minimization and mitigation measures.

Corr. ID: 2397 **Organization:** USEPA - Region 2

Comment ID: 259443 **Organization Type:** Federal Government

Representative Quote: We understand that preliminary scoping and coordination has occurred with the U.S. Army Corps of Engineers, Philadelphia District (Corps), with respect to possible impacts to wetlands and waters of the United States, and that the Corps has made a preliminary determination that either a Nationwide Permit or SPGP-3 would apply to this project. We encourage NPS and the applicant to continue coordination with the Corps and other resource agencies, including EPA, Pennsylvania Department of Environmental Protection and New Jersey Department of Environmental Protection regarding permitting requirements.

In addition, EPA does not believe the mitigation plan included in Appendix F provides sufficient information to determine whether impacts to wetlands are being fully mitigated; EPA recommends additional agency coordination to ensure a more comprehensive evaluation of wetland and stream impacts. Moreover, EPA recommends that practices used to minimize impacts to streams and wetlands be specified in the Final EIS, including all wetlands mitigation plans.

Corr. ID: 2400 **Organization:** NOAA-National Marine Fisheries Service

Comment ID: 259476 **Organization Type:** Federal Government

Representative Quote: there are American shad between the Delaware Water Gap and the New York border; and additionally, there may be also be shad in the Philadelphia reach of the river. Given that a more detailed discussion of potential impacts to trust resources and that further information regarding the transmission line crossing of the River was included in the DEIS, additional EFH consultation with HCD by the federal action agency will not be required as part of the federal permit process.

PRD concluded that because there were no federally listed species within the project area, no further consultation with NOAA Fisheries would be necessary unless project plans or new information became available.

Response: The DEIS described initial consultation and coordination processes that were carried out to the extent possible without having a preferred alternative identified. The FEIS identifies a preferred alternative and the NPS is continuing consultation and coordination on the specific details of that alternative. All permitting requirements are being identified and will be incorporated as conditions of the NPS Special Use/ROW permits and must be obtained by the applicant prior to the start of any activities that require such permits. Mitigation measures in the DEIS were based on the information made available by the applicant at that time. Since the DEIS was released, the applicant has publicly offered additional mitigation that is currently being evaluated by the NPS. The Record of Decision will contain a detailed mitigation plan that will be part of the alternative ultimately selected for implementation. In addition, the NPS is consulting on adverse effects to historic properties under Section 106 of the National Historic Preservation Act with the consulting parties, the NJ and PA State Historic Preservation Officers, and the Advisory Council on Historic Preservation. These resolution of these effects will be formalized either through the ROD or a Programmatic Agreement which, when executed, will stipulate agreed-upon measures to mitigate adverse effects to archeological resources, cultural landscapes, and historic structures. The final stipulations outlined in the ROD or Programmatic Agreement will be incorporated as conditions of the NPS Special Use/ROW permits.

CL4000 - Cultural Landscapes: Impact of Proposal and Alternatives

Concern ID: 37271

CONCERN STATEMENT: One commenter was concerned that the construction of the transmission lines would further desecrate lands considered sacred to American Indians, especially the Lenape.

Representative Quote(s): **Corr. ID:** 1602 **Organization:** *Not Specified*

Comment ID: 256385 **Organization Type:** Unaffiliated Individual

Representative Quote: What you may not have considered is that this is also sacred land to the Lenape. There are still American Indians living in this area. They hold sacred these mountains and waters. Please respect their wishes and route your power line and it's right of way elsewhere. Enough has been taken from them already, as Pennsylvania, Manhattan and New Jersey were their territory. They have nothing else but the sacred mountains. Other mountains have been topped and valleys filled in for shopping malls and parking lots. We owe it to them (and ourselves)to consider for once that this is a permanent disfiguring scar on the mountain and on the State as a body. We have disfigured enough mountains that are sacred to the American Indians in this country.

Response: No federally recognized tribe has identified sacred sites within the area of impact (see Chapter 5 of the FEIS for information on tribal consultation). NPS is in correspondence and onsite consultation with tribal governments. Tribes have stated that burial sites may exist but specific sites have not been identified. Should sites be discovered during construction, the MOA and BMPs would incorporate provisions of American Indian Religious Freedom Act, Executive Order 13007 - Sacred Sites, and Native American Graves Protection and Repatriation Act of 1990 to protect burial and sacred sites.

Concern ID: 37354

CONCERN STATEMENT: A commenter stated that the project area is rich in cultural resources, some of which have not yet been documented. There is concern that construction of the transmission lines would preclude some resources from being listed on the National Register.

Representative Quote(s):

Corr. ID: 520 **Organization:** *Not Specified*

Comment ID: 254379 **Organization Type:** Unaffiliated Individual

Representative Quote: Within the boundaries of the Delaware Water Gap National Recreation Area and in immediate proximity thereto are more French & Indian War fortifications and outposts than in any other park or location in the nation: Ellison's Fort, New Fort, Fort Van Campen, Fort Walpack, Adam Dingman's Post, Fort Johns (Headquarters Fort), Fort Shappanack, Fort Carmar, Fort Nominack, Fort Westbrook, Fort Brinks, Fort Coles, Uriah Westfalls Post, Fort Gardiner, Tisshock Post, Van Etten Post, Henry Cortracht Post, Fort Hyndshaw and Dupui's Fort.

As the National Park Service moves forward to select its preferred alternative, I ask the NPS to stay its decision until such time as the Service can complete for public scrutiny a thoroughly documented Cultural Landscape Report that specifically focuses upon this rich heritage that we seek to preserve and interpret for the benefit of future generations.

Corr. ID: 1680 **Organization:** morris county trust for historic preservation

Comment ID: 257194 **Organization Type:** Unaffiliated Individual

Representative Quote: With particular respect to cultural resources, we note that the report covers only the effects on "recognized" resources. The sites which have been formally listed are believed to include considerably less than 10% of those that deserve recognition.

The route of this line crosses an area of New Jersey where cultural resources are more seriously under-inventoried than almost anywhere else in the state. The project's consultants have not had time to more than scratch the surface. Furthermore, they have been looking within an artificially narrow APE, negotiated as a compromise with the NJ SHPO. These limits of time and space effectively preclude our benefiting from the Sect. 106 review process requirement to locate and protect resources that were hitherto undiscovered. Attempts to create an inventory of significant scenic sites are relatively new, so that the work is proceeding essentially de novo, often carried out by professionals with relatively little experience with this resource type. A comprehensive inventory of these resources is crucial, before this project forever destroys more layers of our early history.

Response: A Phase I Cultural Landscape Inventory has been completed and existing cultural landscapes within NPS lands have been identified. Relevant information was included in the DEIS; with reference to specific reports. Consultation with the State Historic Preservation Offices is ongoing. The New Jersey and Pennsylvania SHPOs are responsible for identification of cultural resources outside the parks.

FP4000 - Floodplain: Impact of Proposal and Alternatives

Concern ID: 37258

CONCERN STATEMENT: A commenter is concerned about the amount of erosion that would occur from the expansion of the ROWs for all of the alternative routes.

Representative Quote(s):

Corr. ID: 1970 **Organization:** *Not Specified*

Comment ID: 257812 **Organization Type:** Unaffiliated Individual

Representative Quote: All of our forests are along the stream valleys, the steep stream valleys. Any expansion of the power lines in that area would cause severe erosion.

Response: NPS assessed the impacts of sedimentation and erosion as part of the analysis of soil resources. We used the U.S. Forest Service's Water Erosion Prediction Project (WEPP) model to determine the impacts on water quality. The modeling demonstrated that minimal short term and long term increases in total suspended solids for some tributaries and undetectable increases in total suspended solids in the Delaware River. The model did not detect differences between the alternatives (page 23 of the DEIS); therefore, soil resources was dismissed. Applicant will be held to implementing construction best management practices that reduce or eliminate impacts of sedimentation and erosion.

FP5000 - Floodplain: Cumulative Impacts

Concern ID: 37272

CONCERN STATEMENT: One commenter is not satisfied with the cumulative impact analysis on floodplains both inside and outside the study area. This commenter identified specific projects that should be analyzed for cumulative effects to floodplains.

Representative Quote(s):

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259059 **Organization Type:** Non-Governmental

Representative Quote: The Park Service failed to consider the cumulative impacts of several projects on floodplains. For example, the EIS should assess whether projects including but not limited to the Tennessee Gas Line Proposal, the Columbia Gas Transmission Company pipeline proposal, and the Northeast Supply Link Expansion Project will contribute to adverse impacts on floodplains in the study area. Further, the EIS should assess whether these projects and others, including Marcellus Shale gas development, the Dominion/Allegheny Power Transmission Line project, and other proposed residential and commercial projects in both New Jersey and Pennsylvania could contribute to adverse impacts on floodplains outside the study area. All of these projects could potentially have an adverse impact on the natural flow of rivers and streams and the ability of floodplains to absorb excess amounts of water from increased runoff.

Response: NPS has reviewed the cumulative impact analysis for floodplains and have determined it is sufficient and appropriate. Impacts to floodplains are not expected to be significant, they would be temporary and most would be avoided using best management practices.

GA1100 - Impact Analysis: Overall Impacts to Park Resources

Concern ID: 37774

CONCERN STATEMENT: Many commenters expressed concern for the high level of impacts to park resources, resulting in permanent loss and degradation of natural and cultural resources and scenery, diminishing visitor experience. Commenters cited the scarcity of such resources in the highly developed east and the fact that the national parks were created to preserve these resources in perpetuity. A number of commenters stated that the loss and degradation of park resources would constitute impairment, which would violate the Organic Act, noting that the NPS could not issue a permit for the proposed transmission line if it would result in impairment.

Representative Quote(s):

Corr. ID: 1337 **Organization:** *Not Specified*

Comment ID: 263603 **Organization Type:** Unaffiliated Individual

Representative Quote: The "No Build" option is the only alternative that will not cause the impairment of Park Resources. Under the Organic Act of 1916 and the NPS Management Guidelines of 2006, NPS cannot allow projects to move forward that cause impairment of park resources, unless a law directly allows for the project. Do not let this happen and everything that was fought for in 1916 be for nothing.

Corr. ID: 1365 **Organization:** *Not Specified*

Comment ID: 263606 **Organization Type:** Unaffiliated Individual

Representative Quote: I have many a happy memory canoeing and hiking in the water gap. Its pure beauty and pleasure will be forever changed if we allow PSE&G to scar and deface it for their profit.

These unsightly towers and its construction would cause an impairment of Park resources that would not be "temporary." Construction of access roads, staging areas, widening rights-of-way and the destruction of acres of forests will result in permanent destruction of park resources, especially core forests and landscape connectivity values. The Parks are a vital part of our ecosystem requiring Protection of the functions and values provided by upland forests and wetlands in combating flooding, providing habitat to threatened and endangered species, and allowing for groundwater recharge provide a greater public benefit than the Susquehanna-Roseland project.

These natural resources are the only thing that we have in this congested Northeastern area that is pure and untouched and meant for all. We cannot give this away. It is our duty and responsibility to future generations to maintain this natural treasure.

Corr. ID: 1399 **Organization:** *Not Specified*

Comment ID: 263608 **Organization Type:** Unaffiliated Individual

Representative Quote: Any "build" alternative would have serious, irreversible impacts on Park resources including endangered species, scenic vistas, forests, and visitor experience. This project will impair the scenic and cultural landscapes that these park units were created to preserve.

Corr. ID: 1432 **Organization:** *Not Specified*

Comment ID: 263609 **Organization Type:** Unaffiliated Individual

Representative Quote: Our environment has been subject to so much development, and we need the unspoiled beauty of the Park. And after all it was created to preserve the land, forests and wildlife. We need the Park to be there for our children and grandchildren.
All action alternatives will result in an impairment of Park resources and the mitigation plan does not go far enough to prevent the impairment of Park resources.

Corr. ID: 1612 **Organization:** Musconetcong Mountain Conservancy

Comment ID: 263613 **Organization Type:** Unaffiliated Individual

Representative Quote: "...to promote and regulate the use of the...national parks...which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

The proposed transmission line would degrade the natural scenery,destroy natural and historic objects ,both known and undiscovered,and degrade and destroy wildlife communities within the park.Were you to permit the unnecessary construction of this transmission line, my and my children's capacity to enjoy the Delaware National park as we know it, would be forever diminished.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 262064 **Organization Type:** Non-Governmental

Representative Quote: ...the DEIS conclusively demonstrates that the proposed Susquehanna to Roseland line would impair Park resources in violation of the National Park Service Organic Act. As the Park Service's own analysis makes clear, the agency cannot grant the requested right-of-way and special use permit without fundamentally degrading the unique natural, scenic, and cultural resources that these Parks were established to preserve. While recent news reports suggest that PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G) (collectively "the applicants") may be contemplating mitigation efforts in the form of land purchases or conservation easements, it is not possible to eliminate impairment to areas of special significance by expanding Park boundaries.

...the Park Service further acknowledges that allowing the S-R Line to cross through the middle of the Park, through areas of extraordinary significance along Route 2 or 2b, "poses high risk for irreparable damage to significant ecological communities and drastic scenic degradation that could violate the Organic Act (impairment)." Based on the analysis presented on the DEIS, the Park Service must conclude in the Final EIS that siting the S-R Line along any of the analyzed routes would result in impairment of the Parks in violation of the Organic Act and the Wild and Scenic Rivers Act.

Response:

NPS Management Policies 2006, Section 1.4.3 states, “NPS managers must always seek ways to avoid, or to minimize to the greatest extent practicable, adverse impacts on park resources and values.” This means that NPS managers must take reasonable, affirmative steps toward avoiding or minimizing adverse impacts, but it does not constrain the NPS’s discretion to allow impacts when necessary. As evidenced by the impact analysis in the DEIS, the NPS acknowledges that the adverse impacts of constructing the proposed transmission line across the national

park units are high; in some cases, the impacts are significant. The NPS is fully aware of its responsibility to protect the resources and values of the three national park units and that while we can make a decision that would result in significant adverse impacts to park resources, we cannot make a decision that would result in impairment, in violation of the Organic Act. The FEIS identifies the NPS preferred alternative in accordance with the regulations of the Council on Environmental Quality (CEQ); however, the FEIS is not a final decision on the permit requested by the applicant nor is a decision by the NPS to select a particular alternative as preferred imply a judgment concerning whether selection of that alternative would meet the threshold for impairment under the Organic Act. A final decision on the permit application will be made in a Record of Decision (ROD) selecting an alternative for implementation. In accordance with current NPS Impairment Guidance, a written determination on impairment for the selected alternative will be appended to the ROD.

GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects

Concern ID: 37273

CONCERN STATEMENT: Commenters expressed concern with the lack of details for construction components, namely tower height and design, locations of spur roads, pulling and splicing sites, crane pad locations and the location of the routes outside of the parks.

Representative Quote(s):

Corr. ID: 1878 **Organization:** Appalachian Trail Conservancy

Comment ID: 257635 **Organization Type:** Non-Governmental

Representative Quote: General Comments: It is difficult for ATC to adequately evaluate impacts of the proposed action alternatives for a number of reasons, particularly the lack of detailed information specific to the Appalachian National Scenic Trail on tower heights and locations, rights-of-way (ROW) widths, locations of access and spur roads and other construction operations, and routes of the various alternatives beyond park boundaries. While the Delaware Water Gap National Recreation Area was extensively analyzed, the ANST as a separate and unique unit of the National Park System, was not.

Sufficient details regarding tower heights and design (lattice versus monopole), new or upgraded access roads, spur roads, pulling and splicing sites, crane pad locations and route locations outside park boundaries are absent or suppositional. Although more specific detail is provided for the applicant's preferred alternative 2 and 2b, even there detailed information is often lacking. In many cases, the DEIS provides a range of design possibilities based on "Industry Standards" and "Best Management Practices." These are not acceptable substitutes for actual dimensions, square footages, acreages, and facility locations as they relate to the Trail.

Corr. ID: 1968 **Organization:** Appalachian Trail Conservancy

Comment ID: 258717 **Organization Type:** Recreational Groups

Representative Quote: ATC is troubled by the lack of specifics in the Draft Environmental Impact Statement. It is impossible for stakeholders, including the Appalachian Trail Conservancy, to adequately evaluate the impact and for a myriad of reasons. Although, more specific detail is provided for the applicant's Alternative

2 and 2B, even there, some of the information provided is at best speculative in nature. Details regarding power lines, rights-of-way widths, tower design, new or upgraded access roads, spur roads, pulling and splicing sites and crane pad locations are absent or hypothetical for the other alternatives.

Corr. ID: 1985 **Organization:** Appalachian Trail Conservancy

Comment ID: 257899 **Organization Type:** Non-Governmental

Representative Quote: It is impossible for stakeholders, including ATC, to adequately evaluate impacts of the identified alternatives for a myriad of reasons. Although much more specific detail is provided for the Applicant's preferred Alternative 2, even there, some of the information provided in the DEIS is, at best, speculative.

Response: NPS recognizes that the DEIS does not present all of the details of the proposed transmission line. We requested this data from the applicant, but were not provided with any additional information. Many details would not be known until detailed engineering design is complete, including exact tower locations, locations of spur roads, locations of wire pulling and pulling and splicing locations, and the locations of the alternatives beyond NPS boundaries. We used the best available data in our analysis.

Concern ID: 37332

CONCERN STATEMENT: Commenters consider the cumulative impacts analysis to be insufficient.

Representative Quote(s):

Corr. ID: 1887 **Organization:** New Jersey Highlands Coalition

Comment ID: 257788 **Organization Type:** Non-Governmental

Representative Quote: Under NEPA, NPS must consider the cumulative impacts of the project. It should address "coincident effects (adverse or beneficial) on specific resources, ecosystems, and human communities of all related activities, not just the proposed project or alternatives that initiate the assessment process." Further, "the range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects."

Clearly, in an analysis under NEPA, NPS is directed to analyze impacts to more than just the project area within the agency's immediate jurisdiction, and NPS is directed to include the impacts of similar actions that are connected by geography or timing, including future actions if they are reasonably foreseeable. The range of actions, or the scope of the analysis that the EIS must include are those that when considered cumulatively are significant (CFR 40 1508.25).

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259050 **Organization Type:** Non-Governmental

Representative Quote: The DEIS analysis of cumulative impacts both inside and outside the Parks is similarly unhelpful. While the Park Service lists various foreseeable projects and development, the DEIS does not attempt to quantify or otherwise characterize with any particularity how these new pressures on natural, scenic, and cultural resources will collectively manifest.

DEIS at 357. Ultimately, the reader is left with the sole conclusion that cumulative impacts will be "adverse." This general observation does not allow for a meaningful comparison of alternatives or the development of well-tailored mitigation measures.

Nevertheless, the DEIS adopts this approach to cumulative impacts analysis repeatedly.

Response: NPS reviewed the analysis; it is considered adequate and meets the requirements of CEQ. The cumulative impacts are generally the same for all action alternatives because the routes are in the same area. The DEIS identifies the cumulative impacts and the overall impacts when the SR Line project is added.

Concern ID: 37383

CONCERN STATEMENT: A commenter believed that the impacts from deconstruction of the line would be similar to those from the construction of the line, and that these impacts need to be considered in the EIS.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259326 **Organization Type:** Business

Representative Quote: Additionally, the deconstruction of the existing line would have the same construction impacts as the construction of the S-R Line. The same roads would be needed and similar ground disturbances would occur. The DEIS should include a discussion of those impacts.

Response: The impacts from the deconstruction of the existing line are addressed in the DEIS under each applicable resource topic in chapter 4.

GR4000 - Geologic Resources: Impact Of Proposal And Alternatives

Concern ID: 37274

CONCERN STATEMENT: Commenters do not agree that the full impacts to geologic resources, including unique geologic resources, have been analyzed in the DEIS. According to commenters, blasting and geotechnical boring plans and modeling data need to be provided in the EIS and their direct impacts analyzed for each alternative.

Representative Quote(s):

Corr. ID: 2143 **Organization:** *Not Specified*

Comment ID: 258230 **Organization Type:** Unaffiliated Individual

Representative Quote: Towers that will need a large concrete base to support their massive column. I been told by a PSE&G representative that they must create a 40 foot deep hole for the concrete base/footing needed for the monopole tower construction.

I have seen twenty foot holes dug and can only imagine what a forty foot hole would look like blasted in geologically sensitive areas. What will the construction company due with the tailing from these forty foot foundation holes? Fill in some wet lands? What will the impacts be on wildlife and its habitat the we come to enjoy?

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259058 **Organization Type:** Non-Governmental

Representative Quote: The DEIS correctly concludes that Alternatives 2, 2b, 3, 4, and 5 would result in adverse impacts to geologic and topographic resources. However, there are several potential impacts to geologic and topographic resources

that were overlooked in the DEIS. First, the Park Service states that for the purposes of new tower construction, geotechnical boring would need to occur in order to determine the depth of competent bedrock. See DEIS at 350. The geotechnical boring could then be followed the use of chemical compounds that could potentially be released into the environment. The Park Service should assess what compounds will be used, their potential for release, and the potential impacts on soil and geologic resources in the event of release.

Second, in its discussion of impacts to wetlands resources, the Park Service states that Alternatives 2 and 2b would require blasting that could adversely impact unique geologic formations and could lead to a decrease in groundwater availability and quality. With respect to both alternatives, the Park Service states that it does not currently know how blasting would impact unique geologic formations that lie under wetlands that will be impacted, and that a blasting and post-construction monitoring plan would be needed in order to assess these impacts. As discussed above, deferred analysis is not sufficient under NEPA. The Park Service should require the applicants to supply more information on the potential impacts of blasting on these unique geologic formations. Moreover, the applicants should provide a specific blasting plan with respect to each alternative, as well as a post-blasting monitoring plan, and the public should be afforded an opportunity to comment on these plans.

Response: NPS did not allow the applicant to conduct geotechnical boring along all of the alternatives because the process would cause direct environmental impacts. We would require the applicant to haul all tailings from geotechnical borings and drilling offsite unless there is a park need for the tailings. This is consistent with the NPS standard. We have decided to limit the applicant to drilling for installation of the tower foundations. We will remove all references to blasting and the impacts that would occur from blasting from the FEIS.

Concern ID: 37384

CONCERN STATEMENT: A commenter disagreed with the impacts to geologic resources, and noted that geotechnical investigations performed outside the parks indicate that no blasting may be needed, or that techniques that do not require blasting can be used.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259334 **Organization Type:** Business

Representative Quote: The current plans for installation of the foundations for the tubular steel structures will likely involve drilling as the primary method of excavation rather than blasting. This should substantially minimize the NPS' concerns for the impact to the park with respect to geology, limestone formations, soils, and other resources. Once the Applicants are able to perform geotechnical investigations, the specific designs can be finalized and foundation requirements established. However, considering the geotechnical investigations that have been performed outside the DEWA, it is likely that blasting will not be required. Similarly, Applicants believe that blasting would not be necessary for Alternative 2b. The Applicants are also exploring some additional design options, different structure types, and construction methods that could reduce or possibly eliminate the need for access road construction near some of the most sensitive areas of the DEWA. These approaches could also eliminate the need for any blasting for foundation installation.

Response: Based on the applicant's contention that blasting would not be required, the NPS decided to limit the applicant to drilling for installation of the tower foundations. We will remove all references to blasting and the impacts that would occur from

blasting from the FEIS. We would require any alternative design options, structure types, and construction methods proposed by the applicant to meet all restrictions detailed in the EIS. These restrictions are put in place to avoid and minimize impacts to park resources.

HH3000 - Human Health and Safety: Study Area

Concern ID: 37275

CONCERN STATEMENT: A commenter suggests that the cumulative impacts analysis should include the effects of the high power lines on people living outside of the parks, including residents of the Pocono Mountains and the New Jersey Highlands.

Representative Quote(s):

Corr. ID: 1973 **Organization:** Delaware Riverkeeper Network

Comment ID: 257817 **Organization Type:** Unaffiliated Individual

Representative Quote: However, I urge you to expand your scope of these public health impacts to consider those impacts to the residents throughout the Pocono Mountains and the New Jersey Highland regions where the Susquehanna-Roseland line will be constructed. If it raises your blood pressure in the park, it can certainly do the same thing outside the park.

Response: NPS recognizes that health concerns related to electromagnetic field (EMF) exposure outside of the parks are a point of interest; however, this analysis is outside of our jurisdiction. As discussed on page 337 of the DEIS, despite over two decades of research, conclusions on the effects of EMF on human health are still inconclusive.

HH4000 - Human Health and Safety: Impact of Proposal and Alternatives

Concern ID: 37278

CONCERN STATEMENT: There were several health concerns that commenters expressed, including fears about the unknown effects of EMFs and concerns about a higher incidence of cancer associated with proximity to the lines. Commenters also noted concerns about air pollution and water quality issues related to the line having public health impacts.

Representative Quote(s):

Corr. ID: 1610 **Organization:** *Not Specified*

Comment ID: 256903 **Organization Type:** Unaffiliated Individual

Representative Quote: This project will be hazardous to a friend and his family - he has a pacemaker and doubling the height and tripling the voltage could endanger him and his family. I am totally opposed to this being passed by the National Parks Agency.

Corr. ID: 1665 **Organization:** Otzinachson Group, Sierra Club

Comment ID: 257363 **Organization Type:** Non-Governmental

Representative Quote: If built, the Susquehanna Roseland line will precipitate some of the oldest and dirtiest coal plants in the country to increase output and therefore air pollution because coal produces electricity is cheapest more cheaply

and would receive priority for transmission. This pollution will exacerbate mercury contamination, ground-level ozone formation, regional haze, acid rain, fine particulate pollution and, as a result, asthma and other respiratory illnesses, heart attacks, and premature deaths.

In addition to the impacts from coal-fired plants, is the impacts of nuclear energy, which would also feed into the Susquehanna-Roseland line. Although nuclear energy plants do not emit greenhouse gases, they do produce harmful radioactive waste such as Depleted Uranium (DU). DU is, according to the to the Military Toxins Project, the radioactive byproduct of the uranium enrichment process, is "roughly 60% as radioactive as naturally occurring uranium and has a half-life of 4.5 billion years."

Corr. ID: 1798 **Organization:** *Not Specified*

Comment ID: 258619 **Organization Type:** Unaffiliated Individual

Representative Quote: The safety to humans of transmission lines is contraversial at best. Health risks associated with transmission lines continue to be explored and studied by healthcare providers and epidemiologists. The cancer rates in New Jersey are already too high to risk any additional exposure by the transmission lines.

A publication by Marcilio and others (2011) document an increase risk of leukemia of those living close to power lines. Miller & Green (2010)explore leukemia, brain cancer and lymphoma related to electro-magnetic exposure, supporting the apparent carcinogenic nature of exposure. The risk seems highest for children, as well as harmful for adults

Corr. ID: 1895 **Organization:** *Not Specified*

Comment ID: 257724 **Organization Type:** Unaffiliated Individual

Representative Quote: Beyond aesthetics, there is no conclusive research about what the effect of electromagnetic fields (EMF) emitted by 200' tall, 500 KV power lines is on human health. There are documented cancer clusters (mostly brain cancer) in neighboring towns where developments are built right next to the existing-height power line towers.

Corr. ID: 2010 **Organization:** Green Sanctuary Community, Unitarian Universalist Fellowship of Sussex County

Comment ID: 258051 **Organization Type:** Churches, Religious Groups

Representative Quote: Increased amounts of sediment in these streams will cause contamination resulting in dangerous public health effects.

Another great concern is that these higher towers will cause a vastly increased EMF, electro magnetic field. The towers will be near to homes and schools, which will impact public health

Response: As discussed on page 337 of the DEIS, despite over two decades of research, conclusions on the effects of EMF on human health are still inconclusive. Therefore, the effects of EMF are not discussed in the EIS. We dismissed air quality and water quality as impact topics because, with implementation of BMPs, the impacts to these resources were very minor.Concerns related to increased use of coal fired plants is outside the scope of this analysis, therefore concerns related to potential impacts to human health from increased air pollution from coal-fired plants is also outside the scope of analysis.

Concern ID: 37330

CONCERN STATEMENT: Commenters identified issues relating to safety of the proposed lines. Some commenters expressed concerns about the potential of the lines causing fires, and others noted concerns about construction equipment interfering with the safety of visitors to the park.

Representative Quote(s):

Corr. ID: 1578 **Organization:** Appalachian Mountain Club

Comment ID: 257386 **Organization Type:** Non-Governmental

Representative Quote: Construction of the new transmission line and towers would mean "potential safety hazards associated with construction, equipment related hazards, and transportation of materials," creating a dangerous environment for outdoor recreation.

Corr. ID: 1780 **Organization:** citizen and member stop the lines

Comment ID: 257235 **Organization Type:** Unaffiliated Individual

Representative Quote: One area against this deplorable. unnecessary and dangerous (yes, dangerous) project that I have not heard much information come forward is the danger of ULTRA HIGH VOLTAGE LINES above the 52 miles from Roseland to Bushkill. Does anyone at the Park Service understand the amount of voltage that will be arching obove the National Park Land? There will be no way to safely put out any fires that result from switching surges that WILL occur. Only a small amount of research has been done to explore the possible biological effects of ultra high transmissions lines. Studies of workers in Russia and Spain report incidences of excitability, headaches,drowsiness, fatigue, nausea etc. on employees near switchyards of these lines. None of these u;tra high lines can be practicably be made safe.

PSE&G has failed to inform the public about the new dangers of these lines. One has to just go onto the internet sites which show the devastation that can occur when something goes wrong with ULTRA HIGH POWER LINES.

Corr. ID: 1815 **Organization:** *Not Specified*

Comment ID: 257375 **Organization Type:** Unaffiliated Individual

Representative Quote: Digging near those lines is extremely hazardous and could even start a forest fire. Residents of affected communities are worried about the ugliness and health hazards associated with these monster-sized towers. Health risks that apply to humans, esp. children, must apply to small woodland creatures as well, namely cell mutation or cancer.

Response: NPS consulted with transmission line engineers for this project who determined that the minimum horizontal clearance to the edge of the ROW under high wind conditions to prevent conductor blowout was determined to be greater than 100 feet. Alternatives 2, 3, 4, and 5 would follow these guidelines as described in the DEIS. The applicant has stated that for alternative 2b two additional towers would be required to meet safety guidelines in the area where the ROW is 100 foot wide. We have expressed our concerns about the potential fire hazards associated with alternative 2b in chapter 2 (page 55) and in chapter 4 (page 662) of the DEIS. We have also addressed safety concerns from construction equipment in chapter 4 (pages 656-665).

HH5000 - Human Health and Safety: Cumulative Impacts

Concern ID: 37279

CONCERN STATEMENT: One commenter is concerned about potential impacts to the health of people who live near the transmission lines.

Representative Quote(s):

Corr. ID: 1609 **Organization:** *Not Specified*

Comment ID: 256901 **Organization Type:** Unaffiliated Individual

Representative Quote: The long term health impact of living close to the high these high power lines is a major issue in the future of those living near these lines.

Response: NPS recognizes that health concerns related to EMF exposure outside of the parks are a point of interest; however, this analysis is outside of our jurisdiction. As discussed on page 337 of the DEIS, despite over two decades of research, conclusions on the effects of EMF on human health are still inconclusive.

HS3000 - Historic Structures: Study Area

Concern ID: 37281

CONCERN STATEMENT: A commenter is concerned that the NPS and the applicant vary on the size of the APE studied.

Representative Quote(s):

Corr. ID: 1963 **Organization:** *Not Specified*

Comment ID: 258708 **Organization Type:** Unaffiliated Individual

Representative Quote: I think that we've got an additional problem that we need to look at as well, in that the utilities have pointed to a rather narrow area of potential effect, whereas the park service in their presentation has pointed to an APE that's defined by .8 miles laterally out.

So on the one hand you've got one party saying 2 to 4 miles, the park service says the area is .8 miles. You know, guys, we need to be on the same page when it comes to this stuff. So I'm asking you to find the time to get together and to resolve this issue, decide exactly where the area of potential effects is and then deal with it accordingly.

Response: Within the park boundary, NPS defined an APE that extends 8 miles laterally from each proposed alternative alignment. Outside the park boundary, we defined an APE that extends 0.5 mile laterally from each proposed alternative alignment. The width of the APE is governed by visual split locations (VSLs), the first point at which the applicants would have a choice of routes for the transmission line outside the study area. The APEs for New Jersey and Pennsylvania are outside NPS lands. The applicant was conducting an impact analysis for the NPS and the states, hence a difference. For the methodology used to analyze impacts on historic structures, please see pages 512-513 of the DEIS.

HS4000 - Historic Structures: Impact of Proposal and Alternatives

Concern ID: 37283

CONCERN STATEMENT: Commenters have noted a lack of information in identifying all of the historic structures that could be affected by the proposed project, as well as incorrect information on the location of Old Mine Road. However, one commenter noted that there are no expected impacts to historic properties known in the proposed project area.

Representative Quote(s):

Corr. ID: 11 **Organization:** Shawnee Tribe

Comment ID: 244271 **Organization Type:** Tribal Government

Representative Quote: The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project.

Corr. ID: 1777 **Organization:** Celebrating the Delaware

Comment ID: 257230 **Organization Type:** Unaffiliated Individual

Representative Quote: Nor does the current Environmental Impact Statement adequately address the impact on the original Old Mine Road, which, in fact, is not at the location stated by the National Park Service. Contrary to the National Park Service assertion that the Old Mine Road is one and the same as the River Road, the original road is immediately adjacent to the Delaware River.

The Environmental Impact Statement does not take into account the unique and precious historic legacy of stone-retaining walls associated with this original location, nor does it address the total degradation the 500 kV Transmission Line will bring to miles of the Old Mine Road, nor does it address the impact on us as a community and a nation when we willingly allow the trashing of national, unique, extraordinarily rare historical treasures.

Corr. ID: 1963 **Organization:** *Not Specified*

Comment ID: 258707 **Organization Type:** Unaffiliated Individual

Representative Quote: This particular map shows us a couple of interesting things. In the corridor, as defined by Alternatives 2, 2B, we see that it passes through the Shoemaker General Store and post office. As it continues down to the Delaware it passes right through the homestead of Philip Bus, but more significantly when we look at the area potential effects which by the Luis Berger Group, together in consultation with the Bureau for Historic Preservation was defined within certain parameters. We see that in that APE. In that zone we've also got two schools.

The first school is alongside the Delaware adjacent to the J.C. DeWitt property. The second school back in the 1860s was on the Hog Back Ridge and it's a school that our area historians tell us was the oldest in Monroe County. To me this is significant. It is also a cause for worry and concern because as good as the parties are and as diligent as they have been, they just haven't been thorough enough so far, because none of this information has appeared in either of their presentations.

Response: An update on the Old Mine Road Historic District has not been completed to document historical routing and re-routing of the road. NEPA does not require an

exhaustive data collection, but rather use of best available information and NPS has sufficient information to analyze potential impacts to historic structures. We acknowledge there will be adverse effects to structures; the mitigation of these impacts will be negotiated through an agreement with the SHPOs. Mitigation measures from consultation will be included in the ROD, and permit (if issued).

Concern ID: 37385

CONCERN STATEMENT: A commenter stated that information regarding the eligibility for listing on the National Register of the current transmission line and corridor is available and should be incorporated in the EIS.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259358 **Organization Type:** Business

Representative Quote: The DEIS should be revised to inform the decision-maker and the public that the existing transmission line and corridor through the DEWA is itself considered a historic component of the existing visual environment and cultural landscape. As part of the permitting requirements necessary for the proposed Project, the potential historic component of the PNJ Interconnection - Wallenpaupack to Siegfried Line and the Bushkill to Roseland Line, which includes the corridor and existing 230 kV through the DEWA, has been evaluated for eligibility for listing in the National Register of Historic Places (National Register). The results of the study conducted by The Louis Berger Group (Berger) concluded that the line and corridor appear to possess historical significance and integrity that qualify it as a resource eligible for listing on the National Register. The line and corridor are significant on a national level (in both New Jersey and Pennsylvania) with a period of significance from construction of Lake Wallenpaupack Dam, Pipeline, and Hydroelectric Plant (begun in 1924), the inception of the interconnection agreement in 1927, through the expansion of the interconnection into the Pennsylvania-New Jersey-Maryland Interconnection (PJM) in 1956. Both the Pennsylvania Historical and Museum Commission (PHMC) and the New Jersey Historic Preservation Office (NJHPO) concurred with the study via letters dated August 29 and September 9,2011, respectively, and confirmed the line and corridor as National Register eligible. While these letters were received relatively late in the DEIS process, the Applicants note that the eligibility status of the line and corridor as a National Register-eligible historic property was not included in DEIS and request that this eligibility status be included.

The existing line currently continues to function in its historical capacity. While the Applicants acknowledge that Alternative 2 would have an adverse effect on the historic nature of the existing line and corridor through the DEWA, the Applicants as well as the PHMC and NJHPO recognize that alterations and changes to the line itself, upgrade of towers and wires, etc., may be viewed as part of the necessary evolution of our infrastructure in keeping with modem technological advancements, demands, and requirements of the electrical grid system.

Response: This information was received after publication of the DEIS. NPS is in consultation with the SHPOs. This consultation will address any historic structures in the project area; all information from consultation will be added to chapter 5 of the FEIS. Mitigation measures from consultation will be included in the ROD, and permit (if issued).

IA1100 - Impact Analysis: Topics Dismissed

Concern ID: 37285

CONCERN STATEMENT: Commenters stated that several impact topics dismissed in the EIS should be considered, due to the extent of impacts to these resources. The resource topics identified include air quality, water quality and watersheds, and climate change and global warming, and landslide modeling.

Representative Quote(s):

Corr. ID: 1983 **Organization:** *Not Specified*

Comment ID: 257880 **Organization Type:** Unaffiliated Individual

Representative Quote: The one thing was the parks decision not to assess water resources in the EIS. I think that's very important that that's reconsidered in the scope of the draft EIS and is expanded now to incorporate more resources, not only in the park, I think throughout the entire Delaware River but especially the Upper Delaware River where the Susquehanna-Roseland will cross the Lackawaxen and other tributaries of the Delaware River above the National Recreational Area.

Corr. ID: 1994 **Organization:** New Jersey Highlands Coaltion

Comment ID: 257952 **Organization Type:** Unaffiliated Individual

Representative Quote: All projects require land clearing for rights-of-way, access roads, and staging areas. Because each project is routed through the highest watershed valued upland forests, the impacts on the functional values of the watersheds are much greater than the sum of the acres disturbed. Each project, if viewed alone, has measurable impacts that impair the ecological functions of forested watersheds in the Highlands, ultimately impacting the water supply to major population areas in New Jersey. The cumulative impacts to this water supply, which is potentially huge, has not been assessed.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259056 **Organization Type:** Non-Governmental

Representative Quote: The Park Service must consider the impacts on air quality resulting from the S-R Line. Each of the action alternatives that the Park Service proposes will have significant impacts on air quality during construction, which would involve not only the line itself but also access roads, and, in some alternatives, deconstruction of existing power lines.

This construction will require large diesel trucks to haul heavy equipment through the Parks and the surrounding communities...All of this equipment will emit exhaust and create fugitive dust that will impact surrounding air quality.

As the line is expressly intended to open up eastern power markets to coal-fired power generators in western PJM,I5 it can be expected to drive increases in power generation at coal-fired power plants that currently are operating below capacity. Increased reliance on coal in the East Coast has the potential to significantly degrade air quality by increasing emissions and ambient concentrations of air toxics...This pollution would harm public health and further exacerbate endemic acid rain and smog problems, which, not incidentally, plague many national parks.

The Park Service cannot ignore the increase in coal-fired power production that the

S-R Line would encourage. An agency must consider the growth-inducing impacts of its actions.

several counties in Pennsylvania and New Jersey are designated non-attainment for PM2.5. Increased emissions from the S-R Line would exacerbate the health and environmental risks posed by non-attainment of the NAAQS and impede the ability of these states to come into attainment.

In addition, deposition of pollution from coal-fired power plants into water is responsible for mercury contamination of fisheries, acidification, and eutrophication. Effects include changes in water chemistry that affect aquatic vegetation, invertebrate communities, amphibians, and fish. The deposition of nitrogen also contributes to nutrient enrichment in coastal and estuarine ecosystems, which can cause toxic algal blooms, fish kills, and loss of plant and animal diversity. Deposition also can cause chemical changes in soils that affect soil microorganisms, plants, and trees. Plant species composition and abundance may change where nitrogen overstimulates growth, favoring some types of plant species and inhibiting growth of others. The EIS should address the impacts of increased deposition on waterways, wetlands, floodplains, soils, and vegetation.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259057 **Organization Type:** Non-Governmental

Representative Quote: The Park Service's failure to address climate change and greenhouse gas emissions in the DEIS must be rectified in the Final EIS. "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." ..."[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of the agency's control does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming."...Thus, even though the Park Service does not control coal plant operations, it still must consider the extent to which its actions will spur increases in CO2 emissions that contribute to climate disruption.

The DEIS must further consider how adverse impacts associated with the S-R Line would impact the resilience of resident ecosystems in light of threats posed by climate change. For instance, would construction and operation of the S-R Line hinder the ability of plant and animal communities to adjust to climate changes? Over the next fifty years and beyond, the Parks will be increasingly stressed by rapid climate shifts, and it is important to provide as much of a buffer as possible to allow for adaptation.

The DEIS does not fully consider the S-R Line's impacts on energy resources and conservation potential. Although the construction of the S-R Line may not affect Park Service facilities, the Park Service has the opportunity to encourage energy conservation in its selection of an alternative. The no action alternative would likely bolster growing reliance on energy efficiency programs.

While the DEIS recognizes that the S-R Line will affect how land within the park boundaries is used, it does not provide any further detailed analysis of impacts to land use. However, as the Park Service recognizes, the authorization of the requested right-of- way and special use permit could create a precedent, resulting in many additional Park crossings that incrementally would carve up the Parks. Importantly, the S-R Line is one of several linear utility projects that threatens major adverse environmental impacts in the immediate region. The cumulative impacts of these projects on the land use of the Parks are potentially devastating

and must be considered accordingly.

Response: NPS dismissed these resource topics because the effects were comparatively similar for all action alternatives and would not drive the assessment of the alternatives. The impacts for air quality, water quality and watersheds, and climate change and global warming would be minor. Climate change was dismissed as an overall impact topic, but the impacts from climate change are included in the discussion of cumulative impacts in chapter 4. Additionally, BMPs and permit conditions would greatly reduce impacts. The rationale for dismissing these topics is located in the DEIS in chapter 1 (pages 21-25). Because we have decided to limit the applicant to drilling for installation of the tower foundations, the dismissal language in the FEIS will change for water resources. The FEIS will include a General Conformity Analysis for areas of nonattainment.

The applicant would build the S-R Line regardless of whether it was allowed through the park. Analyzing impacts from coal plants is outside the scope. Analyzing impacts from coal plants is outside the scope. Concerns related to increased use of coal fired plants is outside the scope of this analysis, therefore concerns related to potential impacts from increased air pollution from coal-fired plants is also outside the scope of analysis. .

IN4000 - Infrastructure, Access, and Circulation: Impact of Proposal and Alternatives

Concern ID: 37286

CONCERN STATEMENT: A commenter expressed concerns about the ability of the NPS to close roads to protect migrating wildlife during a transmission line emergency.

Representative Quote(s): **Corr. ID:** 1966 **Organization:** *Not Specified*

Comment ID: 258716 **Organization Type:** Unaffiliated Individual

Representative Quote: That last statement I make because I can see a clash, when the roads have to be closed, they have to be closed. That's not going to work. When you have an emergency in the power line, you're going to say I'm going through. We talked about these little creatures that have to cross the road in the summer and you can't get across the road, what are you going to do with these power lines? They're going to demand the right to get in. It's a clash between two opposite uses that are too foreign to one another.

Response: The applicant does have legal right to access their ROW. NPS will work with them to make them aware of any sensitive natural or cultural resources and to help the applicant avoid impacts when possible.

Concern ID: 37386

CONCERN STATEMENT: Impacts to NPS roads would be largely mitigated by restoration measures undertaken by the applicants, resulting in no lasting impact on NPS roadways at the conclusion of the construction and restoration period.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259329 **Organization Type:** Business

Representative Quote: Appendix F of the DEIS describes mitigation measures

that could be applied to road damage, but incorrectly assumes that the mitigation would not be sufficient to change the level of impacts to NPS roads. The Applicants' plan to restore the public roadways to their preconstruction condition (unless otherwise instructed by the NPS for purposes of closing roads or limiting access) and see no reason why they would not be able to accomplish that commitment and thus there would be no lasting impacts to public roads within DEWA following construction.

Response: Currently many of the NPS roads that would be impacted by construction, maintenance and operation do not meet Park Road Standards for heavy equipment. NPS did take into account mitigation as proposed in Appendix F (page 547 of DEIS) but the mitigation would not be sufficient to change the level of impact.

Concern ID: 37772

CONCERN STATEMENT: One commenter noted that impacts discussed from off-road vehicle use are applicable to all alternatives, and would be mitigated by the applicants.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 263618 **Organization Type:** Business

Representative Quote: The DEIS expresses concern over unauthorized off-road vehicle use that would occur as a result of access road construction associated with Alternative 2 (p. 548). The Applicants have two comments to this statement. First, if off-road vehicle use is a concern, then it should be applicable to all alternatives and not just to the existing ROW. Second, as a part of its mitigation, the Applicants can and will take the steps described in the C&R Standards to discourage off road vehicle use on temporary and pennanent access roads.

Response: NPS agrees with the commenter. The use of off-road vehicles could increase with all action alternatives and is included in the analysis of the visitor experience, common to all action alternatives. Please see pages 631-632 of the DEIS. Various mitigation measures would be implemented to discourage off-road vehicle use on access roads. Please see appendix F of the FEIS for mitigation measures.

MG1300 - Recommendations for Mitigation Proposal

Concern ID: 37289

CONCERN STATEMENT: Commenters stated that mitigation measures are not adequate, and suggested that additional measures need to be taken. Some commenters believed more options for mitigation should be considered, while others also thought that no decisions on the project should be made until there is a detailed mitigation plan.

Representative Quote(s):

Corr. ID: 1605 **Organization:** NY-NJ Trail Conference and Adirondack Mt. Club

Comment ID: 259074 **Organization Type:** Unaffiliated Individual

Representative Quote: The mitigation plans are not sufficient, and more alternatives must be included.

Corr. ID: 2014 **Organization:** *Not Specified*

Comment ID: 257868 **Organization Type:** Unaffiliated Individual

Representative Quote: One thing that does concern me, however, is the discussion of mitigation. The proper sequence to consider when mitigating or when actually

considering a project is to avoid, minimize and then mitigate as Ms. Brummer said. Key word being avoid. You shown there are areas impacted that must be avoided within the Park, ecological communities that are unique to the Park and would be effected incredibly by this project. No final decision should be made regarding mitigation until the public has had the opportunity to thoroughly inspect and comment on a detailed mitigation plan.

Corr. ID: 2019 **Organization:** Association of New Jersey Environmental Commissions

Comment ID: 258744 **Organization Type:** Unaffiliated Individual

Representative Quote: So I think you are faced with an interesting issue here with regard to dealing with this mitigation offer. Either you can ignore it and continue with your findings, which I think is certainly justifiable, or you can engage in some supplemental EIS process, and additional public comment and public input. But without understanding exactly what is being proposed, who is to carry it out, where it's going to happen, what the impact on local government would be, and any number of other questions that would probably appear, considering this offer now at this point in time is really, and outside of the EIS, is improper.

Response: Appendix F contains typical mitigation measures that would be applied to any alternative to reduce and minimize impacts. The DEIS identified as much mitigation as it could because NPS did not have a preferred alternative at the time. Now that the NPS has identified a preferred alternative, we are working with the applicant to identify a mitigation plan specific to the preferred alternative.

Concern ID: 37327

CONCERN STATEMENT: Commenter suggested alternatives to the mitigation measures. Suggestions included using the amount of money proposed for mitigation for alternative energy development, the use of helicopters during the construction project, measures for forest stewardship, and the use of easements rather than land purchases.

Representative Quote(s): **Corr. ID:** 1559 **Organization:** *Not Specified*

Comment ID: 256284 **Organization Type:** Unaffiliated Individual

Representative Quote: As for the mitigation option suggested by the power companies, that is more of a "bribe" than a resolution. They should use the $30 million and formulate alternatives for energy sources (ie - underground lines, running them along Route 80, smart grids, etc).

Corr. ID: 1698 **Organization:** *Not Specified*

Comment ID: 257367 **Organization Type:** Unaffiliated Individual

Representative Quote: 5. If any action alternative (including Alternative 2), other than the NO BUILD, is selected and still would traverse the NPS units then some or all of the following mitigations should be adopted and mandated:

5a. To preclude undue widening of existing access roads or constructing any new access roads to the existing (or new) RoW; use helicopters to insert RoW development crews. All deconstruction, installation of new footers and towers, RoW widening= tree/brush clearing, etc. should be accomplished by crews and materiel delivered and retrieved by aerial transportation. This style of vertical replenishment is standard procedure in military theaters and remote logging terrain. It can be done! $30 million dollars might buy a lot of airlift time?
5b. This approach will presumably be used in another portion of the same SR RoW west of NPS units on other federal land.

5c. If mitigation 5a above is accepted for use on NPS properties; then the selection of which (of various) crossing routes could be made mainly on the least impactful set of resource values within the RoW itself; since ancillary roads and other incidental impacts will be effaced by such surgical construction methods.
5d. Failing adoption/acceptance of mitigations 5a & c above; then this mitigation should be adopted and mandated. Any temporary ancillary impacts from existing road widening, new road construction, staging areas, etc on NPS properties must be immediately restored to the pre-project conditions (status quo ante). This would leave only those long term impacts within the selected RoW crossing to be dealt with (if feasible via enhancement or restoration of similar or nearby habitats).

Corr. ID: 1919 **Organization:** *Not Specified*

Comment ID: 257524 **Organization Type:** Unaffiliated Individual

Representative Quote: Power companies involved have discussed using $30,000,000 of ratepayers money for mitigation. Many people say that this project will create thousands of jobs. This is true, but are they for the right reason. This $30,000,000 can go towards solar panels or wind turbines. This will not only create jobs, but the money will be going towards the conscientious decision of having more reliable energy. I calculated 1,875 homes can be powered with $30,000,000 worth of solar panels. I used he following website which states that $16,000 worth of solar panels is needed to power the average home.

http://tlc.howstuffworks.com/home/question418.htm

That is only the $30,000,000. With the $800,000,000 that the whole project would use, 50,000 homes can be powered. It would also spark up the clean energy industry.

Corr. ID: 1988 **Organization:** New Jersey Forestry Association

Comment ID: 257926 **Organization Type:** Conservation/Preservation

Representative Quote: The mitigation funds apparently could be substantial. And they could be applied in a number of different ways, but it sounds like outright purchase of additional lands is one of the bigger things discussed, and I would beg you not to buy anymore lands outright than you absolutely have to for some kind of strategic reasons. You can spread the available money, 50 percent further, 50 percent more acres, if you buy easements and you can accomplish almost everything that you want to do as far as view sheds, watershed protection and so forth that you can with outright purchasing. And the advantage, second advantage is that you leave the landowner in place to be the manager or to be the steward downstream. That way you do not have to hire more Park personnel or rangers or whatnot to have that property taken care of.

So what I'm leading to is that a lot of this mitigation money could be put towards forest stewardship, I think.

And mitigation money coming out of this project could forward the success of delivering forest stewardship, cutting edge forest science to the forest in and around the Park.

Corr. ID: 2134 **Organization:** New Jersey Forestry Association, Inc

Comment ID: 258214 **Organization Type:** Unaffiliated Individual

Representative Quote: Important legislation that greatly expands the benefits of the Farmland Assessment umbrella is the Forest Stewardship and Sustainability Act,

which was written by the NJ Forestry Association, passed in 2010 and received the award for the most outstanding forestry legislation in the nation that same year. This law will kick into practice as the rules are finalized in Trenton, but even now, as ten-year forest management plans are expiring, some are being replaced with stewardship plans that not only assure sustainable harvesting but also address all the ecosystem issues examined in your Environmental Impact Statements. Upgrading to Stewardship Plans is voluntary and your mitigation money could be very helpful in achieving the goal of 100% participation. The Stewardship and Sustainability Act contains the tools to enable NJ to become the first to achieve a statewide forest sustainability certification. The NPS can be very helpful in this neck of the woods. The NJ Forestry Assn will be pleased to assist you in any way we can.

Corr. ID: 2380 **Organization:** The Academy of Natural Sciences of Drexel University

Comment ID: 258566 **Organization Type:** Unaffiliated Individual

Representative Quote: The alternative routes for the ROW generate different local impacts. A regional approach to mitigation would apply to all the alternatives. Local mitigation activities, such as minimization of local impacts on streams, floodplains, wetlands, species of special concern, vistas, and cultural resources, will differ with the extent of disturbance by each route and by specific resources affected by each route (e.g., different species or habitats affected). It is expected that local mitigation activities like routing access roads, BMPs for construction, and habitat restoration, will minimize ecological impacts on the specific resources impacted by each route.

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259331 **Organization Type:** Business

Representative Quote: The DEIS discusses mitigation and compensation measures on pages 68-69, and in Appendix F. The Applicants support the best management practices and mitigation measures described in the DEIS, including those listed in Appendix F. The various practices and measures are presented in a topical or categorical manner in the DEIS, and not as detailed, site- or condition-specific requirements. The Applicants will work with the NPS to determine how the various measures presented in the DEIS would be applied to the particular circumstances of the proposed project, if approved by the NPS. The C&R Standards comments detail the Applicants' specific plans for Project construction and maintenance. In addition, the applicants propose to compensate for the unavoidable adverse impacts of the Project by creating and endowing a substantial fund to support acquisition and stewardship of lands and other resources in the DEWA region. The compensation fund is discussed in the second part of these comments on mitigation.

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259338 **Organization Type:** Business

Representative Quote: The Applicants recognize that, even after full implementation of all possible measures to avoid and minimize impacts, the proposed Project will cause some adverse impacts on resources under NPS jurisdiction. Accordingly, the Applicants are proposing compensatory mitigation pursuant to a methodology and on a scale that recognize the great public value of the national parklands adjacent to the Applicants' transmission corridor. The intent of the proposed methodology is to more than offset every potential unavoidable impact of the proposed Project.

Our methodology is described in detail in Exhibit 9. It is based on approaches used by the NPS and other agencies in other NEPA analyses, including the NPS's assessment of communications tower impacts in Yellowstone. It also draws from the approach used to identify and mitigate for impacts associated with the proposed Project where it crosses the Highlands area in New Jersey. The approach takes into account all categories of potential resource impacts identified by the NPS in the DEIS, including impacts on protected species, cultural landscapes and viewsheds.

The Applicants are proposing to consider and provide compensatory mitigation for resource impacts occuring in an area of approximately 38,000 acres, an area 9.6 times larger than the total area of view shed impacts, and 120 times larger than the area of incremental impacts, as calculated by the Applicants.

We have identified lands potentially for sale, most already on the market in some fashion, that offer great potential to benefit the public. If acquired for the public's benefit, these parcels could preserve natural viewsheds from future development, enhance NPS- and USFWS-managed areas, tie together now-isolated parcels of state or federal conservation areas, provide wildlife corridors, expand public hunting and fishing, secure key protected species habitat, or allow for restoration of previously developed areas

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259339 **Organization Type:** Business

Representative Quote: The methodology would result in compensatory mitigation on the order of $30-$40 million. It is important to note that our approach is defined by impacts, and the natural values of mitigation lands, not by the cost of acquiring those lands. If the NPS determines, based on the outcome of the public comment process or other analysis, that the potential impacts of the Project are different than what we understand them to be, or that other lands are more suitable for mitigation than those we have identified, the amount of compensatory mitigation will change to reflect the NPS analysis. We welcome the opportunity to present this approach to the NPS.

The total commitment of money by the Applicants to the Fund will need to reflect the NPS's final analysis of impacts potentially to be caused by the proposed Project. The Applicants understand that the analysis of potential impacts is subject to change and is likely to be revised to incorporate public comments on the DEIS received by the NPS. The Applicants recognize that resources under the jurisdiction of the NPS and USFWS are of enormous value in both a monetary and non-monetary sense to the American public and that the "cost" of any impacts on those resources is correspondingly high. The Applicants are prepared to commit funds in an amount that will fully recognize and show respect for the public value of the resources potentially affected by the Project. The Applicants submit that the methodology proposed in these comments, if accepted and applied, will ensure that there can be no basis for any reasonable party to conclude that the benefit to the resources at issue is anything other than substantially greater than the impacts of the Project.

Response: Mitigation lessens the intensity of an impact on park resources. Using compensation money to research alternative energy sources would not mitigate impacts to park resources. Helicopter use is considered and evaluated in the DEIS. The NPS is considering compensation for lost values and use; some options that may include land acquisition and protection.

Concern ID: 37328

CONCERN STATEMENT: Commenters stated there is a need to alter the mitigation to include provisions to protect natural resources, cultural resources, recreational resources, and open access.

Representative Quote(s):

Corr. ID: 1746 **Organization:** Middle Smithfield Historical Interest Group

Comment ID: 257340 **Organization Type:** Unaffiliated Individual

Representative Quote: When we take a look at the mission of the National Park Service we see that while they strongly and obviously embrace the environmental component, they also embrace a historical element.

So now when I hear of a mitigation package being put through or suggested that is almost 100 percent completely focused on the environmental aspect only, I'm saying to myself, perhaps there has been an oversight here, perhaps the proposed mitigation should also include that which we also cherish, and that would be resources to attend to any historical considerations that may arise in the project.

Corr. ID: 1829 **Organization:** New Jersey Audubon

Comment ID: 257438 **Organization Type:** Non-Governmental

Representative Quote: NJ Audubon would also like to offer what we believe are important guiding principles for determining the route of a line if it is determined that one will be built and for minimizing subsequent impacts to wildlife and habitat. These include the following:

1. A location should be selected that minimizes disturbance to natural areas and critical wildlife habitat across the entire route. The lowest overall impact would result from following existing power line right-of-ways (ROWs), avoiding sensitive natural areas (e.g. wetlands, floodplains, threatened and endangered species habitat, important bird areas), and minimizing negative impacts to habitat connectivity across the entire route.
2. Proper measures should be taken to avoid and minimize impacts to wildlife and habitat during construction, operation, and maintenance of power lines and ROWs. As noted in the DEIS, there are a number of measures that can and should be taken to avoid and minimize impacts to sensitive wildlife and habitat (e.g. avoidance of the use of heavy equipment when maintaining ROWs that cross wetlands; adherence to seasonal restrictions on activities to avoid direct impacts to wildlife during sensitive times; adherence to best management practices to avoid bird collisions and electrocution associated with power lines and towers).
3. Mitigation must be viewed and implemented as an opportunity to enhance the status quo. Because all of the lands under consideration for a new or upgraded line should be those with preexisting ROWs, there is a unique opportunity to attend to some of the lasting effects of the original disturbance through implementation of a mitigation plan that directly addresses them. The utilities should develop a management and mitigation plan that directly addresses natural resource concerns and sets a goal to improve upon the status quo of those resources which are currently impacted by the existing line and will be impacted additionally as a result of an upgrade. In other words, the plan should be founded on a net gain standard with measurable and transparent benchmarks.

Corr. ID: 1965 **Organization:** Water Resources Association of the Delaware River Basin (WRA)

Comment ID: 257727 **Organization Type:** Non-Governmental

Representative Quote: The proposed 500 kV line does have the potential to affect water quality in associated biota in the east and Delaware River and it's tributaries.

In this regard, WRA encourages the applicant, PPL Electric Utilities and PSE&G to develop a comprehensive conservation and mitigation strategy for consideration by the National Park Service. Such a strategy should be developed in collaboration with Federal, state and local jurisdictions and with nonprofits, to have land conservation, fishing, hunting and recreational interest and expertise, the strategy to look within and outside of our boundaries to maximize effectiveness.

Corr. ID: 1992 **Organization:** Frankford Township Citizen

Comment ID: 257944 **Organization Type:** Unaffiliated Individual

Representative Quote: One of the ways to offset those impacts is to conduct management programs by land, and protect other pieces of land in the form of mitigation.

So I say that mitigation should include purchase of additional land, but it should also improve wildlife habitat on existing properties. It should provide better public access.

We should conduct educational programs with mitigation money on natural resource management and the effects of things like power usage.

I already talked about boat access -- the habitat management I'm talking about is related to managing old farm fields and creating more shrub scrub habitat for migratory birds and resident birds. So I think there is an opportunity here to do some mitigation, and do it right.

Corr. ID: 2106 **Organization:** The Nature Conservancy

Comment ID: 258161 **Organization Type:** Non-Governmental

Representative Quote: We agree with the Service's outline on pp. 68-69 of an innovative approach to making mitigation an effective tool for conservation. We feel a comprehensive approach towards mitigating impacts within a broad, ecosystem context is needed to maximize the ability of the mitigation protocol to advance the conservation of natural systems. This approach suggests identifying ecological systems, such as large forests, wetland complexes, and watersheds, that not only are similar in type to those that have been impacted by the proposed activities, but due to their scale and condition, cost less to manage while being more likely to ensure ecosystem functions, foster biodiversity, and provide opportunities for linking to existing preserved habitats such as those in the Delaware Water Gap National Recreation Area and along the Appalachian Trail.

Federal agencies are also moving toward more comprehensive mitigation approaches. Such an approach is reflected in the Compensatory Mitigation Rule promulgated by the US Army Corp of Engineers and the U.S. EPA requiring use of a "watershed approach" to mitigating impacts governed by Section 404 of the Clean Water Act.

A comprehensive approach towards mitigation will support the conservation of ecological systems and not just satisfy regulatory requirements through piecemeal actions. This approach should take into account regional, state and Federal conservation plans such as the State Wildlife Action Plans and the Cherry Valley National Wildlife Refuge Feasibility Study.

Response: NPS included many mitigation measures in appendix F of the DEIS. We will add any applicable mitigation measure to appendix F in the FEIS based on public

comments.

Concern ID: 37783

CONCERN STATEMENT: Commenters suggested several specific measures to protect threatened and endangered species as well as wildlife during construction and operation of the proposed transmission line. Measures included seasonal restrictions, biological surveys for certain species, and habitat restoration measures, among other suggestions.

Representative Quote(s):

Corr. ID: 2401 **Organization:** USFWS New Jersey Field Office

Comment ID: 259474 **Organization Type:** Federal Government

Representative Quote: In addition to following the APLIC standards, we offer the following recommendations to avoid and minimize impacts to migratory birds within and around the project area.

1. Work with FWS to revise and finalize the draft Avian Protection Plan (APP) previously developed by PSE&G to minimize the risk of electrocution, collision, disturbance and habitat impacts for migratory birds. The APP should apply minimum standards along the length of the line, with enhanced protections in sensitive areas.

2. Report bird mortalities and injuries resulting from electrocutions or collisions on the Service's online Bird Fatality/Injury Reporting Program (6) (Bird Report program). The Bird Report program was designed, with significant industry input and feedback, to provide a user-friendly, easily-accessed, method of allowing members of the electric utility industry to voluntarily report bird mortalities and injuries resulting from electrocutions or collisions with electrical utility equipment. Collecting information about the locations and circumstances under which birds are killed or injured on power equipment serves the primary purpose of determining how to prevent future bird interactions. The database is intended for use by utilities to see which structures and equipment are hazardous to birds, and under what conditions, and assists in evaluating and enhancing the effectiveness of retrofitting.

3. Minimize land and vegetation disturbance and reduce habitat fragmentation during project design and construction, especially if habitat cannot be fully restored after construction. Where practicable, concentrate construction activities, infrastructure, and man-made structures (e.g., poles, roads) on lands already altered or cultivated, and away from areas of intact and healthy native habitats. Co-locate roads, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (e.g., existing rights¬of-way, agricultural fields). If co-location is not feasible, select fragmented or degraded habitats rather than relatively intact areas.

Corr. ID: 2401 **Organization:** USFWS New Jersey Field Office

Comment ID: 259475 **Organization Type:** Federal Government

Representative Quote: In addition to following the APLIC standards, we offer the following recommendations to avoid and minimize impacts to migratory birds within and around the project area.

4. Where disturbance is necessary, clear natural or semi-natural habitats (e.g., forests, woodlots, reverting fields, shrubby areas) between September 1 and March 14, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid take of most breeding birds, their nests, and their young (i.e., eggs, hatchlings,

fledglings).

5. Avoid permanent habitat alterations in areas where birds are highly concentrated or where sizable prey bases exist. Avoid establishing sizable structures along known bird migration pathways or known daily movement flyways (e.g., between roosting and feeding areas). Examples of high concentration areas for birds are wetlands, State or Federal refuges, Audubon Important Bird Areas, private duck clubs, rookeries, roosts, and riparian areas.

6. Develop a habitat restoration plan for the proposed site that avoids or minimizes negative impacts on vulnerable wildlife. Use only plant species that are native to the local area for revegetation of the project area.

7. Work with FWS to include protective measures for migratory birds into the Vegetation Management Program for each State.

Response: NPS included many mitigation measures in appendix F of the DEIS, including time of year restrictions, further surveys, and an NPS-approved vegetation maintenance plan that would enhance habitat in the parks. We will add any applicable mitigation measure to appendix G in the FEIS based on public comments.

PI1100 - Public Involvement Process

Concern ID: 37771

CONCERN STATEMENT: Commenters expressed dissatisfaction with the EIS's public comment process for a variety of reasons, including a limited number of meeting locations and times, difficulty with ease of use of the public comment website and requested more time to review the EIS.

Representative Quote(s):

Corr. ID: 1485 **Organization:** *Not Specified*

Comment ID: 256144 **Organization Type:** Unaffiliated Individual

Representative Quote: Final note these public meetings are during hours that many individual citizens cannot attend do to working hours, distances so forth.

Corr. ID: 1843 **Organization:** Legalectric

Comment ID: 257011 **Organization Type:** Unaffiliated Individual

Representative Quote: p.s. it's hard to get to this comment page from the S-R project page. I couldn't find a link, and looked and looked, and finally found a direct link on the Stop the Lines page.

Corr. ID: 1859 **Organization:** Friends of the Earth

Comment ID: 258665 **Organization Type:** Unaffiliated Individual

Representative Quote: The Park Service has scheduled public hearings on this draft EIS only in the immediate locale of the Delaware Water Gap NRA, despite the fact that huge numbers of users of this area reside in the Philadelphia and New York City metropolitan areas. Clearly, there should be an opportunity for the users in these major urban areas to present their views.

Corr. ID: 2274 **Organization:** *Not Specified*

Comment ID: 258397 **Organization Type:** Unaffiliated Individual

Representative Quote: Please give us at least a three month extension for review and comment. Don't forget, we need to also read, comprehend on the hundred or so folks that took the time and patience to go to these meetings, prepare for them and give their reports.

Response:

NPS followed the National Park Service Director's Order 12, which identifies standard NPS public involvement procedures. The public involvement process provided several ways to provide comments through public meetings, the National Park Service Planning, Environment and Public Comment website site, and mailings. We scheduled public meetings near the largest populations of people who may be most affected by the project and the most affected areas of the parks. Please see the Consultation and Coordination section of chapter 5 on pages 717-720 for a description of the public involvement process and the various methods we used to involve interested and affected public in the environmental analysis process.

PN2000 - Purpose And Need: Park Purpose And Significance

Concern ID: 37290

CONCERN STATEMENT: Commenters expressed their beliefs that the purpose of national parks are to protect resources and the construction of transmission lines through the parks would oppose this objective.

Representative Quote(s):

Corr. ID: 1260 **Organization:** *Not Specified*

Comment ID: 255593 **Organization Type:** Unaffiliated Individual

Representative Quote: I am very much opposed to the proposed Susquehanna to Roseland 500-kV project. As a frequent user of the National Park Area of the Del Water Gap, it would be criminal in my opinion to make such an egregious violation of the purpose of the national park.

Corr. ID: 1599 **Organization:** *Not Specified*

Comment ID: 256381 **Organization Type:** Unaffiliated Individual

Representative Quote: I can not help but think how easy the decision is NOT to alter the untouched state of our National Parks.

The purpose of having a National Park Service is to PROTECT these areas in as much of their natural and original state--ecosystems, indigenous species, plants and trees, waterways and wetlands--as possible so that even though the population continues to grow and grow, there is a place to go for solace, reflection, open air, environmental education, to get away from the rigors of everyday life.

Response:

The NPS understands the concern with the impact on park purposes. NPS Management Policies 2006, Section 1.4.3 states, "NPS managers must always seek ways to avoid, or to minimize to the greatest extent practicable, adverse impacts on park resources and values." This means that NPS managers must take reasonable, affirmative steps toward avoiding or minimizing adverse impacts, but it does not constrain the NPS's discretion to allow impacts when necessary. Analysis of the impact of the proposal on the NPS' ability to protect park resources will be the subject of the impairment analysis mandated by NPS policy to be released with the ROD.

Concern ID: 37387

CONCERN STATEMENT: A commenter believes that the EIS should describe the legislation responsible for creating DEWA. The commenter states that the law provides guidance for management of the park.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259343 **Organization Type:** Business

Representative Quote: The Applicants believe that the public's understanding of the decision currently before the NPS would be particularly enhanced if the DEIS were amended to describe more fully the circumstances surrounding authorization of DEWA, The Applicants recognize that public values and NPS priorities have evolved since DEWA was authorized by Congress as a NPS administered recreation area in 1965. But the law that authorized DEWA is unchanged. The relationship between the NPS and the Applicants, as owners and managers of adjacent property interests, is largely a product of the law that created DEWA. That legacy is directly relevant to today's decision.

The general philosophy guiding park and other public land management decisions has evolved with the times. But the law that established the recreation area still sets the rules for NPS management. The law is a product of decisions made by Congress in 1965. Congress gave the NPS responsibility for management of a landscape that was characterized by the Interior Department as having "natural endowments that are well above the ordinary in quality and recreation appeal, being of lesser significance than the unique scenic and historic elements of the National Park System, but affording a quality of recreation experience which transcends that normally associated with areas provided by State and local govemments.48 Congress was assured that management of the area would be appropriate for the area: "The National Parks themselves, the true national parks, are administered according to a very high set of standards. We have a different set of standards for National Seashores and National Recreation Areas." 49

Response: DEWA was designated a national recreation area in 1965. While this law still provides guidance on management of the park, under the Redwood Act of 1978, all units of the national park system are of equal importance, no matter the designation. The applicant holds an easement through this land. We have conducted deed research, defining the applicant’s property rights, information about which will be included in chapter 1 of the FEIS.

PN3000 - Purpose And Need: Scope Of The Analysis

Concern ID: 37296

CONCERN STATEMENT: Commenters are concerned that the cumulative impacts of the S-R Line project have not been adequately analyzed for areas outside the parks, including water resources in the New Jersey Highlands.

Representative Quote(s):

Corr. ID: 1887 **Organization:** New Jersey Highlands Coalition

Comment ID: 257681 **Organization Type:** Non-Governmental

Representative Quote: Although the physiographic and legislative boundaries of the NJ Highlands are outside of the three National Park Service (NPS) components

that the Susquehanna to Roseland Transmission Line Project (S-R Project) would impact, they are hydrologically connected through overlapping basins within the Upper and Middle Delaware Watersheds. The alternative routes proposed in the NPS draft Environmental Impact Statement (DEIS) each more or less widen these overlaps. However, the incremental impacts of the S-R Project , when considered in combination with other linear utility projects that are currently underway or proposed, and with those that can be reasonably foreseen (and with even more certainty if the S-R Project is approved), impair the ecological functions of the Highlands watersheds to the extent that a 500 billion gallon/year water supply is permanently jeopardized.

The S-R Project is one of several linear utility projects under federal jurisdiction, whose cumulative effects upon a hugely valuable resource-the New Jersey Highlands-are significant and potentially devastating. There are three recently constructed or proposed natural gas pipeline projects: The completed Tennessee Gas Pipeline (TGP) 300-Line Project (FERC docket CP09-444); the proposed TGP Northeast Upgrade Project (FERC docket CP11-161) and Transco's proposed Northeast Supply Link Project (FERC docket CP12-30-000). All three pipeline projects are specifically for the purpose of transporting natural gas drilled from the Marcellus Shale formation in Pennsylvania to eastern distribution hubs. All four utility projects, which include the S-R Project, are routed through the core forests of the Highlands. Each project, viewed alone, has measurable impacts that impair the ecological functions of the Highlands forested watersheds, ultimately impacting the water supply to major population areas in New Jersey. The cumulative effect on this water supply, which is potentially huge, has not been assessed. In addition, if the drilling interests succeed in overcoming the regulatory constraints that reflect today's caution about hydro-fracturing of Marcellus Shale-derived gas and gas can be extracted at full potential, a need for additional pipeline routes through the Highlands is foreseeable. Recent comments at gas industry forums and trade publications discuss the need for pipeline infrastructure to transport gas derived from the Marcellus Shale region.(4)

Corr. ID: 1994 **Organization:** New Jersey Highlands Coaltion

Comment ID: 258722 **Organization Type:** Unaffiliated Individual

Representative Quote: I request that you reconsider how the EIS assesses cumulative impacts of the Susquehanna to Roseland Transmission Project. NEPA policy requires that an EIS assess, "the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency undertakes such other actions."

According to NEPA, the range of actions that must be assessed must include not only the project proposal, but all connected and similar actions that could contribute to cumulative effects on a specific resource.

Response: The scope of the cumulative impacts is done appropriately, and varies between the resources. The scope of cumulative analysis can be found under each resource. For a general methodology of the cumulative impacts analysis, please see page 342 of the DEIS. The New Jersey Highlands is outside our scope of analysis. NPS analyzed water resources and dismissed it as an impact topic on page 23 of the DEIS.

Concern ID: 37325

CONCERN STATEMENT: Commenters would like to see several topics analyzed in the EIS that were not present in the draft version, namely energy policies and impacts from coal burning

plants.

Representative Quote(s):

Corr. ID: 1762 **Organization:** *Not Specified*

Comment ID: 258608 **Organization Type:** Unaffiliated Individual

Representative Quote: The last thing I would like to add with respect to scope and environmental review, I think it narrowly construed the energy policy impacts as an energy project, an energy infrastructure project, and as such the energy policies need to be evaluated and I agree with both the Pennsylvania Sierra Club and New Jersey Sierra Club and others who have criticized the energy justification for this project with respect to need in the region.

Corr. ID: 1936 **Organization:** Longwood Lake Cabin Owners Association

Comment ID: 258698 **Organization Type:** Non-Governmental

Representative Quote: We believe that the Draft EIS inappropriately confines its scope of analysis to the direct impacts of the proposed transmission lines project itself, instead of analyzing this project in its full context. The justification for this project is to bring additional energy from Pennsylvania into eastern New Jersey and beyond. Energy production in Pennsylvania is overwhelmingly fueled by coal. Even "clean" coal combustion is far dirtier than any other fossil fuel combustion. The effects of coal combustion travel far from its source. A report issued recently by the Biodiversity Research Institute, "Hidden Risk, Mercury in Terrestrial Ecosystems of the Northeast," focuses on just one of the threats to our area from coal, mercury. Prevailing winds bring coal pollution directly into the NPS property at issue here, and into our property as well. The environmental impact of the proposed project cannot be accurately assessed without including the impact of increased coal combustion in areas directly west of the subject NPS property. We urge NPS to withdraw the Draft EIS, and reissue it after taking account of the increased coal combustion that this project would cause.

Corr. ID: 2019 **Organization:** Association of New Jersey Environmental Commissions

Comment ID: 258743 **Organization Type:** Unaffiliated Individual

Representative Quote: I can understand exactly what you did in keeping your analysis to the land area under federal jurisdiction, but we certainly believe that the nature of this particular impact is such that you need to look at greenhouse gas emissions. You need to look at the whole impact of the line rather than just the impact in the Park.

Response:

NPS did not violate NEPA by dismissing resources topics. CEQ's regulations implementing NEPA (40 CFR 1502.15) direct federal agencies to "succinctly describe the environment of the area(s) to be affected". The regulations further state that agencies "shall avoid useless bulk in statements and shall concentrate effort and attention on important issues". The basis for dismissal remains the same (see pages 21-25). We dismissed these resources topics because the impacts were no greater than minimal and comparatively similar for all action alternatives and would not drive the assessment of the alternatives.

Concern ID:

37353

CONCERN STATEMENT:

Commenters believe that the analysis of the resources should not end at the boundaries of the park, but should extend to include connecting lands and other parks, protected areas, and open spaces, including cultural sites, Lackawanna Heritage Valley, Moosic Mountain Pine Barrens, Steamtown National Historic Site,

and Lehigh Valley.

Representative Quote(s):

Corr. ID: 2391 **Organization:** Sierra Club, Northeastern Group, Pennsylvania Chapter

Comment ID: 259030 **Organization Type:** Non-Governmental

Representative Quote: As you know, Steamtown is a bona fide national park. Steamtown and the Delaware Water Gap National Recreational Area (DWGNRA) have equal status within the national park system. The selection of Alternatives 2 or 2b, and possibly other alternatives, would result in adverse effects to the Viewsheds of both the Steamtown and the DWGNRA national parks and have significant negative effects on visitor and resident experience. An evaluation of these adverse effects, whether direct, indirect or cumulative effects, is necessary to satisfy requirements under NEPA. Under the Alternative 2 and 2b schemes, and possibly other alternatives, in this area and in other areas, the Project is a connected action, an action that would literally be connected by actual, physical lines. NEPA does not support the notion that NPS needs to evaluate effects only in what otherwise is its own area of specific responsibility or only in areas where NPS permits are required. In this instance and in other instances, NPS has a responsibility to evaluate effects and to compare them with and choose from among other alternatives.

Under NEPA, NPS cannot credibly dispute that the Project is a connected action vis-à-vis Alternatives 2 and 2b, and possibly other alternatives, neither can it credibly dispute that Steamtown and LHVA share significant and vast areas in the larger viewshed within Lackawanna County. in fact, the October 14, 2010 -- NPS Reply to the September 14, 2010 comment letter from Natalie Gelb Solfanelli, Executive Director, Lackawanna Heritage Valley Authority from NPS Superintendents Donahue and Underhill clearly indicates NPS understanding that indeed the LHVA region appears to be within the Scope of the Project, and it is evident given the workload NPS assigned to LHVA

In contrast however, as explained above, although the Federal action in this instance may be dependent on permits in certain park units, it is yet a connected action under NEPA, and NPS is required to study the LHVA area, much as it began to do when it wrote its October 14, 2010 letter to LHVA requesting detailed information.

Corr. ID: 2391 **Organization:** Sierra Club, Northeastern Group, Pennsylvania Chapter

Comment ID: 259152 **Organization Type:** Non-Governmental

Representative Quote: Based on strong community interest and support, and including $500,000 of funding from the U.S. Department of Transportation, the Nature Conservancy purchased 2,250 acres in the Moosic Mountain Barrens as part of plan that already includes over 5,000 acres of protected land. The Nature Conservancy has plans to expand its holdings. Moreover, the Moosic Mountain Barrens is home to three rare plant communities and a Heath Barrens plant community that is described as the largest in North America and the only one in Pennsylvania. It is home to over twelve animal species categorized by the state as S1 or S2, categorized as most rare. Primarily, these include Lepidoptera species (moths and butterflies). The ecosystem also includes many other special flora and fauna.

Recent estimates place the Barrens as greater than 10,000 acres in size and naturally arranged as a complex, unified ecosystem. Fragmentation is the greatest threat to the Barrens. It is estimated that as many as five acres may be lost for each acre that

is developed due to invasive species and other factors. Estimates based on mapping and language from the Project plan on the PP&L website indicate this is the only PP&L quadrant where it would need to buy significant new right of way. Several miles of Barrens property would be needed in the lower reaches of Moosic Mountain where as many as fifty acres of Barrens may be directly impacted and as many as 250 acres impacted adversely due to fragmentation. That would be in addition to the widening of the Project along the existing power line pathway as it crosses a central area of the Barrens where a widened pathway would further weaken one of the most fragile places in the Barrens that has been weakened by previous fragmentation. It is believed by most familiar and knowledgeable with Barrens ecology that the Project would effectively divide the currently unified Barrens into two separate ecosystems.

Corr. ID: 2391 **Organization:** Sierra Club, Northeastern Group, Pennsylvania Chapter

Comment ID: 259032 **Organization Type:** Non-Governmental

Representative Quote: In the same December 2, 2010 NPS Reply letter to Elena Saxonhouse, NPS characterizes LHVA as a municipal authority without explanation, seeming to suggest this was part of the reason for eliminating a detailed evaluation the LHVA region. Under NEPA, federal, non-federal government and private entities are subject to NEPA review when connected actions impact their areas. In this instance, LHVA is neither an applicant for the Project, nor as a municipal authority is it subject to the Clean Water Act which devolves NEPA obligations to the States as in the case of municipal authorities such as local wastewater treatment plants. Rather, the LHVA region contains natural and recreational resource areas wherein the Secretary of the Interior has specific responsibilities for giving priority to actions that conserve the historical and natural resource values of its region. By including the LHVA region as part of the NPS EIS detailed evaluation of the Project the Secretary would qualify as meeting his obligation to give priority to actions that would to the extent available under NEPA conserve the natural resource values of the LHVA region. The Moosic Mountain Barrens (Barrens). The LHVH MAP was based in part on the Lackawanna and Luzerne Counties Open Space, Greenways & Outdoor Recreation Master Plan (Open Space Plan). NE Sierra Club incorporates by reference the Open Space Plan, available at www.lackawannacounty.org, and the LHVA MAP available at www.lhva.org.

The Bi-County Open Space Plan identified the Moosic Mountain Barrens as: "a top priority NAI [Natural Areas Inventory] area representing one of the most unique areas in the state...with protection efforts underway." The Moosic Mountain Barrens and the surrounding Moosic Mountain Highlands are listed as "short term priorities" with "Preferred Management Entities" including: "Public/Private Partnership; NPS; USF&W; U.S. Dept of the Interior; PA Game Commission; DCNR; PennDot; LHVA; and the County of Lackawanna."

Response: NPS recognizes that there would be direct effects to parcels outside the park; however, analyzing impacts outside of the parks is not in the scope of this EIS.

Concern ID: 37388

CONCERN STATEMENT: A commenter believes the reasoning used to develop the scope of analysis for each resource should be made clear.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259344 **Organization Type:** Business

Representative Quote: Objectives (pp ii-iv): This section should be revised to disclose the geographic scope of consideration given to each objective, the reason for that choice of scope, and the relevance of the evaluation to the choice facing the decision-maker. It should be made clear whether the consideration of objectives is intended to mimic the geographic scope of the siting evaluations performed by the utility regulatory authorities in Pennsylvania and New Jersey, or if the scope is tied to resources and places under the NPS's jurisdiction.

Response: Our objectives in taking action are described for each resource in chapter 1 of the DEIS on pages 14-16. The geographic study area for each resource is defined in chapter 4.

PN4000 - Purpose And Need: Park Legislation/Authority

Concern ID: 37338

CONCERN STATEMENT: A commenter is concerned that the NPS did not follow DO-12 guidance in its decision to not include a preferred alternative in the DEIS.

Representative Quote(s): **Corr. ID:** 1737 **Organization:** PEER

Comment ID: 257330 **Organization Type:** Non-Governmental

Representative Quote: THE DEIS CLAIMS THAT THE NPS HAS NO PREFFFERED ALTERNATIVE

The DEIS contains no alternative that the NPS designates as the agency preferred alternative. This violates NPS own Reference Manual-12 (RM-12).

You may identify the preferred alternative in an explanatory cover letter to the draft EIS or in the text of the EIS. All final EISs must identify the preferred alternative. Therefore, if no preferred alternative exists at the time the draft EIS is released, you must identify it in the final EIS. For all externally initiated (i.e., non-NPS) proposals, you must identify the NPS preferred alternative in the draft (and final) EIS (516 DM, 4.10 (2))." Emphasis added.

PPL and PSE&G initiated the proposal to issue a right-of-way for a new power line. It is indisputably an "externally initiated proposal." The DEIS completely ignores the last sentence of page 51, RM-12 and fails to identify the NPS preferred alternative. Further, the DEIS gives no explanation why the NPS chose to ignore its own guidance.

Response: The NPS implements NEPA through the Department of the Interior (DOI) NEPA regulations (43 CFR Part 46, 2008) and NPS Director's Order #12 and accompanying DO-12 Handbook (2001). The requirement to identify a NPS preferred alternative in a DEIS for externally-initiated proposals cites back to a requirement from the DOI's Departmental Manual (DM) that formerly contained DOI guidance for implementing NEPA. In 2008, all NEPA guidance from the DM was converted to NEPA regulations at 43 CFR Part 46, superceding the previous NEPA guidance contained in the DM. The requirement to identify a bureau-preferred alternative in a DEIS was not carried forward into the 2008 NEPA regulations; therefore, the requirement no longer exists. The DO-12 Handbook pre-dates the Department's conversion of DM guidance to NEPA regulations and has not yet been updated to reflect this change. The fact that the outdated requirement

still appears in the 2001 DO-12 Handbook does not create an independent requirement because the Handbook is third-tier guidance and does not create NPS NEPA policy or requirements that cannot be cited to a higher underlying law or policy, such as a NPS Management Policies 2006, a NPS Director's Order, or the DOI NEPA regulations.

Concern ID: 37389

CONCERN STATEMENT: A commenter indicated that the current powerline and ROW pre-date the park, and rights given from this easement allow for construction within the ROW, and for access rights. The commenter disagrees with the terminology "controversial assumption" used in the EIS in regard to the practice of removing danger trees.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259323 **Organization Type:** Business

Representative Quote: The Applicants (or their predecessors in interest) acquired the various easements for the S-R Line in the late 1920's and constructed the S-R Line shortly thereafter. The language in these easements is very broad and gives the Applicants the right to construct or install transmission lines and include access rights for the purpose of exercising the rights to construct transmission lines.

The Applicants' pre-existing rights related to the corridor are substantial legal rights, and include the right to replace the towers, foundations and conductors, clear vegetation threatening the lines or towers or roads, and otherwise take reasonable actions needed to keep the line in service (including the right to build, use and maintain access roads) and in compliance with all legal and regulatory requirements that apply to electric transmission service. The typical language in each of these ROWs is: "The right to construct, operate, and maintain, and from time to time, to reconstruct its electric lines, including such poles, towers, wires, fixtures and apparatus, as may be from time to time necessary for the convenient transaction of the [Companies]."

The DEIS states that Alternative 2b is based upon the "controversial assumption" that the Applicants have the right to clear danger trees outside of the deeded ROW (p. vi 55). The area of concern to the NPS is the 100 foot ROW held by PPL. The DEIS should be revised to eliminate the assertion that danger tree removal is controversial as PPL has the right to remove danger trees consistent with the Stipulation and Order of Settlement referenced in I.J. See also Greg Smith letter to NPS dated December 7,2010 and located in Appendix D to the DEIS.

Response: While NPS agrees that removal of danger trees is typically a part of vegetation maintenance for utility ROWs, it is not an open-door policy that would allow the applicant to widen the ROW. A portion of the existing ROW in Pennsylvania is 100-feet wide. We consulted with transmission line engineers for this project who determined that the minimum horizontal clearance to the edge of the ROW under high wind conditions to prevent conductor blowout was determined to be greater than 100 feet. NPS does not agree that the applicant has unlimited rights to remove danger trees outside the ROW.

PN8000 - Purpose And Need: Objectives In Taking Action

Concern ID: 37298

CONCERN STATEMENT: A commenter requested that the EIS reexamine the need for the transmission line given factors such as a decreased need for power and diminishing reliability concerns, given that other transmission line projects have been halted for these same reasons.

Representative Quote(s): **Corr. ID:** 2394 **Organization:** Earthjustice

Comment ID: 259044 **Organization Type:** Non-Governmental

Representative Quote: As NEPA requires, the Park Service has given detailed consideration to the impacts on the Parks of maintaining the status quo or the "no action" alternative. However, the DEIS provides no meaningful analysis to inform the ultimate question whether selection of the environmentally preferred no-action alternative is a viable proposition.

PJM has acknowledged that any reliability issues will be adequately addressed without the line until at least 2015.

Now, the Park Service should request that PJM address the question whether there is still a need for the line after 2015 in light of: (1) declining electricity demand; (2) diminishing reliability concerns; (3) increasing availability of demand response resources; (4) completed transmission upgrades; and (5) development of new generation that is currently in the transmission queue.

In short, the lower projections in the 2011 Load Forecast Report have led PJM to suspend construction of several west-to-east transmission projects that have been part of the RTEP process since 2007. This downward trend in load demand, which has helped to eliminate the need for the PATH and MAPP projects, has only become more pronounced since 2011.

The current forecast for 2012 peak demand is below the 2007 forecast for 2007. In 2007, there was no concern that a major new transmission line was needed to deliver electricity reliably to New Jersey. Moreover, the decrease in the forecast between 2010 and 2012 is likely greater than the incremental increase in transfer capability that the line would provide'making previous analysis regarding the need for the line irrelevant.

Before taking any action that would adversely impact the Parks, the Park Service should request that PJM update its analysis using a 2015 base case that reflects current demand projections.

Increased availability of demand response resources is another key factor that should help to eliminate any need for the S-R Line (by further reducing the need to deliver electricity to load centers).

Since the S-R Line was first planned, many transmission projects have been completed and new generation facilities have been planned or built. These changes underscore the need for new analysis of need using a new base case that reflects the grid as it is now and how it is expected to be in 2015 when the S-R Line is purportedly needed.

Response: NPS's purpose and need differs from the applicant's purpose and need. As stated in chapter 1 of the DEIS, the applicant's stated need is to upgrade the existing B-K Line. This federal action (the EIS) is needed because the applicant submitted an application to expand the size of the current ROW, to access the ROW through existing natural and cultural areas, to construct new and taller support towers, and to remove and replace the existing 230-kV B-K Line with an additional double 500-

kV power line in accordance with applicable regulations. Our purpose is to respond to this proposal in light of the purposes and resources of the affected units of the national park system, as expressed in statutes, regulations, and policies. We have tried to contact PJM Interconnection to verify the stated need for the project, but we have not gotten a response.

Concern ID: 37390

CONCERN STATEMENT: The objectives in taking action for the proposed line must include feasible alternatives. Alternatives 3, 4, and 5 are not feasible options to meet a reasonable timeframe for the need of the project.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259321 **Organization Type:** Business

Representative Quote: The NPS Director's Order #12 requires that alternatives considered in a NEPA review must be technologically feasible and make common sense. Alternatives 3, 4 and 5 pass the first part of the test in the very literal sense that towers could be built and wires could be strung, but do not pass the critical second part of the test involving common sense. The additional timeframe necessary to receive the amended approvals, design the line, conduct required environmental studies and secure the appropriate ROWs, permits and approvals for Alternatives 3,4 or 5 would double or triple the timeframe by which the Project could be reasonably expected to be completed. This result would leave the region increasingly vulnerable to electrical reliability risks which could lead to higher prices for the consumer, operational restrictions and possible implementation of curtailment plans and such a result would fail to serve the basic Project purpose and need.

Need for Action (p. i): This section should be amended to disclose the deadlines set by PJM for action by the Applicants to improve transmission capacity in the area and the financial burden currently borne by New Jersey electricity customers because of the lack of transmission capacity in the area. The second paragraph of this section should be amended to disclose with more precision the amount of acreage (4.6 acres) requested by the Applicants for additional right-of-way.

Response: NPS's purpose and need differs from the applicant's purpose and need. The alternatives presented are reasonable from the perspective of the NPS. PJM Interconnection and the applicant have stated that the alternatives are feasible. The timeframe of the project is tied into the grid process and does not account for the NEPA process. Industry standards for reaching a ROD are 3 to 5 years, with many extending well beyond this time period.

Concern ID: 37391

CONCERN STATEMENT: Commenters believe information in the EIS regarding the amount of widening needed for alternative 2 is misleading and that the disagreement on this issue between the NPS and the applicant should be disclosed. The commenters also noted that the need for the project and background of the project should be amended to reflect the deadlines proposed for action by PJM.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259345 **Organization Type:** Business

Representative Quote: Susquehanna to Roseland Transmission Line Location and Background (pp. 4-5): This section references the Applicants' request for additional

right-of-way. The discussion should be revised to disclose the dimensions of the existing transmission corridor where it crosses NPS lands and the amount of additional right-of-way requested by the Applicants. The text could leave the reader with the impression that the Applicants' are seeking to widen the entire corridor through NPS lands, while in fact Alternative 2 seeks only an approximate 4% increase in the ROW crossing the NPS Units and Alternative 2b seeks no additional right-of-way. The Applicants are seeking additional ROW equal to less than .007% of the area of DEWA.

This section offers a description of the physical features of the existing and proposed line. As presented, the description is incomplete. The text of this section should be amended to disclose the ownership and other beneficial interests held by the Applicants in the existing ROW where it crosses NPS lands. The companies and the NPS are neighboring property owners; each with rights to manage their own ownership interests, subject to certain reciprocal rights against interference or harm.

The decision-maker and reader would benefit in their understanding of the relationship of the current corridor and line to the NPS if the DEIS were amended to disclose that a dispute between PPL and the NPS over the rights of the company to maintain the ROW was resolved when the United States agreed that the company's property interests in the ROW were such that the NPS would "not require [PPL], pursuant to its existing easement rights, to apply for and obtain a special use or other form of permit or approval or authorization from the [NPS] as a condition to accessing its easements located in [DEWA] for conducting vegetation management work .... "

The final two sentences of the second paragraph of this section are inaccurate and misleading and should be revised. There is no formal or informal regulatory status applicable to the current or proposed line that is anything like what is suggested by the text in this paragraph. The existing line crossing NPS lands is "critical" to the grid, and the existing corridor is critical to the line. The proposed S-R Line would be "critical" to the grid, too. The new line would not transform the "critical" nature of the corridor or the line.

Response:

Our purpose and need differs from the applicant’s purpose and need. The description of alternative 2 will change in the FEIS due to some modifications that have been suggested by the applicant during the comment period. The access road that cuts through Arnott Fen will be replaced with the access road presented for alternative 2b, which travels south of the fen, thus reducing impacts.
Deadlines have changed during this project. PJM’s 2007 RTEP report identified June 1, 2012 as the required in-service date; however, PJM’s RTEP in Review (2011) states an in-service date of June 1, 2015 due to regulatory delays.

PO4000 - Park Operations: Impact Of Proposal And Alternatives

Concern ID: 37310

CONCERN STATEMENT: Commenters believe the proposed transmission line would add additional work to park employees, who are overextended with current work.

Representative Quote(s):

Corr. ID: 1355 **Organization:** *Not Specified*

Comment ID: 255865 **Organization Type:** Unaffiliated Individual

Representative Quote: There is an additional consideration I do not remember seeing completely addressed in the DEIS. The park budget has been insufficient for the last few years to properly maintain the roads, historic buildings, streams and woodlands. Adding additional obligations for park employees to insure there is minimal damage from new construction and that proper mitigation is achieved will divert them from performing their current work.

Corr. ID: 1578 **Organization:** Appalachian Mountain Club

Comment ID: 257384 **Organization Type:** Non-Governmental

Representative Quote: The project would likely affect law enforcement and resource management by creating additional tasks for monitoring construction-related activities, diverting time and resources from other park responsibilities

Response: NPS understands that there will be impacts to park employees from the implementation of the proposed project. These impacts are discussed in the DEIS on pages 649-656.

Concern ID: 37392

CONCERN STATEMENT: One commenter indicated that if NPS denies the proposed permit for the construction of the proposed transmission line along the already existing powerline along alternative 2, it would constitute a taking, as the applicants own the line, which may raise concerns for park budget.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259324 **Organization Type:** Business

Representative Quote: Additionally, a portion of the existing transmission line is located on land within DEWA owned in fee simple by PPL. The existence of fee title ownership of a portion of the existing line is further evidence of the strong property rights owned by the Applicants. If the NPS chooses any Alternative other than 2 or 2b then it would likely constitute a taking and the NPS should consider the costs associated with such a taking as it analyzes the operational impacts of Alternatives 3, 4 and 5 not allowing the use of Alternative 2 or 2b.

Response: Alternatives 3, 4, and 5 are based on the applicant voluntarily surrendering their existing easement to the NPS and in return, the NPS would grant a new easement in the new location. Under these conditions, there would be no taking and no associated operational costs.

RU4000 - Rare and Unique Communities: Impact of Proposal and Alternatives

Concern ID: 37785

CONCERN STATEMENT: There will be impacts from blasting to the hydrology of two rare and unique communities, the Arnott Fen and Hogback Ridge. These impacts should be further discussed in the EIS.

Representative Quote(s): **Corr. ID:** 2397 **Organization:** USEPA - Region 2

Comment ID: 259445 **Organization Type:** Federal Government

Representative Quote: EPA also notes that Arnott Fen, within the ROW for Alternatives 2 and 2b, is considered a rare and unique wetland community, due in part to the underlying limestone bedrock. The hydrology of the Arnott Fen influences the array of species living in this rare community and includes numerous special-status wetland plant species that are not found anywhere else in the study area. In addition, Hogback Ridge also contains woodlands and a wetland considered a rare and unique community as it supports endangered species habitat and wetland plant species that are not found anywhere else in the study area, and is based on limestone bedrock. As stated above, any blasting may impact the hydrology and reduce the values of these exceptional wetlands, and should be discussed fully in the Final EIS.

Response: For the installation of the tower foundations, NPS has decided to limit the applicant to drilling. We will remove all references to blasting and the impacts that would occur from blasting from the FEIS. We would require any alternative design options, structure types, and construction methods proposed by the applicant to meet all restrictions detailed in the EIS. These restrictions are put in place to avoid and minimize impacts to park resources.

RU5000 - Rare and Unique Communities: Cumulative Impacts

Concern ID: 37312

CONCERN STATEMENT: One commenter expressed concern about permanent and irreversible damage to rare and unique communities.

Representative Quote(s): **Corr. ID:** 1696 **Organization:** New Jersey Highlands Coalition

Comment ID: 257241 **Organization Type:** Unaffiliated Individual

Representative Quote: In the present Susquehanna-Roseland Line construction project, number one item in my mind is the irreversible impact such a large endeavor will have on the extremely sensitive natural areas it traverses that will not be of a temporary "nature" but long lasting and far reaching into the future. Thus the NO BUILD alternative 1 gets my vote.

Response: NPS agrees that rare and unique communities both inside and outside of the study area would be impacted by the proposed project. The impacts outside the study area would be similar to those identified inside the study area, as stated on page 484 of the DEIS. Appendix C of the DEIS identifies the rare and unique communities that could be affected by the project outside the study area.

SE4000 - Socioeconomics: Impact Of Proposal And Alternatives

Concern ID: 37322

CONCERN STATEMENT: While some commenters described the benefits of construction jobs associated with building the transmission line, other commenters expressed concern that these jobs are temporary and that existing jobs in tourism and associated industries would be impacted.

Representative Quote(s): **Corr. ID:** 1815 **Organization:** *Not Specified*

Comment ID: 257376 **Organization Type:** Unaffiliated Individual

Representative Quote: This will most likely result in a loss of income, not just for the park but for the surrounding area.

Last, we heard from the electrical workers unions that they need work and want the power lines to be built so they can get to work. They are having economic woes, but so will others in surrounding areas if the power lines drastically reduce their property values because the lines run through the town or worse, right next to their schools. Any constuction work will be short-lived and unsustainable employment. Rumor has it that workers will be brought in from out of state, so the local unions may not get jobs anyway!

Corr. ID: 1969 **Organization:** *Not Specified*

Comment ID: 257808 **Organization Type:** Unaffiliated Individual

Representative Quote: The expansion of reliable service will strengthen our regional economy and provide the region with a competitive advantage in attracting new industry. More than 20,000 residents of Monroe County and a significant proportion of the working population in Pike County, as well as the Lehigh Valley, travel to New Jersey or New York for work. We do not see this trend abating in the near term, even as we work to grow new jobs in the State of Pennsylvania, but a strong vibrant economy to our east helps sustain our well-being and creates opportunities for our people and businesses.

The economic viability of our region will be enhanced not only by ncreasing efficiency in transmission of power provided by the proposed Roseland line but also via the mitigation strategy that will help the Poconos remain the No. 1 positively rated vacation destination in the Commonwealth of Pennsylvania.

Corr. ID: 1983 **Organization:** *Not Specified*

Comment ID: 257883 **Organization Type:** Unaffiliated Individual

Representative Quote: The one thing I wanted to make sure that the park had and was able to review was the Longwood International 2010 Pocono Mountains Visitation Report that was submitted to the Pocono Mountain Vacation Bureau.

22.6 million people come to the Pocono Mountains every year and spend $1.2 billion in vacation dollars; and of the majority of those people come to the Poconos because of the natural and scenic beauty. That's twice as many, 11 percent of those visitors, that's twice as many that seek out natural beauty nationwide. So we have a real magnet here and so by putting the tall towers there you're taking away one of the key reasons that people come to the National Park Recreation Area.

Corr. ID: 2002 **Organization:** IBEW Local 102

Comment ID: 257970 **Organization Type:** Business

Representative Quote: We are here tonight in support of this project because it creates jobs that our members so desperately need. A recent study put out by Rutgers
states this project will create 2,600 direct and indirect jobs lasting at least a year. And these are not minimum wage jobs, but these are jobs that will
pay a living wage and medical benefits. All we ask is that you consider your friends and neighbors that work in the construction industry when discussing this project, and realize the number of families
whose lives you can change by creating these jobs.

Corr. ID: 2008 **Organization:** *Not Specified*

Comment ID: 258734 **Organization Type:** Unaffiliated Individual

Representative Quote: I think that we have heard some rationale to support it, and perhaps the most persuasive, if you will, are the jobs that would be created, given the economy. Again, while I empathize with that, 2,600 jobs over the course of one year I think needs to be balanced against the jobs there already with the people who are the outfitters, the restauranteurs, the small businesses whose business may very well be impacted by people who no longer feel that this is the pristine place they can come to escape.

Response: NPS agrees that construction of the line would result in some temporary jobs. We also agree that other jobs may be affected by the proposed changes. These and other potential impacts to socioeconomics are described in the DEIS, see pages 536 - 541.

Concern ID: 37323

CONCERN STATEMENT: One commenter is concerned that the new transmission line would negatively impact property values.

Representative Quote(s): **Corr. ID:** 1689 **Organization:** *Not Specified*

Comment ID: 257232 **Organization Type:** Unaffiliated Individual

Representative Quote: This project will have a devastating impact on the property values of properties that adjoin this power line, and other properties from which the new towers and lines will be visible. Although PSE&G has a right of way on my property I have to look for the lines and one tower in order to see them. They are under the tops of the trees and are not readily visible. The new towers and lines will loom over my property and will be an omnipresence. This diminution in property values will result in thousands of property tax appeals. This will create a higher tax burden on the other property owners in the affected towns. This financial impact will not be temporary. This will be a permanent effect.

Every town along this route will suffer irreparable financial harm-not just the adjoining property owners. The line may help certain labor unions for a year or two but their impact on the towns and residents will be permanent.

Response: NPS recognizes that the construction of the proposed transmission line could impact real estate values, as acknowledged in the DEIS, see pages 536 - 541; however, a more detailed analysis of impacts to property values on specific parcels would require valuation of many parcels at high cost, without yielding data that would meaningfully help guide a decision, as impacts on values are likely to be similar across all alternatives. By reference to 40 C.F.R. 1502.22 -this is information not essential to a reasoned choice among alternatives.

Concern ID: 37393

CONCERN STATEMENT: According to one commenter, residential displacements would occur only where residences have physically encroached in the ROW.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259352 **Organization Type:** Business

Representative Quote: The DEIS states there will be residential displacements in Lehman, Hardwick and Stillwater townships (p. 539). No residential displacements will occur except for the few instances where a residence has physically encroached on the ROW.

Response: NPS reviewed the analysis and agree that displacements would occur along the proposed ROW for all action alternatives.

SS4000 - Soundscapes: Impact of Proposal and Alternatives

Concern ID: 37321

CONCERN STATEMENT: A commenter believes the analysis should discuss seasonal variance in impacts to resources from noise during construction and maintenance activities.

Representative Quote(s):

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259068 **Organization Type:** Non-Governmental

Representative Quote: The EIS does not fully consider noise impacts that may vary seasonally. Under all of the analyzed alternatives, deconstruction/construction is likely to last as long as eight months, and continued maintenance will continue throughout the study period and beyond. For this reason, the EIS should consider the impacts of sound at different times of the year. Although the Parks may see more frequent visitors in during the summer months, sound from construction may be dampened by vegetation. However, in the winter, when most trees have lost their leaves, sounds may travel further or be more intense. Thus, the EIS should consider the impacts of sound relative to the time of year that deconstruction/construction or maintenance is occurring.

Response: Although there may be some seasonal variability in impacts from noise associated with construction and maintenance, this variability would be the same for all routes. Because all of the routes would experience the same seasonal variation, this information would not help guide a decision.

TE3000 - Threatened And Endangered Species: Study Area

Concern ID: 37784

CONCERN STATEMENT: Commenters cited the need for an analysis of impacts of the project on aquatic species along the proposed ROWs in areas that are outside of the study area defined in the EIS.

Representative Quote(s):

Corr. ID: 2399 **Organization:** New Jersey Department of Environmental Protection

Comment ID: 259483 **Organization Type:** State Government

Representative Quote: Freshwater Mussels, Page 105

- Crossings of the S-R line identified outside of Alternatives 2 and 2b have potential to impact listed freshwater mussels. Areas of concern include the Paulins Kill and Musconetcong River in the Delaware River Basin, and the South Branch Raritan and Lamington rivers in the Raritan River Basin. These waterways support populations of listed mussels, with the Paulins Kill providing habitat to the federally endangered dwarf wedgemussel (only one of four known New Jersey populations). Every effort should be made to avoid known listed and SC freshwater mussel occurrences in these waterways. Surveys will be needed at all potential stream crossings with suitable habitat present. Surveys should be coordinated with

the ENSP and the USFWS, and should encompass an area 100 meters upstream and 300 meters downstream of the crossing.

Response: The analysis does not include waters outside the study area. However, according to the applicant's proposal, sediment and erosion controls and other BMPs would be used during construction.

TE4000 - Threatened And Endangered Species: Impact Of Proposal And Alternatives

Concern ID: 37317

CONCERN STATEMENT: Commenters expressed concern about impacts to protected species from construction of the proposed transmission lines through degradation or destruction of habitat, spread of invasive species, increased edge effects, and disruption of avian migration, especially those birds that migrate at night.

Representative Quote(s):

Corr. ID: 1430 **Organization:** *Not Specified*

Comment ID: 256031 **Organization Type:** Unaffiliated Individual

Representative Quote: This northwest area of New Jersey is the last stronghold of several species of breeding neotropical warblers in the state. Many of these species, including Cerulean Warbler, Black-throated Blue Warbler, and Blackburnian Warbler,are declining at an unsustainable rate and have been recognized as species of special concern by the Cornell Laboratory of Ornithology.

The proposed power-line construction would negatively impact these species by destroying or degrading their breeding habitat. The proposed power-line would also negatively impact many other species of animal and plants.

Corr. ID: 2048 **Organization:** *Not Specified*

Comment ID: 257980 **Organization Type:** Unaffiliated Individual

Representative Quote: there will be irreversible impacts to endangered species and the Park visitors' experience will be ever damaged along with the forest and the scenic vistas that we currently enjoy.

Corr. ID: 2390 **Organization:** New Jersey Conservation Foundation

Comment ID: 259024 **Organization Type:** Non-Governmental

Representative Quote: The Draft EIS fails to determine if any species of concern are likely entirely to occur in the area of the proposed actions. It fails to identify the Rare species of migratory birds, including Special Concern, Threatened and Endangered species, that migrate along the Kittatinny Ridge through the DEWA at night. These are the specific species that would be most endangered by the significantly increased height of the transmission towers and the increased number of wires strung between them. These species have been identified by New Jersey Conservation Foundation Ecologist Dr. Emile DeVito, a member of the New Jersey Department of Environmental Protection's Endangered and Nongame Species Advisory Committee.

The State of New Jersey has designated Endangered, Threatened and Species of Special Concern, of which 33 are rare night migrant birds. Of the 33 rare night migrant species, about 24 breed in the DEWA. The species include:

- American Bittern
- Barn Owl
- Blackburnian Warbler
- Black-throated Blue Warbler
- Black-throated Green Warbler
- Blue-headed Vireo
- Bobolink
- Brown Thrasher
- Canada Warbler
- Cerulean Warbler
- Common Moorhen
- Common Nighthawk
- Eastern Meadowlark
- Golden-winged Warbler
- Grasshopper Sparrow
- Gray-cheeked Thrush
- Hooded Warbler
- Horned Lark
- King Rail
- Least Bittern
- Least Flycatcher
- Nashville Warbler
- Northern Parula
- Pied-billed Grebe
- Sora
- Spotted Sandpiper
- Veery
- Virginia Rail
- Whip-poor-will
- Winter Wren
- Wood Thrush
- Worm-eating Warbler
- Yellow-breasted Chat

(Source: NJ Endangered and Nongame Species Program: Special Concern ' Species Listing Oct. 2008)

Response: NPS has analyzed the impacts to special-status species and believe our analysis as a whole is adequate. The degradation of special-status species habitat was analyzed using best available data. The discussions of edge effects and nocturnal migration have been expanded in chapter 4 in the Vegetation and Landscape Connectivity, Wildlife Habitat, and Wildlife sections, respectively, in the FEIS. In addition, the special-status species have been identified in the species lists in appendix G.

Concern ID: 37318

CONCERN STATEMENT: A commenter noted that ROWs can provide beneficial habitat to protected scrub shrub species and this benefit should be considered in the EIS.

Representative Quote(s):

Corr. ID: 1976 **Organization:** New Jersey Audubon Society

Comment ID: 257835 **Organization Type:** Non-Governmental

Representative Quote: Many scrub-shrub bird species have experienced significant population decline and some have been identified as threatened and endangered or species of conservation concern. These right-of-ways, including in New Jersey Highlands, support breeding habitat to golden-winged warblers. So any type of mitigation strategies should consider the benefits of the right-of-ways.

Response: NPS agrees. The DEIS discusses beneficial impacts for birds, mammals, and invertebrates. A ROW maintained as scrub shrub habitat maintains nesting habitat as well as a migration or movement corridor for wildlife.

Concern ID: 37319

CONCERN STATEMENT: One commenter was concerned that bat species not currently listed should be because of White Nose Syndrome (WNS), and expressed the concern about the cumulative impacts of WNS and the transmission line project.

Representative Quote(s):

Corr. ID: 2033 **Organization:** Longwood Lake Cabin Owners Association, Inc.

Comment ID: 257948 **Organization Type:** Unaffiliated Individual

Representative Quote: Bats are addressed as one of the species threatened in the EIS. However, the EIS addresses as endangered only the Indiana Bat, and maybe one other species. But as mentioned in the EIS, the White Nose Syndrome has decimated the Little Brown Bat and basically every cave dwelling bat in New Jersey and Pennsylvania. These aren't listed as endangered yet, but that's because the listing process takes time. But as a practical matter, these species are threatened with extinction.

Response: Species that are not state or federally listed as special-status species cannot be analyzed as such in the EIS. However, the impacts on small-footed bat, northern Myotis, and Indiana bat were fully analyzed in the DEIS in the Special-Status Species section of chapter 4, and the impacts to other bat species would be similar.

Concern ID: 37394

CONCERN STATEMENT: One commenter questioned the impact analysis for listed species and believed that mitigation plans presented by the applicant would avoid adverse impacts to bog turtles, Indiana bats, and bald eagles.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259330 **Organization Type:** Business

Representative Quote: Endangered Special Status Species: The DEIS does not fully reflect the extensive work that has been performed by the Applicants to avoid impacts to endangered, threatened or special status species.

1. Bog Turtles

One of the known species of greatest concern during construction of the S-R Line is the bog turtle. The Applicants have had extensive discussions with the USFWS and, as a result of this informal consultation, the USFWS has determined that no adverse effect would occur to bog turtles if the Applicants' proposed access road around the Arnott Fen were used and if certain other protective measures were taken, such as time of year restrictions. Therefore, the DEIS assertion that a Biological Assessment might be required for bog turtles is incorrect.

2. Indiana Bats
Potential impacts to the Indiana Bat were analyzed during the Applicants' planning process. The Applicants conducted Indiana Bat mist net surveys along the length of the existing ROW and proposed access road locations and no Indiana Bats were found. As a result, the USFWS issued a letter dated January 27, 2010 concluding that there was not likely to be an adverse effect for the Indiana Bat. This letter would apply to Alternatives 2 and 2B and this finding was not mentioned in the

DEIS.

3. Eagles/Other Birds
The Applicants intend to follow the Avian Protection Plan standards set out by the Avian Power Line Interaction Committee (APLIC) and do not anticipate any adverse impacts to eagles or other birds. No eagle nests were found along the routes of Alternative 2 or 2B and the distance between the conductor is over 60 inches and is thus greater than the wingspan of all bird species.

Response: While NPS is aware of discussion between the applicant and the USFWS that states there will be no effects or no likely effects on bog turtle, Indian bat, and bald eagle, only consultation between agencies (NPS and USFWS) can be considered formal consultation. NPS is consulting with the USFWS, presenting the impacts on special-status species under the preferred alternative. This consultation will be added to chapter 5 of the FEIS. Since the DEIS was printed, two bald eagle nests have been discovered in close proximity to alternative 2. While the route is outside of the required nest buffer, this information will be added to the Special-status Species section of the FEIS because collision of the fledglings with the proposed transmission lines is a concern.

VE4000 - Visitor Experience: Impact Of Proposal And Alternatives

Concern ID: 37299

CONCERN STATEMENT: One commenter did not think that presence of the proposed power line in the parks would diminish the visitor experience in the parks.

Representative Quote(s): **Corr. ID:** 1516 **Organization:** AMC

Comment ID: 256204 **Organization Type:** Unaffiliated Individual

Representative Quote: Being an active hiker, familiar with the terrain in question, I believe that the environmental impact of the proposed power line is exaggerated. Merely seeing a transmission tower does not diminish my enjoyment of the outdoors.

Response: While impacts to visitor experience are subjective based on the user, the analysis used standard protocols for determining impacts developed by the Federal Highway Administration. The analysis, described in the DEIS on pages 552 to 556, was designed to reduce subjectivity and allow for a more objective assessment of visual effects.

Concern ID: 37301

CONCERN STATEMENT: Commenters cited that they were concerned about degradation of the visitor experience at the parks, particularly for those recreating along the Delaware River, and the Appalachian Trail. Concerns addressed potential visual and sound impacts, as well as impacts on the historical sites, natural areas, and other resources available at the parks, and some commenters noted that they would not visit the parks if the proposed project is undertaken in the parks.

Representative Quote(s): **Corr. ID:** 520 **Organization:** *Not Specified*

Comment ID: 254378 **Organization Type:** Unaffiliated Individual

Representative Quote: The proposed transmission line route serves to destroy a viewscape that would otherwise allow Park visitors to immerse themselves in the

raw world of 1757

Corr. ID: 1383 **Organization:** *Not Specified*

Comment ID: 255906 **Organization Type:** Unaffiliated Individual

Representative Quote: As an avid hiker, backpacker, paddler, fisherman and mountain biker I have seen far to often the negative impact along the Appalachian Trail and other parks and forests that power generation/delivery companies have caused and it should not be allowed to continue.

Corr. ID: 1578 **Organization:** Appalachian Mountain Club

Comment ID: 257385 **Organization Type:** Non-Governmental

Representative Quote: Other impacts to recreational park users include temporary closures of access points, which would eliminate outdoor recreation opportunities for hikers and paddlers.

Corr. ID: 1777 **Organization:** Celebrating the Delaware

Comment ID: 258612 **Organization Type:** Unaffiliated Individual

Representative Quote: Imagine: Twelve towers, each unpleasantly humming, crackling and hissing (particularly in times of humidity and rain), each twenty stories high, each surrounded by a wasteland of downed timber and scrub brush. Each will immeasurably degrade hiking and being-in-nature experiences. These ugly bastions of steel and wire will be visible for miles and miles and miles, impacting severely on the Scenic and Wild Delaware River. They will be visible up and down the lush historic valley, and from many points along the scenic, venerable Appalachian Trail.

These towers will wipe out numerous sylvan camping sites and seriously degrade others, both long treasured by canoeists on the River. They will destroy serene, awesome and unique vistas, kill long-treasured hiking trails, picnic sites, fishing sites, degrade hunting, destroy habitat for endangered and protected species and break a supposedly indissoluble compact which was made between the US government and US citizens. This and so much more.

Corr. ID: 1973 **Organization:** Delaware Riverkeeper Network

Comment ID: 257819 **Organization Type:** Unaffiliated Individual

Representative Quote: Constructing a double 500 kV transmission line that dissects the heart of this protected outdoor recreational area or even the linear AT where hikers will see the lines from 20 miles away, will detract and disrupt that outdoor natural experience

In the EIS of 2010 river study, clearly illustrates that expanded power lines will impact the experience, stating 64 percent of park users indicated that power line expansion would detract from their park experience.

Response: NPS recognizes and agree with the commenters that there will be impacts to visitor use and experience from construction and presence of the transmission lines and towers. We will work with the applicant to avoid, minimize, and compensate for impacts.

Concern ID: 37395

CONCERN STATEMENT: A commenter expressed concern with the impact analysis for visitor experience, stating that the analysis ignores that the current transmission lines were in place

prior to the designation of DEWA and the presence of this line has not degraded visitor experience since the area was designated an NPS Unit.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259349 **Organization Type:** Business

Representative Quote: The DEIS analysis of adverse impacts to visitor use (pp. 625-642) fails to recognize that existing transmission line has been in place in the NPS Units from the moment of their creation and the presence of this line has not limited visitor enjoyment of the NPS Units as evidenced by the amount of visitor use in the NPS Units and as discussed in Section I.J. on the background of DEWA. The incremental impact of the construction of the S-R Line should not change this dynamic and the only direct impacts to visitor use that are substantially different to what exists now would occur during construction when there will be more physical activity within the ROW. However, as this construction will be limited to winter months, the amount of visitors likely to be impacted is much lower than in the months of higher visitor use.

Response: The existing conditions to which the alternatives were compared include the presence of the 230-kV transmission line. The impacts presented for the alternatives are compared to existing conditions, not desired conditions.

VQ3000 - Visual Quality: Study Area

Concern ID: 37396

CONCERN STATEMENT: One commenter stated the study area and parameters used to analyze visual impacts in the EIS are not consistent and requested the impacts and study area for visual resources be revised.

Representative Quote(s): **Corr. ID:** 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259340 **Organization Type:** Business

Representative Quote: The Visual Resources Study used a bare earth analysis despite the heavily wooded character of DEWA, thus greatly overstating the visibility of the towers. The DEIS itself describes the landscape character of DEWA as heavily wooded and this should be taken into account in the modeling in the Final EIS to avoid an unrealistic depiction of the potential visual impacts. The existing vegetation provides significant screening capabilities for the S-R Line and this is not reflected in the DEIS. The Applicants suggest that the USGS Survey 2006 Land Cover Dataset accurately reflects the vegetated nature of the study area and should be used to more accurately depict the visual impacts.

Figures 77-86 of the DEIS show existing structures only within a short distance of the NPS Units, but show potential structures 20 miles from each NPS Unit. This is a comparison of apples to oranges and the only way to have an accurate comparison of the visual impacts is to use the same distances when analyzing the visibility of the structures.

Page 259 of the DEIS contains a statement regarding the air quality and visibility at DEWA that is misleading as it implies that visibility at DEWA is only affected by haze and that this effect only occurs on average 14 days out of each year and only

during the summer months. In fact, there are other factors affecting visibility that should also be mentioned, such as weather patterns and moisture that can limit visibility in DEWA at any time of the year and for many more days than just 14 days.

The DEIS visual simulations in Appendix K were not prepared using the correct information as to ROW width, pole coloring or size and coloring of conduit. The biggest problem with Appendix K is that it assumes a 350 foot ROW for Alternative 2. For example, figures K -17 through K-19 show trees being cut along the Watergate Recreation Area - but these trees are not going to be removed because the ROW is not going to be as wide as the DEIS assumes. Figure K-12 near the Pioneer Trail is another good example of the overstatement of effects found within the NPS visual simulation exhibits. This figure shows a complete clearing, when in fact only a very limited amount of trees will be removed in this area.

Response: NPS reviewed the analysis and do not believe that a revision is warranted. Our analysis uses bare earth modeling which is a standard methodology for analyzing impacts to visual resources (DEIS pages 552-553, also 554 and 555). Impacts to scenic resources extend beyond the boundaries of the parks. Standard visual impact analyses extend beyond the resources affected (see pages 556 in DEIS).

VQ4000 - Visual Quality: Impact of Proposal and Alternatives

Concern ID: 37291

CONCERN STATEMENT: Commenters stated that the increased height of the proposed towers would degrade the scenic quality of DEWA, the Trail, Delaware River, other open spaces, surrounding communities, and the night sky. The larger towers are deemed by the commenters to be more obtrusive because they would not be camouflaged by the trees. Conversely, one commenter believes the proposed monopoles shown in the visual simulations would be an improvement over the existing towers.

Representative Quote(s): **Corr. ID:** 1578 **Organization:** Appalachian Mountain Club

Comment ID: 257389 **Organization Type:** Non-Governmental

Representative Quote: Specific impacts vary with each alternative route, but all would mar the iconic viewshed currently enjoyed by millions of park visitors. Potential routes would impact views from the Appalachian Trail, Old Mine Road, McDade Trail, Van Campens Glen, Mohican Outdoor Center, and the Delaware Water Gap National Recreation Area.

The current right-of-way is located about two and a half miles north of AMC's Mohican Outdoors Center. Visitors to Mohican would be able to see the new 200-foot-high towers from the well-known and popular look-out on Rattlesnake Ridge. As such the transmission lines will have a large potential impact on visitors to AMC's Mohican Outdoors Center.

Every potential route would cross the Delaware, and several routes would cross where it is federally-designated under the Wild and Scenic Rivers Act. The proposed project would disrupt the viewshed currently enjoyed by hikers, paddlers, and anglers.

Corr. ID: 1698 **Organization:** *Not Specified*

Comment ID: 257365 **Organization Type:** Unaffiliated Individual

Representative Quote: A permanent impairment of the "scenic" qualities of the NPS units will result from the very tall towers that are proposed. These visual impacts cannot be mitigated in my view, unless there are camouflage techniques for the upper extension of the towers above tree line. Hiding or softening the visual effect for humans (if technically feasible) may then harm avifauna that also depend on visual cues when flying or navigating open air spaces. More NPS unit visitors will be affected by the new permanently altered visual fields/vistas, than now with the status quo towers reaching to or just above treetop levels.

Corr. ID: 1882 **Organization:** Rock the Earth

Comment ID: 257786 **Organization Type:** Non-Governmental

Representative Quote: The transmission and generation components of the Project will also adversely impact on the visual and scenic resources, including the daytime viewsheds and the incomparable nighttime darkness currently available in the area. The flares from gas and coal plants, cooling towers from coal plants, and night-time beacons on tensioning towers would alter the current character of the lands where the transmission and generation infrastructure would be built. We have serious concerns that development of industrial-scale transmission lines in this area would not be compatible with respect to viewshed and scenic resources.

Nighttime views of the transmission lines, which may bear several red strobe lights, flashing at frequencies of at least 20 times per minute, will severely impact on an otherwise dark landscape.

Corr. ID: 1961 **Organization:** *Not Specified*

Comment ID: 258706 **Organization Type:** Unaffiliated Individual

Representative Quote: In my opinion, what I see on the maps on the projected impact of what those lines are going to look like up here, and it looks better than what's there now -- whatever it is -- those metal, old towers are, I think it would be an improvement over what we're looking at now.

Response: The NPS agrees that the height of the towers would have great visual impacts on the parks. However, according to NERC Standards this is the height required for the size of the transmission line. There is no way to avoid or minimize the tower height because it is required. The DEIS acknowledges there will be very large impacts to scenic qualities. We are working with the applicant on a mitigation plan for the preferred alternative and part of the mitigation plan will be to consider compensation that may be appropriate for the impacts to scenic resources.

Concern ID: 37292

CONCERN STATEMENT: One commenter expressed concern with including visual impacts as an impact topic in the EIS and believes the visual impacts from the transmission line towers are not an environmental concern.

Representative Quote(s):

Corr. ID: 1504 **Organization:** New York-New Jersey Trail Conference

Comment ID: 257359 **Organization Type:** Unaffiliated Individual

Representative Quote: The article treats the ugliness of the transmission towers as if it is an environmental disaster. There is all sorts of terminology ("viewshed analysis") and data, including some sophisticated GIS maps, to make their points seem thoughtful and important. However "visual impact" is not an environmental

concern at all.

Response: Scenic resources are important components of the Organic Act, the park's enabling legislation and NPS policy. Visual resources encompasses and includes analysis of landform, water, vegetation, and human development (including cultural resources) (see methodology in DEIS, pages 552-553).

Concern ID: 37293

CONCERN STATEMENT: Commenters do not believe that the visual analysis is adequate to determine the full impact of the proposed towers on the scenic resources of the parks and request panoramic, 360-degree visual simulations and seasonal simulations. Additional view shed analysis has been performed by commenters.

Representative Quote(s):

Corr. ID: 1878 **Organization:** Appalachian Trail Conservancy

Comment ID: 257639 **Organization Type:** Non-Governmental

Representative Quote: With generally only two pictures at each "key observation point" or KOP (existing and proposed), the ATC is struck with the need to have more comprehensive analyses of visual impacts, mindful of our mission to thoroughly analyze potential visual and scenic impacts to protect these visually significant ANST lands in perpetuity. The visual simulations are limited in that they depict only one perspective at each individual KOP along each alternative, and, further, that those views are along the axis of the power line. Panoramic, 360-degree visual simulations are needed at each KOP to adequately assess impacts to hikers and other visitors.

The DEIS suggests that opening a wider ROW corridor may increase the "frame of the view" (page 595) and that negative impact would be "offset somewhat by the increased cleared ROW providing a wider view opportunity of the surrounding landscape which is scenic and memorable." It is our belief that the ANST affords visitors superb viewing opportunities along the existing natural rock outcrops, open areas, and leaf-off seasonal viewings that occur naturally along the Trail's entire length. The legislation enacting the ANST requires trail managers to protect and ensure scenic views that are not marred by 195-foot-tall utility poles and conductors.

Given the major, new, foreground visual effects of the new lines, for towers approaching 200 feet tall, this additional resource information must be coupled with refined viewshed analyses. Despite measurements from one or two "key observation points" or KOPs (all that is provided in Appendix K), there will be almost constant exposure to the offending view particularly in leaf-off seasons as park visitors approach the proposed crossing itself

Corr. ID: 2007 **Organization:** NYNJ Trail Conference

Comment ID: 257840 **Organization Type:** Unaffiliated Individual

Representative Quote: We have done extensive view shed analysis on this. I will send a link as part of my written comments, but it's posted on NYNJTC.org, and the route increases the visibility significantly of the power lines.

Let me just give you a few examples. Our view shed analysis was based on a ten-mile visibility, which sometimes it's better than that, but that's certainly a clear day. Currently, about 388,000 acres -- these power lines are visible for about 388,000 acres. In the new scenario they will be visible from 460,000 acres. So there will be an extra 70,000 acres where you will be viewing the power lines, sometimes viewing as many as 90 at the same time, particularly from the Delaware Water Gap

where we have the unobstructed, east-facing views, which is, of course, where the Appalachian National Scenic Trail runs. It goes along the crest there.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259067 **Organization Type:** Non-Governmental

Representative Quote: The S-R Line will have significant impacts on the visual resources within the Parks as well as more geographically distant locations. The DEIS's visual simulation of impacts within the park is very useful. However, the EIS should also consider impacts on visual resources relative to the time of year, and what the impacts would be if lattice towers rather than monopoles were used.

Response: Due to the strict timing constraints, NPS did not have enough time to conduct a full analysis that covered all of the seasons, the analysis was completed with the best available data. Key observation points were merely a sample of the potential impacts (see DEIS, pages 554-555).

Concern ID: 37397

CONCERN STATEMENT: One commenter believes that impacts to the viewshed and analysis of the viewshed should be reconsidered only in light of topography and vegetation.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259341 **Organization Type:** Business

Representative Quote: Furthermore, the Applicants recently performed a viewshed analysis as part of required historic architecture surveys, a copy of which is attached as Exhibit 11 together with the DEIS bare earth figure to show the contrast. The intent of this analysis was to assess potential impacts of the project on historic architecture within the vicinity of the DEWA and other NPS units. The area of potential effects (APE) for the historic architecture survey, proposed and authorized by the NPS on April 21, 2011, consisted of areas within DEWA that are within an 8- mile radius from the centerline of the existing transmission right-of-way. The viewshed analysis was conducted both I) to consider only the effects of topography on visibility, similar to that in the DEIS; and 2) in a manner that would allow for the consideration of the potential effects of intervening vegetation on the project's visibility.

Response: NPS reviewed the analysis and do not believe that a revision is warranted. Our analysis uses bare earth modeling, which is a standard methodology for analyzing impacts to visual resources (DEIS, pages 552-553, also 554 and 555). Vegetation blocking should not be assumed because stochastic or management events may occur, changing views of the lines and towers. Section 106 also takes into account impacts to visual resources and must be analyzed.

VR4000 - Vegetation And Riparian Areas: Impact Of Proposal And Alternatives

Concern ID: 37287

CONCERN STATEMENT: Most commenters believe the construction of the S-R Line and associated access roads would result in permanent and irreversible damage to the vegetation of the parks and wildlife habitat by increasing erosion and sedimentation, the spread of invasives, and fragmentation. Other commenters believe the opportunity exists to

improve the biodiversity of the habitats through mitigation.

Representative Quote(s):

Corr. ID: 1329 **Organization:** Sierra Club

Comment ID: 255728 **Organization Type:** Unaffiliated Individual

Representative Quote: It will be impossible to restore surrounding woodlands to their current pristine condition after countless construction vehicles cut their way through to construction sites. The proposal also calls for a significant widening of the transmission line right-of-way. This would effectively bisect the Park and create a huge, unsightly scar in the heart of the DWGNRA. The section of the over 2000 mile long Appalachian Trail that passes through this area would also suffer from this intrusion.

Corr. ID: 1398 **Organization:** Unitarian Universalist Fellowship of Sussex County

Comment ID: 255927 **Organization Type:** Churches, Religious Groups

Representative Quote: The proposed transmission project will have permanent adverse impacts to the environment and destroy the beauty of our natural lands and our communities. This project will result in a vast removal of trees and vegetation, destroying acres of wildlife habitat and causing erosion and sedimentation in areas of streams that play an important role in New Jersey's drinking water supply. Increased amounts of sediment in these streams will cause contamination, resulting in dangerous public health effects.

Corr. ID: 1981 **Organization:** Northern Region of the New Jersey State Federation of Sportsmen's Club

Comment ID: 257869 **Organization Type:** Unaffiliated Individual

Representative Quote: Most of you, I believe, in this room are well aware that the eastern deciduous forest has been stripped bare at least twice since the arrival of Columbus by early settlers and later on in the early late 1800s, early 1900s, bare, hard pressed to find a tree. You want to talk about permanent, irreversible harm. Look at the forest we enjoy today. I don't believe there's such a thing as permanent and irreversible harm. Resource managers, foresters fishery people, biologists, we have the knowledge, we have the means to mitigate, and not just repair, but actually produce healthier and more diverse habitats than what exists today. I don't think that we should look at this as a problem but rather as a solution and maybe the possibility of improving ecosystems and habitats.

Corr. ID: 2108 **Organization:** Green Sanctuary Committe Unitarian Universalist Fellowship of Sussex Country

Comment ID: 258166 **Organization Type:** Churches, Religious Groups

Representative Quote: Access roads required to complete the project are located on hiking trails and logging roads that must be widened and graded. This will result in loss of canopy cover and forest connectivity, increasing the "edge effects" on the core forest. Edge effects include more deer browsing and the encroachment of invasive species populations.

Response:

NPS recognizes that there will be permanent impacts to vegetation and thus, wildlife habitat, as demonstrated by the impact analysis in the DEIS (pages 338 to 433). We will require the applicant to follow an NPS-approved vegetation maintenance plan, which will include measures such as increasing biodiversity, controlling invasive species, and maintaining scrub shrub vegetation in the ROW as shelter, foraging, and breeding habitat for wildlife.

Concern ID: 37398

CONCERN STATEMENT: A commenter noted that the proposed project would not alter vegetation management or have impacts on vegetation management practices within the parks.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259322 **Organization Type:** Business

Representative Quote: There is nothing about the structural differences between the existing 230 kV transmission line and the proposed S-R Line that would change applicable vegetation maintenance standards, emergency response times or other maintenance standards with which the Applicants must comply. The federal rules governing vegetation management along transmission lines, and reliability in general, stand entirely apart from the permitting decision now before the NPS. The proposed S-R Line would not result in additional or more frequent maintenance and emergency repairs. The construction of the S-R Line will not significantly affect the intensity or other aspects of the Applicants' activities in the existing ROW. Simply put, the construction of the S-R Line would not result in a net increase in impacts to the NPS Units from a vegetation management or operational perspective.

Response: NPS based the impacts described in the EIS on the existing conditions observed during field surveys in the summer of 2010, which was prior to the vegetation maintenance in the ROW for alternatives 1, 2, and 2b. Vegetation maintenance outside of the parks has resulted in a ROW that has been clear-cut. The current vegetation maintenance plan prevents the applicant from clear-cutting the ROW inside the parks. If a permit is granted, we will require the applicant to follow an NPS-approved vegetation maintenance plan, which will focus on retaining habitat within the constraints of the NERC guidelines and controlling invasive species.

WH3000 - Wildlife And Wildlife Habitat: Study Area

Concern ID: 37284

CONCERN STATEMENT: One commenter stated that the study area used to analyze wildlife and wildlife habitat is not broad enough to realize the full impacts of the proposed project, and to determine the most desirable alternative. The commenter suggested a regional study area should be used in the impact analysis.

Representative Quote(s):

Corr. ID: 1829 **Organization:** New Jersey Audubon

Comment ID: 258634 **Organization Type:** Non-Governmental

Representative Quote: Decisions regarding a new or upgraded bi-state transmission line must therefore also consider broader, regional implications to wildlife and their habitats. The information and analysis provided in the DEIS focus, understandably so, on NPS lands. As a result, however, the full impacts associated with any of the alternatives are unclear and it is difficult to identify which option would most effectively minimize disturbance to natural areas and critical wildlife habitat across the region if the upgrade is needed. The NPS would benefit from an approach that more specifically considers impacts to the surrounding region and NJ Audubon strongly encourages the NPS to apply a regional perspective in reviewing the alternatives and considering mitigation needs if necessary.

Response: Because NPS cannot dictate where the ROW is placed outside of the parks, we cannot analyze impacts in these areas. The study area is defined on page 404 of the DEIS.

WH4000 - Wildlife And Wildlife Habitat: Impact Of Proposal And Alternatives

Concern ID: 37280

CONCERN STATEMENT: Concerns were identified by commenters about impacts to wildlife as a result of the construction and operation of the new line. Commenters noted concerns regarding habitat fragmentation and edge effects, impacts on migratory species, the potential for effects from EMFs and noise on wildlife, and herbicide use concerns.

Representative Quote(s):

Corr. ID: 1713 **Organization:** *Not Specified*

Comment ID: 257281 **Organization Type:** Unaffiliated Individual

Representative Quote: There will still be blasting in geologically sensitive areas with impacts also on wildlife and its habitat

Death of birds, both large raptors such as endangered eagles, that feed and nest along the Delaware River, and neotropical songbirds that migrate along the Kittatinny Ridge, such as warblers, orioles, and thrushes, by collision with 200' high power lines, cannot be mitigated.

Corr. ID: 1875 **Organization:** *Not Specified*

Comment ID: 257588 **Organization Type:** Unaffiliated Individual

Representative Quote: This world famous raptor migration flight-line is also being proposed for designation by the U. S. Dept. of the Interior as the nation's and world's first NATIONAL raptor migration corridor.

The proposed powerline expansion likely will cause significant environmental and wildlife damage including increased raptor and other bird- and bat-strike hazards with powerlines and their support structures.

Corr. ID: 1882 **Organization:** Rock the Earth

Comment ID: 257785 **Organization Type:** Non-Governmental

Representative Quote: The construction of massive transmission infrastructure through the three parks presents a myriad of impacts on wildlife and certain impacts to the resources listed above. Even if minimized, it is clear that construction and maintenance will negatively impact wildlife communication, habitat utilization, and reproductive success.

Corr. ID: 2023 **Organization:** *Not Specified*

Comment ID: 257936 **Organization Type:** Unaffiliated Individual

Representative Quote: While there may have been no studies conducted on the effects of this high EMF radiation on forest areas, one can be fairly certain that the equivalent biological disarray will also happen to the animals, trees, and plants in our National Park if the power line passes through our forest.

Corr. ID: 2228 **Organization:** National Parks Conservation Association

Comment ID: 258774 **Organization Type:** Unaffiliated Individual

Representative Quote: Please give thorough analyses in the FEIS in regards to what this significant fragmentation of habitat would mean for all species inhabiting, visiting, or barely hanging on in Susquahenna and Appalachian region.

Also, I call for the FEIS to include a thorough analysis of herbicides and formulations which would be used to assist clearing and vegetation management in the vicinity of the transmission lines and construction access points. Which formulations of which herbicides to target which plants, and which amphibians, mammals, birds, etc. will be most impacted.

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259069 **Organization Type:** Non-Governmental

Representative Quote: Further, the EIS should include consideration of the short- and long-term impacts of increased noise on rare bats, migratory birds, and other sensitive wildlife. The DEIS leaves unanswered questions about how the project's noise disturbances interfere with, or otherwise adversely affect, the displays, mating, foraging, communication, and other behavior of migratory birds and mammals.

Response: NPS recognizes that the proposed project would result in impacts to wildlife (see pages 388-433 in the DEIS). All mitigation measures, including best management practices such as following the avian protection plan, listed in appendix F of the DEIS would be followed during construction and operation of the S-R Line. We conducted further literature research on the effects of electromagnetic fields and operational noise on wildlife and the information will be included in the landscape connectivity, wildlife habitat, and wildlife section of the FEIS.

Concern ID: 37282

CONCERN STATEMENT: Commenters stated they did not think the proposed transmission line would have impacts on wildlife, particularly detrimental impacts.

Representative Quote(s): **Corr. ID:** 2006 **Organization:** *Not Specified*

Comment ID: 258733 **Organization Type:** Unaffiliated Individual

Representative Quote: Again, I would like to emphasize, high voltage transmission lines are not dangerous. I worked on them. It doesn't kill the birds. It didn't make the animals -- it doesn't drive the animals crazy.

Corr. ID: 2185 **Organization:** National Parks Conservation Association

Comment ID: 258768 **Organization Type:** Unaffiliated Individual

Representative Quote: I doubt the birds and bunnies will even notice the lines..well the birds might, they can use it as a perch..and the bunnies can build nests at the base of the towers.

Response: NPS reviewed the analysis and have determined that impacts on wildlife are inevitable. Please see the impacts analysis in the DEIS (pages 402-433).

Concern ID: 37399

CONCERN STATEMENT: A commenter expressed concern with the impact analysis within Hogback Ridge, stating that the analysis ignores the existing conditions and overstates the impacts.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259348 **Organization Type:** Business

Representative Quote: The DEIS states that the proposed ROW and continual vegetation maintenance would completely bisect the habitat in the Hogback Ridge Woodlands, creating two sections of Woodlands and reducing interior forest habitat (p. 491). This statement is presented as if there is no existing ROW. Simply put, the existing ROW already bisects this habitat and existing required vegetation maintenance already impacts this habitat, therefore there would be no changes that reduce interior habitat or cause a "bisection" of this habitat area.

Response: NPS based the impacts described in the EIS on the existing conditions observed during field surveys in the summer of 2010, which was prior to the vegetation maintenance in the ROW for alternatives 1, 2, and 2b. Please see the impacts analysis for alternative 1 in the rare and unique communities on page 486. The proposed project would widen the ROW through Hogback Ridge, thus reducing interior habitat and creating new edge habitat.

WH5000 - Wildlife And Wildlife Habitat: Cumulative Impacts

Concern ID: 37277

CONCERN STATEMENT: One commenter was concerned about the increased cumulative impacts on wildlife from habitat fragmentation and increased air pollution.

Representative Quote(s):

Corr. ID: 1678 **Organization:** *Not Specified*

Comment ID: 257183 **Organization Type:** Unaffiliated Individual

Representative Quote: Of particular concern to the NPS should be the cumulative impacts to biological species of the increased habitat fragmentation added to the increased air pollution from coal fired power plants sourcing the electricity for the S-R line.

Response: The impacts on wildlife from habitat fragmentation are detailed in the DEIS on pages 402-433. NPS dismissed air quality as an impact topic (pages 21 and 22 of the DEIS). We do not expect air quality or climate change to increase the intensity of the impacts to wildlife.

WS3000 - Wild and Scenic Rivers: Study Area

Concern ID: 37276

CONCERN STATEMENT: One commenter expressed concern with the impacts of the transmission lines on wild and scenic rivers outside of park boundaries and suggests these be included in the EIS.

Representative Quote(s):

Corr. ID: 2394 **Organization:** Earthjustice

Comment ID: 259070 **Organization Type:** Non-Governmental

Representative Quote: The DEIS analysis of impacts on Wild and Scenic Rivers focuses exclusively on the designated segment of the Middle Delaware. However, the Project will have impacts on other Wild and Scenic Rivers outside of the Parks, and these rivers must be considered as well.

Response: The proposed project would not impact the Lower Delaware River where it is designated as wild and scenic. NPS realizes that the proposed project could have impacts on the Musconetcong River in New Jersey; however, the study area is limited to those resources inside NPS boundaries. The study area is defined on page 644 of the DEIS.

WS4000 - Wild and Scenic Rivers: Impact of Proposal and Alternatives

Concern ID: 37352

CONCERN STATEMENT: One commenter stated that it is illegal for any power lines to cross the Delaware River, as it is designated as wild and scenic.

Representative Quote(s): **Corr. ID:** 1397 **Organization:** Green Cambridge and the Sierra Club

Comment ID: 255925 **Organization Type:** Unaffiliated Individual

Representative Quote: The Delaware Water Gap and the Delaware River are pristine examples of beautiful American waterways. The Delaware River, including the Water Gap, are designated wild and scenic, national treasures, act of congress, signed by the President. It is illegal for any power lines to cross the river. It is unconscionable that any one would ever consider such an idea. Leave this American beauty alone!

Response: The impacts of replacing the existing transmission lines with the proposed transmission lines are discussed in the DEIS on pages 643-648. NPS recognizes that the proposed project would cause impacts to the Middle Delaware National Scenic and Recreational River. In reviewing the Wild and Scenic Rivers guidelines on pages 329-331 of the DEIS, we conclude that the action is not illegal, as it is not a "water resource project" within the meaning of the Wild and Scenic Rivers Act.

WT4000 - Wetlands: Impact of Proposal and Alternatives

Concern ID: 37268

CONCERN STATEMENT: A commenter deemed the analysis of impacts to wetlands to be incomplete, lacking information on the effects of blasting and the use of herbicides, as well as an analysis of wetland conversion.

Representative Quote(s): **Corr. ID:** 2394 **Organization:** Earthjustice

Comment ID: 259064 **Organization Type:** Non-Governmental

Representative Quote: The Final EIS must fill in gaps in the DEIS's analysis of impacts to wetlands. The Park Service has not disclosed the impacts of blasting activities along Routes 2 and 2b on wetlands and proper wetlands functioning. This deficiency must be addressed, and a blasting and post-blasting monitoring plan should be provided by the applicant and made available for public review. In addition, while we are pleased that the use of herbicides in wetlands areas in the

Parks is not currently contemplated, the Park Service should assess the impacts of potential use of herbicides that may occur in the future and disclose what the impacts would be on wetlands.

Response: NPS has decided to limit the applicant to drilling for installation of the tower foundations. We will remove all references to blasting and the impacts that would occur from blasting from the FEIS. As stated in the DEIS, all herbicides would be approved by the NPS prior to use. We reviewed the impact analysis of wetlands (pages 363-388 of the DEIS), and believe it to be a thorough explanation of the impacts, as it includes acres of impacted wetlands, the type of wetlands impacted, and the acres of wetland conversion.

Concern ID: 37400

CONCERN STATEMENT: A commenter disagrees with the amount of wetlands that would be converted along alternative 2 because, according to the commenters, this area is already maintained for the current transmission line.

Representative Quote(s):

Corr. ID: 2396 **Organization:** McGuireWoods, LLP and SNR Denton for PPL and PSE&G

Comment ID: 259350 **Organization Type:** Business

Representative Quote: The DEIS states that 23.94 acres of forested wetlands would be converted to shrub or emergent wetlands during ROW clearing (p. 381). This is inaccurate because, as previously discussed, the majority of the ROW is already cleared of vegetation and the NPS has overstated the amount of new clearing that would be necessary.

Response: NPS based the impacts described in the EIS on the existing conditions observed during vegetation surveys in the summer of 2010. Vegetation maintenance conducted between the surveys and now are not considered as existing conditions for the EIS.

FEDERAL AGENCY LETTERS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

JAN 31 2012

John J. Donahue, Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and Recreational River
HQ River Road
Bushkill, PA 18324

Pamela Underhill, Superintendent
Appalachian National Scenic Trail
P.O. Box 50
Harpers Ferry, WV 25425

Dear Mr. Donohue and Ms. Underhill:

We have reviewed the Susquehanna to Roseland 500-kv Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement (DEIS) prepared for the National Park Service (NPS), the lead action agency, to address potential impacts that would occur in the Delaware Water Gap National Recreation Area (DEWA), Appalachian National Scenic Trail (APPA), and Middle Delaware National Scenic and Recreational River (MDSR) in Pennsylvania and New Jersey. The DEIS describes the proposal of PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G), jointly known as the applicant, to construct a portion of the Susquehanna to Roseland 500-kV transmission line (S-R Line) and reconstruct an existing 230-kV line along their current ROW through the parks. The DEIS describes the six alternatives for the route of the transmission line, the resources that would be affected by the alternatives, and the environmental consequences of each alternative.

General Comments
The DEIS analyzes the impacts of the alternatives in detail for geologic resources (including topography and paleontology); floodplains; wetlands; vegetation; landscape connectivity, wildlife habitat, and wildlife; special-status species; rare and unique communities; archeological resources; historic structures; cultural landscapes; socioeconomics; infrastructure, access, and circulation; visitor use and experience; visual resources; soundscapes; wild and scenic rivers; park operations; and health and safety.

As submitted, the DEIS has addressed many of the concerns, formerly expressed in our prior letter, dated May 13, 2010, regarding NOAA trust resources. Moreover, the individual, cumulative, direct and indirect impacts that would be derived from the proposed activity have been discussed fully throughout the document.

Specific Comments
As a steward of our nation's living marine resources, our focus involves the evaluation of potential impacts to NOAA trust resources and establishing protections regarding their conservation and enhancement. Consequently, we have an obligation and a legal mandate to consult with federal agencies that fund, authorize or undertake actions that may affect living marine resources and their habitats. The MSA, FWCA and other mandates require that we provide advice and recommendations, to federal action agencies which serve to avoid, minimize and mitigate for impacts to living marine resources and their habitats.

The Delaware River and its tributaries provide a variety of commercial and recreational fishing including offering a migratory pathway and spawning, nursery, and forage habitat for a number of anadromous and catadromous fishes including American shad (*Alosa sapidissima*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American eel (*Anguilla rostrata*), and striped bass (*Morone saxatilis*). Parts of the watershed are subject to tidal influence the upper limit of which is located at RM 134 in Trenton, NJ. Upstream beyond this point to its origin source, the River is completely freshwater.

The federally endangered shortnose sturgeon (*Acipenser brevirostrum*) and the federal candidate species Atlantic sturgeon (*Acipenser oxyrynchus*), which has been proposed for listing, are known to transit through the project area at certain times of the year. The "shad run," the annual migration of spawning American shad up the Delaware also passes through DEWA in May and June (NPS 2010).

We have previously consulted with the NPS and advised its technical consultants on essential fish habitat, federally protected species and other NOAA trust resources that are known to occur in the project area and could be impacted by the proposed project. Our Essential Fish Habitat (EFH) letter regarding the project dated May 13, 2010, noted that there are American shad between the Delaware Water Gap and the New York border; and additionally, there may be also be shad in the Philadelphia reach of the river. Given that a more detailed discussion of potential impacts to trust resources and that further information regarding the transmission line crossing of the River was included in the DEIS, additional EFH consultation with HCD by the federal action agency will not be required as part of the federal permit process.

In a letter dated July 22, 2010, it was determined that shortnose sturgeon (*Acipenser brevirostrum*), a federally listed endangered fish species, is the only species known to be present in the project vicinity. NOAA Fisheries further noted that the shortnose sturgeon is present in the Delaware River below Lambertville, New Jersey, more than 90 river miles below DEWA. PRD concluded that because there were no federally listed species within the project area, no further consultation with NOAA Fisheries would be necessary unless project plans or new information became available.

Recommendations

The project is located in the non-tidal mainstem reach of the Delaware River and thus is well upstream of the Delaware Estuary mixing zone and outside the area designated as Essential Fish Habitat. Consequently, EFH Conservation Recommendations are not applicable. However, planned upland construction activities consisting of the installation of stream crossing structures associated with the access roads, the placement of heavy equipment and proposed vegetation management practices including clearing in wetland areas and the removal of foliage along the streambanks conducted in the project area upstream of critical aquatic habitat could potentially present both local and downstream consequences to federally-managed species.

We recommend the use of best management practices so as to minimize turbidity, reduce adverse environmental impacts to downstream water quality, and control the discharge of materials into the Delaware River and adjacent project area wetlands. Additionally, so as to minimize direct, indirect, and cumulative impacts to migrating and anadromous fish species we further encourage staging operational activities in upland areas, where practicable, restoring any and all disturbed areas, otherwise supplementary compensatory mitigation measures to restore those disturbed and degraded areas currently supporting anadromous and catadromous fish may be required.

Conclusion

We would like to thank you again for the opportunity to comment on the Susquehanna to Roseland 500-kv Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement and look forward to continued coordination with the National Park Service on the proposed project and anticipate the release of the Final EIS for agency review. If you have any questions regarding the subject matter contained within this letter or need additional details please contact Brian May at (732) 872-3116.

Sincerely,

Christopher Boelke
Mid-Atlantic Field Office Supervisor

References

U.S. Department of the Interior. National Park Service. 2010. Plan Your Visit. Available [online]: http://www.nps.gov/dewa/planyourvisit/index.htm (accessed January 4, 2012)

U.S. Fish and Wildlife Service. 2010. The Delaware River Coordinator's Office. Available at: http://www.fws.gov/delawareriver/. (accessed January 4, 2012).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JAN 3 1 2012

Mr. John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and Recreational River
HQ River Road, off Rt. 209
Bushkill, PA 18324

Dear Superintendent Donahue:

The Environmental Protection Agency's (EPA) Regions 2 and 3 have reviewed the National Park Service's (NPS) Draft Environmental Impact Statement (EIS) for the Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit, in accordance with our authorities under Section 309 of the Clean Air Act, as amended (42 U.S.C 7609, PL 91-604 12 (a), 84 Stat. 1709), and the National Environmental Policy Act (NEPA).

PPL Electric Utilities Corporation and Public Service Electric and Gas Company (the applicant) owns and operates an existing 230-kV line with a right-of-way (ROW) ranging from 100 to 380 feet wide through the Delaware Water Gap National Recreation Area, Appalachian National Scenic Trail and Middle Delaware National Scenic and Recreational River in Pennsylvania and New Jersey. The applicant is seeking to increase its transmission capabilities by adding a 500-kV line to the existing 230-kV line. The Draft EIS addresses that portion of the Susquehanna to Roseland transmission line that passes through the National Park system. Accordingly, the Draft EIS's evaluation is limited to the applicant's request to construct a double 500-kV power line across three units of the National Park system and examines how the proposed project would affect the purposes and resources of the Park units. EPA notes that the upgrade of the existing line does not initiate another federal action that would require an environmental impact statement on the entire transmission line.

The applicant's final construction plan proposes to utilize the existing ROW, access the ROW through existing natural and cultural areas, construct new and taller power line towers and remove and replace the existing 230-kV line, with an additional 500-kV power line. The Draft EIS evaluates six alternatives, including a no-action alternative. The Draft EIS indicates that Alternative 2 (the applicant's proposed route), Alternative 2b (the applicants alternate proposal in that route) and Alternative 3 would likely result in significant adverse impacts to wetlands and water quality. In addition, there is limited information presented concerning mitigation measures that would either minimize or compensate for those adverse impacts. EPA is also concerned that Alternative 3 may include significant impacts to the Worthington State Forest, which are not included in the Draft EIS.

As NPS has not identified a preferred alternative, it is EPA's practice to rate the environmental impacts of all alternatives. Based primarily on potential impacts to wetlands and water quality, we have rated Alternatives 2, 2b, and 3 as "Environmental Objections" (EO). Alternatives 4 and 5 would have fewer impacts, and are rated as "Environmental Concerns" (EC), and Alternative 1 ("No-Action") is rated as "Lack of Objections" (LO). With regard to the adequacy of the analysis, we have rated the DEIS as "Insufficient Information" - (2). While the Draft EIS provides useful information and analyses, we have identified several areas where the Final EIS can improve the analysis of the predicted impacts of each alternative.

Finally, EPA is aware that the applicant will be proposing to offer mitigation through the purchase and ceding of additional lands to the National Park. This mitigation should be fully discussed in the Final EIS including the amount of land being considered, the ecological and recreational value of these areas, and the ability to replace or offset lost function and values of threatened resources. Methods to further avoid and minimize impacts to resources should be evaluated through the assessment process.

EPA recognizes the importance of land designated as a national park as an area protected and preserved for its ecological, historic, and recreational values. EPA looks forward to working closely with NPS in anticipation of publication of the Final EIS on these matters, and we are available to discuss our comments and recommendations included in our attached detailed comments. If you have any questions regarding our comments, please contact Lingard Knutson of my staff at (212) 637-3747.

Sincerely yours,

Judy-Ann Mitchell, Chief
Strategic Planning & Multi-Media Programs Branch

Enclosure

EPA DETAILED COMMENTS

NATIONAL PARK SERVICE DRAFT EIS
SUSQUEHANNA TO ROSELAND 500-KV TRANSMISSION LINE
RIGHT-OF-WAY AND SPECIAL USE PERMIT

Alternative 1

Alternative 1 ("No Action") involves the denial of the applicant's ROW permit and the existing lines would continue to remain in place. However, should the transmission line be routed around the Park, adverse environmental impacts, which are not being evaluated under a NEPA process, could occur outside the National Park.

Alternatives 2 and 2b:

Water Quality: The Draft EIS states that the blasting needed for placement of the tower foundations may impact underground water flow paths due to enlargement from fracturing, as well as the likelihood of the formation of conduits and sinkholes and the risk that surface streams and wetlands may lose water to the subsurface. The actual extent and intensity of vibrations caused by blasting depends on several factors, including rock type and blasting techniques. In addition, groundwater withdrawal and diversion of surface water may cause aboveground and underground hydrologic systems to be eliminated, and drilling and blasting also create the possibility of groundwater contamination.

While EPA understands that NPS will require a geologic survey and a blasting plan prior to any construction along the proposed ROW, EPA recommends that additional data and appropriate modeling be included in the Final EIS to improve the analysis of impacts to groundwater and surface waters. This additional information is particularly important in the case of the limestone subsurface in the ROW of Alternatives 2 and 2b, as the Van Campens Brook and wetland complex has documented high resource values. EPA also notes that Van Campens Brook is a Category One stream under the New Jersey Department of Environmental Protection's water quality classification system in recognition of its exceptional ecological significance, including its value to native brook trout. We are concerned that an increase in total suspended solids (TSS) and/or a loss of flow will adversely affect not only native brook trout, but all species.

Wetlands: We understand that preliminary scoping and coordination has occurred with the U.S. Army Corps of Engineers, Philadelphia District (Corps), with respect to possible impacts to wetlands and waters of the United States, and that the Corps has made a preliminary determination that either a Nationwide Permit or SPGP-3 would apply to this project. We encourage NPS and the applicant to continue coordination with the Corps and other resource agencies, including EPA, Pennsylvania Department of Environmental Protection and New Jersey Department of Environmental Protection regarding permitting requirements. While the Draft EIS states that direct impacts to wetlands from fill are small, the indirect impacts to wetlands from blasting (discussed above) and conversion (vegetation removal) should both be quantified.

In addition, EPA does not believe the mitigation plan included in Appendix F provides sufficient information to determine whether impacts to wetlands are being fully mitigated; EPA recommends additional agency coordination to ensure a more comprehensive evaluation of wetland and stream impacts. Moreover, EPA recommends that practices used to minimize impacts to streams and wetlands be specified in the Final EIS, including all wetlands mitigation plans.

EPA also notes that Arnott Fen, within the ROW for Alternatives 2 and 2b, is considered a rare and unique wetland community, due in part to the underlying limestone bedrock. The hydrology of the Arnott Fen influences the array of species living in this rare community and includes numerous special-status wetland plant species that are not found anywhere else in the study area. In addition, Hogback Ridge also contains woodlands and a wetland considered a rare and unique community as it supports endangered species habitat and wetland plant species that are not found anywhere else in the study area, and is based on limestone bedrock. As stated above, any blasting may impact the hydrology and reduce the values of these exceptional wetlands, and should be discussed fully in the Final EIS.

EPA is concerned about the disagreement discussed in the Draft EIS between NPS and the applicant regarding the existing ROW agreement as to how the applicant would identify and remove "danger trees" and whether those actions, if permitted, might in effect increase the ROW beyond that defined in Alternative 2B. EPA recommends that before the Final EIS is released, the applicant's existing ROW property rights be clarified.

Alternative 3:

Water Quality: Most of the slopes along the Alternative 3 corridor range from 10 percent to 30 percent; there are relatively few areas with a slope less than 10 percent. In addition, a few areas with a slope of 40 percent to 50 percent occur along the proposed transmission line route. As more than 25 of the towers required for Alternative 3 would be constructed in areas with a slope of greater than 10 percent, blasting and excavation impacts to water quality must be evaluated. EPA recommends that modeling of possible landslides and erosion be included in the DEIS.

EPA is also concerned that the direct, indirect and cumulative impacts to all resources within the Worthington State Forest are not included in the DEIS. As the NPS, in Alternative 3, suggests placement of the line within the national park boundaries, and crossing into Worthington State Forest, it appears appropriate for the study to identify and analyze all environmental impacts to that area and include them in the Final EIS. We recommend that the Final EIS include an analysis of the potential impacts, and that NPS work with the New Jersey Department of Environmental Protection to ensure that the impacts are properly characterized.

Information Needs

Air Quality: The Draft EIS states that all alternatives will have similar air quality impacts, however, no data is included to support this statement, nor does the Draft EIS discuss emissions mitigation (such as diesel particulate filters) from the diesel engines required to

construct and maintain the transmission line. EPA recommends that the Final EIS provide information on the levels of emissions and impacts to air quality. In addition, please note that Warren and Sussex Counties in New Jersey are designated as non-attainment for ozone, and that a General Conformity Applicability Analysis for each alternative in these counties will be necessary if a permit is approved.

Water Quality: The Draft EIS uses the U.S. Forest Service's Water Erosion Prediction Project (WEPP) model to estimate increased TSS concentrations. As the WEPP model did not detect differences between the alternatives, the topic of surface water and water quality was not carried forward in this Draft EIS. However, the Environmental Consequences section of the document states that "The increase of sediment loads and total suspended solids due to soil erosion from the construction and use of access roads and crane pads would also contribute to adverse impacts. An increase in sediment loads and turbidity could adversely affect the habitat, reproduction, respiration, and survival of fish and benthic macroinvertebrates and could bury or smother aquatic vegetation". EPA recommends that the WEPP model and its conclusions for all alternatives be included in an Appendix of the Draft EIS to allow for a more complete review of the model's conclusions.

Environmental Justice: EPA recommends that the Final EIS include the documentation by which the NPS determined that there would be no impact to minority or low-income populations. The environmental justice evaluation should identify any potentially at-risk communities that are inside the study area, identify the demographics of the communities, discuss census tract and census block group information, any minority or low-income populations within those tracts or block groups, and a discussion of activities, such as blasting, that might pose adverse risks or impacts to environmental justice populations.

Cumulative Impacts: While the Draft EIS discusses the cumulative impacts to individual resource types, we recommend that more detailed information be provided in the Final EIS, including an analysis of impacts to areas immediately outside the National Park units. The Draft EIS accurately indicates that an overall adverse cumulative impact can be expected from the upgrade of the line. It is unfortunate that the impacts of the complete Susquehanna Roseland transmission line will not be evaluated, and therefore the full degree of adverse cumulative impacts will not be identified, including those impacts that will occur from the generation of power being transmitted over the proposed upgraded line.

Endangered Species: As Alternative 2 and 2b, as well as other build alternatives will affect several the foraging and/or breeding areas of federally listed endangered species (e.g., Indiana Bat, bog turtle) and several state-listed species, we recommend that the Final EIS include more information on the potential impacts to endangered and threatened species, including the status of consultations with the U.S. Fish and Wildlife Service (FWS). If possible, EPA recommends that the FWS Biological Opinion be included in the Final EIS.

Climate Change and Greenhouse Gas Emissions: EPA recommends that the Final EIS provide quantitative information on the extent to which removal of mature forests associated with each alternative would impact the ability of the Park units to provide carbon sequestration benefits.

The NPS states that the park is a carbon sink, but the issues of the contribution of the alternatives to climate change through greenhouse gas emissions was dismissed from further analysis. However, forest preservation maintains carbon storage and forest management that increases carbon sequestration can augment forests' natural carbon storage capacity. (Perschel et al., 2003) Each alternative removes many acres of trees and vegetation that will affect the sequestration of carbon and should be discussed and differentiated in the Draft EIS in those terms.

Landslides and Erosion: EPA recommends that modeling of possible landslides and erosion are included in the Final EIS.

Impacts to Worthington State Forest (New Jersey): The direct, indirect and cumulative impacts to resources within the Worthington State Forest are not included in the Draft EIS.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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In Reply Refer To:

2008-I-0319

JAN 31 2012

Mr. John J. Donahue, Superintendent
Delaware Water Gap National Recreation Area and
Middle Delaware National Scenic and Recreational River
Bushkill, Pennsylvania 18324

Ms. Pamela Underhill, Superintendent
Appalachian Trail Park Office
P.O. Box 50
Harpers Ferry, West Virginia 25425

Dear Mr. Donahue and Ms. Underhill:

As a cooperating agency for the National Park Service's (NPS) Susquehanna to Roseland 500 kV Transmission Line (SRLINE) Environmental Impact Statement (EIS), the U.S. Fish and Wildlife Service (FWS) has reviewed the December 2011 Draft EIS (DEIS). The FWS Pennsylvania and New Jersey Field Offices (PAFO and NJFO, respectively) provide the following comments pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*) (NEPA); Section 7 the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 703-712) (MBTA).

The project proponents, PSE&G and PPL Electric (jointly, the applicant), have applied to NPS to construct a portion of the Susquehanna to Roseland 500kV transmission line and reconstruct an existing 230-kV line along their current Right of Way through three NPS units: the Appalachian National Scenic Trail, the Delaware Water Gap National Recreation Area (DWGNRA), and the Middle Delaware National Scenic and Recreational River. FWS is committed to assisting NPS in meeting its EIS schedule and fulfilling its responsibilities under Federal wildlife laws.

ALTERNATIVES

The FWS appreciates the cooperation of NPS in considering impacts to Cherry Valley National Wildlife Refuge (NWR) in its evaluation of alternatives. Alternative 6/7 has been dropped, in part, to avoid impacts to the NWR. FWS staff will continue to assist NPS and the companies to evaluate alternatives and select a feasible alternative with the least impact on fish and wildlife.

FEDERALLY LISTED SPECIES

Bog Turtle (DEIS page 183)

Within NPS Units

Alternatives 2 and 2b: In a letter dated January 27, 2010, PAFO provided comments on impacts to the federally listed (threatened) bog turtle (*Clemmys [Glyptemys] muhlenbergii*). These comments pertained to Alternatives 2 and 2b and were based on information that had been provided to FWS at that time. As discussed in that letter, there is one known bog turtle site on NPS lands that may be affected by Alternatives 2 and 2b, depending on the specific access route chosen in this area. As indicated in that letter, if the southern route option is used for access, impacts can be avoided and minimized by using a time of year restriction or having a recognized, qualified bog turtle surveyor on-site during construction. Therefore, the January 27, 2010 letter recommended that the southern route be used to minimize impacts to this species. On the other hand, if the northern route is used for access, direct impacts to the bog turtle could occur and formal consultation through Section 7 of the ESA would likely be necessary.

The NJFO addressed the bog turtle via letter dated October 21, 2010. The NJFO subsequently reviewed bog turtle survey reports for NPS lands along Alternatives 2 and 2b. Via comments transmitted July 12, 2010, NJFO concurred with the June 17, 2010 Bog Turtle Habitat Assessment for Wetlands NPS 025A, 025B, and 010, and with the September 10, 2010 Phase 2 Bog Turtle Survey Report. No bog turtles were found. However, if Alternative 2 or 2b is selected, FWS will work with NPS and the applicant to determine if any Conservation Measures are necessary in this area based on proximity to a known bog turtle occurrence and the specific project activities proposed in and near suitable habitat.

No further bog turtle surveys are recommended within NPS units along Alternatives 2 or 2b. If additional information about possible impacts of Alternatives 2 and 2b (*e.g.*, blasting) has become available since our previous review, FWS may reconsider our previous recommendations and/or determinations.

Alternatives 3-5: FWS understands that NPS is undertaking Phase 1 bog turtle surveys along Alternatives 3, 4, and 5 within NPS units. All wetlands within 300 feet of these various alignments should be surveyed by a recognized, qualified surveyor following FWS survey guidelines.[1] The Phase 1 survey reports should be evaluated by the agencies before initiating any presence/absence (Phase 2) surveys. Phase 2 surveys need to be conducted between April 15 and June 15, with at least 2 surveys occurring in May.

If properly implemented species surveys are negative, then the project activities along these routes within NPS units would be considered "not likely to adversely affect" the bog turtle. If surveys reveal presence of this species, then FWS will work with the NPS and applicant to develop Conservation Measures to avoid impacts (*e.g.*, move tower locations). If impacts cannot be fully avoided, formal consultation may be necessary; in this case, FWS would work to expedite issuance of a BO in recognition of NPS' firm schedule to complete the NEPA process.

[1] http://www.fws.gov/northeast/njfieldoffice/pdf/bogturtlesurvey.pdf

Outside NPS Units

Alternatives 2 and 2b: Bog turtle survey work along Alternatives 2 and 2b has conducted been by the applicant, and Conservation Measures have been developed with FWS input. Outside NPS units, the FWS does not anticipate adverse effects to the bog turtle from Alternatives 2 or 2b; however, our analysis of this route is not yet complete (*e.g.*, there are a few outstanding survey reports, Conservation Measures need to be finalized, and blasting has not yet been considered).

Alternatives 3-5: If Alternative 3, 4 or 5 is selected, Phase 1 bog turtle surveys should be conducted for any wetlands within 300 feet of the proposed project route in New Jersey, and in Monroe and Northampton Counties, Pennsylvania, for all portions of the selected route that were not already covered by surveys for Alternative 2 and 2b. FWS and NPS are currently working out a process by which impacts to federally listed species outside NPS units can be evaluated.

Indiana bat (DEIS page 186)

Within NPS Units

Alternatives 2 and 2b: Comments regarding the federally listed (endangered) Indiana (*Myotis sodalis*) bat were included in PAFO's January 27, 2010 letter and NJFO's October 21, 2010 letter. For Alternatives 2 and 2b, surveys for this species were carried out between May 27 and August 12, 2009 in accordance with the FWS Indiana bat mist-net survey guidelines. No Indiana bats were found. Portal searches in these areas, conducted between May 5 and May 9, 2009, also revealed no Indiana bats. Consequently, Alternatives 2 and 2b would not be likely to adversely affect Indiana bats within NPS units.

No further Indiana bat surveys are recommended within NPS units along Alternatives 2 or 2b. If additional information about possible impacts of Alternatives 2 and 2b (*e.g.*, blasting) has become available since our previous review, FWS may reconsider our previous recommendations and/or determinations.

Alternatives 3-5: FWS understands that NPS is undertaking Indiana bat habitat assessments along Alternatives 3, 4, and 5 within NPS units. Results of the habitat assessments should be evaluated by the agencies prior to initiating presence/absence surveys. FWS will likely recommend mist-net surveys and portal searches, to be carried out by a recognized, qualified Indiana bat surveyor for all areas of suitable habitat not covered by the previous surveys. Mist-net surveys should be carried out in forested portions of these alternatives, while portal searches should be carried out along the entire length (if not previously surveyed). Mist-net surveys for this species need to be carried out between May 15 and August 15. [2]

If properly implemented species surveys are negative, then the project activities along these routes within NPS units would be considered "not likely to adversely affect" the Indiana bat. If surveys reveal presence of this species, then FWS will work with the NPS and applicant to

[2] http://www.fws.gov/northeast/njfieldoffice/pdf/Ibatsurvey.pdf
http://www.fws.gov/northeast/njfieldoffice/pdf/IbattelemetryNJ.pdf

develop Conservation Measures to avoid impacts (*e.g.,* move tower locations). If impacts cannot be fully avoided, formal consultation may be necessary; in this case, FWS would work to expedite issuance of a BO in recognition of NPS' firm schedule to complete the NEPA process.

Outside NPS Units

Alternatives 2 and 2b: Indiana bat survey work along Alternatives 2 and 2b has been conducted by the applicant and Conservation Measures developed with FWS input. Outside NPS units, the FWS does not anticipate adverse effects to the Indiana bat from Alternatives 2 or 2b; however, our analysis of this route is not yet complete (*e.g.*, there are a few outstanding survey reports, Conservation Measures need to be finalized, and blasting has not yet been considered).

Alternatives 3-5: If Alternative 3, 4 or 5 is selected, mist-net surveys and portal searches should be conducted by a recognized, qualified Indiana bat surveyor for all areas of suitable habitat not covered by the previous surveys. FWS and NPS are currently working out a process by which impacts to federally listed species outside NPS units can be evaluated.

BALD EAGLE

As described in the DEIS, several alternatives under consideration have the potential to impact nesting and/or wintering bald eagles (*Haliaeetus leucocephalus*). The Kittanny Ridge and an important eagle wintering area along the Delaware River are of particular concern. As noted in the DEIS, FWS recommends adherence to the National Bald Eagle Management Guidelines[3] to minimize impacts to this species, and ensure compliance with the Eagle Act. The FWS is working with NPS to evaluate the need for any permit(s) under the Eagle Act for the various alternatives under consideration.

OTHER MIGRATORY BIRDS

The FWS is the principal Federal agency charged with protecting and enhancing populations and habitat of migratory bird species. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for authorizing incidental take, the Service recognizes that some birds may be killed even if all reasonable measures to avoid take are implemented. Unless the take is authorized, it is not possible to absolve individuals, companies or agencies from liability even if they implement avian mortality avoidance or similar conservation measures. However, the Office of Law Enforcement focuses enforcement action on those individuals, companies, or agencies that take migratory birds with disregard for their actions and the law.

As discussed in the DEIS, the potential exists for avian mortality from electrocutions or collisions with power lines as well as direct impacts from habitat loss for wintering, migrating, and breeding migratory birds and indirect impacts from fragmentation, site avoidance, and disturbance of birds within the project boundaries. Electrocutions from power lines are of particular concern to raptors, as their size, hunting strategy, and nesting preferences make them

[3] http://www.fws.gov/migratorybirds/CurrentBirdIssues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf

particularly vulnerable. Other species, such as corvids (crows and ravens) and cormorants also show an affinity for nesting on power lines. Collisions are most common at night, or under low visibility conditions, because migratory birds and land birds either cannot see the utility lines, or they lack the ability to negotiate obstacles quickly enough to avoid them. Site-specific factors that should be considered in project siting to avoid and minimize the risk to birds include avian abundance; the quality, quantity, and type of habitat; geographic location; type and extent of bird use (*e.g.*, breeding, foraging, migrating); and landscape features.

The Avian Power Line Interaction Committee (APLIC[4]) and the Service[5] have developed guidelines for power lines to minimize impacts from existing facilities and in the construction of new utility and energy systems and associated infrastructure. According to the DEIS, any "build" alternative selected by NPS would be constructed according to APLIC standards, and the best available deterrence technology would be used.

In addition to following the APLIC standards, we offer the following recommendations to avoid and minimize impacts to migratory birds within and around the project area.

1. Work with FWS to revise and finalize the draft Avian Protection Plan (APP) previously developed by PSE&G to minimize the risk of electrocution, collision, disturbance and habitat impacts for migratory birds. The APP should apply minimum standards along the length of the line, with enhanced protections in sensitive areas.

2. Report bird mortalities and injuries resulting from electrocutions or collisions on the Service's online Bird Fatality/Injury Reporting Program[6] (Bird Report program). The Bird Report program was designed, with significant industry input and feedback, to provide a user-friendly, easily-accessed, method of allowing members of the electric utility industry to voluntarily report bird mortalities and injuries resulting from electrocutions or collisions with electrical utility equipment. Collecting information about the locations and circumstances under which birds are killed or injured on power equipment serves the primary purpose of determining how to prevent future bird interactions. The database is intended for use by utilities to see which structures and equipment are hazardous to birds, and under what conditions, and assists in evaluating and enhancing the effectiveness of retrofitting.

3. Minimize land and vegetation disturbance and reduce habitat fragmentation during project design and construction, especially if habitat cannot be fully restored after construction. Where practicable, concentrate construction activities, infrastructure, and man-made structures (*e.g.*, poles, roads) on lands already altered or cultivated, and away from areas of intact and healthy native habitats. Co-locate roads, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (*e.g.*, existing rights-of-way, agricultural fields). If co-location is not feasible, select fragmented or degraded habitats rather than relatively intact areas.

[4] www.aplic.org
[5] http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/BirdHazards.html
[6] https://birdreport.fws.gov/

4. Where disturbance is necessary, clear natural or semi-natural habitats (*e.g.*, forests, woodlots, reverting fields, shrubby areas) between September 1 and March 14, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid take of most breeding birds, their nests, and their young (*i.e.*, eggs, hatchlings, fledglings).

5. Avoid permanent habitat alterations in areas where birds are highly concentrated or where sizable prey bases exist. Avoid establishing sizable structures along known bird migration pathways or known daily movement flyways (*e.g.*, between roosting and feeding areas). Examples of high concentration areas for birds are wetlands, State or Federal refuges, Audubon Important Bird Areas, private duck clubs, rookeries, roosts, and riparian areas.

6. Develop a habitat restoration plan for the proposed site that avoids or minimizes negative impacts on vulnerable wildlife. Use only plant species that are native to the local area for revegetation of the project area.

7. Work with FWS to include protective measures for migratory birds into the Vegetation Management Program for each State.

CONCLUSION

The FWS appreciates the opportunity to review the DEIS. FWS will continue working cooperatively with NPS through finalization of the EIS and completion of consultation under Section 7 of the ESA. Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions about the above comments, or require further assistance regarding federally listed threatened or endangered species.

Sincerely,

J. Eric Davis Jr.
Field Supervisor

Enclosure: Specific comments on language in the DEIS

cc: RO, Alex Hoar, Glenn Smith, Paul Phifer, Scott Kahan
PAFO, Pam Shellenberger, Clint Riley
Wallkill NWR, Mike Horne

Amanda J . Stein, Biologist/Project Manager
Delaware Water Gap National Recreation Area
1 River Road
Bushkill, Pennsylvania 18324-9999

National Park Service Denver Service Center – TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Susquehanna to Roseland Transmission Line EIS – DEWA Internal Review Comment Form
Draft EIS (November 21, 2011 to January 31, 2012)

Reviewer's Name (Initials) :

	Initials	Page #	Section, paragraph, line #	Your Comment / Proposed Revision	For Consultant's Response / Resolution
1.	wlw	181	Golden-winged warbler	Please change this statement, "The species is federally listed as a species of special concern…" to read, "USFWS is conducting a status review of the golden-winged warbler in response to a petition to list this species under the ESA…."	
2.	wlw	186	small-footed bat	Please change this statement, "The species is federally listed as a species of special concern…" to read, "USFWS is conducting a status review of the small-footed bat in response to a petition to list this species under the ESA…."	
3.	wlw	187	Northern myotis	Please to read, "USFWS is conducting a status review of the Northern myotis in response to a petition to list this species under the ESA. This species is also listed as a species of special concern in Pennsylvania."	
4.	wlw	436	Consultation	NPS is currently preparing a BA for this project, consistent with policy that requires a BA for all "major construction activities" that "may affect" listed species. Please revise this section in the FEIS to reflect the current status of the consultation at that time.	
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United States Department of Agriculture | Forest Service | Grey Towers National Historic Landmark | 151 Grey Towers Drive PO Box 188 Milford, PA 18337

File Code: 1930

Date: January 30, 2012

United States Department of Interior
National Park Service
Denver Service Center – M. Elmer, Planning
DEWA SR Line ROW EIS
12795 W. Alameda Parkway
P.O. Box 25287
Denver, CO 80225-9901

Subject: Susquehanna to Roseland 500 kV Transmission Line ROW, Special Use Permit Environmental Impact Statement

RE: Scoping Period Comment for Development of Final Environmental Impact Statement (EIS)

Dear Superintendents Donahue & Pamela Underhill,

The USDA Forest Service at Grey Towers National Historic Site (GTNHS) is providing these comments and opinions for the current final report EIS for the 500kV transmission line through the lands managed by Delaware Water Gap National Recreation Area (DEWA), the Appalachian Trail (APPA), and the Middle Delaware Scenic River (MDSR). I have reviewed the draft EIS reports and have considered the potential impacts of the proposed 500 kilovolt transmission lines through both units of the National Park System.

I have considered the impacts of the proposed action which might be expected for each of the five (5) alternatives to Grey Towers National Historic Site, the Pinchot Greenway and the historic and regional context where both reside. GTNHS supports Alternative 1 (the "No Build" alternative) as the "NPS preferred alternative" for the Susquehanna-Roseland 500 KV transmission line because it provides the least impact to the visual quality, cultural and natural resources of the region.

If the NPS determines that impacts can be mitigated for one of the remaining alternatives, the Forest Service at GTNHS supports the selection of Alternative #5 as the Park's alternative for the ROW permit. The location of this alternative near the DEWA southwestern boundary appears to have the least impacts to the natural, cultural, and scenic resources protected within the Park lands and waters in that ROW.

Thank you for the opportunity to comment on the draft EIS report for this project. Conservation and use of the nation's historic, cultural, scenic and natural resources is also the mission of the USDA Forest Service, and we appreciate the opportunity to work with our neighboring land management agency partners.

Sincerely,

Allison Stewart
Director, Grey Towers National Historic Site
151 Grey Towers Drive
Milford, PA 18337
(570) 296-9630

"Where conflicting interests must be reconciled, the question shall alwaysbe answered from the standpoint of the greatest good of the greatest number in the long run". Quote from Gifford Pinchot, first Chief of the US Forest Service and lead conservationist in America.

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Correspondence (16)

Enter More | Edit | Print | Back To List

Author Information

Keep Private:	Yes
Name:	James Rousseau
Organization:	United States Coast Guard District 5 (dpb)
Organization Type:	F - Federal Government
Address:	431 Crawford Street Portsmouth VA 23704-5004 Portsmouth, WA 23323 USA
E-mail:	James.L.Rousseau2@uscg.mil

Correspondence Information

Status: New	**Park Correspondence Log:**
Date Sent: 12/27/2011	**Date Received:** 12/27/2011 12:00 AM
Number of Signatures: 1	**Form Letter:** No
Contains Request(s): No	**Type:** Web Form
Notes:	

Correspondence Text

The Coast Guard does not permit aerial power transmission lines unless they are interal features of a bridge and are used in its construction, maintenance, operation or removal or they are affixed to the bridge and affect the clearances provided by the bridge. 33 CFR 322.5 (i) Special Policies Corps of Engineers, Dept of the Army DoD covers Power transmission lines crossing navigable waters of the United States with minimum additional clearance above clearance required for bridges in the area listed by a table in the CFR. The Delaware River past Calhoun Street Trenton NJ is not subject to ebb and flow of the tide for Coast Guard jurisdiction under the General Bridge Act 33 USC5 25 and Ammendment in 1983 Coast Guard Authorization Act. If more information is required from the Coast Guard after a location has been selected for this project please submit a letter to Bridge Program Manager, 5th District Mr. Waverly Gregory U.S. Coast Guard 431 Crawford Street, Portsmouth VA 23704-5004.

TRIBAL GOVERNMENT LETTERS

Correspondence (11)

Enter More | Edit | Print | Back To List

Author Information

Keep Private:	No
Name:	Kim Jumper
Organization:	Shawnee Tribe
Organization Type:	Q - Tribal Government
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Correspondence Information

Status: New	**Park Correspondence Log:**
Date Sent: 12/05/2011	**Date Received:** 12/05/2011 12:00 AM
Number of Signatures: 1	**Form Letter:** No
Contains Request(s): No	**Type:** Web Form
Notes:	

Correspondence Text

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

Thank you for giving us the opportunity to comment on this project.

Sincerely,
Kim Jumper, THPO
Shawnee Tribe

STATE GOVERNMENT LETTERS

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF PERMIT COORDINATION AND ENVIRONMENTAL REVIEW
P.O. Box 420 Mail Code 401-07J Trenton, New Jersey 08625-0420
Telephone Number (609) 292-3600
FAX NUMBER (609) 633-2102

BOB MARTIN
Commissioner

January 24, 2012

Mr. John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and Recreational River
HQ River Road
Bushkill, PA 18324

National Park Service
Denver Service Center - Planning Division
Attn: Morgan Elmer
12795 W. Alameda Parkway
P.O. Box 25287
Denver, CO 80225-0287

RE: Susquehanna to Roseland (S-R) 500kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement

Dear Superintendent Donahue and Mr. Elmer:

The New Jersey Department of Environmental Protection (Department) has completed its review of the Susquehanna to Roseland (S-R) 500kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement (EIS) dated December, 2011. The EIS has reviewed impacts associated with various alternative routes within and proximate to the boundaries of the Delaware Water Gap National Recreation Area and Middle Delaware National and Scenic and Recreational River.

Although the alternatives that were explored have varying impacts within the Park, resource impacts outside of the Park within New Jersey will be increased by implementing any of the alternatives except Alternative 2 (the applicant's preferred route following the existing right-of-way) and Alternative 2b (the applicant's alternate route which would also include widening the existing right-of-way route of Alternative 2). Some of the increased and unacceptable impacts from alternatives other than an expansion of the existing ROW have been identified and expressed to the National Park

Service in prior communication from this Office dated October 5, 2011 which is attached hereto.

Therefore, as previously expressed, the Department will require this project to remain in the existing Right of Way (ROW) for its entire length in New Jersey and rejects any alternatives other than Alternative 2 or 2b.

Within the context of the above statement, the Department's Office of Permit Coordination and Environmental Review (PCER) distributed the Draft EIS for technical review and comment to numerous elements within the Department. On behalf of the Department, we offer the attached technical comments regarding cultural resources, the Green Acres Program, air quality, fish and wildlife, and land use regulations regarding environmental impacts. Nothing herein shall be construed to offer any support for any alternative other than Alternative 2 and/or Alternative 2b.

Thank you for giving the Department the opportunity to comment on the Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement.

Sincerely,

Scott Brubaker, Director
Office of Permit Coordination
and Environmental Review

Attachment

C: Bob Martin, Commissioner w/o attachment
Pamela Underhill, Superintendent, Appalachian National Scenic Trail with attach.
Donna Mahon, NJDEP – Natural and Historic Resources; with attachment
Angela Skowronek, NJDEP – BAQP; with attachment
Kelly Davis, NJDEP – NJDFW; with attachment
Daniel Saunders, NJDEP- SHPO; with attachment
Lou Cattuna, NJDEP – DLUR; with attachment
John Heiferty, NJDEP – DLUR; with attachment
Judeth Yeany, NJDEP – Green Acres; with attachment
Ken Koschek, NJDEP – PCER; with attachment

TECHNICAL COMMENTS
1/24/2012

NJDEP Comments on the Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement.

CULTURAL RESOURCES

The Department's Historic Preservation Office (HPO) has been in consultation with the National Park Service (NPS) and Public Service Electric and Gas (PSE&G) regarding this project pursuant to Section 106 of the National Historic Preservation Act. As discussed in the EIS, the project has the potential to affect historic properties, archaeological sites and cultural landscapes depending on the alternative selected. Cultural resource surveys are on-going. If historic, archaeological and cultural properties will be adversely affected by the project, the NPS, through consultation, shall work to avoid, minimize, and/or mitigate those effects on historic properties pursuant to Section 106 of the National Historic Preservation Act.

GREEN ACRES PROGRAM

Alternative 3 through 7 will increase impacts to State lands. Any State or local owned lands within the proposed project that have Green Acres restricted uses of conservation and recreation use would require approval of the Commissioner and the State House Commission to divert lands from conservation and recreation restrictions.

AIR QUALITY

The Department's Bureau of Air Quality Planning (BAQP) has the following comments.

Laws, Regulations, and Policies Relevant To This EIS

The EIS includes Table 1, Federal Laws, Regulations, Executive Orders, and Secretarial Orders Potentially Applicable to the S-R Line. Table 1, however, does not include the Clean Air Act's Federal General Conformity Regulation at 40 CFR Part 93 Determine Conformity of Federal Actions To State or Federal Implementation Plans. This regulation should be included in Table 1.

Air Quality Issues

The EIS states, "Section 118 of the 1963 Clean Air Act (42 USC 7401 et seq.) requires all park units to meet Federal, state and local air pollution standards." And, "Impacts on air quality would be the same across all action alternatives inside and outside the study area.

The amount of criteria pollutants emitted as a result of the action alternatives would include trace amounts of particulate matter, nitrogen oxides, and carbon monoxide and impacts on air quality would be no greater than minimal. On a regional level, the amount of criteria pollutants emitted would not be substantial and the impacts on air quality would be the same for all action alternatives. Therefore, this resource topic is dismissed from further analysis."

The BAQP notes that in order to meet the requirements of the Federal General Conformity regulation, the direct and indirect air emissions from the entire project must be considered. Please provide a quantitative discussion for the direct and indirect air emissions associated with the project activities. Since the project is located in the New York-New Jersey-Long Island 8-hour Ozone Nonattainment Area, the applicable General Conformity de minimis threshold is 100 tons per year for NOx. The EIS should demonstrate that project emissions are less than 100 tons per year of NOx in order for the project to be exempt from the mitigation and other requirements of the Federal General Conformity regulation.

Appendix I includes an August 3, 2010 letter from Frank J. Cianfrani, Chief, Regulatory Branch of the Army Corps of Engineers to the John J. Donahue, Superintendent United States Department of the Interior. This letter states "Preliminarily the District has determined that regulated work may qualify for authorization through applicable Department of the Army (DA) nationwide permits, or Pennsylvania State Programmatic General Permit 3. Both of these are DA general permit processes where an applicable NEPA document has already been prepared, and do not require the Corps to prepare a project specific NEPA document." Based upon this statement, it appears that another NEPA document applies to the project. The United States Environmental Protection Agency's (USEPA's General Conformity Guidance: Questions and Answers (July 13, 1994) addresses segmentation of a project. The guidance states that a project cannot be segmented and that "all reasonably foreseeable emissions must be included for the project as a whole in determining applicability." If the Army Corps of Engineers will be issuing a permit or permits for work in New Jersey's New York- New Jersey-Long Island (NY-NJ-CT) 8-hour Ozone Nonattainment Area, then the direct and indirect air emissions associated with the permitted work should be included in an Applicability Analysis and Conformity Determination for the portion of the project in the nonattainment area. The project can not be segmented into air emissions from work inside the National Park units and air emissions from work outside the National Park units.

FISH AND WILDLIFE

The Department's New Jersey Division of Fish & Wildlife (NJDFW) offers the following comments.

General

In "ACRONYMS AND ABBREVIATIONS," New Jersey Division of Fish and Wildlife should be NJDFW.

Freshwater Fisheries

The NJDFW's Bureau of Freshwater Fisheries would concur with the conclusion, on Page 23, that the "likelihood of 100% failure of erosion and sedimentation controls is remote so it is unlikely that impacts to surface water quality would be detectable," however, any failures and clean up would be the responsibility of the applicant.

In Table 12, the New Jersey status for listed fish would be Eastern Mudminnow – Stable (S), Ironcolor shiner - N, Bridle shiner – Regional Priority (RP), Banded sunfish - Regional Priority (RP). New Jersey would also consider Brook trout, American Brook lamprey and Slimy sculpin to be special status species in this area.

Volume1
General Comments:

- Any alternative that would require blasting through or otherwise destroy or alter the natural features of the Kittattinny Ridge (i.e., outcrops, talus, fissures) is a concern. The ridge contains timber rattlesnake and northern copperhead dens and gestation and birthing sites. Dens are long-lived elements of rattlesnake habitat and once established it is extremely rare for timber rattlesnakes to change or "switch" dens, with some dens existing for hundreds or thousands of years. The NJDFW's Endangered and NonGame Species Program (ENSP), and the NPS continue to locate previously undocumented dens and gestation/birthing habitats as more surveys are conducted. Destruction or alteration of a den could lead to the demise of that local population as the snakes would likely freeze to death, should the alteration cause changes in microclimate or the complete eviction from the den. Eliminating a local den not only means the loss of that population but may also create a gap in the connectivity between den populations, decreasing genetic exchange which could eventually weaken the populations (e.g., weaker immune systems, inbreeding mutations, etc.).

- There is concern about any alternatives that will further fragment public or otherwise conserved lands (e.g., Alternative 5 cutting through Allamuchy State Forest). Fragmentation of contiguous forested habitat could have detrimental impacts to forest-dwelling species. Not only does it create an open space that slow-moving, terrestrial bound animals (reptiles and amphibians) would have to cross, increasing their risk of predation, but it has been documented that the creation of edge habitat often increases the presence of scavengers (such as raccoons) and decreases the presence of nesting forest songbirds proximate to the edge, in some cases as much as 300 feet into the adjacent forest.

- PSE&G should be required to limit the construction and activity on the ground (e.g., fly the towers in and minimize on-the-ground mechanical work; i.e., the use of large

equipment) without widening the right-of-way when practicable. This would minimize the damage to the landscape and potential impacts to reptiles and amphibians.

- Depending on the precise locations of the proposed towers, winter construction *may* also help alleviate direct harm to the wildlife; this would need to be coordinated with the NPS and the NJDFW.

- The NJDFW recommends that PSE&G adopt BMP's for ROW maintenance that meet the approval of the NJDEP and the NPS.

- For songbirds, PSE&G should allow for low woody vegetation and ROW maintenance outside of the breeding season for songbird species as part of the mitigation. Low woody vegetation is critical to provide habitat for breeding golden-winged warblers and other shrub birds.

- If managed appropriately, allowing low woody vegetation to persist in the ROW will also prevent the ROW from being a forest break and be more of a canopy-gap for forest species such as cerulean warblers and black-throated green warblers. If all woody vegetation is removed from the Bushkill to Kittatinny Line (B-K line) in perpetuity then it can no longer be considered habitat for many bird species and the B-K line within the DEWA will no longer be a birder's hotspot. There are ways in which woody vegetation can be maintained within each span along a ROW where it will not be a threat to the wires, such as within wetlands where vegetation growth will be slower, outside the wire zone, and even within the wire zone when in close proximity (100-200 feet) to the towers, depending on topography.

- Alternative 2 and 2b will have no likely impact to known bog turtle or long-tailed salamander populations.

Chapter 3: Affected Environment

Freshwater Mussels, Page 105

- Crossings of the S-R line identified outside of Alternatives 2 and 2b have potential to impact listed freshwater mussels. Areas of concern include the Paulins Kill and Musconetcong River in the Delaware River Basin, and the South Branch Raritan and Lamington rivers in the Raritan River Basin. These waterways support populations of listed mussels, with the Paulins Kill providing habitat to the federally endangered dwarf wedgemussel (only one of four known New Jersey populations). Every effort should be made to avoid known listed and SC freshwater mussel occurrences in these waterways. Surveys will be needed at all potential stream crossings with suitable habitat present. Surveys should be coordinated with the ENSP and the USFWS, and should encompass an area 100 meters upstream and 300 meters downstream of the crossing.

Odonates, Page 159

- The NJDFW's Endangered and Non Game Species Program (ENSP) has not seen results of the invertebrate survey cited in the EIS, however, all data should be reviewed for the presence of soon-to-be listed Odonata species.

Freshwater Fish, Page 174

- The NJDFW's Bureau of Freshwater Fisheries should review the EIS for potential impacts to the bridle shiner, eastern mudminnow, wild trout, and other appropriate fish species.

Timber Rattlesnake (*Crotalus horridus horridus*), Page 184

- The northeastern timber rattlesnake is no longer identified as a subspecies. Both northeastern timber rattlesnakes and "canebrake" rattlesnakes are identified, taxonomically, as *Crotalus horridus.*

- "The timber rattlesnake's pattern of movement through the summer range ... gradually covering a territory of approximately 1 mile from the den and returning to the den in the fall."
  - This is not accurate. Timber rattlesnakes' home ranges vary significantly. Adult males can travel over 2 miles from dens in northern New Jersey although it seems, through telemetry, that most move within 1 ½ miles of their dens. Whether this is an outcome of a lack of receptive females during the breeding season within the males' core ranges has not been determined.

- "For hibernation, northern New Jersey populations of timber rattlesnake use communal den sites in rock outcroppings and talus slope areas associated with major ridges."
  - This is not accurate. Studies using transmitter-implanted timber rattlesnakes have revealed a variety of habitat characteristics surrounding dens, including but not limited to dens found in the [frequently documented] talus, fissures and ridgelines, but also within the forest (i.e., under the forest canopy) among boulder fields and small clusters of rocks. While surveyors commonly target major ridges for surveys, we have found populations using areas associated with interior forest hills rather than what is commonly identified as a "ridge". This has only increased ENSP's concern that undocumented (and less characteristic) dens may be overlooked during crucial surveys prior to construction activities.

- "Mature and juvenile individuals then follow scent trails back to their dens, which may be shared by several species (EcolSciences 2009b, 4, 5)."
  - This statement should be reviewed and a literature search conducted. The literature that ENSP's timber rattlesnake biologist has reviewed on various snake species has only ever discussed conspecific scent trailing, not shared trails across species. It is on this basis that makes it imperative that [late-summer] post-partum

timber rattlesnakes and northern copperheads be permitted to travel freely from the birthing areas to their dens (i.e., not be lifted or moved) as neonatal snakes must use their scent trail to locate a suitable den.

Golden-winged Warbler Page, 181

- Golden-winged warblers have been documented breeding along the B-K line within the DEWA within the last 5 years. Also, over 60% of New Jersey's golden-winged warbler breeding population occurs on ROWs, so it is important to maintain woody vegetation within the spans.

Chapter 4: Environmental Consequences
Special-status Species (Aquatic and Terrestrial)
Impacts of Alternatives on Special-status Species

Alternative 2, Aquatic Species, Page 419

- Alternative 2 has potential to impact listed and SC freshwater mussels, as well as other aquatic species, via water quality degradation and habitat alterations.

Special-status Aquatic Species, Page 4437

- The ENSP does not support preconstruction relocation of freshwater mussels. There is often mortality associated with relocation efforts, and any such endeavor would require several years of monitoring to determine effects. Every effort should be made to avoid known freshwater mussel populations. Relocation should be looked upon as a last resort, only after 1) avoidance is deemed structurally unfeasible and 2) adherence to BMPs will not necessarily eliminate the potential for harm or mortality to the extant population. If it is absolutely necessary to relocate mussels, a monitoring protocol must be developed and submitted to the ENSP for approval.

Alternative 1: No Action

Special-status Aquatic Species, Page 439

Vol. 2
APPENDIX F-1: MITIGATION MEASURES

LANDSCAPE CONNECTIVITY, WILDLIFE HABITAT, AND WILDLIFE (Pages F-8 and F-9)

- The ENSP recommends the NPS implement seasonal restrictions on maintenance within 200 meters of any documented timber rattlesnake and/or northern copperhead dens during emergence (April 1 – May 31) and ingress (including neonatal movements, September 15 – October 31) when snakes will congregate in the area and within 50 meters of any documented gestation and/or birthing areas (July 1 – September 15).

- The ENSP recommends the NPS require the installation of devices that will prohibit raptors from nesting on the towers.

- The dates of March 15 – July 31 to refrain from vegetation maintenance for migratory birds are not specific to individual state-listed birds breeding along the ROW. The ENSP has a document of no-harm management guidelines for vegetation maintenance along utility ROWs. Based on this document, the ENSP recommends refraining from vegetation removal from March 1 through Aug 31 to avoid impacts on raptors, shrub birds, and forest birds.

SPECIAL STATUS SPECIES (Pages F-9 - F-13)

- Page F-10: The use of "construction monitors" must include NJ ENSP-approved venomous snake monitors and turtle monitors. Monitors would be required to implement NJ ENSP and NPS-approved monitor protocol and permit conditions.

- Page F-11: "In areas with known snake dens, blasting activities are recommended to occur between April and September, after special-status snake species have left overwintering dens."
  - The ENSP requests revising this statement. Blasting should be limited to occur only between June 1 – September 14 in areas where ***no*** timber rattlesnake and/or northern copperhead dens have been documented to avoid trapping snakes in currently undocumented dens. However, no blasting should occur within 100 meters of documented dens without coordination with NPS and should also avoid documented transient/"staging" basking habitat (typically found within 200 meters of dens) and when possible, documented gestation and birthing habitats.
  - The ENSP recommends that clearing of downed vegetation be restricted to the reptiles' inactive season (November 1 – March 31), but when possible allow debris piles and downed vegetation to remain as potential foraging habitat and shelter.
  - The ENSP recommends the NPS require PSE&G to implement NPS-approved rights-of-way best management practices outlined by the ENSP.

- Page F-11: Seasonal restrictions should also include no in-stream work during glochidial release and spawning times for listed freshwater mussels. Times would be determined based on the species shown to be present, either through new surveys or existing records in Biotics.

LAND USE REGULATIONS

The Department's Division of Land Use Regulations (DLUR) has determined that the project will require a Freshwater Wetlands Individual Permit and a Flood Hazard Area Individual Permit. Both of these Individual Permits require an environmental review, which will examine an alternative analysis to insure that impacts to all regulated areas

within New Jersey are minimized and mitigated. The EIS thoroughly reviews impacts within the boundaries of the Park and although the alternatives that were explored may reduce resource impacts on the Park, resource impacts outside of the Park within New Jersey will be increased in all alternatives except alternatives 2 and 2b. It should be noted that the DLUR will, of course, review any forthcoming permit applications as required to insure compliance with all applicable State regulations concerning all resources under the jurisdiction of the DLUR.

It should be noted that these comments are based on limited information provided and are thus preliminary in nature and not a NJDEP decision or approval and should not be construed as such now or during any future permit applications or submissions. Should you have any questions regarding this memo, please contact Lou Cattuna of the DLUR at (609) 984-2071.

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF PERMIT COORDINATION AND ENVIRONMENTAL REVIEW
P.O. Box 420 Mail Code 401-07J Trenton, New Jersey 08625-0420
Telephone Number (609) 292-3600
FAX NUMBER (609) 633-2102

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

October 5, 2011

Superintendent John J. Donohue
Superintendent
Delaware Water Gap National Recreation Area
1 River Road
Bushkill, Pennsylvania 18324

Superintendent Pamela Underhill
Appalachian National Scenic Trail
National Park Service
P.O. Box 50
Harpers Ferry, West Virginia 25425

Re: PSE&G Susquehanna –Roseland transmission line upgrade NEPA comment

Dear Superintendents Underhill and Donahue:

As you know, the New Jersey Department of Environmental Protection Department (NJDEP or Department) has a strong interest in this project. Accordingly, the Department has examined the various alternatives proposed through the National Park Service (NPS) National Environmental Policy Act (NEPA) process to construct the above project.[1] As you also know, the Department has requested, via letter dated April 21, 2011 that Alternative # 3 be removed from consideration due to the identified impacts to New Jersey State forests, the Delaware River, and the Appalachian Trail in New Jersey. As you may also know, New Jersey policy opposes the expansion or construction of linear development outside of an existing similar Right of Way (ROW) if one exists, which does (your Alternatives # 2 or 2b, PSE&G's Alternative B) in this case.

[1] PSE&G and National Park Service have each proposed alternative routes for this project, some are the same route, just labeled differently, some overlap for part of their route, some are different. PSEG originally proposed 3 alternatives A, B, and C. NPS as part of their NEPA process has proposed alternatives # 1-7, with PSE&G recently adding # 8, which only affects the project within the existing ROW in the NPS. PSEG alternative A is not related to any of the NPS alternatives. (Alternative A would require 24 miles of new ROW corridor in NJ (according to PSE&G's consultant Louis Berger Group) so DEP does not consider it a viable alternative due to increased impacts). PSE&G's Alternative B is the existing Susquehanna – Roseland line and PSE&G's preferred alternative, NPS's Alternative # 2. Alternative C is related to NPS alternatives # 6 & 7. NPS alternatives # 6 & 7 follow the same alignment in NJ, they diverge on the PA side of the river to become two alternatives. PSEG alternative C crosses the Delaware River downstream of NPS Alternatives # 6 & 7, then alternative C and alternatives # 6 & 7 join up in Mansfield Township, Warren County just south of Hackettstown and then follow the same alignment eastward to Roseland, so Alternative C and Alternatives # 6 and 7 are the same route for much of New Jersey and any deviation does not affect the Department's determination that Alternative # 2 is the least environmentally impactful. NPS has additionally proposed Alternatives # 4 and # 5, discussed herein. Alternative # 1 is the no-build alternative.

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Alternative # 4 runs approximately 20 miles along the Old Main Delaware Lackawanna and Western Railroad Cutoff Historic District of New Jersey near Andover. This would require clearing of a new ROW adjacent to an undeveloped railroad ROW.[3]
Alternative # 4 would traverse 10 more miles of the New Jersey Highlands than Alternative # 2.

Alternative # 5 adjacent to Route 80 ranks the worst in terms of impacts to the Highlands Resources, and the Highlands Council has stated in a September 9, 2010 letter to the National Park Service that they would find it "highly problematic" in finding this route consistent with the goals and purposes of the Highlands Act;

Alternatives # 6 would require an additional transmission line across the Delaware River;
Alternatives # 6 and # 7 would cross 11 more miles of the Highlands Region and 1.9 more miles of local parks in New Jersey than Alternative # 2; this occurs on ROWs that require expanded widths.

Thank you for your consideration of the Department's request.

Sincerely,

Scott Brubaker, Director
NJ DEP Office of Permit Coordination
and Environmental Review

c. Bob Martin, Commissioner, NJDEP
Amy Cradic, Assistant Commissioner NJDEP NHRG
Eileen Swan, Highlands Council
DEWA PPL EIS Planning Team

[3] We are aware of a possible reactivation of this Lackawanna Cutoff line by NJ Transit to restore passenger rail service, which could be affected by the development of this alternative.

Correspondence (1234)

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Correspondence Information

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Date Sent: 01/09/2012	**Date Received:** 01/09/2012 12:00 AM
Number of Signatures: 1	**Form Letter:** No
Contains Request(s): No	**Type:** Web Form
Notes:	

Correspondence Text

The Pennsylvania Fish and Boat Commission (PFBC) is committed to protecting the aquatic resources in the Commonwealth of Pennsylvania, and recognizes that several aspects of sensitive aquatic resources exist in the project area. Specifically, the project area contains aspects of state threatened species, endangered species and species of special concern that fall under the jurisdiction of the PFBC and/or its cooperative agencies.

The PFBC concurs with Alternative 1 that will have no adverse affects on the aquatic resources present, and would support this no-build alternative if Pennsylvania Power and Light Electric Utilities Corporation (PPL) determines that this alternative is viable. All other proposed alternatives in the Environmental Impact Statement (EIS) for the Susquehanna-Roseland transmission line will adversely impact the aquatic resources present in the Delaware Water Gap National Recreation Area in some manner as determined in the EIS. Thus, it is important to select an alternative that avoids, minimizes and mitigates for the proposed impacts in the most comprehensive manner. In the event that Alternative 1 is not viable, the PFBC concurs with Alternative 2b, where the existing right-of-way (ROW) is utilized since 1) constructing the transmission line in other nearby locations would most likely result in impacts to endangered, threatened or species of concern or their habitat anyway, 2) the footprint for the existing line is already established, and 3) aquatic disturbances can either be contained within the existing ROW or minimized if outside of the existing ROW. Nonetheless, the PFBC feels that aquatic disturbances associated with Alternative 2b could be further reduced in ecologically sensitive aquatic areas (i.e., wetlands, river crossings, endangered species habitat, etc.) in order to minimize aquatic habitat degradation and direct mortality to endangered, threatened or species of special concern from associated construction activities. If an alternative other than Alternative 1 is selected and a waterway encroachment application is submitted to the Pennsylvania Department of Environmental Protection (DEP), the applicant would need to further coordinate with DEP, PFBC and other environmental regulation agencies to achieve the appropriate avoidance, minimization and mitigation measures.

Correspondence (12)

Enter More | Edit | Print | Back To List

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Status: New	**Park Correspondence Log:**
Date Sent: 12/13/2011	**Date Received:** 12/13/2011 12:00 AM
Number of Signatures: 1	**Form Letter:** No
Contains Request(s): No	**Type:** Web Form
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Correspondence Text

Thank you for the opportunity to review this DEIS. PennDOT has no comments on the project.

TOWN AND COUNTY GOVERNMENT LETTERS

Correspondence (2387)

Enter More | Edit | Print | Back To List

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Status: Reviewed	**Park Correspondence Log:**
Date Sent:	**Date Received:** 02/07/2012
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Correspondence Text

Re: Delaware Water Gap National Recreation Area and Middle Delaware National Scenic River Park
Susquehanna to Roseland 500kV Electric Transmission Line project
Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special use Permit Draft Environmental Impact Statement ' DEIS document

Dear Mr. Elmer:

Our planning commission is the county and regional planning commission serving Lehigh and Northampton counties. The Commission discussed issues concerning the Susquehanna-Roseland transmission line at its monthly meeting on January 26, 2012. Following is our position on the Proposed location of this power line.

The Lehigh Valley Planning Commission previously commented on the location of this power line in letters addressed to PPL in 2008 and 2010. It is our understanding that the Pennsylvania Public Utilities Commission (PUC) and the New Jersey Bureau of Public Utilities have approved a location for this power line that crosses National Park Service property in Monroe County. It is our further understanding that PPL has offered funds to mitigate its impact on the National Park by acquiring land in other parts of the region.

We are aware of the many difficulties involved in siting power lines and other infrastructure related to public utilities. Based on the options proposed in earlier studies of this power line and the action taken by the PUC and the New Jersey Bureau of Public Utilities, we believe the proposed location of the utility line is the most viable location for this power line. We support the decision of PPL and the public utility commissions in the location of the power lines on an expanded right-of-way in the National Park.

Yours truly,

Michael N. Kaiser, AICP
Executive Director

Correspondence (1626)

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Correspondence Text

Compare with Master Form Letter

On behalf of the East Hanover Environmental Commission, and the people of East Hanover, I would like to comment on The Susquehanna-Roseland 500kV Transmission Line:

(1) East Hanover supports the NO BUILD alternative (Alt. 1) as the "NPS-preferred Alternative."

(2) This project will impair the scenic and cultural landscapes these park units were created to preserve.

(3) All action alternatives will result in an impairment of Park resources, including but not limited to visual pollution, wildlife and ecosystems destruction, impacts on endangered species, scenic vistas, forests, and visitor experience, and noise pollution from the construction of the stanchions or poles; the mitigation plan does not go far enough to prevent the impairment of these Park resources.

(4) Impairment would not be "temporary." Construction of access roads, staging areas, widening of rights-of-way and the destruction of acres of forests will result in permanent destruction of park resources, especially core forests and landscape connectivity values.

(5) Additional alternatives need to be examined in the final EIS including non-transmission alternatives, which I have discussed below.

(6) Demand response programs, energy efficiency and conservation, and renewable local energy generation can obviate the need for this line, and do not require the use of ratepayer money to construct obsolete infrastructure projects. Energy demand in New Jersey has dropped over the past three years in part due to such programs and this project has not been updated to reflect that change in energy usage.

(7) The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory, market-based effort in the United States to reduce greenhouse gas emissions. Ten Northeastern and Mid-Atlantic states will cap

and then reduce CO2 emissions from the power sector 10% by 2018 (http://www.rggi.org/home). Coal fired power pants of Pennsylvania emit high levels of carbon dioxide, a greenhouse gas, which contributes to global warming. Why extend this extension cord from these plants, when the Northeast and Mid-Atlantic needs to reduce these CO2 emissions? What happened to researching and construction of Renewable Sources, i.e., solar and wind turbine farms? We are supposed to be correcting errors of the past, not creating new ones. Instead of investing the millions of dollars on upgrading this conduit from the coal plants of Pennsylvania, why not invest those same dollars in Green Technologies within New Jersey?

(8) Wind, Solar and biomass are currently available as renewable resources. Wind, found at the shore and in the highlands, have sustained winds of 11 mph. Solar would have distributed generation and supply the grid. Biomass is also being used and includes LFG, wastewater treatment, wood residue, food waste and aggregation of resources.

(9) Per NJ Clean Energy, as of October 31, 2011, NJ has more than 490 MW of solar, with over 12,000 installs, 31 MW Biomass, 8 MW Wind and 1.5 MW of Fuel Cells. And, as of November 30, 2011, over 12, 896 homes and business have installed a solar electric system.

(10) Tomorrow, and the future, NJ's Clean Energy Program anticipates more than 4,430 MW solar, more than 1,100 MW Offshore Wind, 200 MW Onshore Wind, and 900 MW Biomass. So you can see the future holds renewable energy instead of old coal fired plants. There is currently a Renewable Energy Incentive Program (REIP) available through NJ Clean Energy. (See: http://www.njcleanenergy.com/renewable-energy/home/home)

(11) This project is goes against the New Jersey Energy Master Plan. Why do we have Master Plans, if they are not going to be used for planning purposes? Towns and state governments spent money on creating and updating these master plans, not with the intention of ignoring them.

(12) Why is PSE&G planning to string two sets of cables capable of carrying 500kV each? The original plan was for keeping the original 250 kV cable and stringing a new 500 kV line. If you string two cables capable of carrying 500 kV each, that is what they are going to do. They are not going to string a 500 kV cable and only run 250 kV through it. The magnitude of 1000 kV (or even 750 kV) will have its disastrous results (see below).

(13) East Hanover has six (6) recorded cases of brain tumors from residents along the current 250kV line, and numerous other mortal cancers. To increase the kV lines from 250 to an additional 500kV, in the magnitude of 300%, will exponentially increase the incidence of brain tumors and other cancers. Is the "supposed" reliability of electricity (to be discussed later) more important than human lives? Do these towers really need to be erected in such a highly populated area, instead of less populated areas?

Remember Love Canal. Remember Pacific Gas and Electric Company litigation (PG&E) in 1993. Remember Toms River, NJ and their cancer cluster. We as residents and concerned citizens of East Hanover do not want to get on the map as a cancer cluster and in all the media for something that could have been prevented had thorough research and development been conducted.

(14) To argue that this project will support job creating is putting jobs over environmental and health concerns of the wildlife and ecosystems within the Park, as well as the integrity of the same. The Park will suffer irreparable and permanent damage if this project is allowed to move forward.

(15) Protection of the functions and values provided by upland forests and wetlands in combating flooding, providing habitat to threatened and endangered species, and allowing for groundwater recharge provide a greater public benefit than the Susquehanna-Roseland project.

Thank you for the opportunity to comment on the Susquehanna-Roseland 500 kV Transmission line. The East Hanover Environmental Commission strongly supports the NPS to select the "No Build

Alternative" as the "NPS-preferred Alternative" and will continue to work with the Township council's effort opposing this project.

Sincerely,

Christopher Manak
Chairman
East Hanover Environmental Commission

Correspondence (1721)

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Correspondence Text

Recommendation against the construction of the Susquehanna-Roseland power line project
The Blairstown Environmental Commission
January 29, 2012

The Blairstown Environmental Commission urges you to support the fight against the Susquehanna-Roseland power line project in its current form. We support the organizations that continue to combat a plan whereby power companies will look to build a 500-kilovolt power line using 200 foot tall towers between the Berwick, Pa., area and Roseland, Essex County. This plan appears to be completely out of step with responsible energy planning and will have a detrimental effect on the both the human and the natural environment.

The Environmental Commission is not alone in its concerns about the plan. The Eastern Environmental Law Center recently filed an appeal of the New Jersey Board of Public Utilities' (BPU) approval of the proposed Susquehanna-Roseland line expansion on behalf of the Sierra Club, Environment New Jersey, the Highlands Coalition and New Jersey Environmental Federation. "Stop The Lines," a local opposition group, has also filed an appeal in the Appellate Division of NJ Superior Court challenging the BPU decision to allow Public Service Electric & Gas (PSE&G) to build a massive power line.

While it's true that power lines exist all over the state and run currently through the area proposed for the new lines, what makes these different is the size of the towers. The current towers are about 80 feet tall and the new towers will be 200 feet tall. To many people this project does not make sense environmentally, technologically, or economically. There are numerous reasons to question the need for the new towers.

According to data on the NJ State Energy Data Center website (http://www.njenergydatacenter.org/)

electric use in New Jersey has decreased the last few years and is only expected to rise by about 1.5% in 2010 according to PSE&G. Meanwhile, the new proposed power lines are capable of carrying 700% more energy based on Stop the Lines data. Given the decrease in energy consumption and excessive added capacity, we find this to be unsustainable use of resources.

New Jersey ratepayers would have to pay the cost of this project. The cost estimate runs from $900 million to $1.3 billion. This money could be better invested in renewable energy sources for our state, including solar panels, or fuel cells, or other alternate energy projects.

Has there really been enough creative thought about what a billion dollar investment in clean energy technology might look like? Based upon an estimated $5 per watt installation cost, a $1billion investment would result in 200,000 kW installed capacity, which is equal to 246 million kW-hours per year. Assuming the average home uses 5,000 kW-h per year, that investment could power about 50,000 homes. Those 50,000 homes could also be supplying electricity to the grid during peak usage times when the electricity is most needed.

Ironically, New Jersey has actually been lauded for its photovoltaic (PV) installations, yet our government now asks us to pay money to benefit another state for energy that could be generated here. Given the cost and questionable necessity, we find this is an unsustainable use of our money.

The rationale for the lines – to prevent overloading during peak loads – is regarded by the commissioners as a "business as usual" approach, which is contrary to stated goals of the New Jersey Energy Master Plan. The plan calls for maximizing energy conservation and efficiency, reducing peak electricity demand, and investing in innovative clean energy technologies. PV panels are an energy source capable of reducing peak demand since most of their energy is produced during those times. Wind and fuel cells are other alternate energy sources worth greater consideration. Other states have had successes with these sources of energy and our state should pursue this further. Transmitting energy over long power lines is known to be a wasteful mode of transmission. Given that the state's goals are not supported by this project, we find this is an unsustainable way to supply New Jersey's energy.

Three more significant reasons to question the tower plan include:
1. Health: while no causal link has been established with regard to the effects of EMF on human health and safety, there is enough anecdotal evidence to warrant caution.
2. Safety: there has been no precedent to establish the safety of towers of these heights. There are real concerns with many houses in the vicinity of a 200-foot tower standing in a 150=foot right of way.
3. Environmental: Blairstown residents and Delaware Water Gap visitors share an unspoiled, natural setting. If approved, this project would indelibly scar the scenic beauty of the area. Construction requires new roads and land clearing that will have adverse effects on streams, lakes, erosion, and sensitive park habitat.

Please reject the Susquehanna-Roseland power line project.

NON-GOVERNMENTAL ORGANIZATION LETTERS

Comment Form

Park: Delaware Water Gap National Recreation Area and Middle Delaware National Scenic River

Project: Susquehanna to Roseland 500kV Electric Transmission Line (ID: 25147)

Document: Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement - DEIS December 2012 (ID: 44314)

* indicates required fields

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First Name: Abigail Middle Initial: H

Last Name: Dillen

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☐ Keep my contact information private

Comments or Requests:

DELAWARE RIVERKEEPER NETWORK •EARTHJUSTICE•EASTERN ENVIRONMENTAL LAW CENTER •NATIONAL PARKS CONSERVATION ASSOCIATION •NEW JERSEY ENVIRONMENTAL FEDERATION •NEW JERSEY HIGHLANDS COALITION •ROCK THE EARTH•SIERRA CLUB •STOP THE LINES

January 31, 2011

John J. Donahue, Superintendent
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& Middle Delaware National Scenic and Recreational River
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(570) 426-2418

Pamela Underhill, Superintendent
Appalachian National Scenic Trail
P.O. Box 50
Harpers Ferry, WV 25425
(304) 535-6278

National Park Service
Denver Service Center - Planning Division
Attn: Morgan Elmer
12795 W. Alameda Parkway
P.O. Box 25287
Denver, CO 80225-0287

Dear Superintendents Donahue and Underhill and Ms. Elmer,

Thank you for the opportunity to provide feedback on the Draft Environmental Impact Statement ("DEIS") for the Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit. On behalf of the Delaware Riverkeeper Network, National Parks Conservation Association, New Jersey Environmental Federation, New Jersey Highlands Coalition, Rock the Earth, Sierra Club, and Stop the Lines, we offer the following comments, noting at the outset that we appreciate the National Park Service's intensive effort to analyze and disclose this project's environmental impacts on the Delaware Water Gap National Recreation Area, the Appalachian National Scenic Trail, and the Middle Delaware National Scenic and Recreational River (collectively "Parks").

While further analysis is needed to assess (1) the viability of alternatives to building the proposed 500kV line and (2) adverse impacts, including cumulative impacts,

outside the Parks, the DEIS conclusively demonstrates that the proposed Susquehanna to Roseland line would impair Park resources in violation of the National Park Service Organic Act. As the Park Service's own analysis makes clear, the agency cannot grant the requested right-of-way and special use permit without fundamentally degrading the unique natural, scenic, and cultural resources that these Parks were established to preserve. While recent news reports suggest that PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G) (collectively "the applicants") may be contemplating mitigation efforts in the form of land purchases or conservation easements, it is not possible to eliminate impairment to areas of special significance by expanding Park boundaries.

We urge the Park Service to deny the requested right-of-way and special use permit. The applicants have presented the agency with a false choice between conserving the Parks as the law requires and maintaining electric reliability. Circumstances have changed dramatically since 2006, when a need for the Susquehanna to Roseland Line ("S-R Line") was identified by PJM Interconnection ("PJM"). The reliability issues that the line was intended to address have largely been resolved; load demand in the areas that the line would serve continues to decline, as reflected in PJM's repeated downward adjustments to its load forecast; robust growth of energy efficiency and demand response resources continues to exceed PJM's expectations (as reflected in its modeling assumptions); and development of significant new generation capacity, including local renewable generation, has gone forward or is planned in New Jersey. All of these factors, both individually and collectively, suggest that the $2 billion S-R Line is an expensive solution to a problem that no longer exists. However, PJM has yet to undertake new load flow analyses to determine whether the S-R Line is actually needed to ensure electric reliability in 2015 when the S-R Line is scheduled to be in service, or to evaluate whether there are non-transmission alternatives or more modest, less damaging transmission upgrades that would resolve outstanding reliability issues, if indeed there are any.

Absent updated analysis by PJM that affirmatively demonstrates the need to build the S-R Line, there is no adequate justification for accommodating a right-of-way request or granting a special use permit for construction that is inherently incompatible with Park values. The Applicants have made no effort to avoid or minimize harm to the Parks, electing instead to propose a route that runs through areas of singular ecological, scenic, and cultural importance. Moreover, the DEIS makes clear that the Park Service has not been able to identify an acceptable alternative route. Under these circumstances, the Park Service can and must issue a Record of Decision ("ROD") selecting the environmentally preferred "no action" alternative.

I. THE PARK SERVICE MUST PREVENT IMPAIRMENT OF NATIONAL PARK RESOURCES

The Park Service has an overriding mandate to defend against degradation that would inevitably result from construction of the S-R Line through the Parks. The National Park Service Organic Act of 1916 directs the Park Service "to conserve the

scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." 16 U.S.C. § 1. In the so-called 'Redwood Act" of 1978, Congress reaffirmed this core mandate with respect to all units within the National Park System, clarifying that "the promotion and regulation of the various areas of the National Park System . . . shall be consistent with and founded in the purpose established by [the Organic Act], to the common benefit of all of the people of the United States." *Id.* § 1a-1. To this end, Congress directed that "[t]he authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established." *Id.*

The Redwood Act and its legislative history "evidence Congress' intent that the parks be managed so as to avoid any impairment or derogation of park resources and values." *Southern Utah Wilderness Alliance v. Natl. Park Service*, 387 F. Supp. 2d 1178, 1191 (D. Utah 2005). Specifically, the legislative history provides, "[t]he Secretary is to afford the highest standard of protection and care to the natural resources within . . . the National Park System. No decision shall compromise these resource values except as Congress may have specifically provided." *Id.* (quoting S.Rep. No. 95-528 at 13-14 (1977)). Further, the Secretary "has an absolute duty, which is not to be compromised, to fulfill the mandate of the 1916 Act to take whatever relief as will safeguard the units of the National Park System." *Id.* (quoting S.Rep. No. 95-528 at 13-14).

Importantly, this duty entails not only preventing impairment of the Parks but also avoiding adverse impacts to Park resources to the greatest extent possible. As set forth in the National Park Service Management Policies:

> The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. This mandate is independent of the separate prohibition on impairment and applies all the time with respect to all park resources and values, even when there is no risk that any park resources or values may be impaired. *NPS managers must always seek ways to avoid, or to minimize to the greatest extent practicable, adverse impacts on park resources and values.*

NPS, Management Policies § 1.4.3 (2006) (emphasis added); see also *Greater Yellowstone Coalition v. Kempthorne*, 577 F. Supp. 2d 183, 190 n.1 (D.D.C. 2008) (recognizing "§ 1.4 of the NPS Policies as the official and enforceable interpretation of the Organic Act") (emphasis added). Thus, the courts have affirmed that "NPS is required to exercise its discretion in a manner that is 'calculated to protect park resources' and genuinely seeks to minimize adverse impacts on park resources and values." *Id.* at 193 (citing *Daingerfield Island Protection Soc'y v. Babbitt*, 40 F.3d 442, 446 (D.C. Cir. 1994)).

The Park Service is further obligated to afford the Middle Delaware the full protection afforded by the Wild and Scenic Rivers Act. 16 U.S.C. §§ 1271 et seq. "In 1968, the Delaware River within DEWA was designated as a scenic and recreational river." NPS, Draft Environmental Impact Statement for the Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit, 12 (Dec. 2011) ("DEIS"). As such, the Middle Delaware "*shall* be administered in such manner as to protect and enhance the values that caused it to be included in the wild and scenic rivers system without limiting other uses that do not substantially interfere with public use and enjoyment of these values." *Id.* (emphasis added); 16 U.S.C.A. § 1281(a). In particular, the Park Service must ensure protection of the river's aesthetic, scenic, historic, archeological, and scientific features. 16 U.S.C.A. § 1281(a).

A. The National Park Service Has Identified Adverse Impacts that Compel Denial of the Right-of-Way and Special Use Permit

The DEIS identifies major adverse impacts from the proposed S-R Line to Park resources including iconic scenery, historic landscapes, rare ecological communities, imperiled and recovering wildlife species such as bald eagles, defining geologic formation, and the experience of the millions of visitors who visit these extraordinarily popular Parks each year. *See, e.g.*, DEIS at 683-687. The nature and severity of these adverse impacts bears emphasis. Among the very serious threats posed by the project are the following:

- **"Drastic scenic degradation that could violate the Organic Act"** (DEIS at 686): "The presence of large and obtrusive infrastructure in a relatively undeveloped zone would be a distraction and detract from the experience visitors seek when coming to the parks. It would degrade the regionally unique and unusual wilderness-like viewshed for APPA that DEWA and MDSR provide. Larger structures also introduce non-conforming elements to the parks' cultural landscapes and historic sites affected by this alignment and detract from the characteristics that qualify them for protection. This, in turn, would have adverse impacts on the MDSR through degradation of the scenic values for which the river was designated. The visual change would affect a relatively large area and a large number of users." *Id.* at 683.

- **A "high risk for irreparable damage to significant ecological communities"** (*id.* at 686): The applicant's proposal would "cross in the center part of DEWA, including the MDSR. In general, this area is one of the most undeveloped areas of the park, containing large swaths of contiguous mature forest, few manmade intrusions, unique geological formations, a globally-significant rare plant community, and abundant opportunities for solitude. This part of the park is a particularly sensitive area because it contains high concentrations of many important and unique

natural features including, rare limestone formations, the Arnott Fen, the Delaware River riparian corridor, eastern hemlock forests, the Hogback Ridge, the Kittatinny Ridge, and the Van Campens Brook riparian area. Several resources on this alignment are recognized for their superlative biodiversity (e.g., Hogback Ridge and Arnott Fen) and are significant in both park and regional contexts, making any impacts in these locations even more acute." *Id.* at 684

- **Migratory bird and raptor kills:** "The high risk of bird collisions as a result of creating an aerial hazard on a major migratory flyway coupled with the unknown extent of the potential mortality of and injury to migrating birds and the uncertainty as to the effectiveness of mitigation measures could potentially violate the Act." *Id.* at 686.

- **Taking of bald eagles:** "The siting of a transmission line adjacent to a bald eagle roost is counter to the recommendations in the National Bald Eagle Management Guidelines and the risk of eagles colliding with the lines cannot be mitigated; therefore, it is likely that the potential loss of eagles through collisions would require a permit from the USFWS for "take" of bald eagles associated with operation of the transmission line." *Id.*; *see also id.* at 684 (noting that the proposed line would run next to "an important communal roost for wintering bald eagles that is one of only two known winter roosts in DEWA").

- **Impairment of a Wild and Scenic River:** The applicants' proposal "would result in significant long term degradation of the scenic values for which the river was designated, which may violate the directives in Section 10(a) of the WSRA to 'protect and enhance' those values which caused the river to be included in the system." *Id.* at 687. Notably, the applicants' proposal "crosses close to a unique river feature, the Walpack Bend, which is a premier visitor attraction in DEWA." *Id.* at 684

- **Degradation of cultural resources**: "The crossing area also contains a high concentration of cultural resources including pre-Columbian fishing camps and 32 identified historic structures, owing to a fortuitous combination of topography and land protection." *Id.*

- **A damaging precedent:** Approval of a right-of-way for the S-R Line "could establish a precedent that may invite similar proposals by other applicants in the future, and create an expectation of like treatment for those proposals; it may make it difficult to deny such proposals. DEWA and APPA both contain numerous other utility crossings, which makes the risk of such precedent particularly concerning for these parks. . . . The location of this particular [proposed Route 2] crossing within DEWA — the center of the park — could make such a precedent even more potent.

> Installing the S-R Line on this alignment may invite future utilities proposing to follow the same route. *Id.* at 685.

As the Park Service recognizes, "[a]llowing such adverse effects in order to facilitate private infrastructure expansion would be contrary to NPS practice and principle of protecting and improving these resources, and of removing incompatible infrastructure to do so." *Id.* at 685. As noted above, the Park Service further acknowledges that allowing the S-R Line to cross through the middle of the Park, through areas of extraordinary significance along Route 2 or 2b, "poses high risk for irreparable damage to significant ecological communities and drastic scenic degradation that could violate the Organic Act (impairment)." *Id.* at 686 (also noting potential for violation of the Wild and Scenic Rivers Act). Based on the analysis presented on the DEIS, the Park Service must conclude in the Final EIS that siting the S-R Line along any of the analyzed routes would result in impairment of the Parks in violation of the Organic Act and the Wild and Scenic Rivers Act.

In evaluating the threat of impairment, the Park Service is obligated to apply its official interpretation of the Organic Act, as set forth in the Management Policies:

> Whether an impact meets this definition [of impairment] depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts. An impact is more likely to constitute impairment to the extent that it affects a resource or value whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or identified in the park's general management plan or other relevant NPS planning documents as being of significance.

NPS, Management Policies § 1.4.5.[1] Here, the impacts that will flow from construction of the S-R Line will directly impact resources that the Parks were expressly created to protect.

As explained in the DEIS, "Congress established [the Delaware Water Gap National Recreation Area] DEWA in 1965 to provide for "public outdoor recreation use and enjoyment of the proposed Tocks Island Reservoir and lands adjacent thereto and for the preservation of the scenic, scientific, and historic features contributing to public enjoyment of such lands and waters." DEIS at 11 (quoting PL 89-158). Contributing to

[1] The D.C. Circuit Court of Appeals has held that the Management Policies as a whole are not judicially enforceable. *See Wilderness Society v. Norton*, 434 F.3d 584, 596-97 (D.C.Cir. 2006). However, 1.4 of the Management Policies, which interprets the Organic Act's preservation mandate, was noticed in the Federal Register, subject to public comment, and published in final form in the Federal Register. As such, it bears the hallmarks of a rulemaking, and the Park Service has acknowledged that it represents the agency's formal interpretation of the Organic Act. It has been determined to be judicially enforceable accordingly. *See Greater Yellowstone Coalition*, 577 F. Supp. 2d 190 n1.

its national significance are its "[o]utstanding geologic and natural features [that] form some of the best-known scenic landscapes in the northeastern United States," *id.*, the essential habitat it provides to sustain plant and animal communities including globally significant natural heritage areas, *id.* at 195, and "the most significant, intact concentration and diversity of known archeological resources in the northeastern United States, as well as outstanding examples of American Indian and European settlements dating from the Early Woodland through Late Colonial historic periods." *Id.* at 11. The Delaware Water Gap is also "significant due to the exceptional quality of the Delaware River," which is "the last free-flowing river in the eastern United States." *Id.*

Like the Delaware Water Gap, the Appalachian Trail is defined by the access to undisturbed woods and wild lands that it provides. A footpath running from Maine to Georgia, it gives hikers an unparalleled opportunity to experience undeveloped natural and scenic landscapes of the Appalachian Mountains. *See id.* at 12. Its national significance is inherently tied to intact preservation of the lands and landscapes it passes through. Notably, the stretch of the Appalachian Trail that would be impacted by the S-R Line now boasts "a very natural and relatively unspoiled viewshed provided by the[] undeveloped lands below it." *Id.* at 684.

Building a new extra high voltage power line with 200-foot towers across the center of the Delaware Water Gap, across the Middle Delaware, and across the Appalachian Trail will necessarily mar the iconic scenic and historic landscapes that the Parks were established to preserve; it will irreversibly destroy and thus fragment habitat including outstanding value wetlands within rare ecological communities; it will create a major aerial hazard in a key migratory flyway; and it will require blasting (and destruction) of unique geological formations. *See, e.g.*, *id.* at 683-87. Each of these impacts "affects a resource or value whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park" and is "key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park." NPS, Management Policies § 1.4.5. Further, as the Park Service apparently recognizes, much of this severe damage would be permanent and irreversible. *Id.* at 685. In short, the analysis of impacts provided in the DEIS confirms that the S-R Line would illegally impair Park resources.

The Park Service has discretion to evaluate whether adverse impacts rise to the level of impairment. *See Greater Yellowstone Coalition*, 577 F. Supp. 2d at 193 ("[T]he Organic Act gives the Park Service broad, but not unlimited discretion in determining *what actions are best calculated to protect Park resources*.") (emphasis in original) (internal quotations and citations omitted). However, the courts have made clear that the agency cannot discount the major impacts it has identified to conclude that damaging activities can nevertheless go forward. Rather, it must provide a convincing explanation why such impacts are acceptable. *See id.* at 195 (rejecting authorization of snowmobiling in Yellowstone National Park because "NPS provides no quantitative standard or qualitative analysis to support its conclusion that the adverse impacts . . . are 'acceptable'"); *see also Bluewater Network v. Salazar*, 721 F. Supp. 2d 7, 29-38 (D.D.C. 2010) (holding Park Service authorization of jet ski use in the National Parks to be"

arbitrary and capricious because NPS' conclusion that PWC use would result in non-impairment under the Organic Act is not based on reasoned explanations"); *Sierra Club v. Mainella*, 459 F. Supp. 2d 76, 103 (D.D.C. 2006) (holding that the Park Service "failed adequately to explain its conclusion that impacts from nearby surface drilling activities would not result in an impairment of park resources and values."). Given the major adverse impacts that will necessarily flow from allowing construction of the S-R Line to go forward in the Parks, there is no such explanation available to justify the grant of right-of-ways and special use permits. *See Greater Yellowstone Coalition*, 577 F. Supp. 2d at 202 (stating "this Court is equally perplexed as to why any impact characterized as 'major and adverse' does not constitute an unacceptable impact, let alone impairment").

Further, putting aside the question of impairment, the Park Service "has interpreted the Organic Act to prohibit uses which cause 'unacceptable impacts.'" *Greater Yellowstone Coalition*, 577 F. Supp. 2d at 194; NPS, Management Policies § 1.4.7.1. The Management Policies define "unacceptable impacts" as "impacts that, individually or cumulatively, would":

> • Be inconsistent with a park's purposes or values, or
>
> • Impede the attainment of a park's desired future conditions for natural and cultural resources as identified through the park's planning process, or
>
> • Create an unsafe or unhealthful environment for visitors or employees, or
>
> • Diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values, or
>
> • Unreasonably interfere with park programs or activities, or an appropriate use, or the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.

NPS, Management Policies § 1.4.7.1. Again, in order to grant the requested right of way and special use permit, the Park Service would have to do the impossible and provide a reasoned explanation why the impacts reported in the DEIS could be deemed acceptable in keeping with these standards. *See, e.g.*, *Greater Yellowstone Coalition*, 577 F. Supp. 2d at 194-195.

B. The Impairment of Park Resources Cannot Be Mitigated

There is no apparent way to mitigate harm from the proposed S-R Line to avoid impairment of Park resources. Because many of the mitigation plans set forth in Appendix F of the DEIS have yet to be developed, it is impossible to determine the extent to which they may temper the damage associated with construction in sensitive wetlands,

floodplains, geological formations, and plant and wildlife habits. *See, e.g.* DEIS at 390 ("[T]he NPS would require a NPS-specific, NPS-park approved vegetation management plan."); DEIS App. F at F-5 ("A blasting plan would be prepared and submitted to NPS for review and approval by a blasting expert before construction."); *id.* ("A preconstruction surface assessment would be completed prior to disturbance, and that if found, resources will be avoided, or if unavoidable, collected and properly cared for before the start of construction."); *id.* ("For tower locations abutting and adjacent to limestone fens, alternate techniques, including drilling, would be evaluated to minimize the potential for impact to the fens."); *id.* at F-10 ("An Avian Protection Plan (APP) would be completed in accordance with the Bald Eagle Guidelines (USFWS 2007) and APLIC standards would be a condition of the applicant's permit."); *id.* at F-17 ("Develop an OHV/ATV deterrent plan prior to construction activities.").

However, regardless of the shape that these various mitigation plans may eventually take, it is clear that significant damage cannot be avoided if the applicants are allowed to undertake all of the roadwork, blasting, bull-dozing, tree-cutting, and elimination of ground cover[2] that is required to complete this major infrastructure project. Certainly, there is no way to mitigate the appearance of 200-foot transmission towers, which will become a dominant feature of the landscape for the foreseeable future. *See, e.g.*, DEIS at 683, 686, Appendix K. In fact, the analysis of scenic degradation in the DEIS most likely discounts the visual impact of the new transmission towers in portraying them as monopoles rather than the lattice towers that may well be required given the results of soil borings.

Where, as here, major adverse impacts are fundamentally unavoidable if the S-R line goes forward, the Park Service cannot rely on mitigation measures to comply with its preservation mandate under the Organic Act and the Wild and Scenic Rivers Act. *See, e.g.*, *Sierra Club North Star Chapter v. LaHood*, 693 F. Supp. 2d 958, 963 (D. Minn. 2010) (rejecting Park Service argument that adverse impacts from construction of bridge over wild and scenic river could be mitigated to become acceptable).

While the DEIS does not analyze the potential for mitigating the S-R Line's impacts through the acquisition of lands adjacent to the Parks, the applicants have announced their intent to make $30 million available for this purpose in the event they are authorized to construct the S-R Line along their proposed Route 2. However, an incremental enlargement of the Delaware Water Gap cannot mitigate impairment to core resources that the Park was created to protect. Congress intended to preserve the unique features that lie within the Park's current boundaries, and the Park Service has no authority to abrogate Congress' judgment by compromising the resources and values associated with the Park in exchange for lands outside the Park. See 16 U.S.C. § 1 (requiring the Park Service "to conserve the scenery and the natural and historic objects and the wild life *therein*") (emphasis added). If the Park Service could evade the prohibition on impairment simply by acquiring more land outside the Parks, the Organic

[2] Importantly, the applicants must obtain not only Park Service approvals for these construction activities but also a permit from the Delaware River Basin Commission ("DRBC") for activities that incur significant disturbance of ground cover affecting water resources. DRBC Rules of Practice and Procedure §2.3.5(13).

Act would no longer afford effective safeguards for Park resources that are subject to development pressure. While acquisition of additional property may often serve to further conservation goals and ecosystem protection, the Park Service cannot rely on a land deal to approve the applicants' proposal.

Moreover, the Park Service cannot base its record of decision on a mitigation plan that has never been disclosed to the public. Under NEPA, the agency must analyze any such plan in the EIS and afford a meaningful opportunity for public comment on that new analysis. *See* 40 C.F.R. §§ 1502.9(1), (4) (requiring agencies to "prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" and further requiring that agencies "[s]hall prepare, circulate, and file a supplement to a statement in the same fashion (exclusive of scoping) as a draft and final statement").

II. APPLICANTS CANNOT IMPLEMENT ALTERNATIVE 2B WITHOUT NATIONAL PARK SERVICE APPROVALS

The Park Service is not consigned to allow the S-R proposal to go forward as contemplated by the applicants if they can feasibly construct the new line within their existing right-of-way. As the DEIS correctly points out, the project likely would require cutting of so-called "danger trees" outside of the right-of-way, and that requirement alone obliges the applicants to secure approval of a right-of-way expansion. DEIS at vi. More fundamentally, however, the applicants do not have the right to undertake activities that will have significant environmental impacts without first obtaining the Park Service's approval. As governing regulations make clear:

> Constructing or attempting to construct a building, or other structure, boat dock, road, trail, path, or other way, telephone line, telegraph line, *power line*, or any other private or public utility, upon across, over, through, or under *any* park areas, except in accordance with the provisions of a valid permit, contract, or other written agreement with the United States, is prohibited.

36 C.F.R. § 5.7 (emphasis added). The Park Service's authority to enforce this regulation as to activities undertaken in existing right-of-ways is not in doubt.

First, the Park Service has the authority to prevent activities in right-of-ways that would impair park resources or otherwise result in unacceptable impacts. As several courts have affirmed, the Park Service may lawfully regulate the use of a right-of-way "to protect the scenery and natural beauty of the park lands. *U.S. v. Garfield Cty.*, 122 F. Supp. 2d 1201, 1236 (D. Utah 2000). *Accord, Clouser v. Espy*, 42 F.3d 1522, 1538 (9th Cir. 1994) (upholding the validity of Park Service regulation of activities on right-of-ways); *Adams v. United States*, 3 F.3d 1254, 1258 n. 1 (9th Cir. 1993) (same); *United States v. Vogler*, 859 F.2d 638, 642 (9th Cir. 1988), *cert. denied*, 488 U.S. 1006 (1989)

(same); United States v. Jenks, 22 F.3d 1513 (10th Cir. 1994) (same); *Wilkenson v. Department of Interior*, 634 F. Supp. 1265 (D. Colo. 1986) (same). In *Vogler*, the Ninth Circuit held that "Congress has made it clear that the Secretary has broad power to regulate and manage national parks. The Secretary's power to regulate within a national park to 'conserve the scenery and the nature and historic objects and wildlife therein . . .' applies with equal force to regulating an established right-of-way within the park." 859 F.2d at 642 (quoting 16 U.S.C. § 1) (emphasis added). Thus, it is not the case that the applicants can undertake whatever construction they choose within the existing right-of-way, much less proceed without obtaining Park Service authorization. "The holder of a right-of-way, private or public, cannot lawfully take dominant possession and deal with the land upon which the easement exists as if he were the owner of the land, because he is not the owner of the land." *Garfield County*, 122 F. Supp. 2d at 1242 (further explaining that "[e]asements do not carry any title to the land over which the easement is exercised, and work no dispossession of the owner. Since the interest itself is nonpossessory, the holder of the easement does not have the degree of control over the burdened property that is enjoyed by the owner of the servient estate; complete dominion is inconsistent with a claim of easement.") (citing 28A C.J.S. Easements § 144, at 347).

Second, any activities that may have a significant environmental impact—as the S-R Line project will indisputably have—must be subject to NEPA review by the Park Service before any construction can proceed. *See, e.g., Garfield County*, 122 F. Supp. 2d at 1235-36 (recognizing that "the Park Service also has a duty imposed upon it by Congress to consider the impact on the environment of projects" in the Parks even with private right-of-ways). As explained by the *Garfield County* court, "[b]eyond evaluating the environmental impact of proposed construction work, where that work would impair the value of the scenery and natural objects of the park, or would otherwise be conducted in derogation of park values, the Park Service has the responsibility to formulate less burdensome alternatives." *Id.* at 1245. Thus, the applicants cannot build a new transmission line in it existing right-of-way unless and until the Park Service completes its NEPA Review and selects a less damaging alternative. Where, as here "a federal agency has the power to protect public lands," the courts have "recognized that agency's power—and duty—to formulate viable alternatives, and if needs be, 'the responsibility to impose an alternative it deems less degrading upon the nonfederal actor.'" *Garfield County*, 122 F. Supp. 2d at 1245 (quoting Hodel, 848 F.2d at 1090–91).

III. THE FINAL EIS MUST INCLUDE ANALYSIS OF A FULL RANGE OF ALTERNATIVES

The Park Service's consideration of alternatives is critical to meeting its obligations to protect the Parks under the Organic Act and Wild and Scenic Rivers Act, and to provide for an informed decision-making process under NEPA. Under the Organic Act, the Park Service is bound to identify and select the least damaging alternative available. *See, e.g., Daingerfield*, 40 F.3d at 446, n.3 (noting that "the only choice left to the Park Service was to approve the least intrusive interchange possible, which it did, or refuse to approve any interchange at all"); NPS, Management Policies §

1.4.3. Necessarily, this obligation puts a premium on evaluating a full range of alternatives that are consistent with preserving the Park resources and values.

Further, under NEPA, the Park Service is required to "[r]igorously explore and objectively evaluate all reasonable alternatives" to a proposed action. 40 C.F.R. § 1502.14(a). Crucially, the purpose of an EIS is "to provide full and fair discussion of significant environmental impacts and to inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." *Natural Res. Def. Council, Inc. v. Fed. Aviation Admin.*, 564 F.3d 549, 556 (2d Cir. 2009) (internal quotation marks and alteration omitted).

The alternatives analysis required under NEPA, 42 U.S.C. § 4332(2)(C), "should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among the options by the decisionmaker and the public." 40 C.F.R. § 1502.14. The alternatives analysis must include "the alternative of no action" as well as "reasonable alternatives not within the jurisdiction of the lead agency." *Id.*; *see also* 46 Fed. Reg. 18,026, 18,027 (March 23, 1981) ("An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable."). This analysis of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14; see also *Monroe Cty. Conservation Council*, 472 F.2d 693, 697-98 (2d. Cir 1972) (characterizing the "requirement for a thorough study and a detailed description of alternatives" as "the linchpin of the entire impact statement"). Courts have made clear that this requirement:

> ensure[s] that each agency decision maker has before him and takes into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit analysis. Only in that fashion is it likely that the most intelligent, optimally beneficial decision will ultimately be made.

Calvert Cliffs' Coordinating Comm., Inc. v. Atomic Energy Comm'n, 449 F.2d 1109, 1114 (D.C. Cir. 1971) (emphasis added).

In order to ensure that this alternatives analysis is not hampered by a rigid concept of what is needed at the outset of the NEPA process, agencies must consider alternatives that meet only part of the stated purpose of the proposed action. *See North Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1542 (11th Cir. 1990) ("A discussion of alternatives that would only partly meet the goals of the project may allow the decision maker to conclude that meeting part of the goal with less environmental impact may be worth the tradeoff with a preferred alternative that has greater environmental impact."); *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972) ("[It is not] appropriate . . . to disregard alternatives merely because they do not offer a complete solution to the problem.").

Similarly, it is essential that the agency does not define the "purpose and need" for the project so narrowly as to preclude consideration of viable alternatives. As the courts have made clear, federal agencies cannot constrain the alternatives analysis through "wholesale acceptance" of the applicant's definition of the project objective. *Simmons v. U.S. Army Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997) (explaining that agencies have "the duty under NEPA to exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project") (citation omitted). While the applicants may prefer to build an expensive new transmission line, which will yield a substantial (12.9 percent) rate of return on investment, construction of the S-R Line is not the goal that should guide formulation of alternatives for study in the EIS. Rather, "the evaluation of 'alternatives' mandated by NEPA is to be an evaluation of alternative means to accomplish the general goal of an action—in this case, maintaining reliability of the electric grid. *Id.* (emphasis added) (citations omitted) (holding that the agency had "ruined its environmental impact statement" by focusing solely on the type of solution favored by the applicant and "never look[ing] at an entire category of reasonable alternatives").

A. The Final EIS Must Disclose Information Necessary To Evaluate the No Action Alternative

As NEPA requires, the Park Service has given detailed consideration to the impacts on the Parks of maintaining the status quo or the "no action" alternative. However, the DEIS provides no meaningful analysis to inform the ultimate question whether selection of the environmentally preferred no-action alternative is a viable proposition. The DEIS correctly notes that "[u]se of distributed energy generation sites and localized renewable energy is one of a number of possible reactions of PJM and the applicant (and others) if the NPS selects the no-action alternative," DEIS at 67, but the DEIS reflects no effort to investigate whether the no-action alternative is actually consistent with the basic purpose and need for the project—that is, to ensure grid reliability.

As discussed above, the Park Service's preservation mandate demands selection of the no action alternative. Given the pressure that the Park Service will inevitably encounter to approve construction of a project that is purportedly needed for reliability reasons, it is incumbent on the agency to avoid a conflict (or the appearance of a conflict) between the Organic Act and National Electric Reliability Corporation ("NERC") reliability standards. Thus, it is crucial that the agency reach out to PJM and sister agencies with relevant expertise such as the Department of Energy and the Federal Energy Regulatory Commission to reassess the need for a new 500kV transmission line that crosses the Parks.

As the Park Service may be aware, there have been several significant changes in circumstances since the S-R line was ordered into service by PJM and approved by the Pennsylvania Public Utility Commission and the New Jersey Board of Public Utilities. Notably, in proceedings to obtain PUC and BPU approvals, the applicants maintained

that the line was needed in service by 2012 to avoid a raft of alleged reliability issues, but the in-service date for the line has now been pushed back three years without jeopardizing the grid.[3]

PJM has acknowledged that any reliability issues will be adequately addressed without the line until at least 2015. In its 2010 Regional Transmission Expansion Plan ("RTEP"), PJM concluded that "extending the Reliability Must Run (RMR) status for Hudson Unit #1 into 2012" and "implementing demand resources" could stand in the stead of the Susquehanna-Roseland line in the 2012–2015 time frame. *See* PJM 2010 Regional Transmission Expansion Plan, PJM, 8-9 (Feb. 28, 2011) ("2010 RTEP").[4] More recently, at a Transmission Expansion Advisory Committee (TEAC") meeting on August 4, 2011, PJM reported its conclusion based on updated analysis that "sufficient [demand response] exists to control the loadings on the constrained facilities for 2012 through 2014 even without Hudson 1." Transmission Expansion Advisory Committee, PJM, 36 (Aug. 4, 2011).[5] As a result, PJM is permitting retirement of the Hudson Unit # 1. *See id.* In short, demand response resources alone have proven sufficient to address the need for the Susquehanna-Roseland line for at least the next three years.

Now, the Park Service should request that PJM address the question whether there is still a need for the line after 2015 in light of: (1) declining electricity demand; (2) diminishing reliability concerns; (3) increasing availability of demand response resources; (4) completed transmission upgrades; and (5) development of new generation that is currently in the transmission queue.

1. Reductions in Electricity Demand

PJM has recognized substantial reductions in the demand for electricity, including in the area that the Susquehanna-Roseland line is intended to serve. On January 14, 2011, PJM released the 2011 Load Forecast Report, in which it presented markedly lower electric demand forecasts than had previously been used as the bases for transmission planning. *See* 2011 PJM Load Forecast Report, PJM Res. Adequacy Planning Dep't, 1 (Jan. 2011) ("2011 Load Forecast Report") ("A downward revision to the economic outlook for the PJM area has resulted in lower peak and energy forecasts in this year's report, compared to the same year in last year's report.").[6] The impacts of these lower peak and energy forecasts have been noteworthy and are only "beginning to unfold in the 2011 [Regional Transmission Expansion Plan ("RTEP")] cycle of analyses." 2010 RTEP at 12.

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[3] In approving the S-R Line, the New Jersey BPU expressly found that "reliability violations are . . . projected to occur as early as 2012 and that the Project is reasonably necessary for [sic] address those violations." N.J. Bd. of Pub. Utils., Decision and Order, Docket No. EM09010035 at 53 (April 21, 2010) ("BPU Decision").

[4] *Available at* http://www.pjm.com/documents/reports/~/media/documents/reports/2010-rtep/2010-rtep-report.ashx.

[5] *Available at* http://www.pjm.com/~/media/committees/groups/committees/teac/20110804/20110804-reliability-analysis-update.ashx.

[6] *Available at* http://pjm.com/~/media/documents/reports/2011-pjm-load-report.ashx.

So far, updated analyses based on the 2011 peak load forecasts have resulted in PJM's decision to suspend two major transmission lines, both of which PJM approved in 2007, along with the Susquehanna-Roseland line, to address reliability violations as early as 2012. The Potomac-Appalachian Transmission Highline ("PATH"), a project designed to increase transfer capacity between western and eastern PJM (as the Susquehanna-Roseland is intended to do) originally was identified in PJM's 2007 RTEP with a required in-service date of 2012. *See* PJM 2009 Regional Transmission Expansion Plan, PJM, 6 (2010) ("2009 RTEP").[7] The 2008 RTEP delayed the in-service date to 2013, and the 2009 RTEP again deferred the project until 2014. *Id.* at 6-7. Assessments based on the 2011 peak load forecasts now have compelled PJM to suspend the PATH project indefinitely. *See* Press Release, PJM, PJM Board Directs Delay in PATH Transmission Line (Feb. 28, 2011)[8]; *see also* 2010 RTEP at 12 ("Based on [the 2011 Load Forecast] and initial power flow assessments of the earliest need for PATH, the PJM Board announced on February 28, 2011 its decision to suspend the PATH project . . . .").

The Mid-Atlantic Power Pathway ("MAPP"), another west-to-east transmission project approved by PJM in 2007, originally was deemed necessary by 2013 to address reliability violations. *See* 2009 RTEP at 7, 83. The 2009 RTEP deferred the project until 2014. *Id.* at 83. Now, in light of the 2011 load forecasts, PJM "has decided to hold the MAPP project in abeyance" with a 2019 to 2021 in-service date. *See* Letter from Michael J. Kormos, Senior Vice Pres., PJM, to David M. Velazquez, Exec. Vice President, Pepco Holdings, Inc. (Aug. 18, 2011).[9] The Indian River-Salem portion of MAPP has been abandoned entirely.

In addition, the 500-kV Branchburg-Roseland-Hudson line, which was originally slated to be in service in 2012, has been abandoned in favor of a more modest alternative—local 230kV upgrades—because there are now fewer and less severe issues in northern New Jersey. In short, the lower projections in the 2011 Load Forecast Report have led PJM to suspend construction of several west-to-east transmission projects that have been part of the RTEP process since 2007.

This downward trend in load demand, which has helped to eliminate the need for the PATH and MAPP projects, has only become more pronounced since 2011. In January, PJM released its 2012 load forecast report and once again indicated that its projections had to be adjusted downward. *See* PJM 2012 Load Forecast Report, January 2012 at 1.[10] In summary, the report states, "The combination of the new economic driver and a downward revision to the economic outlook for the PJM area has resulted in lower

[7] *Available at* http://pjm.com/documents/reports/rtep-report/~/media/documents/reports/2009-rtep/2009-rtep-report.ashx.

[8] *Available at* http://pjm.com/~/media/about-pjm/newsroom/2011-releases/20110228-RTEP-announcement.ashx

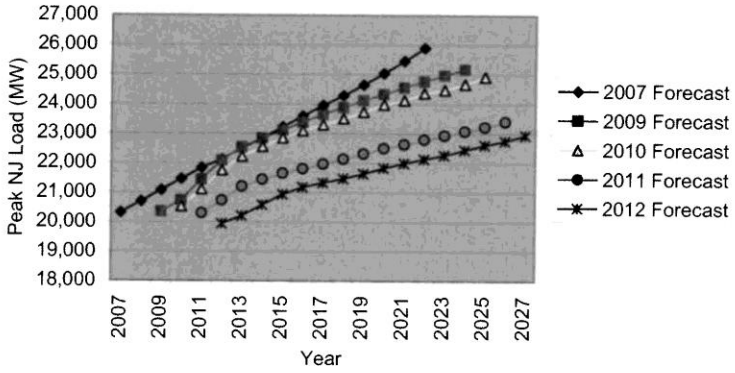
[9] *Available at* http://www.pjm.com/~/media/documents/reports/mapp-letter-to-phi.ashx.

[10] *Available at* http://pjm.com/~/media/documents/reports/2012-pjm-load-report.ashx. For a useful summary of the report, PJM's slides for presentation to the Load Analysis Subcommittee are available at http://www.pjm.com/~/media/committees-groups/subcommittees/las/20120105/20120105-pjm-2012-load-forecast-report.ashx.

peak and energy forecasts in this year's report, compared to the same year in last year's report." *Id.*

The graph below shows how the load forecasts New Jersey's four utilities have changed since 2007 (the year PJM first identified a need for the S-R Line) up through the latest 2012 forecast.[11] In 2007, PJM forecasted that the 2012 peak NJ load would be 22,122 MW. In 2012, PJM forecasts that this level of demand will not be reached until 2022, ten years later. While load growth is not the only driver for transmission, it is one of the most important.

Annual Peak Load Forecasts, NJ Utilities



The current forecast for 2012 peak demand is below the 2007 forecast for 2007. In 2007, there was no concern that a major new transmission line was needed to deliver electricity reliably to New Jersey. Moreover, the decrease in the forecast between 2010 and 2012 is likely greater than the incremental increase in transfer capability that the line would provide—making previous analysis regarding the need for the line irrelevant.

2. Elimination of Reliability Issues

The consistently diminishing need for the PATH and MAPP lines with each passing year—a trend that ultimately resulted in the suspension of those projects in light of the 2011 load forecast—is paralleled in the case of the Susquehanna-Roseland line. PJM first found the Susquehanna-Roseland line necessary in 2007 to address reliability issues beginning in 2012. *See* BPU Decision at 51. The 2008 RTEP projected 2 Category A, 21 Category B, and 27 Category C contingences that the line was ostensibly intended to address. *See id.* Later, in its March 2009 Retool analysis, PJM projected only thirteen Category B and ten Category C contingencies. *See id.* Then, the 2010

[11] Source: PJM Load Forecast reports dated 2007 and January 2009, 2010, 2011, and 2012. The chart shows the sum of non-coincident peak loads, assuming conservatively (as PJM does) that these peak loads will occur at the same time. If they occur at different times, then the New Jersey peak load will be lower than the sum of the peak loads of the four utilities.

RTEP showed a dramatic reduction in alleged reliability issues—from the 23 contingencies identified in the March 2009 Retool to only 5 Category C contingencies, all on 230kV lines. *See* 2010 RTEP at 217.

Category C contingencies, also known as "double circuit tower line contingencies" reflect a test of the electric system that is highly unlikely to play out in reality. Thus, based on PJM's last analysis, the S-R Line would be constructed to address five extraordinarily speculative reliability concerns that would occur only on lower-voltage transmission lines that are likely amenable to lower cost fixes. Before taking any action that would adversely impact the Parks, the Park Service should request that PJM update its analysis using a 2015 base case that reflects current demand projections as discussed above and current projections regarding the availability of load management resources, as discussed below. While the 2010 RTEP affirmed the need for the S-R Line based on the remaining five reliability issues, PJM has failed to undertake baseline studies after 2012, relying instead on "retool" analysis using updates of the 2007 data base. This outdated analysis cannot serve as a justification either for building a $2 billion transmission line or compromising the integrity of the Parks.

3. Demand Response and Energy Efficiency

Increased availability of demand response resources is another key factor that should help to eliminate any need for the S-R Line (by further reducing the need to deliver electricity to load centers). The 2011 Load Forecast Report projected significant increases in demand response resources, noting that "[a]ssumptions for future Load Management (LM) have increased significantly from the 2010 Load Report (from approximately 6,800 MW to 9,000 MW)." Ex. E, 2011 Load Forecast Report at 2. The results of the latest Reliability Pricing Model ("RPM") auction, which were not incorporated into the 2010 RTEP, confirm this increase in demand resources. The 2014/2015 RPM Base Residual Auction, which opened on May 2, 2011, procured 14,118 MW of demand response, a 52 percent increase over the amount of demand resources cleared in the previous year's auction. *See* Press Release, PJM, Demand Resources and Energy Efficiency Continue to Grow in PJM's RPM Auction (May 13, 2011), http://pjm.com/~/media/about-pjm/newsroom/2011-releases/20110513-rpm-results-news-release.ashx. At the same time, energy efficiency programs continue to gain momentum, delivering permanent reductions in load demand.

In 2012, PJM expects reliance on demand response to grow even further. The January Load Forecast Report concludes that "Assumptions for future Load Management (LM) have increased significantly from the 2011 Load Report (from approximately 9,000 MW to 14,000 MW)." 2012 Load Forecast Report at 2. In addition, PJM reports that "Energy Efficiency (EE) impacts have increased from approximately 550 MW to 800MW." *Id.* (noting that "assumptions for both LM and EE are based on Reliability Pricing Model (RPM) auction results").

4. Changes to the Grid

Since the S-R Line was first planned, many transmission projects have been completed and new generation facilities have been planned or built. These changes underscore the need for new analysis of need using a new base case that reflects the grid as it is now and how it is expected to be in 2015 when the S-R Line is purportedly needed.

While the Park Service may be reluctant to undertake technical analysis to evaluate the current need, if any, for the S-R Line, that analysis is essential to inform consideration of the no action alternative and other alternatives that could potentially avoid damage to the Parks. The Park Service can and must request new load flow analyses to inform the pivotal question whether the S-R Line is needed or whether the project can be abandoned or replaced with a more modest fix.

B. The Final EIS Must Consider Alternatives in Addition to Alternative Routes

While the DEIS analyzes several alternative routes in detail, it fails to present any alternative other than the no action alternative that would avoid or minimize impacts to the Parks. As the DEIS itself makes clear, "[a]ll of the action alternatives described in this section have alignments that would cross at least two units of the national park system," DEIS at 29, and each alternative results in unacceptable impacts accordingly. *See, e.g., id.* at 679-714.

In the Final EIS, the Park Service must define the project purpose and need more broadly to allow for consideration of alternatives other than a 500kv line that would ensure electric reliability without impairing or otherwise degrading Park resources and values. As discussed above, the Park Service is under a constant obligation to avoid or mitigate adverse impacts to the greatest extent possible. *See* NPS, Management Policies § 1.4.3. The agency cannot fulfill this obligation without considering alternatives that are consistent with preserving Park resources and values.

Specifically, the Park Service should give earnest consideration to the following alternatives that it summarily dismissed in the DEIS:

- **Underground transmission lines**: The DEIS rejected this alternative "because its construction cost would be five to eight times the cost of conventional construction methods" and "blasting the bedrock for an underground line could produce major irretrievable and irreversible impacts on geology." DEIS at 67. However, the Park Service cannot reject an otherwise feasible alternative solely because it is more expensive that the applicant's proposal. The Final EIS should consider whether it may be possible to bury portions of the line without destroying geological formations.

- **Superconductor lines (direct current)**: This alternative was also rejected on

cost grounds without any attempt to show that costs of "three to five times that of conventional transmission line construction" would be unaffordable. *Id.* Nor is there analysis of what impacts would result from new converter stations.

- **Aluminum conductor composite core (ACCC):** ACCC conductor is designed to carry twice the current of a conventional conductor, with lighter core allowing the use of more aluminum without a weight penalty. In this way, using ACCC has the potential to enable longer spans between fewer and shorter structures (*i.e.* towers), and it can increase transfer capacity while improving line and reducing line losses by as much as 30 to 40 percent according to vendors.[12] Nevertheless, ACCC was dismissed from consideration in the alternatives analysis on grounds that "it is not a separate alternative by itself." DEIS at 67. However, to the extent that ACCC has the potential to reduce tower height and perhaps the overall need for towers, it should be given upfront consideration in the EIS, rather than deferring consideration of its use until after the NEPA process is over.

- **Smart grid:** The DEIS dismissed this alternative because it allegedly "does not meet the reliability requirements put forth by PJM." *Id.* (explaining that "smart grids provide automated switching for transmission lines but do not provide the redundancy required to meet improved reliability requirements for the transmission grid"). However, the Park Service is required to consider alternatives that may partially meet the project's purpose and need. In any case, it is unclear whether there are any remaining reliability issues for the S-R Line to resolve.

- **Distributed energy generation sites and localized renewable energy:** The DEIS declines to consider these potentially viable alternatives because "ordering the adoption of such systems is beyond the authority of the NPS." However, as set forth above, agencies must consider alternatives that are outside of their jurisdiction to implement.

In addition, the Final EIS must consider:

- **Alternative Transmission Fixes:** Given the small number of reliability issues in play, the Park Service should investigate alternatives tailored to what has become a modest concern related to lower-voltage transmission lines.

- **Energy Efficiency, Energy Storage, and Demand Response:** The Park Service should analyze whether targeted energy efficiency and/or demand response systems could eliminate the need for additional transmission delivery capacity into the areas that the S-R Line is intended to serve. As the DOE emphasized in a recent national congestion study, "alternatives other than transmission, such as increased local generation (including distributed generation), energy efficiency, energy storage and demand response may be more economic than transmission expansion in relieving congestion" —

[12] *See* http://ctccable.com/pdf/ACCCOverview.pdf.

and more environmentally friendly as well. *See* DOE, *National Electric Transmission Congestion Study*, vi (Dec. 2009) (*available at* http://congestion09.anl.gov/documents/docs/Congestion_Study_2009.pdf).

- **Lower and less intrusive transmission towers:** The proposed 200-foot towers would ensure that the S-R Line is far more visible than existing power lines in the Parks. Further, the height of these towers dictates the large size of their bases, necessitating more blasting, filling of wetlands, clearing and cutting, and general disturbance of vegetation and wildlife—and significantly more expense, particularly in foundation and materials costs (*e.g.* steel). The applicant has an incentive to overbuild the S-R Line, for which it can recover not only its costs but a very high rate of return (12.9 percent) on investment. The Park Service should not assume that the towers or other infrastructure need to be built to the applicant's proposed specifications. Nor should it leave the critical engineering decisions to subsequent planning outside the NEPA process as the DEIS currently proposes to do. *See* DEIS at 41 (stating that "[t]he types of towers that would be used in the construction of the S-R Line would be determined during planning").

As noted above, it appears from the visual representations in Appendix K that the Park Service is assuming that the towers will be monopoles. On the one hand, the Park Service should evaluate whether the use of monopoles represent an alternative that could have slightly lesser visual impacts than lattice towers, but on the other, the Park Service must be mindful of the blasting that monopoles may require and consider other alternatives to minimize harm to geological resources.

IV. THE EIS MUST FULLY DISCLOSE ADVERSE IMPACTS THAT WOULD FLOW FROM CONSTRUCTION OF THE S-R LINE

The EIS must address the full suite of environmental impacts, both direct and indirect, that will flow from construction of the S-R Line together with the cumulative impact of other planed and foreseeable development that will impact the lands within the project's footprint—both inside and outside of the Parks. *See* 40 C.F.R. §§ 1508.25(c)(1)-(3). As defined by NEPA's implementing regulations, "direct effects" are impacts "caused by the action and occur at the same time and place." *Id.* § 1508.8(a).[13] "Indirect effects" are impacts caused by the proposed action but "are later in time or farther removed in distance." *Id.* § 1508.8(b). "Cumulative impact" means "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other action." *Id.* § 1508.7. "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.*

[13] The words "effect" and "impact" are used synonymously in NEPA's implementing regulations. *See* 40 C.F.R. § 1508.8.

A. The Final EIS Must Provide a Meaningful Analysis of Impacts Outside the Parks

The DEIS purports to analyze the impacts of the S-R Line outside of the Parks as NEPA requires,[14] but throughout the document, the Park Service fails to provide any meaningful analysis of such impacts on grounds that "[t]he NPS cannot require the applicant to follow a certain route outside the boundaries of park lands." DEIS at 29. Repeatedly, the DEIS states that "the portion of the route outside park lands is not discussed in detail" for this reason. *Id.*; *see also, e.g., id.* at 371 ("the specific wetland resources that would be affected by the transmission line outside the study area cannot be identified until the route is chosen by the applicant"); *id.* at 404 ("Because the location of the S-R Line outside the terrestrial study area cannot be determined at this time, the indirect impacts on landscape connectivity, wildlife habitat, and wildlife cannot be evaluated per alternative."); *id.* at 434, 658 ("Because the NPS cannot dictate where the line would actually go, the direct impacts from the construction and maintenance of the transmission line outside the study area cannot be determined."); *id.* at 480 ("Because the location of the S-R Line outside the study area cannot be determined at this time, the indirect impacts on rare and unique communities cannot be evaluated per alternative.").

Vague and highly generalized statements regarding the potential for adverse impacts across the project area cannot substitute for the detailed analysis of impacts that NEPA requires to ensure informed decision-making and most importantly, an opportunity to avoid or mitigate environmental harms.

B. The Final EIS Must Provide a Meaningful Analysis of Cumulative Impacts

The DEIS analysis of cumulative impacts both inside and outside the Parks is similarly unhelpful. While the Park Service lists various foreseeable projects and development, the DEIS does not attempt to quantify or otherwise characterize with any particularity how these new pressures on natural, scenic, and cultural resources will collectively manifest. For example, with respect to cumulative impacts on floodplains

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[14] As NEPA's implementing regulations make clear, agencies must consider major federal actions, such as ROW approvals and Section 404 permits, in conjunction with other "connected actions." 40 C.F.R. § 1508.25 (mandating that agencies "*shall* consider" connected actions "[t]o determine the scope of environmental impact statements) (emphasis added). "Actions are connected if they . . . [c]annot or will not proceed unless other actions are taken previously or simultaneously" or if they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id.* §§ 1508.25(a)(1)(ii),(iii); *see also Alpine Lakes Protection Soc'y v. U.S. Forest Service*, 838 F. Supp. 478, 482 (W.D. Wash. 1993) (affirming that the requirement to consider connected actions "extends to non-federal actions undertaken exclusively by private parties if the federal actions are so interrelated as to constitute 'links in the same bit of chain'") (quoting *Morgan v. Walter*, 728 F. Supp. 1483, 1493 (D. Idaho 1989) (quoting *Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394, 400 (9th Cir. 1989)). For a more detailed discussion of the Park Service's obligation to analyze the entire length of the S-R Line it the EIS, please see the March 12, 2010 scoping comments submitted by Earthjustice and the Sierra Club, which we incorporate by reference.

outside the study are, the DEIS states as follows:

> Outside the study area, adverse cumulative impacts on floodplains would be expected from residential, commercial, and transportation development of the area. Adverse cumulative impacts would result from these projects due to the continued growth and urbanization in the area outside the parks, which may reduce natural floodplain functions through direct impacts, such as the placement of structures in the floodplain, or indirect impacts, such as increased runoff due to increased impervious surfaces. Several land protection programs could provide beneficial impacts on floodplain functions. As stated above, the funding for these programs is uncertain and could vary throughout the period of analysis: therefore, the level of benefit resulting from the implementation of any project is also variable. There would be adverse cumulative impacts on floodplains outside the study area.

DEIS at 357. Ultimately, the reader is left with the sole conclusion that cumulative impacts will be "adverse." This general observation does not allow for a meaningful comparison of alternatives or the development of well-tailored mitigation measures. Nevertheless, the DEIS adopts this approach to cumulative impacts analysis repeatedly.

"A cumulative impact analysis "must be more than perfunctory; it must provide 'a useful analysis of the cumulative impacts of past, present, and future projects.'" *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1075 (9th Cir.2002) (quoting *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 810 (9th Cir.1999)). "To be useful to decision makers and the public, the cumulative impact analysis must include 'some quantified or detailed information; . . . general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.'" *Northern Plains Resource Council v. Surface Transp. Bd.*, -- F.3d --, 2011 WL 6826409 (9th Cir. Dec. 29, 2011) (quoting *Ocean Advocates v. U.S. Army Corps of Eng'rs,* 402 F.3d 846, 868 (9th Cir. 2005)).

C. The Final EIS Must Take a Hard Look at Impacts Not Addressed in the DEIS

In the Final EIS, the Park Service must revisit important issues that it either dismissed from consideration in the DEIS or overlooked. Failure to consider these issues will necessarily render the EIS inadequate.

1. Air Quality

The Park Service must consider the impacts on air quality resulting from the S-R Line. Each of the action alternatives that the Park Service proposes will have significant impacts on air quality during construction, which would involve not only the line itself but also access roads, and, in some alternatives, deconstruction of existing power lines.

This construction will require large diesel trucks to haul heavy equipment through the Parks and the surrounding communities. Bulldozers, dump trucks, and road graders will operate at the site. Cement trucks and tractor trailers will also travel through surrounding communities to operate at the site. All of this equipment will emit exhaust and create fugitive dust that will impact surrounding air quality.

In addition, the S-R Line may have pervasive indirect effects on regional air quality. As the line is expressly intended to open up eastern power markets to coal-fired power generators in western PJM,[15] it can be expected to drive increases in power generation at coal-fired power plants that currently are operating below capacity.[16] Increased reliance on coal in the East Coast has the potential to significantly degrade air quality by increasing emissions and ambient concentrations of air toxics such as mercury[17] and other dangerous pollutants such as fine particulate matter (PM2.5) or "soot," sulfur dioxide, nitrogen oxides, and ozone. This pollution would harm public health and further exacerbate endemic acid rain and smog problems, which, not incidentally, plague many national parks. While new Clean Air Act regulations may address these impacts to some extent, there are no regulations in place to curb increased emissions of carbon dioxide (CO2), which is the principal agent of climate change.

The Park Service cannot ignore the increase in coal-fired power production that the S-R Line would encourage. An agency must consider the growth-inducing impacts of its actions. *See, e.g., City of Davis v. Coleman*, 521 F.2d 661, 675-76 (9th Cir. 1975). Here, the science of air pollution transport from fossil-fuel-fired generation in the Ohio Valley to the states downwind along the Eastern Seaboard is well-established. EPA has studied air pollution transport for decades and has demonstrated repeatedly that power plants are significant contributors to air pollution problems along the Eastern Seaboard.

The pollutants generated by power plants in Pennsylvania and the Ohio River Valley will be transported to the Philadelphia and Newark metropolitan areas. Both metropolitan areas, which include counties in Pennsylvania and New Jersey, are in non-attainment of the National Ambient Air Quality Standards ("NAAQS") for ozone. Also, several counties in Pennsylvania and New Jersey are designated non-attainment for PM2.5. Increased emissions from the S-R Line would exacerbate the health and environmental risks posed by non-attainment of the NAAQS and impede the ability of these states to come into attainment.

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[15] *See* Testimony of Karl Pfirrmann, President PJM Western Region PJM Interconnection, L.L.C., filed in FERC Docket No. AD05-3-000 (May 12, 2005).

[16] *See* John Roger, *et al.*, *Importing Pollution: Coal's Threat to Climate Change in the U.S.* Northeast, 11 (2008), *available at* http://www.ucsusa.org/assets/documents/clean_energy/importing-pollution_report.pdf.

[17] Atmospheric deposition of mercury from polluting sources such as coal plants, the largest contributors to nationwide mercury emissions, have caused both Pennsylvania and New Jersey to issue fish consumption advisories. *See* EPA, Mercury, http://www.epa.gov/hg/about.htm ("Coal-burning power plants are the largest human-caused source of mercury emissions to the air in the United States."); *see also Commonwealth of Pennsylvania Public Health Advisory: 2012 Fish Consumption*, *available at* http://fishandboat.com/fishpub/summary/sumconsumption.pdf (last visited Jan. 31, 2012); *Fish Advisory*, New Jersey Dep't of Envtl. Prot. (2011), http://www.state.nj.us/dep/dsr/fishadvisories/freshwater-advisories.htm (last visited Jan. 31, 2012).

In addition, deposition of pollution from coal-fired power plants into water is responsible for mercury contamination of fisheries, acidification, and eutrophication. Effects include changes in water chemistry that affect aquatic vegetation, invertebrate communities, amphibians, and fish. The deposition of nitrogen also contributes to nutrient enrichment in coastal and estuarine ecosystems, which can cause toxic algal blooms, fish kills, and loss of plant and animal diversity. Deposition also can cause chemical changes in soils that affect soil microorganisms, plants, and trees. Plant species composition and abundance may change where nitrogen overstimulates growth, favoring some types of plant species and inhibiting growth of others. The EIS should address the impacts of increased deposition on waterways, wetlands, floodplains, soils, and vegetation.

2. Climate Change and Greenhouse Gases

The Park Service's failure to address climate change and greenhouse gas emissions in the DEIS must be rectified in the Final EIS. "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008). "[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of the agency's control does not release the agency from the duty of assessing the effects of *its* actions on global warming within the context of other actions that also affect global warming." *Id.* at 1217 (emphasis in original) (internal quotation marks and alterations omitted). Thus, even though the Park Service does not control coal plant operations, it still must consider the extent to which its actions will spur increases in CO2 emissions that contribute to climate disruption.

The DEIS must further consider how adverse impacts associated with the S-R Line would impact the resilience of resident ecosystems in light of threats posed by climate change. For instance, would construction and operation of the S-R Line hinder the ability of plant and animal communities to adjust to climate changes? Over the next fifty years and beyond, the Parks will be increasingly stressed by rapid climate shifts, and it is important to provide as much of a buffer as possible to allow for adaptation.

3. Energy Resources and Conservation

The DEIS does not fully consider the S-R Line's impacts on energy resources and conservation potential. Although the construction of the S-R Line may not affect Park Service facilities, the Park Service has the opportunity to encourage energy conservation in its selection of an alternative. The no action alternative would likely bolster growing reliance on energy efficiency programs.

4. Land Use

While the DEIS recognizes that the S-R Line will affect how land within the park boundaries is used, it does not provide any further detailed analysis of impacts to land

use. However, as the Park Service recognizes, the authorization of the requested right-of-way and special use permit could create a precedent, resulting in many additional Park crossings that incrementally would carve up the Parks. Importantly, the S-R Line is one of several linear utility projects that threatens major adverse environmental impacts in the immediate region. The cumulative impacts of these projects on the land use of the Parks are potentially devastating and must be considered accordingly.

5. Geologic Resources

The DEIS correctly concludes that Alternatives 2, 2b, 3, 4, and 5 would result in adverse impacts to geologic and topographic resources. However, there are several potential impacts to geologic and topographic resources that were overlooked in the DEIS. First, the Park Service states that for the purposes of new tower construction, geotechnical boring would need to occur in order to determine the depth of competent bedrock. *See* DEIS at 350. The geotechnical boring could then be followed the use of chemical compounds that could potentially be released into the environment. The Park Service should assess what compounds will be used, their potential for release, and the potential impacts on soil and geologic resources in the event of release.

Second, in its discussion of impacts to wetlands resources, the Park Service states that Alternatives 2 and 2b would require blasting that could adversely impact unique geologic formations and could lead to a decrease in groundwater availability and quality. With respect to both alternatives, the Park Service states that it does not currently know how blasting would impact unique geologic formations that lie under wetlands that will be impacted, and that a blasting and post-construction monitoring plan would be needed in order to assess these impacts. As discussed above, deferred analysis is not sufficient under NEPA. The Park Service should require the applicants to supply more information on the potential impacts of blasting on these unique geologic formations. Moreover, the applicants should provide a specific blasting plan with respect to each alternative, as well as a post-blasting monitoring plan, and the public should be afforded an opportunity to comment on these plans.

6. Floodplains

The Park Service failed to consider the cumulative impacts of several projects on floodplains. For example, the EIS should assess whether projects including but not limited to the Tennessee Gas Line Proposal, the Columbia Gas Transmission Company pipeline proposal, and the Northeast Supply Link Expansion Project will contribute to adverse impacts on floodplains in the study area. Further, the EIS should assess whether these projects and others, including Marcellus Shale gas development, the Dominion/Allegheny Power Transmission Line project, and other proposed residential and commercial projects in both New Jersey and Pennsylvania could contribute to adverse impacts on floodplains outside the study area. All of these projects could potentially have an adverse impact on the natural flow of rivers and streams and the ability of floodplains to absorb excess amounts of water from increased runoff.

7. Wetlands

The Final EIS must fill in gaps in the DEIS's analysis of impacts to wetlands. The Park Service has not disclosed the impacts of blasting activities along Routes 2 and 2b on wetlands and proper wetlands functioning. This deficiency must be addressed, and a blasting and post-blasting monitoring plan should be provided by the applicant and made available for public review. In addition, while we are pleased that the use of herbicides in wetlands areas in the Parks is not currently contemplated, the Park Service should assess the impacts of potential use of herbicides that may occur in the future and disclose what the impacts would be on wetlands.

8. Vegetation

The DEIS concludes that the applicant's current vegetation management plan is insufficient — a concern we share — and states that the Park Service will have to approve a new vegetation management plan. *See* DEIS at 390. Any such plan must address key issues such as the use of herbicides, the frequency with which vegetation management activities could occur, and reporting and monitoring of vegetation management activities. The Park Service should require the applicant to provide a full vegetation management plan for Park Service approval prior to the issuance of the Final EIS so that the interested public may review the plan and offer comments.

9. Landscape Connectivity, Wildlife Habitat, and Wildlife

The DEIS correctly identifies the loss of habitat connectivity as one of the most severe threats to the survival of many wildlife species. The DEIS further discloses the adverse impacts associated with Alternatives 2 through 5 as a result of the access road construction and widening of the currently existing right-of-way. *See* DEIS at 409-32. In addition, the EIS should include an estimate of the numbers and sizes of construction trucks and other equipment that will be using these access roads, as well as the frequency of vehicle trips. The Park Service should then analyze what impacts the construction equipment could potentially have on the ability of wildlife to move across the impacted landscape.

10. Socioeconomics

The review of socioeconomic impacts in the DEIS failed to address several potential impacts that several of the commenting groups identified in scoping comments submitted to the Park Service on March 12, 2010. The Park Service should address the economic benefits to local communities that arise from proximity to undeveloped public lands and conversely, the detriment associated with construction and operation of a major transmission line.

More broadly, the EIS should fully examine the opportunity costs of energy transmission and generation on federally protected lands in order to ensure that the net

socioeconomic value of the transmission project is maximized. In this analysis, the Park Service should account for all relevant non-market values, including non-use values and impacts on local quality of life and recreational and aesthetic opportunities. One of the most important purposes of public lands is to provide public goods, or non-market goods. Opportunities for solitude, outdoor recreation, clean air, clean water, the preservation of wilderness and other undeveloped areas would be underprovided if left entirely to market forces. Therefore, the Park Service should account for all non-market values provided by the Parks, and assess the devaluing impact of the S-R Line.

11. Visual Resources

The S-R Line will have significant impacts on the visual resources within the Parks as well as more geographically distant locations. The DEIS's visual simulation of impacts within the park is very useful. However, the EIS should also consider impacts on visual resources relative to the time of year, and what the impacts would be if lattice towers rather than monopoles were used.

12. Soundscapes

The EIS does not fully consider noise impacts that may vary seasonally. Under all of the analyzed alternatives, deconstruction/construction is likely to last as long as eight months, and continued maintenance will continue throughout the study period and beyond. For this reason, the EIS should consider the impacts of sound at different times of the year. Although the Parks may see more frequent visitors in during the summer months, sound from construction may be dampened by vegetation. However, in the winter, when most trees have lost their leaves, sounds may travel further or be more intense. Thus, the EIS should consider the impacts of sound relative to the time of year that deconstruction/construction or maintenance is occurring.

Further, the EIS should include consideration of the short- and long-term impacts of increased noise on rare bats, migratory birds, and other sensitive wildlife. The DEIS leaves unanswered questions about how the project's noise disturbances interfere with, or otherwise adversely affect, the displays, mating, foraging, communication, and other behavior of migratory birds and mammals.

13. Wild and Scenic Rivers

The DEIS analysis of impacts on Wild and Scenic Rivers focuses exclusively on the designated segment of the Middle Delaware. However, the Project will have impacts on other Wild and Scenic Rivers outside of the Parks, and these rivers must be considered as well.

14. Migratory Birds

We incorporate by reference the comments on the DEIS submitted by the New Jersey Conservation Foundation.

V. ANY PRE-DETERMINED DECISION WOULD UNDERCUT THE NEPA PROCESS

Public Employees for Environmental Responsibility ("PEER") have filed comments stating that the Secretary of the Interior and the Director of the National Park Service have made an oral commitment to select the applicant's proposed alternative (Route 2). Any such pre-determination of the NEPA process raises serious concern that the EIS will not serve its purpose to engender a thoughtful decision-making informed by a thorough analysis of environmental consequences. Further, NEPA's implementing regulations prohibit agencies from making any irreversible commitment of resources before the environmental review process, including consideration of alternatives, has been completed. See 40 C.F.R. § 1506.1(a).

CONCLUSION

Thank you for the opportunity to comment. Again, we appreciate all of the hard work that has gone into preparation of the EIS and that goes into managing the Parks every day. If you have any questions regarding these comments, please do not hesitate to contact undersigned counsel.

Sincerely,

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January 31, 2011

National Park Service
Denver Service Center - Planning Division
Attn: Morgan Elmer
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Dear Ms. Elmer,

Thank you for the opportunity to provide feedback on the Draft Environmental Impact Statement ("DEIS") for the Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit. On behalf of Delaware Riverkeeper Network, I offer the following comments, noting at the outset that we appreciate the National Park Service's intensive effort to analyze and disclose this project's environmental impacts on the Delaware Water Gap National Recreation Area, the Appalachian National Scenic Trail, and the Middle Delaware National Scenic and Recreational River (collectively "Parks").

While further analysis is needed to assess (1) the viability of alternatives to building the proposed 500kV line and (2) adverse impacts, including cumulative impacts, outside the Parks, the DEIS conclusively demonstrates that the proposed Susquehanna to Roseland line would impair Park resources in violation of the National Park Service Organic Act. As the Park Service's own analysis makes clear, the agency cannot grant the requested right-of-way and special use permit without fundamentally degrading the unique natural, scenic, and cultural resources that these Parks were established to preserve. While recent news reports suggest that PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G) (collectively "Applicants") may be contemplating mitigation efforts in the form of land purchases or conservation easements, it is not possible to eliminate impairment to areas of special significance by expanding Park boundaries.

We urge the Park Service to deny the requested right-of-way and special use permit. The applicants have presented the agency with a false choice between conserving the Parks as the law requires and maintaining electric reliability. Circumstances have changed dramatically since 2006, when the Susquehanna to Roseland Line ("S-R Line") was identified as needed by PJM Interconnection ("PJM"). The reliability issues that the line was intended to address have largely been resolved; load demand in the areas that the line would serve continues to decline, as reflected in PJM's repeated downward adjustments to its load forecast; robust growth of energy efficiency and demand response resources continues to exceed PJM's

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expectations (as reflected in its modeling assumptions); and development of significant new generation capacity is planned in New Jersey. All of these factors, both individually and collectively, suggest that the $2 billion S-R Line is an expensive solution to a problem that no longer exists. However, PJM has yet to undertake new load flow analyses to determine whether the S-R Line is actually needed to ensure electric reliability in 2015 (when the S-R Line is scheduled to be in service), or to evaluate whether there are non-transmission alternatives or more modest and less damaging transmission upgrades that would resolve the few outstanding reliability issues, if any, that still remain.

Absent updated analysis by PJM that affirmatively demonstrates the need to build the S-R Line, there is no adequate justification for accommodating a right-of-way request or granting a special use permit for construction that is inherently incompatible with Park values. The Applicants have made no effort to avoid or minimize harm to the Parks, electing instead to propose a route that runs through areas of singular ecological, scenic, and cultural importance. Moreover, the DEIS makes clear that the Park Service has not been able to identify an acceptable alternative route. Under these circumstances, the Park Service can and must issue a Record of Decision ("ROD") selecting the environmentally preferred "no action" alternative.

Cumulative and Indirect Environmental Impacts Outside the Park Not Include in DEIS

The DEIS must address the full suite of environmental impacts, both direct and indirect, that will flow from construction of the S-R Line together with the cumulative impact of other planned and foreseeable development that will impact the lands within the project's footprint — both inside and outside of the Parks.

The Delaware River and several of its tributaries above and below the NPS's Middle Delaware have received special designation under the Wild and Scenic Rivers Program. Those reaches, as well as the Middle Delaware, have earned those designations due to exceptional water quality, natural beauty and recreational opportunities.

The DEIS includes the assessment of impacts of the S-R Line on waterways like the Bushkill Creek, Van Campens Brook and many ponds and lakes that flow into the Delaware River in the Water Gap National Recreation Area. These tributary watersheds will be negatively impacted when new or expanded dirt roads are constructed, tree canopy is lost, new sources of sedimentation are introduced - all flowing to the Delaware River as a direct result of this project.

However, it is also critically important for this DEIS fully assess the project's impacts on water bodies outside the Parks. Specifically, the S-R Line will cross Lackawaxen and many of its tributaries. In each river and stream crossing, there will be significant ground cover disturbance that will impact the water resources. There will also be wetlands, floodplains and forest clearings, all impacting the waters flowing downriver into the Middle Delaware and the Park. Those impacts have not be assessed in the DEIS and should be. The impacts to those water resources are an indirect impact of the S-R Lines and add to the cumulative impacts of this project, so the NPS must review and assess those as required under NEPA guidelines.

Moreover, the Musconetcong River, Paulins Kill River and Pequest Rivers, even though they flow into the Delaware River south of the Middle Delaware, will have an indirect impact to the Middle Delaware River because the S-R Lines cross them. They will each experience the same levels of degradation that the Bushkill and Van Campens will experience, including:

- Significant disturbance of ground cover affecting water resources
- Loss of groundwater recharge in aquifers in surrounding areas of Pennsylvania and New Jersey,

- Loss of stormwater absorption capacity into the soil that can result in greater flooding downriver,
- Loss of forested lands reducing the value of the National Park as a "carbon sink,"
- Loss of forested lands will also reduce the health of interior forests now protected from the phenomena known as "edge effect,"
- A loss of forested wetlands as the proposed expanded rights-of-way will expose wetlands and vernal pools to more direct sunlight and warmer air temperatures.

Water Quality Impacts Have Been Dismissed From Consideration by the NPS

The NPS states (DEIS, Chapter 1, pg 23) that "Water quality protection is one of the most important responsibilities of the Delaware River Basin Commission; its water quality standards designate the MDSR and the portion of the river and tributaries contained in DEWA as outstanding basin waters." It appears that the NPS is delegating its own responsibilities to protect the natural resources of the Parks to the DRBC. In fact, PPL/PSE&G has submitted a permit application to the DRBC, however, the DRBC has not ruled on issuing that permit as of this date. The NPS cannot and should not rely on the protection of the water resources within the Parks by other agency actions when they have not made a final determination on the S-R Lines.

Further, NPS declares (Chapter 1, pg 23) that they will not be assessing the water resources in the DEIS by stating:

> **Because no construction would be completed in any water bodies and no discharge permit is being requested, impacts to water quality would primarily occur from increased sediment loads being introduced into the stream from construction activities (short term) and from increased erosion due to vegetation loss and new access roads (long term). Analysis of these impacts was conducted using the USFS WEPP model to estimate increased total suspended solids (TSS) concentrations. The WEPP model does not account for the installation of best management practices (BMPs) such as silt fence and straw bales therefore it represents the worst case scenario of 100% failure of required erosion and sedimentation controls. The WEPP model indicated minimal short term and long term increases in TSS for some tributaries and undetectable increases in TSS in the Delaware River. The model did not detect differences between the alternatives. The likelihood of 100% failure of erosion and sedimentation controls is remote so it is unlikely that impacts to surface water quality would be detectable. Therefore, the topic of surface water and water quality is not carried forward in this EIS.**

The NPS is failing to assess the direct or indirect impacts, a requirement of the NEPA process, of this project on direct tributaries to the Middle Delaware or on the tributaries either up-river or down from the Parks. Under these circumstances, the Park Service cannot fully assess the direct and indirect impacts of the S-R Lines on the Parks and should therefore not issue a Record of Decision until that is completed.

Air Quality Impacts Have been dismissed from consideration by the NPS

The NPS has determined (Chapter 1, pg 22) not to assess the indirect impacts of this project, which is contrary to the NEPA requirements. The NPS assessed only the contributions of diesel exhaust and impacts of other greenhouse gases on the Parks only during the construction and maintenance of the S-R Line.

> **Construction and maintenance activities associated with the S-R Line alternatives would result in fossil fuel consumption. However, the park is in fact a carbon sink but the issue of the contribution of the alternatives to climate change through greenhouse gas emissions were dismissed from further analysis.**

The NPS is ignoring the known source of energy generation of electricity (coal-fired power plants) that will be transported by the S-R Line. The NPS must consider the indirect impacts of that known, foreseeable pollution source on the Parks. The atmospheric deposition of the air-borne pollutants from coal-fired power plants to the west of the Parks is a well-documented source of contaminants to the Parks and must be assessed in the indirect impacts.

The Park further declares that it will not assess air or water quality impacts since there are already stressors on the air and water resources of the Parks and those adverse impacts will not differ based on the Alternative chosen. This position is contrary to the NPS's mission to protect the resources of the Park. As such, the NPS must fully assess and report what the direct and indirect impacts will be on the air quality of the S-R Line project.

Moreover, the Parks acknowledges (Chapter 1, pg 22) that the Park's ecosystems are under pressure from conditions other than that of climate change, including habitat loss and degradation, development, pollution, toxic chemicals overfishing, invasive species, pests, disease outbreaks, habitat fragmentation, and wildfires.

> **Climate change may contribute to the adverse impacts on natural resources expected from the proposed S-R Line. However, these adverse impacts are not expected to increase the intensity of the impacts identified for the alternatives and impacts from climate change are also similar across all action alternatives. In addition, ecosystems are currently under pressure from a number of stressors in addition to climate change, including habitat loss and degradation, development, pollution, toxic chemicals, overfishing, invasive species, pests, disease outbreaks, habitat fragmentation, and wildfires (NABCI 2010, 44). Due to these reasons and the impossibility of predicting the severity of future climate change or its impacts with certainty, this topic was dismissed from further consideration.**

It is absolutely wrong and contrary to its obligation to the NEPA process (and the American people) for the National Parks Service to declare that because these adverse impacts are "impossible to predict" that they don't have to comprehensively assess the direct and indirect adverse impacts to the fullest extent possible. "Dismiss(ing) (these adverse impacts) from further consideration should not be acceptable to the NPS.

NPS Identified Potential Data Gaps in EIS

We submit as part of our comment the attached 15-page National Park Service report entitled ***Data Gaps Identified for the Susquehanna to Roseland Transmission Line Proposal and Right-of-Way Request Environmental Impact Statement***, dated January 2010. This report identifies many areas where further data and documentation was determined to be missing and/or lacking. Issues include, but not limited to, Air Quality (pg 2), EMFs (pg 4), Water Quality (pg 5), and Vegetation ground cover disturbance (pg 6) and Landscape Connectivity (pg 6). We acknowledge that this report is from 2010 and these data gaps may have already been filled, however, we will take this opportunity to have the NPS determine if each and every one of these missing data have been obtained and are now thoroughly addressed as part of the DEIS.

Mitigation offer cannot mitigate damages done to Parks and provides not assurances that they too will not become sites of future utility lines

The Susquehanna Roseland $30 million mitigation offer that PSE&G/PP&L are proposing to build this massive project is being pitched as a way to "create a half-million acres of contiguous lands" for the National Park. But this promise cannot be used to excuse the sacrifice of the parks and scenic quality they are demanding in exchange. The Delaware Water Gap National Recreation Area, the Middle Delaware Wild and Scenic River and the Appalachian National Scenic Trail are all protected by a long list of

legislative acts and regulations. But if they can be irreparably damaged to serve private interests today, then the very same can happen to the promised new lands in the future for yet more powerlines or gas pipelines.

The new power lines will tower 50 feet above the trees and be visible from Lake Wallenpaupack to Shawnee Mountain. They cut through the middle of the Poconos where 22.6 million people come and spend $1.2 billion dollars annually. **The scenic beauty of the region IS the attraction**. How many vacationers and jobs will go elsewhere because now, instead of dining or viewing fall foliage in a scenic river valley, those Pocono guests are looking at transmission lines as far as the eye can see?

The S-R Lines have negative environmental and public health impacts and substantial economic impacts, entirely shouldered by us, the rate payers. Yet the economic impact to the utility is quite different – a profit margin of over 11% guaranteed by law. Don't think for a minute that they are begrudgingly spending this money on our behalf. Rather, we are being forced to spend a great deal of our money on a project we don't need that destroys our parks. The S-R Lines should not be built and no amount of new open space will mitigate the damage done.

National Park Service's Centennial Vision

The National Park Service is preparing to celebrate its 100th anniversary. In preparation the NPS engaged its parks to develop a "vision statement" of how each park would continue to strive to serve the American people through the responsible stewardship of the public lands under their jurisdiction. The NPS's intent was and is to have "America invite the world to discover the meaning of national parks to their lives and inspires people to both experience and become devoted to these special places."

In response to this federal planning effort, Superintendant John Donahue and his DWGNRA staff wrote: a vision statement entitled *The Future of America's National Parks, First Annual Centennial Strategy for the Delaware Water Gap National Recreation Area*.

The stated goal in that Vision Statement is "Delaware Water Gap National Recreation Area (DEWA) exists to provide outdoor recreation opportunities **while conserving the natural, cultural and scenic resources of the park** (emphasis added). In so doing, we work cooperatively with surrounding communities and the public to achieve the conservation goals of the Delaware River region."

"We (DWGNRA) will provide sustainable climate- and user-friendly infrastructure, assuring minimal impact on the park's natural and cultural resources, and will eliminate facilities not complementary to the mission."

The sighting and construction of the S-R Project in the DWGNRA and the assorted power lines that will connect to it that impact other NPS lands (Appalachian National Scenic Trail-Virginia and Harpers Ferry National Historical Park) is in total and opposite contrast to the NPS's and the DWGNRA's Centennial Strategy Imitative. As such, the NPS should deny the Applicant's permit request as it contradicts the stated purpose of the Park and is not consistent to the stated intent of the DWGNRA.

In conclusion, the DEIS makes clear that the Park Service has not been able to identify an acceptable alternative route. Under these circumstances, the Park Service can and must issue a Record of Decision ("ROD") selecting the environmentally preferred "no action" alternative.

Thank you for this opportunity to provide comment. Should you have any questions, please contact me at any of the numbers or email below.

Sincerely,

Fred Stine
Citizen Action Coordinator
The Delaware Riverkeeper Network
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Attachment

Data Gaps Identified for the Susquehanna to Roseland Transmission Line Proposal And Right-of-Way Request Environmental Impact Statement

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January 2010

Attachment

DATA GAPS

The review of available documents from the Applicants, NPS and outside sources identified gaps in the data needed to complete the EIS. These data gaps[1] are listed below for physical, natural, cultural and other resources:

OVERALL PROJECT

- The full study completed by the PJM on supply and demand for electricity needs to be obtained. Further, based on recent economic and political changes, this study may need to be updated.
- Cost is the critical factor in the Applicants' choice of alternatives, but is not mentioned as a prime motivation for selecting Route B. The Applicants do not present cost as a critical factor in the choice of the alternatives and instead focus on other factors. If this is the case, additional information or documentation related to costs is needed.
- Full disclosure of potential future use expansions from 500 kV/230 kV to 500 kV/500 kV should be stated.

PHYSICAL RESOURCES

Topography and Physical Features

- The Applicants have suggested that a geotechnical investigation and a blasting plan be completed. The potential impacts associated with this data collection should be discussed.

Geology and Soils

- **Erosion and sediment control plans are needed for Monroe County, Pennsylvania and Warren and Sussex Counties, New Jersey; best management practices should also be identified.**

Air Quality

- **Estimates of total direct and indirect emissions associated with the construction and operations activities for the S-R Line are needed to determine the applicability of the General Conformity Rule.**
- **Identification of fugitive dust control measures is needed.**
- Information on existing air quality conditions within the study area is needed.

[1] Data gaps include data needed from the Applicants, noted in **bold type,** data the NPS team will acquire, noted in *italics*, or simply data needed, without identifying who should provide. Data gaps that are highlighted contain information on sensitive species, areas or cultural resources.

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Viewsheds

- More information is needed about views from potentially affected Historic Districts, particularly Millbrook Village. Other districts could be affected based on topography.
- *Appalachian National Scenic Trail Resource Management Plan (NPS, 2008a). Have guidelines, management plans, or policies have been identified?*
- *Previously established NPS methodology used to prepare visual simulations for other sections of the Appalachian Trail may be useful. (such as NPS, 1999, Environmental Assessment for the Protection of the Appalachian National Scenic Trail across Saddleback Mountain Franklin County, Maine. Appendix E: Methodology Used in Preparing Computer and Visual Simulations. June.)*
- Key scenic resources and major vistas within the parks need to be identified, including the water trail, the AT, and other hiking trails. A visual analysis needs to be conducted at specific sites. Information from DEWA about recreational opportunities that may experience visual impacts are needed.
- **Visual simulations previously prepared by the Applicants are needed.**
- *The following resources may be useful to identify visual resource issues related to APPA in other areas:*
  - *USDA Forest Service. 1989. A Visual Resource Analysis of the Appalachian National Scenic Trail on Saddleback Mountain.*
  - *North Carolina State University. 1998. Technical Report: Development of Viewshed Mapping Capabilities for the Appalachian National Scenic Trail, Saddleback Mountain, Franklin County, Maine*
- *Regarding scenic and aesthetic resources in the corridor vicinity (i.e. other county, state and federally identified resources), other state, local or federal agencies or planning offices need to be contacted for additional documents, management plans or policies guiding visual or scenic resources, objectives, or policies within the project viewshed. Important visual and scenic resources identified from such plans or guidelines can be considered applicable 10-20 miles from the project. More information is needed from such sources as proposed alignments are considered.*
- The AT Comprehensive Plan (AT Project Office, 1981) and the APPA Management Plan from the New York/New Jersey Trail Club contain insufficient data. A visual impact analysis is needed.
- Additional information regarding the visual impacts of the taller towers along all Alternatives and any hiking trails that are crossed by the ROW is needed.

Noise and Soundscape

- *The noise guidelines for New Jersey are presented, but not for Pennsylvania; this information is needed.*
- **Though not included in the Applicants documents, the Applicants discussed some aspects of the transmission design related to soundscapes in a meeting with NPS. The New Jersey Department of Environmental Protection is requiring the 4-conductor transmission line through New Jersey and up to the park's eastern boundary to mitigate corona-effect noise**

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(line-buzz). The Applicants do not intend to extend this sound-mitigating design into DEWA or on the Pennsylvania portion of the line and propose to use a cheaper, 3-conductor design in those areas. This information needs to be presented in a formal manner.

- Per the Electric Power Research Institute Red Book 2nd Edition, the following information should be provided in the Proposed Project Plan and Standard Form 299 Information:
  - **Radio Noise - Corona and Sparkling do to ionization of the surrounding air. AM Broadcasts, UHF, HF, VHF, Television. Check within a sufficient distance so as not to impact neighboring businesses, communities and authority agency communications.**
  - **Audible Noise – Corona induced sizzling/crackling and single pitch tone/hum. Similar effects of Radio Noise. Check within a sufficient distance so as not to impact neighboring businesses, communities and authority agency communications.**
  - **Electric Fields – Space potential and space potential gradient. Conductor to ground and the area between, change in charge.**
  - **Effects in terms of coupled voltages and currents on nearby motor vehicles and metallic objects. Check entire ROW, 1000' upstream creeks and rivers and trails.**
  - **Magnetic Fields – static and time-variant magnetic fields exist at a distance either from a constant or time dependent source.**
  - **EMF – depends on the geometry of the current elements generating the fields according to Biot Savart Law. Other factors are; proximity, lateral distance, line current, soil resistivity, height above or distance below ground. Check entire ROW, 1000' upstream creeks and rivers and trails.**
  - **Areas impacted throughout the park, trails, rivers and streams. Impact to ground nesting and endangered species need to be considered.**
- Noise ordinance information for counties and townships is needed - websites (if available) did not have this information (Delaware Township, Date Unavailable; Milford Township, Date Unavailable; Smithfield Township, Date Unavailable; Montague Township, Date Unavailable; Sandyston Township, 2009; Walpack Township, 2009; Hardwick Township, 2009)
- **A review of information on long-term line noise from proposed conductor sizes is needed (500 kV/230 kV and 500 kV/500kV).**

Climate Change/Greenhouse Gases

- Information on cumulative impact to climate change and greenhouse gases as a result of the alternatives is needed.

NATURAL RESOURCES

Agency Coordination

Note: NPS will coordinate with the FWS and state agencies after the alternatives have been selected.

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- Protected species habitat to be documented using GPS and efforts will be made to avoid these areas during project design
- Need to coordinate with FWS to identify appropriate protection and mitigation measures after selecting a preferred alternative
- **The Applicants will coordinate with NPS and federal agencies to develop conservation measures.**

Water Quality

- Water quality information is needed for the waterbodies that will be crossed by the Alternatives and those waterbodies that occur within the study area. Information for Bushkill Creek in Pennsylvania and Van Campens Brook in New Jersey is available in "Water Quality of Streams in and near the Delaware Water Gap National Recreation Area, Pennsylvania and New Jersey, 2002 -04." Annual Planning Commission reports for Pike and Monroe Counties, Pennsylvania state that there are annual water quality studies performed but do not have any data associated with these statements. Sussex County, New Jersey's Groundwater Manual states that the Sussex County 208 Water Quality Management Plan has been in effect since 1979, but does not provide any data. Water quality information for Warren County, New Jersey could not be found. This information should be obtained from the states or counties.

Aquatic Systems (Streams and Rivers)

- Information on the Neversink River is needed from New Jersey – it is one of the major tributaries of the Delaware River and it is within the NPS study area. This information might be obtained from The Nature Conservancy – New York, Delaware River Basin Commission or New York State Department of Environmental Conservation.
- **The length of the Delaware River traversed by each of the Alternatives is needed; the reports discuss crossing of other water bodies, but not the Delaware River. This information is required for aquatic systems but also applies to viewsheds and visitor experience.**
- **A list of streams and rivers crossed by the transmission line is provided in the Applicants' reports for areas within the park, but this list needs to be expanded to include the study area and hydrologic features information for the water bodies.**
- **An assessment of potential impacts to and specific mitigative measures for streams and rivers crossed by the transmission line is needed.**
- More information is needed regarding impacts that could affect qualification for inclusion in National Wild and Scenic Rivers System.

Wetlands

- Wetland delineations in compliance with NPS guidance is needed for each Alternative, including the transmission line, access roads and construction pads/sites. It appears that the information gathered by the Applicants is either incomplete or not in compliance with NPS standards. The delineations should be mapped as GIS files. All wetlands that could be impacted by the Alternatives need to be mapped. This would include wetlands downslope of

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disturbed areas that could affect wetland hydrology. Natural functions of each affected wetland need to be identified and its importance relative to the significance or abundance of the wetland function in the park considered.

- **A wetland mitigation plan is needed.**
- Impacts to floodplains/riparian buffers along the Delaware River and VanCampens Brook are needed.

Floodplains

- Information on impacts to floodplains/riparian buffers along the Delaware River and VanCampens Brook is needed.

Vegetation

- **October 2009 Warren County, NJ, field work for rare and threatened and endangered plants – this report has not been received yet.**
- Vegetation community characterizations for the study area outside the park by the USGS Vegetation Characterization Program are needed.
- **PSE&G's Vegetation Management Best Management Practices – this report has not been received yet.**
- **The areas of temporary right-of-way clearing and areas of permanent right-of-way clearing within the study area for each alternative need to be identified.**

Landscape Connectivity

- **Land surveys delineating the existing ROW are needed**
- **Information is needed on the extent of clearing and the magnitude of impacts associated with the network of access roads. This new system of access roads would result in habitat patchiness, habitat fragmentation and would increase the potential for invasive species introductions. We need to be able to quantify this impact for each of the alternatives – essentially developing fragmentation indices along the alternatives, created by the ROW itself and the accompanying network of access roads. Addressing connectivity and fragmentation issues are particularly important for unique habitats and species of concern – determining percentage of fragmentation per total acreage of these habitats along each of the routes would be important.**
- *Information on prime and unique agricultural lands throughout the study area is needed, this is typically available from NRCS.*
- A forest-stand delineation within the ROW and for access roads and construction pads/sites is needed for all alternatives, which will provide information on habitat fragmentation.
- A habitat fragmentation analysis and information on corridors created by transmission lines is needed for the Alternatives.
- **A mitigation plan for all areas of forest and vegetative clearing is needed.**
- **The Applicants have not addressed the additional ROW width that will be needed to accommodate a power line running parallel to the pipeline in Alternative A. According to a representative from FERC, pipelines should be between 35 to 50 feet away from high**

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voltage power lines. High voltage power lines can cause the pipeline to become charged, which is a safety issue and the charge can degrade the pipeline faster. Also the pipeline has to add additional cathodic protection and other mitigation to dissipate the charge.

- **Restoration plans are needed for construction staging areas and access roads.**
- **The percentage of park lands that would be impacted by increased tower height should be identified.**
- **Evidence that additional ROW is necessary for the use, operation, or maintenance of the primary ROW should be provided.**
- *The States of Pennsylvania and New Jersey will be contacted to obtain land use policies, plans or controls that are currently in place within the study area.*

Invasive Species

- **An invasive species monitoring and management plan is needed. A plan exists for DEWA for the Line 1278 Replacement Project. Will the same measures be applied by the Applicants for the S-R Line Project?**

Rare and Unusual Vegetation

- A survey is needed for each alternatives of rare vegetation based on the lists of sensitive plant species provided by the States of Pennsylvania and New Jersey.
- The Applicants suggest obtaining a report for the field work for rare, threatened and endangered plant species for Warren County, New Jersey.
- A plant survey of the Shoemakers Barrens, located about ¼ mile from the ROW of Alternative B is needed.
- **Surveys for rare plant species within potentially affected areas of the study area are needed**

Wildlife

- Wildlife habitat assessments, presence-absence surveys, and habitat use surveys are needed to analyze the effects of each alternative and develop mitigation strategies.
- Site-specific wildlife information is needed. The information provided in Applicants' reports is state-wide and does not include fish or other aquatic biota.
- **Because lighting can disturb or disrupt wildlife, lighting should be addressed in plans and does not appear to be; this needs to be addressed.**

Avian Protection Plan for Migratory Avian Species in the River Corridor

- Migratory bird surveys are needed for all Alternatives.
- Data/Information is needed on migrant Neotropical passerines in DEWA especially as spring migrants and summer residents (breeding).
- Partners In Flight information is needed for priority species and habitats within Bird Conservation Areas applicable to proposed routes and DEWA.
- Information is needed from the New Jersey Landbirds Project in reference to DEWA.

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- An Avian Protection Plan needs to be prepared for migratory birds that use the Delaware River corridor.

Avian Protection Plan for Migratory Raptors that use Kittatinny Ridge

- Migratory raptor surveys are needed for all Alternatives.
- Raptor use information specific to Kittatinny Ridge is needed.
- Fall hawk migration data is needed for Kittatinny Ridge and DEWA.
- An Avian Protection Plan needs to be prepared for migratory raptors that use the Kittatinny Ridge.

Unique or Important Wildlife or Wildlife Habitat

- Detailed information on the following special habitats is needed: Van Campens Brook Riparian Area, Delaware River Riparian Area, Oughoughton Creek, Hogback Ridge and Cold Air Cave.
- More detailed information about vegetation clearing for the access roads through or adjacent to the Arnott Fen area (on Community Drive) and those habitats adjacent to this wetland complex is needed.

Federally and State Listed Rare, Threatened and Endangered Species

- Current information on species of special concern within the study area is needed.
- Habitat assessments and follow-up surveys for species of special concern or listed species, as identified by resource agencies need to be completed.
- **Mitigation plans for impacts to listed species and their habitats must be completed.**
- Surveys for listed herpetofauna habitat must be completed for areas potentially affected by all alternatives. In addition, analysis of probability of listed herpetofauna occurring within these habitats is needed.
- Assessment of the probability of listed mammals using potentially affected areas within the study area for foraging, roosting and hibernation are needed.
- Information on presence, absence, and distribution of listed mollusks is needed. Surveys should be completed in all potentially affected bodies of water.
- Information is needed on listed avian species – are they local or migrant populations?
- Winter surveys of listed avian species should be provided for all applicable areas.
- Impacts analyses and mitigation actions are required for both nesting and wintering listed avian species populations, both short-term (construction related) and long-term (new, higher towers and more lines across the Delaware River).

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Other Important Environmental Resources (Geothermal, Paleontological)

- Paleontological information within the park and the study area need to be collected. Paleontological Resource Inventory and Monitoring suggests that a large amount of information exists; however, the report does not reference the information geospatially.
- As per NPS, a two-volume report from 1978 by New Jersey State Museum contains additional information on locations of paleontological resources associated with rock outcrops throughout the park; this resource may not be up to date, but it is requested because it would provided useful background information.

CULTURAL RESOURCES

- Cultural resource mitigation plans, as applicable
- Consultation with THPOs

Section 106 of the National Historic Preservation Act of 1966 (as variously amended) requires that an APE be defined for any undertaking. For cultural resources, identifying gaps in the existing data is wholly dependent upon the locations of alternate transmission line routings (and associated access roads, etc.) which would constitute the project APE. The APE for historic architectural resources should not be less than the state requirements: PA=1 mile, NJ=1/4 mile (from centerline). As of this time, these alternates have not been finalized. Thus, the following list should be considered hypothetical, yet real-world, potential data gaps.

Archeological Resources

- Data gaps occur anywhere a line is proposed that has not been subjected to a Phase I archeological survey since the presence or absence of sites is unknown.
- Data gaps occur anywhere a line is proposed that crosses a previously recorded site(s) that has not been subjected to Phase II archeological evaluation since the potential significance and National Register of Historic Places eligibility of the site(s) is unknown.
- Data gaps occur anywhere a line is proposed that crosses a previously recorded site that has been determined significant and eligible to the National Register of Historic Places, and that cannot be avoided by the line, since the significant data in the site has not been recovered.
- Data gaps occur anywhere a line is proposed that that crosses a floodplain area that has not been subjected to deep testing and geo-archeological examination since the presence or absence of deeply buried sites is unknown.
- Data gaps occur anywhere a line is proposed that crosses a known site for which the existing data is spotty, incomplete, or absent (other than a dot on a map, or form).
- Mitigation cost should include in-perpetuity storage of all project-related artifacts, specimens and project archives at NPS facility, per Director's special directive 87-1 and NPS Director's Orders 24 and 28.
- Need Cultural Landscape Reports including landscape treatment recommendations (for possible mitigation measures) for potentially significant landscapes (e.g. Schoonover Mountain House, Watergate, APPA, Old Mine Road, Millbrook Village, etc.)

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- Additional ARPA permit needed to complete archeological deep-testing required by NJ SHPO in Delaware River floodplain.
- Mitigation plan for cost of curation of artifacts, specimens, and archival records is needed.
- Information is needed about river traces in DEWA that are prime locations for archeological sites.

Prehistoric and Historic Structures

Three major factors play into an understanding of data gaps:

1. Location of the APE - Section 106 requires that an Area of Potential Effects (APE) be defined for each federally funded, licensed, or permitted undertaking. The APE is that area within which effects on National Register-listed or -eligible properties can reasonably be determined and taken into consideration. Effects can be either direct (physical) or indirect (visual, audible, or atmospheric). Since the locations of the proposed alternatives have not yet been fully defined, it is not yet possible to define the APE for historic architectural resources. While previous studies have identified resources that will undoubtedly fall within the boundary of the APE, the extent to which the identification and evaluation requirement of Section 106 has been met is currently unknown.
2. Age - Normally historic architectural surveys address resources that are at least 50 years of age at the time of survey. This basic assumption is consistent with the 50-year age consideration of the National Register. However, depending on the dates of previous surveys, some resources that are currently over 50 years of age may not have been addressed previously, even though they were located within a given survey area.
3. Integrity - According to National Register guidance, in order for a resource to be eligible, it must possess integrity, that is, an ability to convey significance. Integrity is assessed through visual examination of the resource. Therefore, even if a resource was previously determined to meet National Register requirements, it may no longer be eligible due to a loss of integrity.

Recommended Approach - The most prudent approach to identifying and filling data gaps is to redefine the APE as soon as the locations of proposed alternatives have been finalized. Collected data should be reviewed to determine areas of overlap with the revised APE, and Pennsylvania and New Jersey SHPO files should be searched to identify known resources within the revised APE that may not have been addressed in previous surveys. A field reconnaissance of the revised APE should be conducted to confirm the presence and integrity of previously identified historic architectural resources and to identify other resources that may meet the 50-year age consideration and integrity requirements of the National Register. An evaluation or re-evaluation of significance should be conducted for such resources, as appropriate. An assessment of effects should be conducted to determine the effects of the project on properties listed in or eligible for the National Register.

- Reconnaissance historic architectural surveys
- Fall 2009 Phase IA and IB archeological surveys

- Additional excavation/archeological mitigation may be needed, if Phase Ia and Ib survey testing reveals significant sites in any area of potential effect.
- Survey of all prehistoric/historic structures in APE should be completed, including existing condition, evaluated effect, and proposed mitigation.
- More information is needed on structure design and visual mitigation.
- Information on buildings, structures, districts, and objects within viewshed/vistas, focusing on structure locations specific to DEWA.

Cultural Landscapes

- More information about views from potentially affected Historic Districts is needed. Other districts could be affected based on topography.
- Have guidelines, management plans, or policies have been identified since the Appalachian National Scenic Trail Resource Management Plan was published?
- Previously established NPS methodology that was used to prepare visual simulations for other sections of the Appalachian Trail is needed, such as NPS, 1999: Environmental Assessment for the Protection of the Appalachian National Scenic Trail across Saddleback Mountain Franklin County, Maine. Appendix E: Methodology Used in Preparing Computer and Visual Simulations. June.
- The following resources may be useful to identify visual resource issues related to APPA in other areas:
  - USDA Forest Service. 1989. A Visual Resource Analysis of the Appalachian National Scenic Trail on Saddleback Mountain.
  - North Carolina State University. 1998. Technical Report: Development of Viewshed Mapping Capabilities for the Appalachian National Scenic Trail, Saddleback Mountain, Franklin County, Maine
- Regarding scenic and aesthetic resources in the corridor vicinity (i.e. other county, state and federally identified resources), other state, local or federal agencies or planning offices need to be contacted for additional documents, management plans or policies guiding visual or scenic resources, objectives, or policies within the project viewshed. Important visual and scenic resources identified from such plans or guidelines can be considered applicable 10-20 miles from the project. More information is needed from such sources as proposed alignments are considered.
- Cultural landscape studies needed for several locations, including areas within DEWA. These locations include: Van Campens Glen, APPA, Old Mine Road Historic District, Watergate, Delaware View, Community Drive
- Landscape studies should include landscape treatment plans that identify mitigation measures.

Ethnographic Resources

- No documentation of consultation with Delaware Tribe, Delaware Nation, and Stockbridge/Munsee Community is presented. Consultation on Sacred Sites, Indian Trust Resources, and Ethnographic Resources needs to be conducted.

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- More information needed to determine if study area is of religious cultural importance to Native Americans.

SOCIOECONOMICS

Demographics

- Specific demographic information is needed. The following reports contain insufficient data: PPL, 2008a PPL, 2009d. More recent data is needed on high level land use; socioeconomic characteristics regarding counties; and acres of private land and private land. The most recent information is contained in NPS, 1987a; need any information that the park has gathered since 1987.
- Machlis et al., 2000 provides demographic, technology, economics, environment, and culture forecasts for the national park service. A localized breakdown and more recent data is needed as required by DO-12.
- More localized, detailed information about zoning, open space, and private ownership is needed than is provided in PPL, 2008b. Updated zoning map for Monroe County is needed as per DO-12. The most recent is 1999.
- Updated land use and zoning map for Pike County is needed – most recent is Pike County, 2005 and Pike County, 2006
- Login information for zoning and accessor information that can be obtained for Sussex County in GIS maps: http://njgin.sussex.nj.us/iDV/Login.aspx?ReturnUrl=%2fiDV%2fdefault.aspx.
- The value of the trees to be cut, removed, or destroyed within the ROWs needs to be determined.

Park Economic Impact on Human Environment

- This information is required by DO-12 and may be obtained through NPS Money Generation Model.

Employment, Occupation and Income Changes

- Employment, occupation and income change information is required by DO-12 and may be obtained through U.S. Census Bureau.
- Information on jobs created by the construction aspect of the proposed project is needed.

Access and Circulation, Traffic and Parking Studies

- The following plans are needed: Monroe County Short and Long Range Transportation Plans (TIP or LRP); and Local Area Transit Development Plan (TDP) for Nearby Areas within New Jersey and Pennsylvania. This information can be obtained by local counties.

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Minority and Low-Income Populations

- Minority and low-income population information is required by DO-12 and may be obtained through U.S. Census Bureau; a demographic study is needed to determine if project will impact low income or other populations.

Real Estate Values

- This information is required by DO-12 and may be obtained through the States of Pennsylvania and New Jersey.

VISITOR EXPERIENCE

Visitor Use Trends and Surveys

- More localized data than that available in AT Conservancy, 2009a is needed. This document contains very basic data about the entire trail. It references a 2007 Visitor Count Survey pilot project for the entire trail, which is needed.
- The following report is needed: AT Conservancy 2007 Visitor Count Survey Pilot Project.
- Follow up is required for USDA, 2008. The results of this study will provide a statistically valid, reliable, repeatable and uniform method of collecting and reporting public use data for the entire Appalachian Trail, but more localized data is needed.
- NPS, 2008a does not contain visitor data; this information is needed.
- Any recent progress on the Delaware Water Gap Traffic Safety Study since 2008 is needed.
- What percentage of park lands will be impacted by increased tower height?

Recreation Resources

- AT Conservancy, 1981 mentions an emerging pattern of closer-to-home vacations that will probably result in heavier visitor use on some sections. More recent data is needed.
- Surveys of Appalachian Trail users, boat and river users, others are needed regarding the localized use of the Appalachian Trail and DEWA boat and river users.
- Surveys/information is needed on Alternative A's impact to Kittatinny Campground from Ruth Jones at Kittatinny Canoes. The users of this campground are primarily users of DEWA and they look at the recreation area (river, island, etc…) and launch into the park from the campground.
- Information on the number of recreational days lost due to construction is needed.

ENGINEERING REPORTS

- The following design information is needed:
  - **Areas of impact for all aspects of the design, with accompanying georeferenced files with the footprint area included**
  - **Need specific details about structure aesthetics**
  - **Details of specific water crossings**

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- **Information on water encroachments and aerial water crossings**
- **Information on access roads and staging areas (and restoration plan for these areas)**
- **Number of drainage crossings**
- **Location of culverts and other water quality control measures**
- **Maintenance plan**
- **Information about the impact on airspace to assess safety impacts**
- **Energy requirements**

- The following information is needed:
- **PPL, 2008a – structure and foundation drawings - need detailed AutoCAD or Microstation drawings of structures and foundations proposed within DEWA and PLSCADD structure family for review (PLS pol or .tow format). These files are needed to develop alternatives.**
- PPL, 2008a– Existing crossings or parallel lines – does not includes line design data (Plan & Profiles) and route maps of existing PPL infrastructure; this information is needed to develop alternatives.
- PPL, 2008a – EMF studies – does not include EMF estimated calculations based upon current proposal; this information is needed to develop alternatives.
- PPL, 2008a – GIS data mapping - Need all GIS layers (shapefiles) of existing transmission lines, physical, residential and environmental constraints; this information is needed to develop alternatives and analyze impacts.
- PPL, 2008a – Transmission Line design - need PLS-CADD .bak files for section of line through DEWA; this information is needed to develop alternatives
- PPL, 2008a – Existing Transmission Lines in DEWA - need line condition assessment reports in order to develop alternatives:
  - History of transmission line corridor – changes, modifications, maintenance activities
  - Highlight new line sections built or modified/ refurbished/ upgraded in the last 2 years to meet similar 500kV standards in and around the DEWA area between Susquehanna and Roseland.
- PPL, 2008a, exhibit A – Functional alternatives - Need route maps and GIS mapping of the alternatives considered; this information is needed to develop alternatives.
- PPL, 2008a, exhibit B – Route alternatives - Need maps and GIS shapefiles of route alternative along Interstate 80, which was discounted; this information is needed to develop alternatives.
- Need documents that legally established the easement for the existing 230kv line. This information is needed to develop alternatives. The line pre-dates the park, and is old enough that the counties involved may need to be visited to obtain the documents, unless the utilities have them on record (they should still be cross-checked against the recorded document at the county) :
  - Monroe and Pike County in Pennsylvania
  - Warren and Sussex in New Jersey.
- Alternatively, a title company could be hired to perform a full title search for the area in question. The following documents have insufficient information: R&RP, 2009a; R&RP, 2009b.

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- PPL and PSE&G, 2008 - Need CAD files of the as-built location of the existing route; this information is needed to develop alternatives.
- Survey work to identify the ROW and digital maps of the survey results as CADD/GIS files; this information should be provided.
- The construction schedule and equipment use should be provided.

URBAN QUALITY AND GATEWAY COMMUNITIES

- Urban quality and gateway communities information is required by DO-12 and may be obtained from local planning offices.
- Demographic study is needed to determine recreation monies spent, construction activities, etc.

HEALTH AND SAFETY INFORMATION

- Emergency or disaster evacuation plans/routes from: Monroe and Pike Counties, Pennsylvania Office of Emergency Management; and Warren and Sussex Counties, New Jersey Office of Emergency Management
- **Traffic control plan/general specification for construction activities is needed.**
- **Additional information is needed on measures to prevent adverse impacts to park visitors during construction.**
- Information is needed on health/safety effects of the new transmission line on park visitors.

GIS LAYERS

- EA requests the following GIS layers:
  - **Proposed access roads for all Alternatives**
  - **Proposed construction pads/pull sites for all Alternatives**
  - **Vegetative areas to be cleared so that it can be used as part of the impacts analysis.**
  - **Other conservation lands – this could include private hunting/fishing clubs, land trust properties, boy/girl scout camps, local county or township parks Soils data for areas of the Alternatives outside of the park. The GIS files from NPS contain soils information for DEWA and Sussex County; soils for Pike, Monroe and Warren Counties are needed. Vegetation outside of the park within the study area land use outside of the park within the study area in Pennsylvania; GIS data from NPS has information for Sussex and Warren Counties**

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Comment Form

Park:	Delaware Water Gap National Recreation Area and Middle Delaware National Scenic River	
Project:	Susquehanna to Roseland 500kV Electric Transmission Line	(ID: 25147)
Document:	Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement - DEIS December 2012	(ID: 44314)

* indicates required fields

City:* Clarks Summit State/Province:* PA

Postal Code:* 18411-7816

First Name: Doug Middle Initial:

Last Name: Heller

Organization: Sierra Club, Northeastern Group, Pennsylvania Chapter

☐ Member ☒ Official Representative

Address 1: 125 N Gravel Pond Road

Address 2: Clarks Summit PA 18411-7816

Country: USA

E-mail: bzzharper@epix.net

☐ Keep my contact information private

Comments or Requests: See attached seven page comment letter.

Sierra Club, Northeastern Group of the Pennsylvania Chapter

Submitted by:

Doug Heller, Chair
and Ben Harper
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of the Pennsylvania Chapter
125 N Gravel Pond Road
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January 30, 2012

National Park Service
Denver Service Center – Planning Team
ATTN: Morgan Elmer
12795 W. Alameda Parkway
PO Box 25287
Denver, CO 80225-0287

RE: Comments on the Draft Environmental Impact Statement / Susquehanna – Roseland Line

Dear Superintendents Donahue and Underhill and NPS Staff:

The Northeastern Group of the Pennsylvania Chapter of the Sierra Club (NE Sierra Club) respectfully requests that the National Park Service (NPS) (a) select the No Action Alternative as the Preferred Alternative, or if NPS is not so inclined, (b) prepare a Supplemental Draft Environmental Impact Statement (SDEIS) to evaluate the effects of the proposed Susquehanna-Roseland Line (Project) in Lackawanna County, Pennsylvania where under the National Environmental Policy Act (NEPA) NPS is required to focus on the following three affected physical areas and/or their surroundings: The Steamtown National Historic Site (Steamtown); the Lackawanna Heritage Valley Authority (LHVA) Region; and, the Moosic Mountain Barrens (Barrens).

The adverse effects of the Project on the Steamtown viewshed, the LHVA region and the Barrens, as well as procedural requirements under NEPA for evaluating these effects, have been brought to the attention of NPS by many and described in several previously submitted comment letters related to documents NPS has offered for public review and comment, as well as in separate correspondence between NPS and others.

NE Sierra Club incorporates by reference each of these comment letters and other correspondence identified in the list of seven letters below:

March 12, 2010 - Doug Heller, Chair, Northeastern Group, Pennsylvania Chapter, Sierra Club, 534 Wheeler Avenue, Scranton, PA 18510 to NPS;

September 14, 2010 - Doug Heller, Chair, Northeastern Group, Pennsylvania Chapter, Sierra Club, 534 Wheeler Avenue, Scranton, PA 18510 to NPS;

March 12, 2010 – Natalie Gelb Solfanelli, Executive Director, Lackawanna Heritage Valley Authority, 538 Spruce Street, Suite 516, Scranton, PA 18503 to NPS;

September 14, 2010 – Natalie Gelb Solfanelli, Executive Director, Lackawanna Heritage Valley Authority, 538 Spruce Street, Suite 516, Scranton, PA 18503 to NPS;

October 14, 2010 – NPS Reply to September 14, 2010 comment letter from Natalie Gelb Solfanelli, Executive Director, Lackawanna Heritage Valley Authority from NPS Superintendents Donahue and Underhill;

November 10, 2010 – Elena Saxonhouse, Staff Attorney, Sierra Club Environmental Law Program, 85 Second Street, Second Floor, San Francisco, CA 94105-3459 to NPS;

December 2, 2010 – NPS Reply to November 10, 2010 letter from Elena Saxonhouse from NPS Superintendents Donahue and Underhill.

1) The Steamtown viewshed includes both mountain areas in clear view of the national park and mountain and valley areas in clear view of the railroad lines used by the Steamtown excursion trains, and all of these scenic areas would be adversely impacted by the proposed Project.

As you know, Steamtown is a bona fide national park. Steamtown and the Delaware Water Gap National Recreational Area (DWGNRA) have equal status within the national park system. The selection of Alternatives 2 or 2b, and possibly other alternatives, would result in adverse effects to the Viewsheds of both the Steamtown and the DWGNRA national parks and have significant negative effects on visitor and resident experience. An evaluation of these adverse effects, whether direct, indirect or cumulative effects, is necessary to satisfy requirements under NEPA. Under the Alternative 2 and 2b schemes, and possibly other alternatives, in this area and in

other areas, the Project is a connected action, an action that would literally be connected by actual, physical lines. NEPA does not support the notion that NPS needs to evaluate effects only in what otherwise is its own area of specific responsibility or only in areas where NPS permits are required. In this instance and in other instances, NPS has a responsibility to evaluate effects and to compare them with and choose from among other alternatives.

2) The LHVA region includes the Viewshed and the Natural and Recreational Resource Areas within its region where areas bounded by the Lackawanna Valley Ridgetops in Lackawanna County would be adversely impacted by the proposed Project.

LHVA is one of approximately forty-nine U.S. National Heritage Areas (NHA). It is the only NHA that is organized as a municipal authority, funded almost entirely by NPS, and that includes mandated conservation responsibilities for the Secretary of the Interior. LHVA was authorized as a NHA by the United States Congress on October 6, 2000, under Public Law 106-278. Prior to legislative enactment, the Secretary of the Interior approved the LHVA Management Action Plan (MAP) and Environmental Impact Statement.

The Secretary of the Interior has defined responsibilities under the Lackawanna Valley National Heritage Area Act of 2000 (Act) as partly expressed in the following provisions:

> Section 102 (a) (5) (A) "the Secretary of the Interior is responsible for protecting the historical and cultural resources of the United States;"
>
> Section 102 (a) (6) "the Lackawanna Heritage Valley Authority would be an appropriate management entity for a Heritage Area established in the region;"
>
> Section 102 (b) (1) "The purposes of the Lackawanna Valley National Heritage Area are--to conserve, interpret, and develop the historical, cultural, natural, and recreational resources related to the industrial and cultural heritage of the 4-county region described in subsection (a)(1);" and
>
> Section107 (a) (2) "In assisting the management entity, the Secretary shall give priority to actions that assist in-
>
> (A) Conserving the significant historical, cultural, and natural resources that support the purpose of the Heritage Area;"
>
> (NE Sierra Club incorporates by reference the text of the Act enabling legislation and LHVA MAP located at www.lhva.org.)

The Project would create a skyline of 200 foot high towers that would extend approximately fifteen miles across the Valley Ridgetops in the Lackawanna Greenway. The Valley Ridgetops have been identified as specific natural resource areas of concern within the LHVA MAP. Under

NEPA, NPS cannot credibly dispute that the Project is a connected action vis-à-vis Alternatives 2 and 2b, and possibly other alternatives, neither can it credibly dispute that Steamtown and LHVA share significant and vast areas in the larger viewshed within Lackawanna County. In fact, the October 14, 2010 – NPS Reply to the September 14, 2010 comment letter from Natalie Gelb Solfanelli, Executive Director, Lackawanna Heritage Valley Authority from NPS Superintendents Donahue and Underhill clearly indicates NPS understanding that indeed the LHVA region appears to be within the Scope of the Project, and it is evident given the workload NPS assigned to LHVA, see quote below:

> "In order to evaluate your request to include the Lackawanna Valley National Heritage Area as a part of this environmental review we require additional information. Can you please provide a map or Geographic Information System (GIS) shapefile that delineates the Lackawanna Valley National Heritage Area in relation to the applicants' proposed route, Alternative 2? You expressed concerns regarding potential impairment to the viewshed of the Lackawanna Greenway and negative impacts to the rare Moosic Mountain Barrens ecosystem. Can you please provide specific locations along the greenway or within the National Heritage Area where scenic vistas are potentially impacted by applicants' proposed route? Can you also provide more detailed information where the applicants' proposed route crosses the Moosic Mountain Barrens ecosystem? Any maps and shapefiles that you can provide identifying the key scenic viewpoint and rare plant communities along Alternative 2 would be extremely useful in the determining next steps."

A few things are worthy of mention regarding the letter quoted above. LHVA does not have the responsibility for doing research for NPS, research such as was requested in its letter, or for doing the work NPS must do to prepare an EIS evaluation. LHVA is not in a position to be reimbursed for time and expenses from the applicant for the Project. The LHVA comment letter is sufficient in itself for NPS to act and to begin the research itself. For instance, it is not LHVA's responsibility to contact the applicants for the Project to obtain shapefiles of possible routings for the line for the proposed Alternative 2. Clearly, that is NPS' responsibility. A simple visit to the LHVA website would provide NPS with a map of the LHVA region and enough to work with when initially contacting the applicant. If the applicant is unwilling to outline the necessary information for NPS to begin its research, then clearly NPS is within its rights to place the Project in a state of hiatus, at least until necessary information is forthcoming.

It appears from the correspondence, that NPS placed LHVA in the untenable position of not being able to meet the NPS request, and NPS should have known this to be the case. Busy as it is, LHVA apparently delayed responding to the overload of work NPS placed in its lap and became further discouraged when only a short time later it learned independently of NPS that, without notice to LHVA or the benefit of the results of the research and all of the work it had requested from LHVA, NPS arbitrarily eliminated the LHVA area from further review by

explaining that the area would not be the subject of a detailed evaluation. See December 2, 2010 – NPS Reply to the November 10, 2010 letter from Elena Saxonhouse, Staff Attorney, Sierra Club Environmental Program from NPS Superintendents Donahue and Underhill wherein NPS arbitrarily eliminates the LHVA region from a detailed evaluation, in part by stating,

> "... the Federal action under consideration for the Environmental Impact Statement (EIS) is whether to grant the permits the applicants have requested in their proposal."

Further and near the closing:

> "We [NPS] only have jurisdiction over the segments of the line crossing the park units and have no way to determine where the line might be placed beyond a certain point outside these respective boundaries".

In contrast however, as explained above, although the Federal action in this instance may be dependent on permits in certain park units, it is yet a connected action under NEPA, and NPS is required to study the LHVA area, much as it began to do when it wrote its October 14, 2010 letter to LHVA requesting detailed information.

In the same December 2, 2010 NPS Reply letter to Elena Saxonhouse, NPS characterizes LHVA as a municipal authority without explanation, seeming to suggest this was part of the reason for eliminating a detailed evaluation the LHVA region. Under NEPA, federal, non-federal government and private entities are subject to NEPA review when connected actions impact their areas. In this instance, LHVA is neither an applicant for the Project, nor as a municipal authority is it subject to the Clean Water Act which devolves NEPA obligations to the States as in the case of municipal authorities such as local wastewater treatment plants. Rather, the LHVA region contains natural and recreational resource areas wherein the Secretary of the Interior has specific responsibilities for giving priority to actions that conserve the historical and natural resource values of its region. By including the LHVA region as part of the NPS EIS detailed evaluation of the Project the Secretary would qualify as meeting his obligation to give priority to actions that would to the extent available under NEPA conserve the natural resource values of the LHVA region.

3) The Moosic Mountain Barrens (Barrens). The LHVH MAP was based in part on the Lackawanna and Luzerne Counties Open Space, Greenways & Outdoor Recreation Master Plan (Open Space Plan). NE Sierra Club incorporates by reference the Open Space Plan, available at www.lackawannacounty.org, and the LHVA MAP available at www.lhva.org.

The Bi-County Open Space Plan identified the Moosic Mountain Barrens as:

> "a top priority NAI [Natural Areas Inventory] area representing one of the most unique areas in the state...with protection efforts underway."

The Moosic Mountain Barrens and the surrounding Moosic Mountain Highlands are listed as "short term priorities" with "Preferred Management Entities" including:

> "Public/Private Partnership; NPS; USF&W; U.S. Dept of the Interior; PA Game Commission; DCNR; PennDot; LHVA; and the County of Lackawanna."

Based on strong community interest and support, and including $500,000 of funding from the U.S. Department of Transportation, the Nature Conservancy purchased 2,250 acres in the Moosic Mountain Barrens as part of plan that already includes over 5,000 acres of protected land. The Nature Conservancy has plans to expand its holdings. Moreover, the Moosic Mountain Barrens is home to three rare plant communities and a Heath Barrens plant community that is described as the largest in North America and the only one in Pennsylvania. It is home to over twelve animal species categorized by the state as S1 or S2, categorized as most rare. Primarily, these include Lepidoptera species (moths and butterflies). The ecosystem also includes many other special flora and fauna.

Recent estimates place the Barrens as greater than 10,000 acres in size and naturally arranged as a complex, unified ecosystem. Fragmentation is the greatest threat to the Barrens. It is estimated that as many as five acres may be lost for each acre that is developed due to invasive species and other factors. Estimates based on mapping and language from the Project plan on the PP&L website indicate this is the only PP&L quadrant where it would need to buy significant new right of way. Several miles of Barrens property would be needed in the lower reaches of Moosic Mountain where as many as fifty acres of Barrens may be directly impacted and as many as 250 acres impacted adversely due to fragmentation. That would be in addition to the widening of the Project along the existing power line pathway as it crosses a central area of the Barrens where a widened pathway would further weaken one of the most fragile places in the Barrens that has been weakened by previous fragmentation. It is believed by most familiar and knowledgeable with Barrens ecology that the Project would effectively divide the currently unified Barrens into two separate ecosystems.

The previous comment letters from NE Sierra Club, LHVA, and Attorney Elena Saxonhouse of the Sierra Club Environmental Law Program incorporated by reference above include comments and attachments exemplifying the previous commitment of the Department of the Interior to evaluating the significance and varied aspects of the Moosic Mountain Barrens over the course of years 1993 to 2002 when it involved itself with all levels of government and the private sector in evaluations there via the several EIS's prepared and affecting the area. It would be unconscionable and it would contravene the spirit of NEPA if the Department of the Interior and its agency, NPS, were to step away from this history now based on a misguided belief that some overwrought technical interpretation of NEPA might allow it to escape from continuing its good work.

On the separate issue of applicant corporations funding so-called mitigation with $30 million worth of ratepayer funds, NE Sierra Club does not support this type of mitigation and views it as a giant step toward setting the NEPA process up for sale.

In summary, NE Sierra Club requests NPS to select the No Action Alternative as the Preferred Alternative in order to render moot the requirement under NEPA that NPS include Steamtown, the LHVA region and the Barrens for detailed evaluation in a SDEIS.

Thank you for your consideration.

Sincerely,

Doug Heller, Chair

Ben Harper

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New Jersey Conservation
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To National Park Service
Denver Service Center – Planning Division
Attn: Morgan Elmer
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P.O. Box 25287
Denver, CO 80225-0287

Date: January 31, 2012

Comments re:

Park: Delaware Water Gap National Recreation Area and Middle Delaware National Scenic and Recreational River and Appalachian National Scenic Trail
Project: Susquehanna to Roseland 500kV Electric Transmission Line
Document: Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement – DEIS December 2011

From: Wilma E. Frey, Senior Policy Manager
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U.S.A.
Email: wilma@njconservation.org
Phone: 908-234-1225
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New Jersey Conservation Foundation **(NJCF)** is a private, non-profit organization whose mission is to preserve land and natural resources throughout New Jersey for the benefit of all. We protect strategic lands through acquisition and stewardship, promote strong land use policies, and forge partnerships to achieve conservation goals. Since 1960, we have worked to protect the state's farmland, forests, parks, wetlands, water resources and special places.

General Comments

New Jersey Conservation Foundation strongly supports the National Park Service selection of Alternative 1, the No-Action Alternative as the least environmentally harmful. We urge the NPS to select Alternative 1 as its preferred alternative in the Final EIS. We urge the National Park Service to deny the applicant's proposal and not to issue the requested construction and ROW permits.

NJCF is especially concerned about the protection of land resources held in the public trust. National Parks are the quintessential example of lands held in the public trust. The Organic Act specifically states that national parks are to be held "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same ***in such manner and by such means as will leave them unimpaired*** for the enjoyment of future generations."

The Middle Delaware National Scenic and Recreational River was designated in 1978 under the provisions of the Wild and Scenic Rivers Act, which stipulates that the river "shall be administered in such manner as to protect and enhance the values which caused it to be included in the system ...primary emphasis shall be given to protect [the area's] esthetic, scenic, historic, archeological, and scientific features."

This Draft EIS also reviews impacts on historic resources under the authority of the national Historic Preservation Act of 1966, which requires federal agencies take actions to minimize harm to historic properties.

It is clear that all of the park crossings by the proposed transmission line will have major adverse impacts on the park and its resources in one respect or another. However, the Applicant's preferred route, Alternative 2-2b, is by far the most damaging to significant park resources. Therefore, given the National Park Service mission, Alternative 1, the No-Action Alternative, is the logical and rational choice, and it is the only way to protect the parks. Approval of any of the Action alternatives would violate the Organic Act, the Wild and Scenic Rivers Act, and the National Historic Preservation Act.

Comments on Landscape Connectivity, Wildlife Habitat and Wildlife

The Draft EIS discusses the "Objectives in Taking Action," developing and refining goals and objectives for topics that include Natural Resources. Objectives include

* "Protect threatened and endangered species by avoiding impacts.. ...coordinate with state agencies regarding state-listed species." DEIS 14.
* "Avoid or minimize adverse effects on migratory birds in accordance with Migratory Bird Treaty Act and the 2010 *Memorandum of Understanding Between the U.S. Department of the Interior National Park Service and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds."* DEIS 15.
* "Mitigate impacts on landscape connectivity." DEIS 15.

The 2010 Memorandum of Understanding between USDOI-NPS and USFWS **(2010 MOU)** states that "meeting management and legal responsibilities requires that the NPS develop the capability

to identify, plan for, and mitigate actions adversely affecting migratory birds within park boundaries..." MOU 1. The MOU further notes that the the D.C. circuit has ruled that "Federal agencies are subject to the MBTA prohibition of take of migratory birds," MOU 3 and that "reducing unintentional take of migratory birds is one of the primary purposes of Executive Order 13186..." MOU 4. The MOU notes that "Migratory bird conservation also meets the growing public demand for education and outdoor recreation. Migratory birds are also important economically, and recreational activities associated with migratory birds contribute to the support of many communities." MOU 5.

Section F. of the MOU states that "The National Park Service will:
2. With regard to unintentional take of migratory birds, the superintendent of the NPS unit...will, prior to starting any activity that is likely to result in the unintentional take:

"a. Determine if any species of concern are likely to occur in the area of the proposed action.

c. Evaluate and document, as part of compliance with NEPA, the effects of the proposed action on migratory birds, focusing first on species of concern along with their priority habitats and key risk factors. Utilize the best available demographic, population, or habitat association data to assess impacts to species of concern. Also, identify where unintentional take that could reasonably be attributed to the action may have measurable negative effects on migratory bird populations." MOU 15.

"4. Identify and protect natural habitats of migratory bird species within park boundaries..." MOU 16.

"8. Prevent or abate, to the extent possible, the pollution or detrimental alternation of migratory bird habitats in NPS units or affecting NPS units." MOU 17.

NPS Actions, re "Communication towers, utilities, energy development, and transmission corridors... To assess impacts, pre-construction and post-construction monitoring should be established collaboratively with partners. Existing structures that may result in unintentional take will be monitored and considered for modification, replacement, or removal, if necessary." MOU 23.

The Draft EIS fails to comply with the requirements of the 2010 Memorandum of Understanding.

The Draft EIS fails to determine if any species of concern are likely entirely to occur in the area of the proposed actions. It fails to identify the Rare species of migratory birds, including Special Concern, Threatened and Endangered species, that migrate along the Kittatinny Ridge through the DEWA at night. These are the specific species that would be most endangered by the significantly increased height of the transmission towers and the increased number of wires strung between them. These species have been identified by New Jersey Conservation Foundation Ecologist Dr. Emile DeVito, a member of the New Jersey Department of Environmental Protection's Endangered and Nongame Species Advisory Committee.

The State of New Jersey has designated Endangered, Threatened and Species of Special Concern, of which 33 are rare night migrant birds. Of the 33 rare night migrant species, about 24 breed in the DEWA. The species include:

* American Bittern
* Barn Owl
* Blackburnian Warbler
* Black-throated Blue Warbler
* Black-throated Green Warbler
* Blue-headed Vireo
* Bobolink
* Brown Thrasher
* Canada Warbler
* Cerulean Warbler
* Common Moorhen
* Common Nighthawk
* Eastern Meadowlark
* Golden-winged Warbler
* Grasshopper Sparrow
* Gray-cheeked Thrush
* Hooded Warbler
* Horned Lark
* King Rail
* Least Bittern
* Least Flycatcher
* Nashville Warbler
* Northern Parula
* Pied-billed Grebe
* Sora
* Spotted Sandpiper
* Veery
* Virginia Rail
* Whip-poor-will
* Winter Wren
* Wood Thrush
* Worm-eating Warbler
* Yellow-breasted Chat

(Source: NJ Endangered and Nongame Species Program: Special Concern – Species Listing (Oct. 2008)

Only five of these species are identified in the Draft EIS in *Table 14: Special-status Wildlife Species* Identified through Agency Consultation: the Virginia rail, Veery, Golden-winged Warbler, Black-throated green Warbler and Cerulean warbler. Draft EIS 176. The title of the Table is misleading, suggesting that these species are the only special status species that would be impacted by the transmission line upgrade. ***However, the Special Status species identified consist solely of "special status species known to be present or having the potential to be found along the proposed ROWs."*** Draft EIS 172. At least a dozen additional species (see list above of NJ Special Concern Species) also breed in the same habitat as the Black-throated Green and Cerulean Warbler. The much larger number of special-status species that migrate along the Kittatinny Ridge, are likely present throughout the length of the DEWA and would be impacted by

the increased height of the transmission towers and increased number of wires, are simply not identified in the DEIS.

A second table, Table 11: Birds of Conservation Concern for USFWS Region 5 and Bird Conservation Region 28, includes many shorebirds that are irrelevant to the DEWA area, and is simply a generalized list created for a much larger region. Only 9 of the 33 New Jersey Species of Special concern are included on this list: Pied-billed Grebe, American bittern, Least bittern, Whip-poor-will, Wood thrush, Golden-winged warbler, Cerulean warbler, Worm-eating warbler and Canada warbler. Draft EIS 162-63.

However, neither of these Tables specifically identifies the migratory birds that traverse along the Kittatinny Ridge, requiring crossing the power line corridors, nor does the Draft EIS evaluate and document the effects of the proposed action on migratory birds. The Draft EIS does not evaluate in any way the potential impacts of the transmission lines on birds that migrate at night.

While the Draft EIS describes the importance of the Kittatinny Ridge for migratory birds, stating that it "provide[s] an ideal corridor for the seasonal migration of birds" and "is recognized worldwide for its importance to migrating birds," (Draft EIS 160) the document does not identify ***the specific migratory species that rely on the Ridge, that migrate at night, and thus would be most impacted by the increased height of transmission towers and multiple power lines.*** Because these values are not noted or analyzed, they are not considered in the assessment of the impacts of the proposed transmission line. The initial description in Chapter 3 of the Affected Environment downplays the values, in this case, the values of the migratory birds and their relationship to the Kittatinny Ridge that actually exist in the DEWA and fails to address avian wildlife values that will be severely impacted by the transmission line.

Because the specific conditions and the impacts on specific bird species is neither identified, documented, nor quantified, the Draft EIS does not comply with the directives in the 2010 Memorandum of Understanding.

Comments re Appendix F-2: Avian Protection Plan

The Draft EIS states that "as part of mitigation for the proposed plan, an Avian Protection Plan (APP) will be developed and would be a condition of the applicant's permit. This example of an APP is a plan developed by PSE&G for the New Jersey Highlands Council. While this APP provides an example of what an APP might be similar to for the proposed S-R line, the below plan has not been reviewed by NPS..." DEIS F-24.

The example provides an unacceptable model for a NPS mitigation plan. It is a vague statement of issues, lacks any detail whatsoever, contains no commitment to obtain baseline data on migration or migratory species, primarily mentions large raptors where electrocution is the major issue, lacks a dependable implementation mechanism and is therefore impossible to implement. It fails to address the significant avian issues associated with small rare nocturnal migrant birds. Avian electrocution is not the issue with small birds.

The DEIS, Appendix F F-9 states that "The following design components will be employed to minimize bird collisions with the lines (PSE&G 2010, 23): Flight diverters or transmission line markers, thicker wires, and bundled conductors "to make the transmission lines more visible to birds." These proposals fail to recognize that the majority of passerine migration occurs **at night**,

when the birds will not see these devices. The situation becomes even worse when the birds are migrating in foggy and low visibility conditions.

The U.S. Fish and Wildlife Service commented in a letter to the Wisconsin Public Service commission regarding a 345kV Transmission Project Draft EIS with a quote from A.R Jenkins, et. al. (2010) that the "the surest ways to prevent birds from colliding with a proposed power line are either not build it, to bury it underground, or to route it well away from areas known or considered likely to support collision-prone species." Tony Sullins, Field Office Supervisor, Dec. 22, 2011 letter to William Fannucchi, Public Service Commission, Madison WI. Quoting Jenkins, A.R., J.J. Smallie, and M. Diamond, 2010. "Avian collisions with power lines: a global review of causes and mitigation with a South African perspective." *Bird Conservation International* 20:263-278.

Appendix G-6, contains a chart "Species documented in DEWA," listing birds that were observed during field surveys. Although it indicates with an asterisk the migratory species (G-18 to GT-30), it does not indicate which species are rare, threatened or endangered. Thus, nowhere in the DEIS is information provided about which migratory species found in DEWA, and likely to fly along the Kittatinny Ridge, are of special concern.

Comments on Impacts outside the Study Area.

We are concerned that the DEIS does not recognize the New Jersey Highlands Region, a special place that the S-R transmission line upgrade will degrade. The Draft EIS fails to identify and recognize the outstanding natural and cultural resources of the New Jersey Highlands Region, on which the transmission line will have serious impacts. Figure 53, a map entitled "Protected and Recreation Areas Outside of the Study Area," is indicative. While the map shows broad areas of Pennsylvania included in the "Lackawanna Valley State Heritage Region and the Delaware and Lehigh National Heritage Corridor, the New Jersey Highlands, a comparable region with comparable protections, is not depicted. The Highlands' outstanding natural, historic, scenic and recreational resources were recognized in 2004 in both the federal and state legislation – the federal Highlands Conservation Act and New Jersey's Highlands Water Protection and Planning Act. Both of these laws recognize and provide means to protect the Region's significant forest, water, wildlife, historic, scenic and recreational resources. The federal act authorizes up to $100 million for land preservation. The state law promulgated strict environmental protection regulations for the "Preservation Area," more than 400,000 acres that comprise half the region, and regional planning for the entire 880,000 acre area, with local conformance mandatory in the Preservation Area.

A statement on page 253 requires revision: "Spanning the border of New Jersey and Pennsylvania, the majority of the [DEWA] viewshed falls within the Delaware River watershed...To the north, the geologic features of the Pocono glaciated plateau gives way to ridge and valley formations of the northern Allegheny Mountains. To the south and east, the Great Appalachian Valley gives way to the megalopolis of eastern New Jersey and New York City." Please note that the Great Appalachian Valley extends eastward to the foot of the steep forested ridges of the Highlands, dotted with over 400 lakes, ponds and reservoirs, cut by rocky gorges and wild trout streams, inhabited by black bear, bobcat and nearly 30 threatened and endangered species of animals, and crossed by both the Appalachian Trail and the long-distance Highlands

Millennium Trail. Granted, there has been development pressure on the Highlands region, but the edge of Megalopolis lies some thirty miles further east.

The document fails to note that the existing Susquehanna-Roseland transmission line actually crosses a number of protected lands, including Kittatinny State Park, Farny State Park, Pyramid Mountain Natural Historic Area, four Natural Heritage Priority Sites, several large county parks in Morris County, and numerous municipal parklands. (Appendix G-5: Other public and conservation lands that could be crossed outside the study area, pages G-14-17)

Thank you for the opportunity to comment. We appreciate all the hard work that went into the preparation of the Draft EIS, as well as the work that goes into managing the Parks. If you have questions regarding these comments, please do not hesitate to contact me or Dr. Emile DeVito, NJCF Manager of Science and Stewardship at 908- 234-1225, emile@njconservation.org.

Sincerely,

Wilma E. Frey
Senior Policy Manager
New Jersey Conservation Foundation
wilma@njconservation.org
908-234-1225

Rock the Earth

Defending the Planet One Beat at a Time

FAX TRANSMITTAL SHEET

TO: **Superintendent John Donahue**
Delaware Water Gap National Recreation Area, HQ

FAX NO.: **(570) 426-2402**

PHONE NO.:

FROM: **Marc Ross, Executive Director**

DATE: **January 31, 2012**

TOTAL NO. OF PAGES: 11, INCLUDING COVER SHEET

COMMENTS:

Dear Mr. Donahue,
Enclosed please find our comments to the Draft Environmental Impact Statement for the Susquehanna to Roseland 500-kilovolt Transmission Line. Please let me know if you have any questions or if the complete, 10-page letter is not received on your end. Thank you!

ORIGINAL TO FOLLOW BY MAIL: YES ___ NO X___

IF THERE IS ANY PROBLEM WITH THIS TRANSMISSION, PLEASE CALL 303-454-3304.

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Rock the Earth

Defending the Planet One Beat at a Time

SUBMITTED ELECTRONICALLY &
VIA FASCIMILE

January 31, 2012

National Park Service
Denver Service Center - Planning Division
Attn: Morgan Elmer
12795 W. Alameda Parkway
P.O. Box 25287
Denver, CO 80225-0287

Re: Comments to Draft Environmental Impact Statement for the Susquehanna to Roseland 500- kilovolt Transmission Line, 76 FR 72001 (November 21, 2011).

Dear Ms. Elmer:

The members of Rock the Earth, a national nonprofit corporation, hereby submit comments in response to the November 21, 2010 Federal Register Notice of the publication of the National Park Service's (NPS) Draft Environmental Impact Statement (DEIS) for a construction and right of way permit contemplated in the proposed plan from Pennsylvania Power and Light Electric Utilities (PPL) and Public Service Electric and gas Company (PSE&G) (hereinafter, "the utilities") for a 500kV transmission line crossing the Delaware Water Gap National Recreation Area (DEWA), the Middle Delaware National Scenic and Recreational River (MDSR) and the Appalachian National Scenic Trail (AT or APPA) in Pennsylvania and New Jersey (jointly, "the Park Units").

I. Rock the Earth

Rock the Earth ("RtE") is a Pennsylvania nonprofit corporation with a national membership of concerned citizens who regularly utilize the national park system, year-round, for recreational activities. Our members regularly seek the peace, quiet and solitude of the National Park system for reflection, spiritual inspiration, and exercise, while engaging in recreational activities which include hiking, camping, photography, meditation, snow-shoeing, cross-country skiing and non-motorized water sports. RtE members will be directly affected by the proposed project for the construction of the power line through the Park Units in that such

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construction will destroy the natural beauty and character of the landscape of these remarkable and protect areas and, therefore, will diminish visitors'/members' ability to experience the Park Units in their natural state, thereby reducing visitor enjoyment. RtE members have several grounds for concern. These particular Park Units are prominent among the meager segment of areas in the Northeastern United States that remain for the activities we as individuals revere. It is our collective conclusion that as informed citizens, it is our responsibility to protect these treasured fragments of the Earth. Expanded use of these areas for activities not in harmony with both the current law as well as the legislative intent when these areas were set aside as Park Units and will devastate the naturally wild environment. Therefore, we find it not only our right, but also our responsibility to be concerned.

II. The Park Units Are Significant Resources that Require Protection

As is recognized by the NPS, these particular Park Units are spectacular in their scenic, scientific and historic features. The DEWA is significant due to the exceptional quality of the Delaware River; it is the last free-flowing river on the eastern seaboard, and provides outstanding recreational and scenic opportunities. The quality and quantity of river water remains in good condition and provides a stable ecological environment. As one of the largest public open spaces remaining in the northeastern metropolitan corridor, the park provides a broad diversity of exceptional, unique, and close-to-home recreational opportunities for the more than 60 million people who live within a 6-hour drive of the park. In addition, the population of the region has boomed. There are not that many places remaining in this region to see wildlife and to experience the kind of tranquility one has in this river valley. Outstanding geologic and natural features form some of the best-known scenic landscapes in the northeastern United States (U.S.) and illustrate the characteristic landforms and biotic areas of the Appalachian Ridge and Valley Province and the Southern Appalachian Plateau Province, including the world famous Delaware Water Gap.

Meanwhile, the AT is similarly significant. The AT is a way, continuous from Maine to Georgia, for travel on foot through the wild, scenic, wooded, pastoral, and culturally significant lands of the Appalachian Mountains. It is a means of sojourning among these lands, such that visitors may experience them by their own unaided efforts. The body of the trail is provided by the lands it traverses, and its soul is in the living stewardship of the volunteers and partners of the Appalachian Trail Cooperative Management System (NPS 2005a).

III. The Proposed Plan from the Utilities is Contrary to NPS Mandates and Congressional Intent for the Park Units

The NPS is guided by the United States Constitution, public laws, treaties, proclamations, Executive Orders, regulations, directives of the Secretary of the Interior and Assistant Secretary for Fish and Wildlife and Parks, as well as NPS guidance documents. The fundamental purpose of the National Park System as set forth in the Organic Act, 16 U.S.C. 1, 2-4, and reaffirmed by the General Authorities Act, 16 U.S.C. 1a-1 through 1a-8, as amended

("Organic Act"), mandates the conservation of park resources and values. The Organic Act of 1916, as amended, states in Section 1:

> The Service thus established shall promote and regulate the use of the Federal areas known as the National Parks…by such means and measures as to conform to the fundamental purposes of the said Parks…which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.

16 U.S.C. 1, 2-4. Likewise, the General Authorities Act, as amended by the Redwood Act (March 27, 1978, P.L. 95-250, 92 Stat. 163, 16 U.S.C. 1a-1) ("General Authorities Act"), affirms the basic tenets of the Organic Act and provides additional guidance on National Park System management:

> The authorization of activities shall be construed, and the protection, management and administration of these areas shall be conducted in light of the high public value and integrity of the National Park system and shall not be exercised in derogation of the values and purposes for which these various areas have been established.

The restatement of these principles in the Redwood Act is intended to serve as the basis for any judicial resolution of competing private and public values. In the Redwood Act, Congress provided that when there is a conflict between conserving resources and values and providing for the enjoyment of them, conservation is to be the primary concern. 16 U.S.C. 1a-1.

National Park Service guidance documents and policy interpreting the laws, regulations and Executive Orders also support a rejection of the proposed plan. NPS Management Policy 1.4.3 contains an NPS obligation to "conserve and provide for enjoyment of park resources and values." Contained within this management policy is the mandate that the NPS managers "must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources" and "when there is a conflict between conserving resources and providing for enjoyment of them, conservation is to be predominant." See NPS Management Policy 1.4.3.

The NPS Management Policies also prohibit the impairment of park resources and values, thus ensuring that the parks will continue to exist in a condition that "will allow the American people to have present and future opportunities for enjoyment of them." See NPS Management Policy 1.4.4 (The Prohibition on Impairment of Park Resources and Values); 2004 EA at 12 and NPS Management Policy 1.4.3 (NPS Obligation to Conserve and Provide for Enjoyment of Park Resources and Values).

Other substantive NPS Management Policies that support the basis for this comment letter can be found in NPS Management Policies 4.7.1 (Air Quality), 4.9 (Soundscape Management), and 8.2 (Visitor Use).

Further and specifically, the enabling legislation for the DEWA states as follows:

> Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to further the purposes of the joint resolution approved September 27, 1961 (re Delaware River Basin compact; 75 Stat. 688)... for public outdoor recreation use and enjoyment ...and for preservation of the scenic, scientific and historic features contributing to public enjoyment of such lands and waters, the Secretary of the Interior is authorized, as herein provided, to establish and administer the Delaware Water Gap National Recreation Area.

PL 89-158 (September 1, 1965); NPS Internal Scoping Meeting Report, Susquehanna to Roseland Transmission Line Proposal and Right-of-Way Request, Environmental Impact Statement (October 2009) (hereinafter, "2009 Internal Scoping Meeting Report"), at 9.

Similar protection was provided for by Congress in establishing the MDSR. In 1968, the Delaware River within DEWA was designated as a scenic and recreational river under the Wild and Scenic Rivers Act. The provisions of the act stipulate that as a scenic and recreational river the Middle Delaware:

> [S]hall be administered in such manner as to protect and enhance the values which caused it to be included in [the wild and scenic rivers] system without....limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protect [the area's] esthetic, scenic, historic, archeological, and scientific features.

PL 90-542 (October 12, 1968); 2009 Internal Scoping Meeting Report, at 10.

Finally, clear intent to protect the AT was also evident in its enabling legislation. The National Trails System Act established the Appalachian National Scenic Trail and directed the Secretary of the Interior, in cooperation with the Secretary of Agriculture, state and local governments, and private citizens, to protect and administer the Trail. The Act provided the Secretaries of Interior and Agriculture with the authority to relocate the Trail; administer use of and access to the Trail; regulate incompatible uses, including motorized uses, bicycles, and horses; and enter into agreements with state agencies and non-government organizations to protect, manage, maintain, and develop the Trail. It also encouraged state agencies to pass similar legislation and take active steps to protect the Trail; and authorized federal land acquisition as necessary to establish a permanent route and protective corridor surrounding the footpath. 2009 Internal Scoping Meeting Report, at 10, referencing PL 90-543 (16 U.S.C. 1241, et seq.).

Additional federal requirements can be found in several National Park Director's Orders, Federal and Pennsylvania and New Jersey State Laws: Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; Director's Order 28: Cultural Resource Management; Director's Order 53: Special Park Uses; Director's Order 77: Natural Resources Management Guideline (1991); Director's Order 87D: Non-Park Roads.

A. The Proposed Plan by the Utilities is Inconsistent with Federal and State Mandates

The Utilities propose a dramatic plan that will directly impact the Park Units. In their plan, an existing 230,000-volt (230-kV) power line with approximately 80-ft structures currently located on the current right-of-way would be replaced with new larger tower structures (up to 200 feet high) to co-locate both the existing 230 kV line and a new 500-kV line. This would necessitate widening the existing right-of-way, and in areas, would require granting additional legal rights beyond the Utilities' current rights. The Utilities' proposed action would also include the construction of new access roads and the rehabilitation and widening of existing roads for accessing the transmission line corridor.

These proposed expansions of both the right-of-way and attendant roads for the transmission line corridor will directly impact the Park Units and is directly inconsistent with Federal and State legal mandates. As recognized in the 2009 Internal Scoping Document, the project as proposed will directly impact or has the potential to impact the following:

- Geologic Resources
- Air Quality
- Viewsheds
- Soundscapes
- Greenhouse Gasses/Climate Change
- Water Quality
- Aquatic Systems
- Wetlands
- Floodplains
- Vegetation
- Landscape Connectivity
- Invasive Species
- Rare or Unusual Vegetation
- Unique Ecosystems and Rare Communities
- Unique or Important Wildlife and Wildlife Habitat, including Migratory Birds
- Unique or Important Fish and Fish Habitat
- Species of Federal and State Concern, including federally or state listed endangered or threatened species
- Archeological Resources
- Prehistoric or Historic Structures
- Cultural Landscapes
- Ethnographic Resources

- Socio-economic

2009 Internal Scoping Meeting Report, at 29-33.

The construction of massive transmission infrastructure through the three parks presents a myriad of impacts on wildlife and certain impacts to the resources listed above. Even if minimized, it is clear that construction and maintenance will negatively impact wildlife communication, habitat utilization, and reproductive success. DEIS, Ch. 4, pp. 415-483. The proposal also threatens a rich historical landscape containing 70 significant sites that have been or are being entered on the National Register of Historic Places. These include archaeological sites, sites used for interpretative history and are a fundamental resource for visitors to not only learn about, but experience the past. Some of the most threatened historic locations include Van Campens Glen, the Appalachian National Scenic Trail, Old Mine Road Historic District, Watergate, Delaware View, and Community Drive. DEIS, Ch. 4, pp. 507-524.

These factors alone would violate both federal and state law mandates.

B. Visitor Experience Will Be Directly Impacted by the Proposed Project

We have reviewed the DEIS for the Susquehanna to Roseland 500kV Electric Transmission Line (the "Project"). As with many other members of the public, we continue to be concerned about the impacts that the Project will have, including as to natural and cultural resources such as geologic, floodplains, wetlands, vegetation, bird, aquatic and other wildlife. We also are particularly concerned as to the impacts on **Visitor Use and Experience**, and we respectfully provide our following comments in that regard.

As the DEIS makes clear, the Park Units are enjoyed by many members of the public for a variety of activities. A significant value in this regard concerns scenic viewing. "Visitors use a variety of park resources based on personal goals and interests, and the feeling they experience during their visit is the result of multiple actions and encounters.... Although several factors contribute to the quality of the experience, the proposed actions would affect visitor use and experience primarily through visual and noise disruptions.... Aesthetic value is an important consideration in the management of recreation settings, especially where most people expect a natural-appearing landscape with limited evidence of 'unnatural' disturbance of landscape features. Scenic qualities can affect park visitors, residents of the local area or nearby communities, and a broader constituency who may either occasionally visit the parks or simply have an interest in their scenic qualities." (DEIS, Ch. 4, p. 626).

Another important value for Visitor Use and Experience concerns soundscapes. "Inappropriate sound can also adversely affect park visitor experiences. Visitors usually have high expectations regarding a national park experience. The impacts of inappropriate sound on visitor experience are especially evident where visitor expectations include solitude, serenity, tranquility, contemplation (as in wilderness), or a completely natural or historic environment.... To the extent that noise might displace animals from viewing areas ... it could

indirectly impact visitor experience by precluding visitors from enjoying the sights and sounds of wildlife." (Id.).

The Utilities' proposal to construct massive transmission towers nearly 200-feet-tall and having a 350-foot-wide right-of-way constitutes a serious degradation to the preservation of both natural and cultural resources. While the current 80-foot-tall transmission towers already rise above the tree canopy and degrade the viewshed and contribute to the fragmentation of the landscape, they are far less obtrusive than that contained within the proposal in question. An AT visitor experience may include 20 miles north and south of the Right-of-Wary – this is what a thru-hiker may hike in a day. Construction activities such as tree clearing and blasting would be an impact to visitor experience. In addition, bringing in large construction equipment and the towers via park roads and public roads would affect the visitor experience. Long term impacts to visitor experience may also occur. The visibility of the new towers above the existing tree-line will have an effect on visitors in the long term. Qualities of the existing visitor experience, including key elements such as primitiveness and solitude will be impacted. Some hikers on the AT consider hiking the trail a lifetime experience. Protecting scenic resource values are specified in DEWAs enabling legislation and the APPA legislation provides for a primitive experience along the trail.

In addition to hikers on the AT, both the construction and long term effects of the project will impact ALL visitors to the Park Units – whether it be paddlers on the Delaware River itself, to others who visit the Park Units for solitude and the marked natural soundscapes and beauty – viewshed appreciation, recreational and aesthetic resources in the Park Units will all be impacted by the proposed project.

As set forth in the DEIS, the various Action Alternatives all result in significantly adverse impacts on Visitor Use and Experience, from a variety of sources, including removal of existing structures, and Project construction and components.

In general, as the DEIS demonstrates, the Project will impact significantly on hiking, camping, hunting, fishing, star-gazing, and other non-motorized, as well as aquatic, recreational activities on all of the federal, state and local lands in the project area. The presence of a transmission line and soaring 190' towers will have a significant impact on the recreational experience of residents and visitors to the area. The Project will adversely affect game species and thereby diminish opportunities for hunting. Hikers and people enjoying the attractions and unspoiled vistas in the gorges, viewing areas, and scenic byways surrounding the area would be faced with visual and acoustic impacts from a large, industrial-scale transmission Project that is fundamentally at odds with non-motorized recreation and enjoyment of the solitude, darkness and relatively unbroken natural experience now available.

The transmission and generation components of the Project will also adversely impact on the visual and scenic resources, including the daytime viewsheds and the incomparable nighttime darkness currently available in the area. The flares from gas and coal plants, cooling towers from coal plants, and night-time beacons on tensioning towers would alter the current character of the lands where the transmission and generation infrastructure would be built. We have

serious concerns that development of industrial-scale transmission lines in this area would not be compatible with respect to viewshed and scenic resources. The Appalachian Trail is one of the most important scenic locations in the United States presenting unique opportunities to millions of citizens and visitors. This "unique opportunity" will disappear when a large industrial development cuts across the Trail. We believe that it is not feasible to design and operate the proposed transmission and generation facilities to be compatible with the surrounding, unique, and unparalleled scenic characteristics of the Trail.

Silence and a sense of remoteness is another important aspect of scenic quality currently present on the Trail, and in the Water Gap, as well as other areas within the Highlands. Nighttime views of the transmission lines, which may bear several red strobe lights, flashing at frequencies of at least 20 times per minute, will severely impact on an otherwise dark landscape.

More specifically, the DEIS acknowledges the following significant impacts that all Action Alternatives of the Project will have on Visitor Use and Experience in several parts of the Park Units:

1. "During removal and disposal of existing structures, visitors would experience adverse noise and visual impacts from the creation of access roads, the transportation of construction equipment for and from the decommissioning sites, the removal of the crane pads and equipment at wire pulling locations, the removal and disassembly of lattice towers, and grading activities. Possible helicopter use would result in additional noise and visual impacts." DEIS, Vol. 1, Ch. 4, p. 631.

2. "Adverse impacts would result from the construction of the new facilities, including grading activities to create level pads for tower sites, the construction of foundations, and the construction of steel towers, including wire installation. New pulling and splicing sites, as well as new construction staging locations, would further affect visitors due to noise and visual disruptions. Some existing roads, new access roads, and spur roads wold require clearing and grading.... During construction, visitors may also experience temporary road closures or reroutes, which could cause delays or the inability to access and use preferred recreation sites." Id. Even though some of these road closures and reroutes might be "temporary," they could nevertheless inhibit visitors from returning at all.

3. While a "portion of the corridor along the ROW would be allowed to revegetate ...[s]uch revegetation would take many years...." Id.

4. "Under all action alternatives, devices placed on transmission line conductors (wires) to deter birds would increase the visibility of the lines by making the conductors more prominent. This could increase the level of adverse impacts where visitors would be visually exposed to these devices.... Visitors relaxing at an overlook along APPA would be more affected, increasing the overall level of impact." Id.

5. "The addition or improvement of access roads and spur roads called for under all action alternatives could result in ORV and dirt bike use, which is illegal in the parks. Such use would

result in increased noise, which would adversely affect visitor experience. This engine noise would be incompatible with the natural, park-like setting. In addition, visitors could see damage to vegetation and scars from these vehicles, and would potentially see the roads being used in this manner. The presence of these vehicles and their resulting damage would also decrease the possibility of wildlife sightings. These impacts would increase the level of impacts on visitor experience of the parks, and may influence visitors' use of the parks, because they may avoid such areas." Id. at 631-32. Although "an OHV/ATV deterrent plan would be developed," id. at 632, the ability to deter such unauthorized, indeed illegal use is highly suspect.

6. "[M]any river users would pass below the transmission line under all action alternatives.... The presence of the taller towers, thicker lines, and bird diverters ... would be seen not only as boaters pass below the wires, but during the approach from farther upstream.... For these reasons, changes proposed under the action alternatives would adversely affect the visitor experience of many boaters." Id. This is especially the case since, as the DEIS points out, 64% of DEWA visitors surveyed in 2010 acknowledged that "power line expansion through DEWA and MDSR would detract from their park experience." Id.

7. "[V]isitors hiking long sections of trails, including APPA from both inside and outside DEWA boundaries, would be exposed to intermittent views of the transmission line during their approach to it. The towers would be taller, the ROW wider (with the exception of alternative 2b), and, in the case of alternatives 3, 4, and 5, two sets of transmission lines would be seen. The transmission lines would be more noticeable than existing conditions, so they would be seen from greater distances during approach and would have a greater impact due to their larger presence." Id.

8. "[H]unting is allowed throughout DEWA and is not concentrated in any particular area in relation to the proposed alternatives. Because hunters enjoy the natural aesthetics of their surroundings, they would experience similar impacts to other visitors." Cleared canopy openings created by the transmission line "are generally not suitable for hunting deer.... [and] waterfowl hunters may not want to fire overhead toward the transmission lines and would therefore avoid these areas. As a result widening the ROW should decrease the area's suitability for hunting. The most extensive impact s would result from deconstruction and construction activities," because the noise would "frighten game from the area and degrade the naturalness of the hunting experience." And the DEIS recognizes that this may lead to "crowding" as hunters choose other parts of DEWA – a problem already identified by 43% of all hunters as "unsatisfactory." Id.

In addition to the above noted severe adverse impacts on Visitor Use and Experience that are common to all action alternatives, the DEIS also identifies several such impacts unique to the different action alternatives.

For example, for applicants' proposed route of Alternative 2, many visitors who use the Delaware River for canoeing, kayaking and tubing, as well as fishing, will be adversely affected in their experience as a result of "a substantial change to views for river users, resulting from higher structures and additional, thicker conductors. Boaters would pass below the transmissionline quickly, but the line would be seen in the distance for some time during the approach, detracting from the naturalness of the setting." Id. at 633. "Corona noise, which is not heard from the existing line, would be heard during bad weather days" and would

adversely impact boaters, including motorboaters whose speeds are limited to 10 mph. "[O]verall visitor satisfaction would begin to decline, because visitors would be aware of the change and the duration of the impact would be prolonged." Id.

Similarly, this alternative would entail increased congestion on River Road and visual impacts around the small town of Bushkill that provides access to DEWA. "[T]he sight of the large structures [towers of substantial height and three rows of conductors] may diminish visitors' initial impressions of DEWA .... Many visitors would be affected by the visual change, which would be continuous and may change some critical characteristics of the desired visitor experience." Id. The DEIS also notes the substantial visual changes on Old Mine Road, the McDade Trail, Community Drive, and the Watergate Recreation Site,, as well as the Upper Glen trail, where "[v]isual impacts would also be permanent for visitors ... [again] potentially changing some critical characteristics of the desired visitor experience. Visitors would be aware of the change, which may affect their decisions to recreate there." Id.

IV. Conclusion

As stated in the DEIS, "[t]he NPS is mandated to preserve natural, historic, and scenic resources in perpetuity for the benefit and enjoyment of the public. Adverse impacts resulting from the action alternatives that would endure for the period of analysis would diminish the parks' ability to meet this mnandate. Under all action alternatives, adverse impacts on visitor experience may affect visitors to the extent that they do not return. This may be particularly true if access to a specific destination is closed during deconstruction/construction activities." Id. at 632-33. The DEIS admits that it cannot even quantify the extent to which this will occur, making this a very serious concern.

Clearly, this Project will have major impacts on the visitor experience and essentially stop or at least significantly inhibit and adversely affect public outdoor recreation use and enjoyment in sections of the Park Units. The primary goal of the Park Units will be inhibited by granting the applicant permits and these impacts should be weighed heavily. Creation and expansion of access roads, increasing the height of the towers, and permanent and even temporary closures of sections of the Park Units will have significant long term impacts on public enjoyment of the Park Units.

In sum, the alternative that does not place the goals of the DEWA in jeopardy must be selected – specifically, the NO ACTION ALTERNATIVE.

Thank you for your consideration.

Gratefully yours,

Marc A. Ross
Executive Director
Rock the Earth

Correspondence (1878)

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Correspondence Text

This statement constitutes the Appalachian Trail Conservancy's (ATC) final submission regarding the Susquehanna-Roseland Draft Environmental Impact Statement (DEIS). Our earlier submissions and comments provide background information about the ATC and the Appalachian National Scenic Trail (ANST or A.T.). To reiterate: ATC's mission is to preserve and manage the Appalachian Trail, ensuring that its vast natural beauty and priceless cultural heritage can be shared and enjoyed today, tomorrow, and for centuries to come. Our 42,000 members, and our 31 A.T. maintaining clubs (including three directly affected by this project) support ATC's position, and share ATC's substantive concerns about the proposed action alternatives for the Susquehanna-Roseland Power Line.

As laid out in the National Trails System Act (P.L. 90-543, as amended through P.L. 111-11, March 30, 2009), national scenic trails such as the Appalachian Trail are "extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass." Congress emphasized "nationally significant" scenic and natural values to distinguish national scenic trails from the other types of trails created by the Trails Act, and placed clear obligations on the administering agency to protect those values. As with other units under National Park Service jurisdiction, the standards governing the management of the Appalachian Trail are set forth in the National Park Service Organic Act of 1916. Regarding a national scenic trail, the National Park Service certainly has obligations to protect scenic resources beyond park boundaries. ATC and our 6,000 dedicated working volunteers, along with agency partners, strive to maintain a viable trail corridor that continues to meet the intent of the Trails Act. We work to protect scenic viewsheds from Georgia to Maine for the millions of annual visitors to the trail. Given the close proximity to urban centers, the heaviest used sections of the A.T. are in the Mid-Atlantic states. It is also important and relevant to acknowledge and recognize that the state historic preservation offices of Pennsylvania and New Jersey have determined that the Appalachian National Scenic Trail is eligible for listing on the National Register

of Historic Places.

We have worked with the project proponents and the National Park Service (NPS) to highlight trail concerns. We have conducted field reviews and extensively reviewed the DEIS, and must recommend that the NPS select Alternative 1-the No Action Alternative. The ATC does not believe it is feasible for the applicants and the National Park Service to implement any of the location or action alternatives without permanent impairment to the values and resources of the Appalachian National Scenic Trail (ANST). There are too many remaining unknowns to conclude otherwise at this time. In short, the action alternatives fail to meet ATC's long-standing criterion that there be "no net loss of Trail values or quality of Trail experience" (see DEIS, "ATC Roads and Utilities Policy," Appendix B, pages B-13 and 14).

General Comments: It is difficult for ATC to adequately evaluate impacts of the proposed action alternatives for a number of reasons, particularly the lack of detailed information specific to the Appalachian National Scenic Trail on tower heights and locations, rights-of-way (ROW) widths, locations of access and spur roads and other construction operations, and routes of the various alternatives beyond park boundaries. While the Delaware Water Gap National Recreation Area was extensively analyzed, the ANST as a separate and unique unit of the National Park System, was not.

Sufficient details regarding tower heights and design (lattice versus monopole), new or upgraded access roads, spur roads, pulling and splicing sites, crane pad locations and route locations outside park boundaries are absent or suppositional. Although more specific detail is provided for the applicant's preferred alternative 2 and 2b, even there detailed information is often lacking. In many cases, the DEIS provides a range of design possibilities based on "Industry Standards" and "Best Management Practices." These are not acceptable substitutes for actual dimensions, square footages, acreages, and facility locations as they relate to the Trail.

Specific Comments-Visual Effects: With generally only two pictures at each "key observation point" or KOP (existing and proposed), the ATC is struck with the need to have more comprehensive analyses of visual impacts, mindful of our mission to thoroughly analyze potential visual and scenic impacts to protect these visually significant ANST lands in perpetuity. The visual simulations are limited in that they depict only one perspective at each individual KOP along each alternative, and, further, that those views are along the axis of the power line. Panoramic, 360-degree visual simulations are needed at each KOP to adequately assess impacts to hikers and other visitors.

Additionally, ATC is puzzled as to why the National Park Service and its contractors picked the Federal Highway Administration's (FHWA) "Visual Impact Assessment for Federal Highway Projects" (1988), over the much more robust, resource-sensitive and up-to-date Scenery Management System (formerly known as the Visual Management System), developed by the Forest Service, USDA. Comparing the brief, photocopied 1988 FHWA document to Landscape Aesthetics: A Handbook for Scenery Management (December 1995) will demonstrate our concerns with the presently limited visual analyses in the DEIS. The FHWA analyzes projects "from one's automobile," while the Forest Service's broader and more effective approach analyzes overall effects on individual viewers from settings where scenery is of high importance, such as the Appalachian National Scenic Trail (emphasis added).

In the 40-year history of the Appalachian National Scenic Trail, ATC and its federal agency partners, particularly on the southern national forests, have sought to protect the "Foreground" (out to one-half mile), and the "Middleground"(out to 4 miles)-from timber sales, new forest roads, and other major landscape-level visual (and aural) impacts such as mines, ski areas, wind farms, etc. In the Middleground, the U.S. Forest Service (the Trail's largest landowner) has now specified that the ANST will merit "Partial Retention" (of the pristine view). That zone is now applicable for almost 950 miles of the ANST across eight national forests. This direction has led, for example, to denial of a state permit in North Carolina to a mineral-extraction company for a new mine three miles from the A.T., as well as mitigation for a major wind-farm utility development in Maine, where the National Park Service and ATC used the Forest Service system to evaluate scenic effects on that section of the federal corridor. In one case, the Maine Land Use Regulation Commission (LURC) denied another wind-farm permit outright,

based on effects on scenic and wildlife three miles from the ANST. We urge the NPS to adopt the Scenery Management System for future analyses of projects of major scope such as this one.

The DEIS suggests that opening a wider ROW corridor may increase the "frame of the view" (page 595) and that negative impact would be "offset somewhat by the increased cleared ROW providing a wider view opportunity of the surrounding landscape which is scenic and memorable." It is our belief that the ANST affords visitors superb viewing opportunities along the existing natural rock outcrops, open areas, and leaf-off seasonal viewings that occur naturally along the Trail's entire length. The legislation enacting the ANST requires trail managers to protect and ensure scenic views that are not marred by 195-foot-tall utility poles and conductors.

Given the major, new, foreground visual effects of the new lines, for towers approaching 200 feet tall, this additional resource information must be coupled with refined viewshed analyses. Despite measurements from one or two "key observation points" or KOPs (all that is provided in Appendix K), there will be almost constant exposure to the offending view particularly in leaf-off seasons as park visitors approach the proposed crossing itself. NPS and its contractors have not yet achieved realistic evaluations of the full scope of visual effects impacting the parks and their visitors, hence our support for Alternative 1-the No Action Alternative.

Specific Comments-Natural Resource and Wildlife Effects: The Delaware Water Gap National Recreation Area in the vicinity of the proponents' preferred Alternatives 2 and 2b would be divided at its widest and wildest point, essentially dividing the national park in two, and would compromise the Middle Delaware National Scenic and Recreational River at one of its most scenic points. This area has the greatest concentrations of vital natural resources and therefore will be the most impacted if chosen by the agency. It includes Arnott Fen, a wetland fed by a limestone aquifer that makes this region a center of concentrated biodiversity, including rare bog turtle habitat and other species of concern. Therefore, Alternatives 2 and 2b represent the worst of all possible alternatives.

The DEIS appropriately recognizes the Kittatinny Ridge as an Audubon-designated, and internationally significant "Important Bird Area" (IBA). It notes the importance of the resource as a globally significant flyway for migrating birds, particularly raptors. ATC considers this flyway an important natural resource for the Appalachian Trail, as the Trail is coaligned with the ridge for about 200 miles as it passes through Pennsylvania, New Jersey, and New York. ATC has been actively working with the Audubon Society, Hawk Mountain Sanctuary, and other conservation partners to protect the Kittatinny Ridge from inappropriate development and other threats extending above the treeline, including telecommunication towers and power lines. As proposed, all of the action alternatives will pose unacceptable, permanent, adverse impacts to birds nesting and migrating along the flyway, additional reasons ATC supports Alternative 1-the No Action Alternative.

Additional impacts to natural resources include an increase in forest fragmentation, introduction of exotic invasive species, and increased access by destructive all-terrain vehicles (ATVs). Each of these impacts creates management and maintenance challenges for Appalachian Trail volunteers and agency partners.

Alternatives Analysis and Comparison: This section provides analysis from ATC's perspective of the suitability of the remaining routing alternatives.

Alternative 3: With the ROW expanding and tower heights increasing, ATC is concerned with expanded clearing, forest fragmentation, and exotic invasives as well as ATV trespass; however, we are stymied by not knowing the details of the expansion of the ROW beyond the 150- to 300-foot ROW description in the DEIS (as elaborated above).

Alternative 3 is the worst in terms of its effects on the ANST, with numerous, unacceptable, adverse impacts to vistas. It parallels the A.T. for 2.5 miles on a ridge only 400 feet high, so that hikers would be looking down on the proposed 150- to 200-foot towers less than a quarter mile to the southeast along an

open, rocky ridge with many open viewpoints, including New Jersey's Catfish Fire Tower. This is also the closest alternative to the Mohican Outdoor Center of the Appalachian Mountain Club (AMC), an Appalachian Trail gateway that is used by thousands of visitors annually. AMC is an A.T.-maintaining club working under ATC auspices in a number of states, including Pennsylvania and New Jersey.

ATC, AMC, and the NY-NJ Trail Conference each individually asked NPS to discard this alternative during scoping, but it is still in the DEIS (see our respective 2010 comments on the Preliminary Alternatives regarding the then-designated Alternative 2/Route B, now Alternative 3 in the DEIS).

In our view, this alternative should be discarded from additional consideration in the DEIS.

Comparison of Alternatives 2 and 2b with Alternative 4 and 5: The two companies' preferred Alternatives 2 and 2b are partly equivalent in their apparent effects solely on the ANST. Both pairs cross the A.T. at one location with tower heights that are roughly equivalent; however, it appears that the ROW widths of Alternatives 4 and 5 would be much wider, as they would contain both the double circuit 500 kV and the existing parallel distribution line and would merge with a third existing power line ROW immediately east of the proposed crossing (see red "Deciduous Forest" at A.T. crossing depicted in DEIS Figure 37). We contend that this "mega-cut" would have substantial adverse impacts on ANST resources at this location, further exacerbated by the 250-foot American Telecommunications Tower at Totts Gap.

Furthermore, Alternatives 4 and 5 would have unacceptable adverse impacts on the vista at Lunch Rocks due to the proposed taller towers and wider ROW clearing. These additional impacts would require mitigation (preferably at the site of impact) beyond the proposed abandonment and restoration of the existing B-K line.

Assuming the ROW and vista impacts could be fully mitigated and the B-K line would be abandoned and restored, it is possible that Alternatives 4 and 5 would cause the least harm to the A.T. However, as previously stated, in order to determine this, ATC would need additional visual analysis, precise details on proposed construction and infrastructure, and the routing location outside park boundaries, as well as understanding the gravity of wildlife effects on Alternatives 2 and 2b.

We therefore recommend Alternative #1, the No Action Alternative. If the NPS can prevail in its Record of Decision in the Final Environmental Impact Statement (FEIS) to secure an alternate location that truly reduces impacts (Alternative 4/5), the existing 230 kV line at Alternative 2/2b would be removed, which would be a major improvement for all three parks.

While ATC strongly urges the NPS to select the No Action Alternative, should the decision be made to build the line and Alternative 4 is selected, ATC requests assurance that the B-K line be removed and the ROW corridor restored and extinguished, with any retained ownership reverting to the Delaware Water Gap National Recreation Area.

Thank you for this opportunity to comment.

Laura Belleville
ATC Director of Conservation

Karen Lutz
ATC Mid-Atlantic Regional Director

Robert Proudman
ATC Director of Conservation Operations

Michele Miller
ATC Mid-Atlantic Resource Program Manager

The following organizations join with ATC in support of this position:

New York-New Jersey Trail Conference
Mahwah, New Jersey

Appalachian Mountain Club-Delaware Valley Chapter
Bethlehem, Pennsylvania

Wilmington Trail Club
Wilmington, Delaware

Correspondence (1578)

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Correspondence Text

Dear Mr. Elmer,

The Appalachian Mountain Club (AMC) is a private, non-profit organization whose mission is to "promote the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of the Appalachian region". We encourage public respect for the natural environment, provide leadership in its protection, and offer recreational and educational programs and facilities for the enjoyment and wise stewardship of the outdoors. Our over 100,000 members, supporters and advocates reside largely in the Northeast including in New York, New Jersey, Pennsylvania, and Delaware, for whom the protection of the Delaware River Basin is of great importance.

AMC has a long history of conservation interest and hands-on stewardship in the Delaware Water Gap.

In 1971 AMC opposed the construction of the Tocks Island Dam and supported the creation of the Delaware Water Gap National Recreation Area.

In 1975 AMC prepared a Delaware Water Gap National Recreation Area Recreation Management Plan for the National Park Service.

In 1992 AMC completed an inventory and recommendations for trail development and maintenance in the Delaware Water Gap. This same year, AMC volunteers began maintaining trails in the Delaware Water Gap in partnership with the National Park Service.

In 1993 AMC established Mohican Outdoors Center in the Delaware Water Gap National Recreation Area.

Through AMC's Mohican Outdoors Center, 10,000 – 11,000 thousand visitors every year experience the

Delaware Water Gap, including hundreds of children from cities like Patterson, Newark, and Philadelphia, taking part in outdoor education programs conducted by AMC staff and volunteers. Our all-volunteer trail crew maintains over 30 miles of trails in the Delaware Water Gap and puts in over 4,000 volunteer hours every year. We remain dedicated to preserving this unique wilderness and the recreational experiences it offers to the public.

AMC is deeply concerned about the Susquehanna to Roseland Transmission Line proposal and urges you to deny the right of way for the following reasons:

Recreation Resources and Economic Impacts on Human Environment
The NPS Draft Environmental Impact Statement states that, "the proposed project is likely to negatively affect park operations."

The project would likely affect law enforcement and resource management by creating additional tasks for monitoring construction-related activities, diverting time and resources from other park responsibilities.

Other impacts to recreational park users include temporary closures of access points, which would eliminate outdoor recreation opportunities for hikers and paddlers.

Construction of the new transmission line and towers would mean "potential safety hazards associated with construction, equipment related hazards, and transportation of materials," creating a dangerous environment for outdoor recreation.

Viewsheds
According to the National Park Service's draft Environmental Impact Statement, "The proposed line and associated access roads may alter some viewsheds, which could adversely affect the visitors' appreciation of the parks' viewsheds and scenic resources."

Specific impacts vary with each alternative route, but all would mar the iconic viewshed currently enjoyed by millions of park visitors. Potential routes would impact views from the Appalachian Trail, Old Mine Road, McDade Trail, Van Campens Glen, Mohican Outdoor Center, and the Delaware Water Gap National Recreation Area.

The current right-of-way is located about two and a half miles north of AMC's Mohican Outdoors Center. Visitors to Mohican would be able to see the new 200-foot-high towers from the well-known and popular look-out on Rattlesnake Ridge. As such the transmission lines will have a large potential impact on visitors to AMC's Mohican Outdoors Center.

Every potential route would cross the Delaware, and several routes would cross where it is federally-designated under the Wild and Scenic Rivers Act. The proposed project would disrupt the viewshed currently enjoyed by hikers, paddlers, and anglers.

Landscape Connectivity
According to the draft Environmental Impact Study, "the proposed transmission line expansion may contribute to habitat fragmentation by increasing the width of the [right of way], clearing heavily forested areas in the [right of way], and along proposed access roads, and reducing large, contiguous blocks of habitat."

As an organization concerned about the protection of the Appalachian region we are concerned not only about the impact the proposed power line project will have on the Delaware Water Gap, but also on other public and private forestlands and agricultural areas traversed by the power line in the region.

A particular area of concern is the impact of the transmission corridor on the New Jersey Highlands. The AMC has spent over a decade on conservation of the Mid-Atlantic Highlands region in Pennsylvania,

New Jersey, New York and Connecticut. Other important resources at risk in the Highlands include state and county parks and other forestland, public watersheds, and the Highlands Trail.

The loss of landscape connectivity would cause "habitat loss, habitat alteration… the isolation of habitat patches, increased edge habit, the disturbance and direct mortality of wildlife, and the isolation of some species."

Other Ecological Impacts
The study also mentions additional ecological impacts of the proposal.
It cites a loss of natural forest cover, erosion during and after construction and from the creation of new vehicular access roads, an increase in illegal ATV trespass, potential water and soil contamination from herbicides used to maintain the corridor, and the spread of invasive species in disturbed areas.

We are especially concerned that "the installation of taller towers with transmission lines above the current tree height could adversely affect migratory birds" and that several federal and state-listed critical species residing near or along the proposed routes could be affected by construction activities and the resulting habitat loss.

Economic Impact
The impacts to viewsheds, recreation resources, land connectivity, and ecology will have a negative cumulative impact on visitors' experiences of the area, resulting in a diminishing economic value for outdoor recreation in the region.

Although the DEIS describes potential "opportunit[ies] for job placement during the construction period," it also states that there would be "impacts to the local and regional economy due to changes in recreation, visitation, tourism, and agricultural revenue," which could outweigh the potential benefits.

According to the National Park Service, there are approximately 5 million visitors to the park every year. As a concessionaire operating in the Delaware Water Gap for almost 20 years, the AMC is concerned that the power lines will negatively impact visitors' experience of the area. This would result in fewer visitors and a diminishing of outdoor recreation economy along the Delaware, which currently brings in 21 billion dollars a year to the four-state area.

In conclusion, AMC strongly opposes the expansion of the Susquehanna-Roseland transmission corridor through the Delaware Water Gap National Recreation Area. All proposed routes pose significant threats
to viewsheds, recreational opportunities, ecology, and the economy. The protection of ecological and recreational amenities in the Delaware Water Gap is the responsibility of the National Park Service. We urge you to adhere to your mission of "fostering conservation-based decision making." Please select the no action alternative and reject the power line.

Correspondence (1916)

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Correspondence Text

January 31, 2012

Morgan Elmer
National Park Service
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Denver, Colorado 80225-0287

Dear Ms. Elmer,

American Rivers appreciates the opportunity to comment on the Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement - DEIS December 2012 (EIS). We support Alternative 1, the No Action Alternative discussed in the EIS. We believe construction of the proposed project would have direct and adverse impacts on units of the National Park System, including the federally designated Middle Delaware Scenic and Recreational River and National Recreation Water Trail.

American Rivers was founded in 1973 to preserve the rivers and clean water that is integral to the well-being of human and natural communities. Since then we have helped to increase the size of the nation's Wild and Scenic River system by over 50%; assisted communities in restoring rivers through the removal or modification of hundreds of obsolete dams; improved the quality of water supplies by working to reduce stormwater and sewage pollution; and revitalized critical habitat for threatened fish and wildlife populations. American Rivers is frequently called upon to share its scientific and policy expertise on behalf of rivers and clean water, and we deliver leadership to the nation's growing river conservation

movement. American Rivers works across the country, with staff in Washington, DC and the Mid-Atlantic, Northeast, Midwest, Southeast, California and Northwest regions. American Rivers has more than 65,000 members and supporters, with offices in Washington, DC and nationwide.

The Middle Delaware National Scenic and Recreational River was established as a one of the nation's first Wild and Scenic Rivers. The purpose of this designation is to protect and enhance its values. Millions of visitors travel to the Delaware River each year to experience nature, appreciate the beauty of the river recreate. water based recreation. More than 15 million people rely on the water of the Delaware River Basin for public water supply and is noted for its outstanding water quality.

The project described in the EIS would adversely impact the values for which the Middle Delaware Scenic and Recreational River was federally designated. Section 10(a) of the federal Wild and Scenic Rivers Act requires federal management agencies administer designated rivers to protect and enhance the values for which they were designated. "Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its aesthetic, scenic, historic, archaeologic, and scientific features." (16 USC § 1284(a)) The Susquehanna to Roseland 500-kV Transmission Line would impair the aesthetic, scenic and recreational experience of users of the river, potentially degrade wetlands and rare and unique species, and increase erosion and sedimentation in the Delaware River watershed. Because of the impacts to the values for which the Middle Delaware River was designated only Alternative 1 would meet the standard required under the Wild and Scenic Rivers Act.

The National Park Service is charged with conserving the scenic, cultural, and natural values of the units of National Parks, including Wild and Scenic Rivers so that these treasures can be available unimpaired for future generations. We believe the only viable alternative for the National Park Service to meet this charge and the standard set by the Wild and Scenic Rivers Act and other applicable federal law is Alternative 1, the No Action Alternative.

Sincerely,
David Moryc
Senior Director of River Protection
American Rivers

Correspondence (1691)

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Public Comment Input
National Park Service Draft Environmental Impact Statement Regarding Proposed Susquehanna-Roseland Transmission Line in National Delaware Water Gap

January 28, 2012

Submitted on behalf of
Sierra Club, Pennsylvania Chapter

Contacts:
Nicole Faraguna (ndfhome@tds.net)
Donald W. Miles, Esq. (donmiles@rcn.com)

INTRODUCTION
Thank you for this opportunity to comment on the National Park Service's (NPS) Draft Environmental Impact Statement (DEIS) regarding PPL Corporation and PJM's proposed Susquehanna-Roseland Transmission line to be constructed across 4.18 miles of the Delaware Water Gap National Recreation Area (DWG). These comments are submitted on behalf of the Pennsylvania Chapter of the Sierra Club (The Chapter). These comments are in addition to comments that have been submitted to you by the Otzinachson Group and the Lehigh Valley Group, Northeastern Group of the Pennsylvania Chapter of the Sierra Club and by the New Jersey Chapter of the Sierra Club.The Chapter respectfully urges the National Park Service (NPS) to choose the "no-action altern ative" to PPL's proposal to construct multiple 150 feet towers and 500 kV transmission lines traversing the entire width of the recreation area.

The National Park Service (NPS) has been given the great responsibility of caring for a vast, beautiful

natural resource, the DWG, and the largest protected natural area in the northeastern metropolitan corridor. NPS' mission is to provide outdoor recreation opportunities while conserving the natural, cultural and scenic resources of the recreation area. In so doing, the park works cooperatively with surrounding communities and the public to achieve the conservation goals of the Delaware River region.

Through this mission, the NPS has the capability and duty to amply protect this important natural resource from the industrial development that would occur during the construction of massive transmission towers and installation of over 4 miles of transmission lines as well as the future maintenance required to repair and maintain the infrastructure.

NEED
We strongly oppose the NPS' decision to exclude the consideration of need for this high-voltage transmission line as a factor in its DEIS. The Sierra Club, Pennsylvania Chapter maintains that the NPS can not adequately study and consider the no action alternative without first understanding whether the transmission project is, in fact, needed. NPS must apply a due diligent approach, under the National Environmental Policy Act, in carefully reviewing all aspects of this project, as NPS is the last recourse in determining if this project should in fact go forward. Can NPS in good conscience approve this project that will forever change the landscape of the DWG when it has not investigated whether in fact the project provides public benefit? Why sacrifice a significant portion of a national jewel for a project that is not necessary?

The most significant argument that NPS could use in recommending the "no action" alternative would be PPL and PJM's own failure to prove that the Susquehanna-Roseland transmission line is indeed necessary based on demand and, if built, will provide a true benefit to consumers. In particular PJM/PPL have failed to illustrate:

Tangible Need of Project:

Anticipated Demand Conflicts Reality
While the rationale for the project was an anticipated 1.4% increase in peak demand in 2008, PJM Interconnection reported that actual demand for electricity was down, and would continue to decline. In January, 2009, PJM released a 2009 Load Forecast, which assumes a 4,929 megawatt decrease in the projected electric load for the region. In fact, in December 2009, a utility proposing a similar high-voltage transmission line, Potomac Appalachian Transmission Highline (PATH), filed a motion to withdraw their application in Virginia. The company had run some new modeling scenarios ordered by the Virginia hearing examiner, and found that the PATH line is NOT needed by 2014.

Furthermore, the Energy Information Administration (EIA) projects that electricity demand will fall 0.5% in 2012, after increasing a minuscule 0.3% in 2011. Structural changes in energy markets like the increase in demand response from 30,000 megawatts to 43,000 megawatts between 2010 and 2011 are driving down at a minimum the rate of electricity demand increases and could even be flattening out electricity demand.

In a letter written by several environmental organizations, including the Eastern Environmental Law Center and Earthjustice, to the Superior Court of New Jersey regarding the rehearing of the Susquehanna-Roseland Line, new factual developments are identified to underscore the exaggerated need for this project:

"PJM has recognized a significantly diminishing need for the delivery of electricity into the area that the Susquehanna-Roseland line isintended to serve. On January 14,2011, PJM released the 2011 Load Forecast Report, in which it presented markedly lower electric demand forecasts than had previously been used as the bases for transmission planning.

"The Mid-Atlantic Power Pathway ("MAPP"), another west-to-east transmission project approved by PJM in 2007, originally was deemed necessary by 2013 to address reliability violations. The 2009 RTEP deferred the project until 2014. Now, in light of the 2011 load forecasts, PJM 'has decided to hold the MAPP project in 5 abeyance' with a 2019 to 2021 in-service date.

"The consistently diminishing need for the PATH and MAPP lines with each passing year- a trend that ultimately resulted in the suspension of those projects in light of the 2011 load forecast - is paralleled in the case of the Susquehanna-Roseland line"…"In short, the Project [was approved on] grounds that it would be needed to address 23 reliability issues and that future projections would not reduce the number of these reliability issues. As present circumstances stand, however, this $750 million transmission line will be constructed to address five reliability concerns that are alleged to occur under double contingency scenarios and only on lower-voltage transmission lines, which are likely amenable to lower cost fixes.

"As PJM has concluded, demand response resources alone are sufficient to address the need for the Susquehanna-Roseland line for at least the next three years.

"Increased availability of demand response resources is another key factor that the Board did not consider in approving the Susquehanna-Roseland line"…" This new information reflecting the significant demand resources available to the regional transmission grid further calls into question whether the costly construction of the Susquehanna-Roseland line is reasonably necessary.

Increased Energy Efficiency
The Susquehanna Roseland Transmission Line is inconsistent with PA Act 129, the Energy Efficiency and Conservation Act. Pennsylvania's energy consumption is likely to decline, not increase, since under the Act, utilities must reduce electricity consumption by 1 percent by May 31, 2011, and by 3 percent by May 31, 2013. The Act also requires a 4.5 percent reduction in peak demand by May 31, 2013. As this could have a significant impact on regional, transmission needs, the approval of Susquehanna Roseland Transmission Line is premature and inconsistent with the Act, especially given that energy efficiency and conservation plans must be filed with the Commission by July 1, 2009. To comply with the new act, the PUC will also oversee consumption forecast guidelines, the analysis of the reductions and compliance, smart meter technology; time-of-use rates; real-time pricing plans; default service procurement; market misconduct; alternative energy sources; and cost benefit analysis, so it is in the public interest that any new transmission line proposals be delayed until impacts and opportunities of these measures are fully understood. Electricity generation should be conducted after first eliminating wasteful practices, programs and systems as completely as possible and creating full energy efficiency, while using the maximum renewable energy systems available at a time and that are appropriate for a geographic region. Conservation and efficiency plans should be developed by existing electricity generating facilities, sources and units in order to cut demand. Generators and distribution utilities should proactively promote energy conservation in the communities that they serve. Existing sites of electricity generation should be re-used as a first priority whenever possible and converted to less-polluting technologies and renewable fuel sources.

Measured Benefits to Residents and Consumers
Regional ratepayers, which include Pennsylvania consumers, will absorb the costs of this $1.2 billion project in increased transmission fees, as deregulation of the electricity industry in Pennsylvania removes rate caps. Commonwealth residents will also assume the long-term costs of the environmental degradation associated with the construction of the line. Pennsylvania has overcapacity in electric generation which results in utilities exporting electricity to other states. Pennsylvania residents are being forced to pay for this new line, both in an increase in utility fees AND the consequences to its natural resources, while residents of other states will benefit from the electricity it carries.. PJM is conducting its own reliability studies and planning, yet has a vested interest in the outcome so is not likely to complete a comprehensive analysis that might decrease their own profits. In addition, the property values for

residents who own property near or along the Susquehanna Roseland Transmission Line would also be negatively affected, adding to their already declining values in the housing market.

Reasonable Alternatives to Transmission
Maintaining reliability of the grid system was another justification of the project, based on PJM's 2006 RTEP (Regional Transmission Expansion Plan) study for reliability. Yet two Pennsylvania Administrative Law Judges recommended that the PA Public Utility Commission completely deny a similar application submitted for the TrAILCo transmission line, in part because PJM's RTEP study for reliability was "designed to consider only transmission solutions," …and " did not consider viable alternatives to transmission." PG 22, November 13, 2008 PUC Public hearing minutes.

Increased Clean Energy Production
Since coal fired generation costs less, it traditionally gets dispatch priority. The Susquehanna Roseland Transmission Line is in close proximity to PPL's Montour coal plant in nearby Washingtonville, which would facilitate an increase in mining and or and greenhouse gas emissions here in the Commonwealth. Therefore, the Susquehanna-Roseland line will not rely solely on sustainable energy sources, forcing Pennsylvanians to subsidize the reckless abandonment of clean and green technologies and inherit a dirtier and unhealthier future. The Memorandum of Understanding signed by the Department of Interior and carried out by the National Park Service throughout this process in order to comply with the Energy Policy Act of 2005 specifically addresses the importance of projects that "harness the power of clean, renewable energy".

Based on this information above, we respectfully request that NPS consider alternatives that preclude the building of this line.

In addition to the concerns identified above regarding the overall need of the project, the Susquehanna-Roseland Line also poses significant environment threats both in general and specific to the DWG.

"MITIGATION" PROPOSAL
The Chapter also has strong concerns regarding PPL's mitigation proposal, which involves the utility's purchase of thousands of acres of land adjacent to the DWG if the proposed transmission line is approved. The purchase of adjacent land does not in way mitigate the permanent damage of this project. The utility has failed to provide a mitigation plan that addresses the direct impacts of construction of this project. How will issues related to construction, soil removal, deforestation, erosion, water contamination, protection of wildlife habitat and endangered species be addressed by PPL though its mitigation plans.

This proposal seems less of a mitigation plan and more like a quid pro quo (i.e., "a proposed bribe", the utility agrees to the purchase of the land if the NPS approves the project. In addition, the Chapter maintains that the utility's proposal is disingenuous since 1) the utilities will most likely use rate increases to cover the costs of this land acquisition so in addition to the 13.5% guaranteed return on its investment it will receive from the construction of the line through increased rates, it will also ask rate users to pay for its "mitigation", which, again, would not provide any mitigation for the project; and 2) more importantly, the utility does not acknowledge or address the complexity of the process of landscape acquisition, which would require approval of a number of landowners, deed and title work, and various legal hurdles. Land acquisition of this size could take many years, as is documented in many of the Commonwealth's large land conservation acquisitions, or just may not be feasible. Thus, the suggestion of such a project could merely be in vain. Not only is it not effective mitigation for the type of construction proposed in the DWG but it would leave the communities surrounding DWG, the NPS and the citizens of this nation not at all compensated for the destruction and taking of public land. What happens if the utility is unable to acquire these thousands of acres?

OVERALL ENVIRONMANTAL IMPACT
If built, the Susquehanna Roseland line will precipitate some of the oldest and dirtiest coal plants in the country to increase output and therefore air pollution because coal produces electricity is cheapest more

cheaply and would receive priority for transmission . This pollution will exacerbate mercury contamination, ground-level ozone formation, regional haze, acid rain, fine particulate pollution and, as a result, asthma and other respiratory illnesses, heart attacks, and premature deaths. This new air pollution load guarantees increases in air pollution's total burden in PA that vastly increasing the costs to public health and would be coming at a time when PA and the region must comply with new upcoming federal ground level ozone control standards and new federal mercury regulations. The new ozone controls and emission limitations will be increased to a level where it is expected that noncompliance with ozone smog controls will be triggered in almost all PA counties for ozone smog. Since PA is producing more electricity than it needs and will be required to increase energy efficiency and increase energy conservation, then there is no need for more power generation, more electricity transmission, nor new power plant construction.

To date, Pennsylvania has a total of 78 coal-fired energy plants, 13 of which were operated by PPL. These 78 plants represented about 41.5% of the state's total electric generating capacity.

Burning coal is a leading cause of smog, acid rain, global warming, the neurotoxin mercury and other air toxics. Proposed Mercury regulation in 2007 alone generated 11,000 comments to PADEP from PA citizens in support of controlling this deadly neurotoxin. In an average year, a typical coal plant generates 3.7 million tons of CO2 which is a leading contributor to global warming. In 2007, Pennsylvania ranked 4th highest in the country emitting CO2, emitting 136 million tons.

Because coal would be transmitted through the Susquehanna-Roseland line, the following are likely impacts:

Increase Health Risks - Coal kills people and causes disease: According to the American Lung Association, pollution from coal-fired power plants causes 23,600 premature deaths, 21,850 hospital admissions, 554,000 asthma attacks, and 38,200 heart attacks every year. The Center for Disease Control estimates that 12,000 coal miners died from black lung disease between 1992 and 2002.

Facilitate Global Warming - Coal is the largest single source of global warming pollution in the United States. The Intergovernmental Panel on Climate Change has reported that global warming threatens human populations and the world`s ecosystems with intensifying heat waves, floods, drought, and extreme weather and by spreading infectious diseases.

Increase Air Pollution - Coal-fired power plants emit hazardous pollutants into our air, land, water, and lungs: Materials emitted from coal power plants include: arsenic, beryllium, cadmium, dioxin, lead, formaldehyde, and mercury. Tiny soot particles include harmful sulfates and sulfur dioxide, leading to medically measured increases in human asthma, hospital admissions and mortality from exacerbated cardiovascular disease and chronic lung disease.

Forest Mortality - Pennsylvania continues to have high levels of tree mortality linked to acid precipitation and deposition from sulfur compounds emitted from power plants, in the sugar maple and other vulnerable PA forest species; which include important agricultural and economic forest crops, significantly impacting PA's economy.

Contaminates Fish - Mercury emitted from the coal plants into our oceans and lakes turns into methylmercury, a potent neurotoxin that can cause severe neurological and developmental damage in humans, especially small children and fetuses. This can happen primarily from eating contaminated fish and shellfish.

Coal Levels Mountains & Causes Deforestation - Many coal companies utilize mountaintop removal to extract coal. Mountaintop removal has leveled more than 450 mountains across Appalachia. Mountaintop removal destroys ecosystems, stripping away topsoil, trees, and destroys habitats, filling streams and valleys with rubble, poisoning water supplies and generating massive impoundments that can cause catastrophic floods. This practice tragically has transformed the landscape and historically

rich natural system in parts of Appalachia, leveling and deforesting an area the size of Delaware and burying an estimated 1,200 miles of streams.

In addition to the impacts from coal-fired plants, is the impacts of nuclear energy, which would also feed into the Susquehanna-Roseland line. Although nuclear energy plants do not emit greenhouse gases, they do produce harmful radioactive waste such as Depleted Uranium (DU). DU is, according to the to the Military Toxins Project, the radioactive byproduct of the uranium enrichment process, is "roughly 60% as radioactive as naturally occurring uranium and has a half-life of 4.5 billion years." The United States has in excess of 1.1 billion pounds of DU waste material. Using uranium as a fuel in the types of nuclear reactors common in the United States requires that the uranium be enriched so that the percentage of U235 is increased, typically to 3 to 5%. To enrich uranium, a process called gaseous diffusion was developed by the United States in the 1940s. The gaseous diffusion process creates two products: enriched uranium hexafluoride, and depleted uranium hexafluoride (depleted UF6). The DU decay chain includes hazardous radioactive thorium, radium, radon, the radon "daughters" and lead.

There is no real way of disposing of the waste, the only option is to effectively manage the waste for the thousands of years until it decays completely. These contaminents can easily travel throughout different ecological systems and negatively affect humans.

DWG ENVIRONMENTAL IMPACT
The following input follows the major points of interest identified by NPS.

Impact on Natural Resources

Forest and Wildlife Habitat – The ridge tops provide critical habitat for a variety of wildlife as do the river beds and forests that lie within. In order for high-voltage transmission lines to be constructed and maintained, existing right-of-ways will have to be expanded and additional access roads will need to be constructed. The expanded line and new towers will impact three units of the NPS: the Delaware Water Gap National Recreation Area (DEWA); the Middle Delaware National Scenic and Recreational River and National Recreation Water Trail; and the Appalachian National Scenic Trail (AT). The construction of these roads will cause severe fragmentation of the forests and wildlife habitat and jeopardize wildlife diversity, and could negatively impact nesting and migration patterns. In addition, herbicides used to maintain brush within right-of-ways could endanger water quality and harm wildlife and human visitors. Under the National Park Service Organic Act, governing regulations and Park Service Management policies, NPS cannot grant the Right of Way if it will impair key values such as visitor experience, scenic resources, air quality, natural quiet, etc

Water Quality - The importance of waterbodies to biodiversity is illustrated by the number of rare species in this region associated with water. Protection of the wetlands, natural lakes, rivers, and creeks are vital, especially those that protect biodiversity, supply drinking water, and are attractive recreational resources. Protection of the critical watersheds is the only way to ensure that the water in the lakes, streams and wetlands will always be good quality. Construction activities in flowing or standing water would result in the greatest impact and could prove unavoidable as the project traverses the Delaware River and smaller streams and waterways. Long-term adverse impacts to surface water quality would occur as temporary roads near water crossings were constructed and remained in use after project construction activities were complete.

Wetlands - Wetlands and floodplains help protect the quality of surface water by impeding the erosive forces of moving water and trapping waterborne sediment and associated pollutants, protecting water supplies by assisting the purification of surface water and groundwater resources, maintaining base flow to surface waters through the gradual release of stored floodwaters and groundwater, and providing a natural means of flood control and storm damage protection through the absorption and storage of water during high-runoff periods. Potential impacts to wetlands associated with the construction and operation of this high-voltage transmission line project include: alterations to the wetland hydrology, alterations to the wetland plant communities, and loss of wetlands due to filling or sedimentation.

Bird Migration - More than 30 species of warblers have been recorded during spring migration. In the fall the Kittatinny Ridge provides an important migratory corridor for raptors. The Delaware River valley offers important wintering habitat for a large population of bald eagles attracted to the open water for foraging. Transmission lines pose a serious threat to migrating and nesting birds through both collisions and electrocution.

Endangered Species/Species of Special Concern – According to the Pike County Natural Inventory, certain Shale Cliff communities high above the Delaware River support good populations of a state-rare plant (SP510, SP512).

Geological Resources – Along the Delaware River in this region consist primarily of chiefly steep, stony and shaly areas along the river bluffs of the Delaware River. The major components of the landscape are the bluffs and cliffs and the material that has accumulated at the base of the slopes. Some of the most unusual plant communities in the county are found here and the bluffs add to the scenic quality of the Delaware River. The loose, shaly soil is mined from the base of the slopes for road surfacing and fill material. This community supports a good population of a state-rare plant (SP518) which is typically found on the Shale Cliff communities along the Delaware River. These geologic resources will be negatively impacted by the construction and maintenance of high-voltage transmission towers and transmission lines through the construction process and general maintenance through disturbance, deforestation, habitat fragmentation, erosion and subsidence.

Scenic Resources/Viewsheds - The viewscapes across this region will be compromised, as outdoor recreation and the tourism industry will be negatively impacted by these massive 500,000 volt, 150 foot towers cutting through and visually impacting DWG's landscapes. The transmission lines will also traverse a portion of the Appalachian Trail, the nation's longest marked footpath.

The NPS should complete a Scenery Management System to ensure a reliable, peer-reviewed method of comparing the visual impacts of alternative plans. This process is critical for projects that affect large areas of land and potentially impact the visual
experience of large numbers of people.

Under the National Park Service Organic Act, governing regulations and Park Service Management policies, NPS cannot grant the Right of Way if it will impair key values such as visitor experience, scenic resources, air quality, natural quiet, etc

Socioeconomic/Community – The community may experience a loss of "place" as a result of the construction of high-voltage transmission lines as they will disrupt the natural serenity that current exists and will most likely be visible from several miles away. In addition, homeowners, in the vicinity of high-voltage transmission lines, could experience a sudden drop in home value as well as a permanent loss in property value. Market surveys have shown a fairly consistent and elevated concern regarding the perceived negative impact the proposed high voltage transmission lines will have on property values.

Visitor Experience
Obstructed Vistas –The DWG provides some of the finest views in the region but these amazing natural scenic vistas will be impeded by massive towers and ill-placed transmission lines.

Appalachian Trail – Some of the most amazing sights experienced at the Delaware River Gap are experienced by users of the Appalachian Trail. However, the high-voltage transmission line will traverse the trail and obstruct users' views and inhibit their natural experience.

Health/Safety Impacts – Constructing high-voltage transmission lines through a public recreation and natural area creates various health and safety issues. Securing off the area to ensure unauthorized individuals can not gain access is imperative.

Electrocution - Unauthorized persons climbing on power pylons or electrical apparatus are also frequently the victims of electrocution. At very high transmission voltages even a close approach can be hazardous since the high voltage may spark across a significant air gap.

Unknown Effects of EMF - Despite extensive research over the past 20 years, the health risk caused by Electro Magnetic Fields (EMF) exposure remains inconclusive. In 1998, an expert working group, organized by the National Institute of Health's National Institute of Environmental Health Sciences (NIEHS), assessed the health effects of exposure to extremely low frequency EMF, the type found in homes near power lines. However, based on studies about the incidence of childhood leukemia involving a large number of households, NIEHS found that power line magnetic fields are a possible cause of cancer. According to the Environmental Protection Agency, "the greater the distance between you and the power lines the more you reduce your exposure."

Cultural/Historic Landscapes - The DWG possesses a rich history in geological and cultural significance. The park encompasses significant Native American archeological sites as well as early settlement structures from the colonial period. The entire region was a frontier of the French & Indian War. Historic rural villages from the 18th and 19th centuries remain intact on the New Jersey side, and landscapes of past settlements are scattered throughout the park. DWG played a primary role in the formulation of the National Park Service's cultural landscape programs and the cultural resource policy established by the NPS in the late 1970's. As a result, cultural landscape preservation is now an established program in the National Park Service and a profession nationwide. High-voltage transmission lines constructed through the DWG would not only be a threat to the cultural, historical and natural characteristics possessed by DWG but a direct violation of the polices that were implemented by the National Park Service to protect the integrity of such landscapes. '

CONCLUSION
DWG is a unique landscape that encompasses 67,000 acres of mountain ridge, forest, and floodplain along the Delaware River and provides critical wildlife habitat, exceptional water quality streams and lakes that support wildlife and recreational opportunities, cultural and historical perspectives and beautiful protected landscapes. The National Park Service is responsible for conserving the natural, cultural and scenic resources of this amazing recreational area for current and future generations to enjoy. The people of this nation entrust the NPS to follow its mission in safeguarding these resources and protecting the nation's investment in our natural parks.

The Chapter strongly urges the NPS to choose the No Build alternative and decline the utility's request to construct the high-voltage transmission line through this unique landscape and instead follow its mission and keep this land intact in perpetuity.

Correspondence (1737)

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Public Employees for Environmental Responsibility (PEER) comments on the Draft Environmental Impact Statement (DEIS) for issuing a new Right-of-Way for the Susquehanna to Roseland 500 kV Electric Transmission Line across Delaware Water Gap National Recreation Area (NRA).

1. THE DEIS IS A CHARADE
The Secretary of the Interior and the Director decided that the alternative they will select is Alternative #2. Project proponents, Pennsylvania Power and Light (PPL) and Public Service Electric and Gas (PSE&G) insisted upon Alternative #2 in frequent meetings with Interior Department officials. Both the Secretary and the Director verbally agreed to Alternative #2 during meetings in the late summer and fall of 2011.

Thus, the contours of the project have been predetermined and the current environmental review process is merely a sham.

2. THE PRESELECTED ALTERNATIVE IMPAIRS PARK RESOURCES
Of all possible alternatives, Alternative #2 is the most destructive to the scenic values of the Delaware Water Gap NRA. Congress authorizes the Secretary of the Interior to issue rights-of-way "for electrical poles and lines for the transmission and distribution of electrical power" across areas of the national park system, including Delaware Water Gap NRA, under a general authority enacted in 1911 and found at 16 U.S.C. 5. However, this authority is circumscribed by other, more pre-eminent, acts of Congress.

The Organic Act of the National Park Service (NPS) of 1916 mandates that the Director "conserve the scenery" and other resources of the parks and "provide for the enjoyment of the same …in such manner and by such means as will leave them unimpaired…"
The Alternative (#2) that the project proponents insist upon (and the Interior Department intends to

adopt) is the Alternative that MOST impairs one of the most critical resources of the park – its scenery.

The massive new towers in a new right-of-way will cross some of the most scenic, panoramic and untouched vistas in the NRA. The NPS cannot adopt Alternative #2, and then simply insist with a straight face that the Alternative does not impair park scenery. The NPS cannot evade the Organic Act mandate by issuing a simple, conclusory declaration that the impacts of Alternative #2 are acceptable because they do not rise to the level of "impairment." The DEIS does not support such a conclusion with a reasoned analysis. It is ludicrous to assert that major, long-term, adverse effects of Alternative #2 upon the scenery of the NRA do not "impair."

3. PEER ENDORSES THE "NO ACTION" ALTERNATIVE
PEER commends the NPS for openly acknowledging that the "No Action" Alternative is the environmentally preferred alternative as defined by the National Environmental Policy Act (NEPA) regulations. NEPA does not require a Federal agency to adopt the environmental preferred alternative, only that the agency identify and consider it along with other reasonable alternatives prior to taking action.

"No Action" is the environmentally preferred alternative because it would confine the existing, much smaller, power line to its current right-of-way. "No Action" is the environmentally preferred alternative not only because it would preclude the construction of a new, much larger line, in a new right-of-way but also because it would not foster (as does Alternative #2) a large increase in the production of a greenhouse gas (CO_2) from the combustion of coal in Pennsylvania to add power for the New York-New Jersey Metropolitan Area.

It is beyond question that the Susquehanna-Roseland would foster large-scale burning of fossil fuel. At a time when the nation is awash in cleaner-burning natural gas and prices have fallen to lows not seen in several years, increasing the reliance on coal-burning power plants is the wrong strategy for America both economically and environmentally. The Susquehanna-Roseland project is a project in search of a justification. This is all the more reason why deliberately sacrificing one of the most scenic stretches of a magnificent national park is so unnecessary.

This single NPS decision to approve Alternative #2 will result in the production of more carbon dioxide than is being reduced by Director Jarvis' cosmetic initiatives to reduce such gases by park operations.

In contrast with NEPA, the Organic Act does prescribe an outcome the NPS must select. The fundamental purpose of the national park system is to conserve park resources and values. Conservation is predominant. The NPS declares that "No Action" Alternative is the "environmentally preferred" one. The "No Action" Alternative protects park resources and minimizes adverse impacts to park resources. The "No Action" Alternative is the one that comports with the Organic Act. Any notion that only the procedural requirements of NEPA govern the NPS choice of alternatives is wrong.

The "No Action" Alternative also preserves the property rights of PPL. That company possesses a right-of-way that pre-dates the creation of the park, and is a valid existing right. The existence of the PPL right-of-way does not confer on PPL a right or privilege to obtain a new right-of-way. Some project proponents (but not the DEIS) insist that the NPS must grant PPL a new right-of-way because PPL already possesses an existing one. That conclusion defies logic and is clearly incorrect.

4. THE DEIS INCLUDES A NONVIABLE ALTERNATIVE
The DEIS contains an Alternative #2B that would place the proposed new line within the narrow confines of the existing PPL right-of-way. This alternative is not viable. The existing right-of-way is too narrow to contain the new line in conformity to all industry norms and safety standards. Surely the NPS cannot pretend that its approval of such an action is reasonable, as if safety standards are of absolutely no concern to the NPS.

PEER does not understand why the NPS included Alternative #2B. The project proponents insisted that

the DEIS contain this Alternative for reasons that only they know. PEER suspects that PPL finds some benefit in blurring their existing right-of-way with their demands for a new one, as if the existing easement somehow strengthens their claim for a right to a new one. Whatever the reason for its inclusion, Alternative #2B is a bogus alternative.

5. THE DEIS EXCLUDES OTHER REASONABLE ALTERNATIVES
The DEIS authors were instructed during 2011 to eliminate alternatives from further consideration in the internal draft of the DEIS that would have routed the proposed new power line so as to require little, if any, crossing of the NRA. Because a wider range of alternatives would complicate and prolong NPS and public review, PPL explicitly requested the elimination of Alternatives 6 and 7.

Prior to seeking a new right-of-way from the NPS, PPL obtained rights-of-way on lands outside of, and on both sides, of the NRA. PPL demands Alternative #2, because only that route forms the most direct link between their rights-of-way outside the NRA. No other route would do. They told the Secretary and his officials to not even consider the alternatives.

The Interior officials carried out PPL bidding by using a subterfuge. They altered the criteria the NPS used to evaluate the range of reasonable alternatives. The NPS tailored the criteria for reasonable alternatives to deftly eliminate #s 6 and 7. Nonetheless, the eliminated alternatives are within the realm of reasonable choices. Whether PPL approved of their consideration or not (and they did want them considered) is immaterial. NPS refusal to consider these alternatives violates both the letter and spirit of NEPA.

6. THE DEIS CLAIMS THAT THE NPS HAS NO PREFFFERED ALTERNATIVE
The DEIS contains no alternative that the NPS designates as the agency preferred alternative. This violates NPS own Reference Manual-12 (RM-12). Page
51 of RM-12 states:

"8. Preferred alternative-The preferred alternative is the agency-preferred course of action at the time a draft EIS or a public review EA is released. Unless your decision-maker has no preference, the preferred alternative must be identified in the draft EIS "so that agencies and the public can understand the lead agency's orientation" (1502.14 (e), Q4a). You may identify the preferred alternative in an explanatory cover letter to the draft EIS or in the text of the EIS. All final EISs must identify the preferred alternative. Therefore, if no preferred alternative exists at the time the draft EIS is released, you must identify it in the final EIS. For all externally initiated (i.e., non-NPS) proposals, you must identify the NPS preferred alternative in the draft (and final) EIS (516 DM, 4.10 (2))." Emphasis added.

PPL and PSE&G initiated the proposal to issue a right-of-way for a new power line. It is indisputably an "externally initiated proposal." The DEIS completely ignores the last sentence of page 51, RM-12 and fails to identify the NPS preferred alternative. Further, the DEIS gives no explanation why the NPS chose to ignore its own guidance.

This lapse and failure to adhere to agency guidance is made worse by the fact that the Interior officials, including the Director, have already decided the alternative they will select in the Final EIS and Record of Decision. They have chosen Alternative 2.

CONCLUSION
We know full-well that the NPS will approve Alternative #2 in the Final EIS. The President and the Secretary announced on October 5, 2011 that they would "fast-track" seven energy transmission projects across the country. The Susquehanna-Roseland Project was on that list. Fast-tracking the environmental review of the project is one thing, but the Secretary has already instructed his subordinates to approve Alternative #2. That is not "fast-tracking." That is "short-circuiting."

If the Secretary wants this power line so badly, then by all means have it. But approve an alternative that

and will provide a true benefit to consumers. In particular they have failed to incorporate recently released data from the Energy Information Administration that indicates demand for electricity is predicted to decrease. Their proposal also fails to consider energy efficiency and increased production of alternate or clean energy solutions.

If built, the Susquehanna Roseland line will precipitate some of the oldest and dirtiest coal plants in the country to increase output and therefore air pollution because coal produces electricity is cheapest more cheaply and would receive priority for transmission. This pollution will exacerbate mercury contamination, ground-level ozone formation, regional haze, acid rain, fine particulate pollution and, as a result, asthma and other respiratory illnesses, heart attacks, and premature deaths.

In addition to the impacts from coal-fired plants, is the impacts of nuclear energy, which would also feed into the Susquehanna-Roseland line. Although nuclear energy plants do not emit greenhouse gases, they do produce harmful radioactive waste such as Depleted Uranium (DU). DU is, according to the to the Military Toxins Project, the radioactive byproduct of the uranium enrichment process, is "roughly 60% as radioactive as naturally occurring uranium and has a half-life of 4.5 billion years." The United States has in excess of 1.1 billion pounds of DU waste material.

DWG is a unique landscape that encompasses 67,000 acres of mountain ridge, forest, and floodplain along the Delaware River and provides critical wildlife habitat, exceptional water quality streams and lakes that support wildlife and recreational opportunities, cultural and historical perspectives and beautiful protected landscapes. The National Park Service is responsible for conserving the natural, cultural and scenic resources of this amazing recreational area for current and future generations to enjoy. The people of this nation entrust the NPS to follow its mission in safeguarding these resources and protecting the nation's investment in our natural parks. We urge the NPS to deny the request to construct the high-voltage transmission line through this unique landscape and instead follow its mission and keep this land intact in perpetuity.

Sincerely,

Jack Miller
Chair – Otzinachson Group of the Sierra Club

Correspondence (1954)

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Correspondence Text

Dear National Park Service Planning Team,

The Trail Conference strongly supports Alternative 1 ("No Action") in regards to the proposed expansion of the Susquehanna-Roseland power line through the Delaware Water Gap National Recreation Area and, particularly, as it affects the Appalachian National Scenic Trail. As the officially designated steward of the Appalachian Trail in New Jersey and New York, we oppose all options for construction that increase the already incongruous visibility power lines through this area.

The Trail Conference completed the original section of the Appalachian Trail between the Hudson and Ramapo rivers in 1923. By 1930, we had completed the 130-mile New York and New Jersey sections of the Appalachian Trail, including its current location traversing the Kittatinny Ridge to the Delaware Water Gap.

The Trail Conference currently maintains an additional 1,700 miles of trails in New York and New Jersey including many trails impacted along the proposed Route B of the Susquehanna-Roseland power line. The Trail Conference deploys over 1,500 volunteers per year in this effort. We are supported by approximately 10,000 individual members and almost 100 organizational members.

The current route of the Susquehanna-Roseland power line transects some of the state's most scenic resources, including the 860,000 acre Highlands Region, the Delaware Water Gap National Recreation Area, State and County parks and the Appalachian National Scenic Trail. The proposed Route B set forth by PSE&G follows the existing right of way passing through 15 different New Jersey municipalities, totaling roughly 45 miles in length. The ROW is proposed to increase to 300' in width and the heights of the towers will more than double to 195' well above tree line. The increased visibility of these towers in the open right of way will significantly degrade the view shed for local residents and DWGNRA tourists alike.

The Trail Conference has conducted a visual impact analysis and found significant degradation of the view shed, especially from the route of the Appalachian National Scenic Trail. While damage to the view shed has already been sustained due to the current transmission towers and right of way (See http://www.nynjtc.org/files/PSEG_Viewshed_Existing_121608_0.pdf), the increased width of the right of way and height of the transmission towers will make the power line visible from an additional 70,000 acres of land within a 10-mile radius of Route B. (See http://www.nynjtc.org/files/PSEG_Viewshed_Proposed_121608_0.pdf)

The greatest number of additional towers (90+) will be especially visible from the Kittatinny Ridge in the Delaware Water Gap National Recreation Area, where the Appalachian Trail currently includes numerous scenic vistas. (See http://www.nynjtc.org/files/PSEG_Viewshed_Proposed_121608_0.pdf)

Assumptions and methodology for this visual impact analysis can be found at http://www.nynjtc.org/files/PSEG_proposed_vs_existing_viewshed_0.pdf.

The Appalachian National Scenic Trail and the Delaware Water Gap National Recreation Area have been preserved for the public to enjoy its scenic beauty and any further despoliation acceptable. To do so, would clearly degrade the quality of the land the National Park Service was designed to protect. The Trail Conference offers these comments as support for the National Park Service to vote Alternative 1 "No Action."

Further we urge PSE&G to remove the current power line so that the current ROW can be reforested. The power line, if needed, should be routed down the I-80 corridor as we stated in our scoping comments.

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The Council on Environmental Quality's regulations (40 CFR §§ 1500 - 1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. §§ 4321 et seq.), define cumulative effects as:

"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency (Federal or non-Federal) or person undertakes such other actions." (40 CFR § , 508.7).

Guidance to Federal agencies engaged in the NEPA review is provided in "Considering Cumulative Effects Under the National Environmental Policy Act" (1),and is referred to in this document for guidance on our comments.

The New Jersey Highlands is the source water supply for 64% of New Jersey's population(2)and is defined by the boundaries of its characteristic physiographic province, and as delineated in the federal Highlands Conservation Act of 2004 (PL 108-421). Additionally, the Highlands is a regional State Planning entity in New Jersey, with a roughly similar, but politically drawn boundary, defined in New Jersey's Highlands Water Protection and Planning Act of 2004 (PL 120 2004). As the Catskills region is to the water supply of New York City, the Highlands region is to New Jersey. The Highlands is a protected region of critical watersheds that ecologically filter ground and surface waters, which feed into a complex of reservoir systems that store relatively clean water supplying residential, commercial and industrial consumers in northern New Jersey's major population centers.

The water-bearing value of the Highlands, and the development pressures than continually threaten the region's sensitive ecology are by no means recent concerns. In 1894, the State Geologist reported , "there is abundant necessity that steps should be taken to guard the choice gathering-grounds of our

Highlands. These are pre-eminently the sources to which we must look for the future water-supply of the State, and the time when they will all be needed is apparently not a half a century distant. Indeed they are already coming rapidly into use, and to allow them to become contaminated from the threatening sources which we have called attention to will be unpardonably short-sighted." (3)

Although the physiographic and legislative boundaries of the NJ Highlands are outside of the three National Park Service (NPS) components that the Susquehanna to Roseland Transmission Line Project (S-R Project) would impact, they are hydrologically connected through overlapping basins within the Upper and Middle Delaware Watersheds. The alternative routes proposed in the NPS draft Environmental Impact Statement (DEIS) each more or less widen these overlaps. However, the incremental impacts of the S-R Project , when considered in combination with other linear utility projects that are currently underway or proposed, and with those that can be reasonably foreseen (and with even more certainty if the S-R Project is approved), impair the ecological functions of the Highlands watersheds to the extent that a 500 billion gallon/year water supply is permanently jeopardized.

Under NEPA, NPS must consider the cumulative impacts of the project. It should address "coincident effects (adverse or beneficial) on specific resources, ecosystems, and human communities of all related activities, not just the proposed project or alternatives that initiate the assessment process." Further, "the range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects."

Clearly, in an analysis under NEPA, NPS is directed to analyze impacts to more than just the project area within the agency's immediate jurisdiction, and NPS is directed to include the impacts of similar actions that are connected by geography or timing, including future actions if they are reasonably foreseeable. The range of actions, or the scope of the analysis that the EIS must include are those that when considered cumulatively are significant (CFR 40 1508.25).

The S-R Project is one of several linear utility projects under federal jurisdiction, whose cumulative effects upon a hugely valuable resource-the New Jersey Highlands-are significant and potentially devastating. There are three recently constructed or proposed natural gas pipeline projects: The completed Tennessee Gas Pipeline (TGP) 300-Line Project (FERC docket CP09-444); the proposed TGP Northeast Upgrade Project (FERC docket CP11-161) and Transco's proposed Northeast Supply Link Project (FERC docket CP12-30-000). All three pipeline projects are specifically for the purpose of transporting natural gas drilled from the Marcellus Shale formation in Pennsylvania to eastern distribution hubs. All four utility projects, which include the S-R Project, are routed through the core forests of the Highlands. Each project, viewed alone, has measurable impacts that impair the ecological functions of the Highlands forested watersheds, ultimately impacting the water supply to major population areas in New Jersey. The cumulative effect on this water supply, which is potentially huge, has not been assessed. In addition, if the drilling interests succeed in overcoming the regulatory constraints that reflect today's caution about hydro-fracturing of Marcellus Shale-derived gas and gas can be extracted at full potential, a need for additional pipeline routes through the Highlands is foreseeable. Recent comments at gas industry forums and trade publications discuss the need for pipeline infrastructure to transport gas derived from the Marcellus Shale region.(4)

In New Jersey the combined cost for residential, commercial and industrial water is the fourth lowest in the nation(5). The New Jersey Highlands provides more than half of the water supply to these sectors. It is primarily because of the unfragmented core forested watersheds of the Highlands, which naturally and for free filters our water supply, that New Jersey has an abundant supply of clean water. However, there is no level of governmental oversight that is assessing the cumulative impacts of linear utility projects on Highlands water resources. Although the New Jersey Highlands Water Protection and Planning Council-a State regional planning authority mandated by the 2004 Highlands Act-would be in a position to undertake such an analysis, the Council is short staffed, under budgeted and lacks the support of the Governor, who has publicly stated his contempt for the Highlands Act and a desire to repeal it(6).

Can the NPS approve the S-R Project without assessing its effects, in combination with the effects of

similar projects under federal jurisdiction, on as valuable resource as a water supply, as a component of the S-R Project EIS? Not if NPS were to adhere to CEQ regulations and guidance procedures. In fact, according to CEQ guidance, it is precisely these types of connected actions within a common geographic region that CEQ had in mind when it responded to the question, "When is an area-wide or overview EIS appropriate?" CEQ's response was clear:

"The preparation of an area-wide or overview EIS may be particularly useful when similar actions, viewed with other reasonably foreseeable or proposed agency actions, share common timing or geography. For example, when a variety of energy projects may be located in a single watershed, or when a series of new energy technologies may be developed through federal funding, the overview or area-wide EIS would serve as a valuable and necessary analysis of the affected environment and the potential cumulative impacts of the reasonably foreseeable actions under that program or within that geographical area." (7)

Whether NPS determines an assessment is part of the S-R Project EIS, or that an areawide EIS is appropriately triggered, the series of connected actions, which include the S-R Project, is clearly identified. An important public resource, water supply, is clearly impacted by these actions. CEQ guidance on considering cumulative impacts under NEPA are clear as well. It is not our intention in these comments to provide an assessment of cumulative impacts, but to alert NPS to a potential consequences of its actions and to request that it exercise its due diligence.

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7. 46 Fed. Reg 18026

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Correspondence Text

Thank you for the opportunity to provide comments regarding the Susquehanna to Roseland 500-kV transmission line right-of-way and special use permit draft environmental impact statement (DEIS).

The New Jersey Audubon Society is a privately supported, not-for-profit, statewide membership organization. Founded in 1897 and one of the oldest independent Audubon societies, NJ Audubon fosters environmental awareness and a conservation ethic, protects New Jersey's birds, mammals, other animals, and plants, especially endangered and threatened species, and promotes preservation of New Jersey's valuable natural habitats. The New Jersey Audubon Society has 23,000 members.

The decision of electric reliability needs is not one that falls within the areas of expertise of NJ Audubon. For that, we must rely upon relevant federal and regulatory agencies to evaluate the necessity of the line. However, what is within our expertise and what we believe it is important to comment on is the approach for determining the route of a line if the determination is made that it is needed and will be built. We do choose to comment on what are the appropriate avoidance, minimization, and mitigation measures that can be put in place to manage long-term natural resource impacts both from construction activities and from permanent placement of a line.

We also choose to apply a regional perspective in commenting on the DEIS. NJ Audubon is concerned with wildlife and habitat conservation within NPS lands but our interests also extend beyond park boundaries. National Park System lands provide important strongholds in the patchwork of protected habitats scattered throughout the region that sustain a diverse array of wildlife species. These lands and the wildlife that depend on them are interconnected and interdependent to varying degrees. For example, the persistence of a special status bird species within the Delaware Water Gap National Recreation Area depends on management within the park but also the ability of external habitat patches to sustain the metapopulation in the region. In addition, the state of immediately surrounding areas can have direct impacts on NPS lands by harboring and facilitating the spread of invasive species and pests

to NPS lands for example. Decisions regarding a new or upgraded bi-state transmission line must therefore also consider broader, regional implications to wildlife and their habitats. The information and analysis provided in the DEIS focus, understandably so, on NPS lands. As a result, however, the full impacts associated with any of the alternatives are unclear and it is difficult to identify which option would most effectively minimize disturbance to natural areas and critical wildlife habitat across the region if the upgrade is needed. The NPS would benefit from an approach that more specifically considers impacts to the surrounding region and NJ Audubon strongly encourages the NPS to apply a regional perspective in reviewing the alternatives and considering mitigation needs if necessary.

NJ Audubon would also like to offer what we believe are important guiding principles for determining the route of a line if it is determined that one will be built and for minimizing subsequent impacts to wildlife and habitat. These include the following:

1. A location should be selected that minimizes disturbance to natural areas and critical wildlife habitat across the entire route. The lowest overall impact would result from following existing power line right-of-ways (ROWs), avoiding sensitive natural areas (e.g. wetlands, floodplains, threatened and endangered species habitat, important bird areas), and minimizing negative impacts to habitat connectivity across the entire route.
2. Proper measures should be taken to avoid and minimize impacts to wildlife and habitat during construction, operation, and maintenance of power lines and ROWs. As noted in the DEIS, there are a number of measures that can and should be taken to avoid and minimize impacts to sensitive wildlife and habitat (e.g. avoidance of the use of heavy equipment when maintaining ROWs that cross wetlands; adherence to seasonal restrictions on activities to avoid direct impacts to wildlife during sensitive times; adherence to best management practices to avoid bird collisions and electrocution associated with power lines and towers).
3. Mitigation must be viewed and implemented as an opportunity to enhance the status quo. Because all of the lands under consideration for a new or upgraded line should be those with preexisting ROWs, there is a unique opportunity to attend to some of the lasting effects of the original disturbance through implementation of a mitigation plan that directly addresses them. The utilities should develop a management and mitigation plan that directly addresses natural resource concerns and sets a goal to improve upon the status quo of those resources which are currently impacted by the existing line and will be impacted additionally as a result of an upgrade. In other words, the plan should be founded on a net gain standard with measurable and transparent benchmarks.

It is also important to note that ROWs do not have to mean a total loss in valuable wildlife habitat. A responsibly managed, pre-established ROW surrounded by a mature forest can offer increased vegetative diversity in the form of primary successional habitat. Many scrub-shrub bird species have experienced significant population declines (Askins 1993; Dettmers 2003; Schlossberg and King 2007; Sauer et al. 2011) and some have been identified as threatened, endangered, or species of conservation concern at state, regional, and national levels. Species declines coincide with a reduction in the amount of early successional habitat, including scrub-shrub habitats, in the eastern U.S. (Askins 1993; Lorimer 2001; Trani et al. 2001; Brooks 2003; Schlossberg and King 2007); thus, habitat availability appears to be a limiting factor for scrub-shrub bird species (Dettmers 2003). Because utility ROWs are permanently managed in an early successional stage, they can provide a potentially important source of habitat for scrub-shrub birds and other wildlife species, given the right management regime. Specifically, a number of studies have documented scrub-shrub bird species of conservation concern (Yahner et al. 2002, 2003; Confer and Pascoe 2003; Bulluck and Buehler 2006; King et al. 2009) and reptiles and amphibians (Yahner et al. 2001a, 2001b) using ROW habitats. ROW habitats in the NJ Highlands support breeding habitat for golden-winged warblers (DeFalco 2003, 2005), a state species of concern that has experienced steep declines and is under review for federal and state listing. Furthermore, ROWs in New Jersey and throughout the eastern U.S. provide habitat for a variety of other scrub-shrub species, such as the eastern towhee, prairie warbler, chestnut-sided warbler, indigo bunting, field sparrow, common yellowthroat, and gray catbird (Yahner et al. 2002, 2003; Confer and Pascoe 2003; DeFalco 2003, 2005; Bullock and Buehler 2006; King et al. 2009). Additionally, ROWs can provide habitat to invertebrates like the frosted elfin and are used opportunistically by snakes,

turtles, and raptors.

NJ Audubon recognizes the unique opportunity existing ROWs offer in terms of enhancing habitat for scrub-shrub dependent wildlife. Preliminary studies demonstrate that how well ROWs provide for these wildlife may depend on several vegetation characteristics (Kroodsma 1982), corridor width (Anderson et al. 1977; Confer and Pascoe 2003; King et al. 2009), and the type of management (Bramble et al. 1992; Yahner et al. 2001a, 2003; Confer and Pascoe 2003). Finding an approach to the management of ROWs that maximizes benefits to wildlife should be a requirement of any mitigation plan.

NJ Audubon appreciates the opportunity to comment on this DEIS. We strongly encourage the NPS to apply a regional perspective when considering all of the alternatives and to fully consider the guiding principles outlined above. Should an action alternative be selected, we would welcome the opportunity to comment on the mitigation plan.

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Susquehanna/Roseland Line 500 kV Transmission Line Project/
Draft Environmental Impact Statement

Dear PPL EIS Planning Team:

On behalf of PPL Electric Utilities Corporation ("PPL") and Public Service Electric and Gas Company ("PSE&G") (collectively PPL and PSE&G are referred to as the "Applicants"), we are writing to provide the Applicants' comments on the Draft Environmental Impact Statement on the Susquehanna-Roseland 500 kV Transmission Line Project (the "DEIS"). The DEIS addresses the potential impacts from the construction of Applicants' proposed Susquehanna-Roseland transmission line (the "S-R Line" or the "Project") together with potential impacts from other alternative transmission line routes that have been analyzed by the National Park Service ("NPS") for their impacts to the Delaware Water Gap National Recreation Area ("DEWA"), the Appalachian National Service Trail ("APPA"), the Middle Delaware Scenic and Recreational River ("MDSNR") (collectively APPA, DEWA and MDSNR are referred to as the "NPS Units") and the Cherry Valley National Wildlife Refuge.

The alternatives are known as Alternatives 1 (the no-action alternative), 2 (the Applicants' proposed alternative), 2B, 3, 4 and 5. The purpose of the DEIS is to accurately inform the public and the federal decision maker of the environmental impacts of a proposed federal action. The purpose of the Applicants' comments are to support the dissemination of accurate information to the federal decision makers and the public as the NPS considers the Applicant's Special Use and Right of Way Application. We appreciate the hard work by the NPS and its consultants on the

DEIS and believe that the addition of our comments will serve to make the final DEIS a full and complete environmental document.

Our comments are comprised of general comments that apply across all of the Alternatives analyzed in the DEIS as well as comments for each Alternative on its feasibility, specific resources affected or potential impacts.

I. GENERAL COMMENTS APPLICABLE TO ALL ALTERNATIVES

A. **Alternatives 2 or 2b are the only feasible Alternatives that meet the Project Purpose and Need.**

The Applicants' comments cover many aspects of the DEIS, but there are certain critical comments that when taken together lead to the inescapable conclusion that Alternative 2 and 2b are the only feasible alternatives for the Project. Further, Alternatives 3, 4 and 5 do not support the interests of the Applicants or NPS, and are more damaging to the environment largely because of the impacts of these Alternatives outside of the NPS Units and outside the DEIS's scope of analysis. The Applicants have enclosed as Exhibit 1 a DVD of a short video showing the critical constraints outside of NPS lands of Alternatives 3, 4 and 5 that make them infeasible. Each of the bulleted points below is discussed in greater detail later in this comment letter; they are summarized here to be certain that they are presented together for the benefit of the decision-maker. The Applicants believe that the DEIS should more clearly emphasize:

- the pre-existing nature of the Applicants' transmission corridor and line, including the cleared along its length inside the NPS Units, which existed long before the NPS Units were authorized and has always been part of the landscape and the visitor experience at the NPS Units;

- the Applicants' legal rights for construction, maintenance, operation and access that are found in the easements that created the ROW for the Applicants' line and to which, absent condemnation, the NPS is subject just as any other landowner would be;

- the complete and utter lack of equivalent functionality of any of the Alternatives other than 2 or 2b to maintain the reliability and capacity of the electricity grid within the timeframe required by PJM;

- the inability of any of the Alternatives other than Alternatives 2 or 2b to meet the Applicants' basic purpose and need of satisfying the in-service-date of June 1, 2015 required by PJM;

- the fact that Alternative 1 is not truly a "no build" alternative because the existing transmission line would need to be rebuilt within the next several years due to its age

and this rebuilding will have impacts that are equivalent to the impacts associated with Alternative 2;

- the greater overall environmental impacts that would occur if a new ROW must be cleared and constructed as would be required for Alternative 3, 4 and 5; and

- the quality and scope of the Applicants' proposed mitigation in terms of avoidance and minimization of impacts and the compensatory mitigation offered by the Applicants for unavoidable impacts.

The NPS Director's Order #12 requires that alternatives considered in a NEPA review must be technologically feasible and make common sense. Alternatives 3, 4 and 5 pass the first part of the test in the very literal sense that towers could be built and wires could be strung, but do not pass the critical second part of the test involving common sense. The additional timeframe necessary to receive the amended approvals, design the line, conduct required environmental studies and secure the appropriate ROWs, permits and approvals for Alternatives 3, 4 or 5 would double or triple the timeframe by which the Project could be reasonably expected to be completed. This result would leave the region increasingly vulnerable to electrical reliability risks which could lead to higher prices for the consumer, operational restrictions and possible implementation of curtailment plans and such a result would fail to serve the basic Project purpose and need.

The Applicants are aware that a construction project of almost any nature within the NPS Units will have impacts. The Applicants believe that the impacts of the proposed Alternative 2 or 2b can be mitigated and that the incremental impacts associated with the construction of the S-R Line will in no way impair or be inconsistent with the authorized purposes of the NPS Units; they will continue to serve the same important natural resource and recreational purposes that they serve now with the existing transmission line and ROW in place. The same is not true for Alternatives 3, 4 or 5 which would involve much greater land disturbance and add new crossings of the Delaware River.

B. **The NPS continues to make an assumption that the S-R Line, once constructed, will be a "critical" element of the grid and thus be subject to more frequent maintenance and faster emergency repairs and therefore cause greater impacts to the affected NPS units.**

The NPS first raised this issue in Newsletter 2 for the S-R Line Environmental Impact Statement. The Applicants responded in our comment letter on the Alternatives dated September 13, 2010. The Applicants' prior comment has not been reflected in the DEIS and the Applicants are, thus, compelled to provide the NPS again with the reasons why the NPS's description of the "criticality" of the existing and proposed lines is flawed.

The DEIS inaccurately states that the Applicants' proposed route would "convert the current transmission line corridor from noncritical to critical status" (DEIS, p. 3). The assumption by the NPS is that because of this presumed "non-criticality," a new line would be subject to more and faster maintenance and emergency repairs than the existing line, and that these activities would have a greater impact on the NPS Units than if the no-action alternative is selected. There are three fundamental problems with this analysis. The first is the assumption that the existing line is not critical: it is critical. The existing line is an integral part of the grid as evidenced by PJM's statement in its letter to the NPS dated September 13, 2010 that "[T]he existing 230 kV transmission line that crosses the NPS lands is critical to the PJM bulk electric system." The letter is attached as Exhibit 2.

The second flaw reflects the mistaken assumption that the intensity of vegetation management along the transmission corridor will increase with a change in voltage carried on the lines. The fact is that vegetation management for high voltage lines, whether 230 or 500 kV, is governed by state and federal grid reliability rules, which, on the federal side, now carry significant potential penalties of up to $1,000,000 per day for rules violations.

The newly stringent federal vegetation management rules followed the 2003 blackout that affected parts of the Northeast and Midwest caused in part by contact between a tree and a transmission line. After that blackout, Congress enacted the Energy Policy Act of 2005, which amended the Federal Power Act by requiring the creation and enforcement of new bulk power system reliability standards. In March 2007, pursuant to that statutory mandate, the Federal Energy Regulatory Commission ("FERC") approved strict new requirements for vegetation management along bulk power transmission lines, including the existing 230 kV line, to ensure greater reliability of the nation's interstate electric grid (the FAC-003-1 Transmission Vegetation Management Reliability Standard). These are mandatory federal reliability requirements. The North American Electric Reliability Corporation (NERC) and regional reliability entities are responsible for overseeing and enforcing compliance with these standards. The Applicants are responsible for compliance with and implementation of these reliability requirements. In fact, PPL entered into a Settlement Agreement with the Reliability First Corporation (the regional reliability entity), in which it agreed to implement certain vegetation management requirements for its 230 kV and 500 kV lines throughout its entire service territory (including work within DEWA) by December 31, 2012. That Settlement Agreement was accepted by FERC. The Settlement Agreement and FERC Order accepting the settlement can be found at http://elibrary-backup.ferc.gov:0/idmws/File_List.asp?document_id=13804492 and http://elibrary.ferc.gov:0/idmws/file_list.asp?document_id=13813752.

There is nothing about the structural differences between the existing 230 kV transmission line and the proposed S-R Line that would change applicable vegetation maintenance standards, emergency response times or other maintenance standards with which the Applicants must comply. The federal rules governing vegetation management along transmission lines, and reliability in general, stand entirely apart from the permitting decision now before the NPS. The proposed S-R Line would not result in additional or more frequent

maintenance and emergency repairs. The construction of the S-R Line will not significantly affect the intensity or other aspects of the Applicants' activities in the existing ROW. Simply put, the construction of the S-R Line would not result in a net increase in impacts to the NPS Units from a vegetation management or operational perspective.

The third flaw is that any meaningful assessment of the impacts of Alternatives 1, 4 and 5 must recognize that the existing 230 kV line is over 80 years old. Field investigations of similar vintage facilities on the PPL system show significant signs of deterioration. If one of these other alternatives is chosen, the existing 230 kV line through DEWA will remain in place and will need to be reconstructed within the next 10 years. As a result, construction impacts are likely within the ROW no matter which alternative is selected.

C. **The NPS has not properly recognized the extent of the rights held by the Applicants for the existing transmission corridor crossing the NPS Units.**

The Applicants (or their predecessors in interest) acquired the various easements for the S-R Line in the late 1920's and constructed the S-R Line shortly thereafter. The language in these easements is very broad and gives the Applicants the right to construct or install transmission lines and include access rights for the purpose of exercising the rights to construct transmission lines.

The Applicants' pre-existing rights related to the corridor are substantial legal rights, and include the right to replace the towers, foundations and conductors, clear vegetation threatening the lines or towers or roads, and otherwise take reasonable actions needed to keep the line in service (including the right to build, use and maintain access roads) and in compliance with all legal and regulatory requirements that apply to electric transmission service. The typical language in each of these ROWs is: "The right to construct, operate, and maintain, and from time to time, to reconstruct its electric lines, including such poles, towers, wires, fixtures and apparatus, as may be from time to time necessary for the convenient transaction of the [Companies]."

The NPS has a role in managing the impacts of these activities on NPS resources, but does not have authority or a legal right to disallow them. The NPS has recognized this in its draft guidance dated June 2008, title "*Permit Requirements for Construction, Maintenance and Repairs of Utilities within Easements on Parklands,*" when it differentiated between new ROW requests and existing easements. The NPS states in the draft Guidance:

> However, there are occasions where the utility may hold an existing easement on parklands. Through an easement, the utility has acquired the right to use park lands for a specific purpose. It is important that park managers read the title file and deed for the tract of land encumbered with an easement to determine the full extent of the utility's rights. The deed will describe the limits of the easement, such as the width, or the number,

> type and size of facilities that may occupy the easement. The easement may give the utility the right to construct a new facility, increase the size or number of facilities constructed in the easement, perform maintenance or do repairs on a utility. The easement may also specify how the maintenance may be performed, i.e., vegetation removal through mechanical means.

The United States could have condemned the Applicants' easement rights when it acquired the many other private properties that today comprise DEWA and the APPA, but it did not do so and is thus subject to the terms of the easements just as any other landowner would be.

Additionally, a portion of the existing transmission line is located on land within DEWA owned in fee simple by PPL. The existence of fee title ownership of a portion of the existing line is further evidence of the strong property rights owned by the Applicants. If the NPS chooses any Alternative other than 2 or 2b then it would likely constitute a taking and the NPS should consider the costs associated with such a taking as it analyzes the operational impacts of Alternatives 3, 4 and 5 not allowing the use of Alternative 2 or 2b.

D. **The DEIS incorrectly assumes that the existing power line would be removed if Alternative 4 or 5 were selected.**

PJM studied the Susquehanna-Roseland 500 kV Project under the assumption that the Bushkill-Kittatinny 230 kV line (the "B-K Line") would remain in service. It should be understood that the S-R Line is required in addition to the existing system of 230 kV lines located in the eastern PA and Northern NJ areas, which includes the B-K Line section. The proposed S-R Line is not a replacement for any part of the existing electric power system.

As set forth in PJM's letter to the NPS dated September 13, 2010 ("PJM Letter"):

> [T]he existing 230 kV transmission line that crosses the National Park Service lands is critical to the PJM bulk electric system, and the need for the Susquehanna-Roseland Project was recognized assuming that the existing 230 kV line remained in service. Additionally, the need for the Susquehanna-Roseland Project was identified because the existing transmission is inadequate. Thus, removal of an element of the transmission system, particularly the 230 kV Bushkill-Kittatinny line, would clearly worsen the transmission system. In addition, removal of the 230 kV line would negatively impact the planning and operation of the transmission system. Finally, the portion of the 230 kV line from Bushkill to Kittatinny is an integral piece of the existing 230 kV system and its elimination removes a key interconnection for several regional stations, which include Shawnee, Blooming Grove, Peckville, Monroe and Fox Hill.

At an October 6, 2011 meeting with the NPS in Washington DC, Steve Herling, PJM's Vice-President-Planning confirmed the need for the Susquehanna Roseland 500 kV Project by June 1, 2012. Without the Project in-service by that time, several facilities exceed or approach overload conditions based on NERC category C5, double circuit tower line (DCTL) violations. The overloaded facilities, the percent loading, and the DCTL contingencies are shown in the table below. This analysis represents the up-to-date studies by PJM.

Facility Overloaded	% Load	DCTL Contingency
West Wharton – Greystone "J" 230 kV	104.30	Gilbert – Morristown and Portland – Greystone 230 kV
Newton – Lake Iliff 230 kV	107.74	Portland – Greystone and Kittatinny – Pohatcong 230 kV
Lake Iliff – Montville 230 kV	106.92	Portland – Greystone and Kittatinny – Pohatcong 230 kV
Kittatinny – Newton 230 kV	100.41	Portland – Greystone and Kittatinny – Pohatcong 230 kV
Portland – Greystone "Q" 230 kV	94.47	Gilbert – Morristown and Gilbert – Glen Gardner 230 kV
Greystone – Whippany 230 kV	93.10	Gilbert – Morristown and Gilbert – Glen Gardner 230 kV
Kittatinny – Pohatcong 230 kV	93.69	Gilbert – Morristown and Gilbert – Glen Gardner 230 kV
Glen Gardner – Chester 230 kV	91.60	Portland – Greystone and Kittatinny – Pohatcong 230 kV

PJM has developed a short term operational solution to address these overloads during the period between June 1, 2012 and the Project expected in-service date of June 1, 2015. The solution is to operate to the DCTL violations in real-time operation by adjusting generation and implementing Demand Response resources to maintain reliability. This solution increases both the risk of loss of service to customers and the cost of reliable operation and is not acceptable as a permanent solution.

More detailed information regarding the real world analysis of the removal of the existing transmission line and the inability of Alternatives 4 and 5 to be functionally equivalent to Alternative 2 or 2b are contained in letter from Greg Smith of PPL to the NPS dated January 11, 2012, a copy of which is attached as Exhibit 3.

Additionally, the deconstruction of the existing line would have the same construction impacts as the construction of the S-R Line. The same roads would be needed and similar ground disturbances would occur. The DEIS should include a discussion of those impacts.

E. **Access Roads: The DEIS does not properly characterize the impacts associated with access roads during construction and operation of the S-R Line.**

1. The DEIS states that permits would be required for the access road construction (p. 39). As discussed in Section I.C., the Applicant's existing ROW includes access rights for transmission line construction and maintenance. The Applicants understand that any special use permit and ROW issued would have conditions related to the use and construction of access roads, but they do not expect that any other permits would be required for use of the access roads.

2. The DEIS states that access roads with gravel surfacing would remain in place and continue to be maintained following construction of the transmission line (p. 342). This statement is not correct because most of the access roads would be temporary and would be revegetated and/or restored following construction. The Applicants would only maintain permanent access roads on areas that are existing roadways or needed for ongoing maintenance as described in the Construction and Restoration Standards ("C&R Standards") attached as Exhibit 4.

3. Appendix F of the DEIS describes mitigation measures that could be applied to road damage, but incorrectly assumes that the mitigation would not be sufficient to change the level of impacts to NPS roads. The Applicants' plan to restore the public roadways to their pre-construction condition (unless otherwise instructed by the NPS for purposes of closing roads or limiting access) and see no reason why they would not be able to accomplish that commitment and thus there would be no lasting impacts to public roads within DEWA following construction.

4. The DEIS expresses concern over unauthorized off-road vehicle use that would occur as a result of access road construction associated with Alternative 2 (p. 548). The Applicants have two comments to this statement. First, if off-road vehicle use is a concern, then it should be applicable to all alternatives and not just to the existing ROW. Second, as a part of its mitigation, the Applicants can and will take the steps described in the C&R Standards to discourage off road vehicle use on temporary and permanent access roads.

F. **Endangered Special Status Species: The DEIS does not fully reflect the extensive work that has been performed by the Applicants to avoid impacts to endangered, threatened or special status species.**

1. Bog Turtles

One of the known species of greatest concern during construction of the S-R Line is the bog turtle. The Applicants have had extensive discussions with the USFWS and, as a result of this informal consultation, the USFWS has determined that no adverse effect would occur to bog turtles if the Applicants' proposed access road around the Arnott Fen were used and if certain

other protective measures were taken, such as time of year restrictions. Therefore, the DEIS assertion that a Biological Assessment might be required for bog turtles is incorrect.

2. Indiana Bats

Potential impacts to the Indiana Bat were analyzed during the Applicants' planning process. The Applicants conducted Indiana Bat mist net surveys along the length of the existing ROW and proposed access road locations and no Indiana Bats were found. As a result, the USFWS issued a letter dated January 27, 2010 concluding that there was not likely to be an adverse effect for the Indiana Bat. This letter would apply to Alternatives 2 and 2B and this finding was not mentioned in the DEIS.

3. Eagles/Other Birds

The Applicants intend to follow the Avian Protection Plan standards set out by the Avian Power Line Interaction Committee (APLIC) and do not anticipate any adverse impacts to eagles or other birds. No eagle nests were found along the routes of Alternative 2 or 2B and the distance between the conductor is over 60 inches and is thus greater than the wingspan of all bird species.

G. **Mitigation**

The DEIS discusses mitigation and compensation measures on pages 68-69, and in Appendix F. The Applicants support the best management practices and mitigation measures described in the DEIS, including those listed in Appendix F. The various practices and measures are presented in a topical or categorical manner in the DEIS, and not as detailed, site- or condition-specific requirements. The Applicants will work with the NPS to determine how the various measures presented in the DEIS would be applied to the particular circumstances of the proposed project, if approved by the NPS. The C&R Standards comments detail the Applicants' specific plans for Project construction and maintenance. In addition, the Applicants propose to compensate for the unavoidable adverse impacts of the Project by creating and endowing a substantial fund to support acquisition and stewardship of lands and other resources in the DEWA region. The compensation fund is discussed in the second part of these comments on mitigation.

1. Avoidance and Minimization

The cornerstone of any mitigation strategy is avoidance and minimization of impacts. The DEIS describes a range of construction and operation best management practices and other measures intended to avoid and minimize project impacts; as detailed in our attached C&R Standards, the Applicant's Vegetation Management Plans attached as Exhibits 5 and 6, and the Project Safety and Health Plan attached as Exhibit 7. The Applicants commit to apply them. We have also attached as Exhibit 8 the S-R Project Compliance Table with Appendix F. The

Applicants agree outright with about 160 of the approximate 200 mitigation measures listed in DEIS Appendix F. About a dozen or so require more information and further discussion with the NPS. The remainder are not applicable to the Project. But we believe firmly that consideration of avoidance and minimization measures should start at a different place.

The most significant choice facing the decision-maker about how to avoid and minimize the impacts of the proposed Project is whether to use an existing, already cleared corridor for the proposed project or to cut one or more new corridors through the forests and communities of eastern Pennsylvania and Northern New Jersey.

The Applicants recognize that the NPS does not have any siting authority outside NPS lands; that the proper decision before the agency is a decision about how to manage NPS resources; and that the NEPA analysis should be focused on that discrete question. But the context in which the NPS decision will occur is an essential part of the analysis required by NEPA. The context here is that the fragmentary segments of transmission corridors studied in the DEIS can have no purpose or value if not connected to other segments that would complete the Susquehanna to Roseland and Bushkill to Kittatinny circuits.

It would be arbitrary and unreasonable for the decision-maker to fail to take into account the fact that the NPS routing alternatives would require construction of new ROWs outside the areas actually studied and would inevitably cause a multitude of new significant impacts on the human environment. Those significant impacts are entirely avoidable by using the existing ROW for the S-R Line, as the Applicants have proposed.

The DEIS is potentially confusing regarding whether it is intended to inform the decision-maker and the public about the potential impacts of the proposed project and the NPS alternatives on just those places and things under direct NPS jurisdiction, or whether the analysis is intended to examine the various alternatives' impacts in all the places and ways they might actually occur. Even though some parts of the DEIS present lines on the map running from Susquehanna to Roseland or Bushkill to Kittatinny, the actual scope of analysis is much more limited. The DEIS looks at impacts in "study areas." The size and location of the study areas vary "depending on the resource being discussed." (DEIS at p. 33). The study areas are in or near NPS lands, or apply to resources directly affected by actions that might occur in NPS lands. Most of the potential mileage of the ROW needed for NPS alternatives is outside the study areas and is not actually identified or studied.

The NPS methodology for deciding where to look for impacts has an internal logic, and because the NPS has no siting authority outside its own lands, it makes good sense to limit the geographic scope of analysis in some way. But for the purpose of drawing comparisons among the alternatives, the boundary-drawing by the NPS has the potential to obscure the real world merits of the choices presented to the decision-maker. The methodology, however logical for other purposes, obscures the overwhelming mitigation value tied to the fundamental choice to use an existing ROW for the Project, which is also consistent with the APPA guidelines for

encroachments on the Appalachian Trail, instead of creating one or more new ROWs. The use of an existing ROW for the Project avoids so many impacts that a decision-maker, faced with choosing among alternatives, could reasonably base a siting decision entirely on this single variable. There is no other variable or combination of variables that can be managed by the decision-maker to do a better job of avoiding impacts; none even comes close to being comparable. The Commonwealth of Pennsylvania and the State of New Jersey understood this point when they decided that the best place to site the S-R Line would be in the existing ROW connecting those two points.

This important shortcoming in the DEIS can be remedied easily. The DEIS would be much easier to understand and use if the document's discussion of mitigation measures were amended to disclose the fact that the Applicants' proposal can reasonably be expected to have dramatically fewer environmental consequences than any of the NPS Alternatives because the Applicants' proposal does not require creation of new transmission corridors connecting Susquehanna to Roseland and Bushkill to Kittatinny -- and the NPS Alternatives do. The precise mileage, placement and other circumstances of the new corridors outside the study areas do not need to be calculated because a reasonable decision-maker can anticipate with complete confidence that creation of new ROW 200 to 350 feet-wide (as estimated by the NPS) causes more impacts than placement of the same towers and conductors inside an existing, already cleared ROW connecting the same points on the grid, even taking into account the greater tower heights.

The Applicants recognize that their proposal to use the existing ROW must incorporate all appropriate measures to avoid and minimize impacts on the NPS Units, even after achieving so much benefit for the environment by avoiding construction of new ROW. This is also consistent with the NPS Draft Guidance on Parklands described in Section I.C. As noted above, the Applicants agree to employ the various measures cited in Appendix F. In this regard, we wish to clarify certain points of concern raised in the DEIS. The current plans for installation of the foundations for the tubular steel structures will likely involve drilling as the primary method of excavation rather than blasting. This should substantially minimize the NPS' concerns for the impact to the park with respect to geology, limestone formations, soils, and other resources. Once the Applicants are able to perform geotechnical investigations, the specific designs can be finalized and foundation requirements established. However, considering the geotechnical investigations that have been performed outside the DEWA, it is likely that blasting will not be required. Similarly, Applicants believe that blasting would not be necessary for Alternative 2b.

The Applicants are also exploring some additional design options, different structure types, and construction methods that could reduce or possibly eliminate the need for access road construction near some of the most sensitive areas of the DEWA. These approaches could also eliminate the need for any blasting for foundation installation. However, these techniques come with other implications that need to be discussed, e.g. significant helicopter use for demolition and construction. It must also be noted that these methods would not be applicable for Alternative 2b due to the width of the easement.

The Applicants continue to be willing to meet with the NPS personnel and their consultants to discuss these issues.

2. Compensation for Unavoidable Impacts

The Applicants recognize that, even after full implementation of all possible measures to avoid and minimize impacts, the proposed Project will cause some adverse impacts on resources under NPS jurisdiction. Accordingly, the Applicants are proposing compensatory mitigation pursuant to a methodology and on a scale that recognize the great public value of the national parklands adjacent to the Applicants' transmission corridor. The intent of the proposed methodology is to more than offset every potential unavoidable impact of the proposed Project.

Our methodology is described in detail in Exhibit 9. It is based on approaches used by the NPS and other agencies in other NEPA analyses, including the NPS's assessment of communications tower impacts in Yellowstone. It also draws from the approach used to identify and mitigate for impacts associated with the proposed Project where it crosses the Highlands area in New Jersey. The approach takes into account all categories of potential resource impacts identified by the NPS in the DEIS, including impacts on protected species, cultural landscapes and viewsheds.

The Applicants' methodology is very conservative in the sense that it resolves uncertainties in favor of benefiting NPS resources. The approach considers all NPS-recognized categories of potential impacts within a seven-mile zone on either side of the transmission line corridor where it crosses NPS lands. The Applicants' methodology recognizes that the intensity of unavoidable impacts is likely in most cases to be greater on resources closer to the corridor than on the same resources located farther away. The approach applies to resources on more than 38,000 acres of NPS lands, an area equal to more than half of DEWA's total acreage, even though the transmission corridor itself comprises less than 100 acres inside the federal park lands, and the incremental right-of-way requested by the Applicants is less than 5 acres, or approximately .007 percent of the DEWA area.

As a point of perspective, to reinforce the decision-maker and public's confidence in the conservatism of the Applicants' recommended approach, we would call attention to the following: The Applicants recently performed a viewshed analysis as part of required historic architecture surveys. The intent of this analysis was to assess potential impacts of the proposed project (Alternative 2) on historic architecture within the vicinity of the DEWA and other NPS units. The area of potential effects (APE) for the historic architecture survey, proposed and authorized by the NPS on April 21, 2011, consisted of areas within DEWA that are within an 8-mile radius from the centerline of the existing transmission right-of-way. The viewshed analysis was conducted both 1) to consider only the effects of topography on visibility, similar to that in the DEIS; and 2) in a manner that would allow for the consideration of the potential effects of intervening vegetation on the Project's visibility.

When considering only the effects of topography alone, the results suggest that there are approximately 22,900 acres within the 8-mile radius in the DEWA where some portion of the line could potentially be seen under existing conditions (i.e., with the B-K line in place). Following Project construction, this acreage would increase to approximately 24,700 acres. However, again, this analysis assumes that there is no intervening vegetation in a nearly completely forested park. When the effects of vegetation are also considered, only approximately 3,629 acres of land have unobstructed views of the line under existing conditions. With construction of the S-R Line, approximately 3,945 acres would have unobstructed views, or an incremental increase in viewshed impacts of 316 acres.

The Applicants are proposing to consider and provide compensatory mitigation for resource impacts occuring in an area of approximately 38,000 acres, an area 9.6 times larger than the total area of viewshed impacts, and 120 times larger than the area of incremental impacts, as calculated by the Applicants.

The precautionary approach being proposed by the Applicants is highly beneficial to the resource values of the NPS Units because the zone covered by the analysis is so wide and because it assumes that all NPS-recognized impact categories are present on all acres in the zone. The result is a very conservative quantitative estimate of the resources potentially affected by the Project, measured in acres, and a correspondingly conservative or protective estimate of the acreage of high resource value lands needed to compensate for the potential impact. This "worst-case" approach assures that the Applicants' mitigation commitment will, at a minimum, be scaled to fully compensate for the unavoidable long-term impacts of the proposed Project.

The Applicants have tested the proposed compensation methodology under a range of assumptions about the selling prices of private lands in the DEWA region with high natural resource values. We have focused on parcels previously identified by land management agencies and conservation groups as important potential additions to the DEWA-area parks and refuges--lands with natural values that would be of great value to the public.

We have identified lands potentially for sale, most already on the market in some fashion, that offer great potential to benefit the public. If acquired for the public's benefit, these parcels could preserve natural viewsheds from future development, enhance NPS- and USFWS-managed areas, tie together now-isolated parcels of state or federal conservation areas, provide wildlife

corridors, expand public hunting and fishing, secure key protected species habitat, or allow for restoration of previously developed areas.[1]

The methodology would result in compensatory mitigation on the order of $30-$40 million. It is important to note that our approach is defined by impacts, and the natural values of mitigation lands, not by the cost of acquiring those lands. If the NPS determines, based on the outcome of the public comment process or other analysis, that the potential impacts of the Project are different than what we understand them to be, or that other lands are more suitable for mitigation than those we have identified, the amount of compensatory mitigation will change to reflect the NPS analysis. We welcome the opportunity to present this approach to the NPS.

The Applicants request that the DEIS be amended to reflect the following proposal regarding compensation for the unavoidable adverse impacts of the proposed Project on resources under the Department of the Interior's jurisdiction. To demonstrate our commitment to compensatory mitigation, and to allow the earliest possible implementation of compensatory mitigation measures, the Applicants have engaged and provided funds to a nationally respected land conservation organization to begin acquiring interests in private properties of high value to the Department of the Interior's conservation mission in the area around DEWA, MDSR, APPA and Cherry Valley National Wildlife Refuge.

The Applicants further propose to establish and endow the Middle Delaware Mitigation Fund (the "Fund"). The Fund would be administered by a not-for-profit organization with demonstrated expertise in land and resource conservation and successful collaboration with the Department of the Interior (the "Administrator"). Monies contributed to the Fund by the Applicants (the "Endowment") would be used by the Administrator for the purposes of

[1] The Applicants and their consultants have collected a great deal of very specific information about lands that are for sale (in fee or pursuant to conservation easement) in the DEWA area. Most of the information is confidential and proprietary; all of it is sensitive. The potential to acquire the land for conservation purposes likely would be frustrated if the information were to be publicized. To meet the requirements of current owners, a substantial portion of the information has been obtained with the understanding that the Applicants would keep the information confidential. Based on our outreach to conservation partners and other investigations and analyses, we have identified, at this time, an overall universe of 650 parcels or interests in land that merit further consideration for use as compensatory mitigation including 425 tracts (39,500 acres) in Pennsylvania and 225 tracts (20,500 acres) in New Jersey. Of these, there is dialogue with landowners for the following parcels/acreage: 150 tracts (13,500 acres) in Pennsylvania, and 10 tracts (500 acres) in New Jersey. Of the parcels under dialogue at this time the following parcels/acreage are either under option, option pending or active negotiation: 12 tracts (10,700 acres) in Pennsylvania ($34,000,000 fmv est.), and 5 tracts (410 acres) ($2,600,000 fmv est.) in New Jersey. All of these figures are subject to change based on further analysis and discussion with agency land managers, conservation interests, and others. The Applicants have used the information in shaping our proposal for compensatory mitigation for the proposed S-R Project, while taking all appropriate measures to keep information private in anticipation that the lands might someday be secured for the benefit of the public. The Applicants are prepared to share information that is not governed by specific confidentiality agreements with the NPS immediately upon execution of such agreements that would assure that NPS and all other federal agencies and contractors would maintain the information provided by the Applicants' in confidence.

preserving, restoring and enhancing Delaware Water Gap National Recreation Area, Cherry Valley National Wildlife Refuge, the Middle Delaware Wild & Scenic River segment, and the Appalachian National Scenic Trail within the Delaware River basin, including reasonable costs associated with administration of the Fund.

The Administrator would commit Endowment funds solely to projects or activities reviewed and recommended by the Secretary of the Interior, acting directly or through a designee, following appropriate consultation with representatives of the Commonwealth of Pennsylvania and State of New Jersey, and Delaware River basin-oriented conservation organizations and recreational interests.

The Applicants would convey funds to the Endowment following issuance by the NPS of all permits and approvals required by the NPS to be issued to the Applicants for all activities associated with construction, operation and maintenance of the Project, including but not limited to those permits and approvals requested by the Applicants on November 21, 2008 in the S-R Project SF-299 in accordance with the schedule below, provided that the terms and conditions of such permits and approvals must be reasonable, consistent with the purpose and need for the Project, including the need to have the Project in service by June 2015, and otherwise acceptable to the Applicants. The Applicants will convey funds to the Endowment on the following schedule:

1. Fifty (50) percent of the Endowment upon commencement of any construction-related ground- or vegetation-disturbing activities by the Applicants within the boundaries of Delaware Water Gap National Recreation Area or the Appalachian National Scenic Trail; and

2. Fifty (50) percent upon completion of construction of the Project within the boundaries of Delaware Water Gap National Recreation Area or the Appalachian National Scenic Trail and placement of the Project into service.

As used in this proposal, the term *construction-related ground or vegetation-disturbing activities* means activities by the Applicants or their contractors undertaken to prepare lands or fixtures for construction of the Project, including tower foundations, or to construct the Project, but not including routine right-of-way maintenance. The term *resources under the Department of the Interior's jurisdiction* means lands, waters, animals, plants, cultural and historical sites and objects, and other natural or human-made resources under the jurisdiction of the NPS or USFWS, including aesthetic values and the quality of the experience of visitors to Delaware Water Gap National Recreation Area, Cherry Valley National Wildlife Refuge, the Middle Delaware Wild & Scenic River segment, and segment of the Appalachian National Scenic Trail within or immediately adjacent to the Delaware Water Gap National Recreation Area.

The total commitment of money by the Applicants to the Fund will need to reflect the NPS's final analysis of impacts potentially to be caused by the proposed Project. The Applicants understand that the analysis of potential impacts is subject to change and is likely to be revised to incorporate public comments on the DEIS received by the NPS. The Applicants recognize that resources under the jurisdiction of the NPS and USFWS are of enormous value in both a monetary and non-monetary sense to the American public and that the "cost" of any impacts on those resources is correspondingly high. The Applicants are prepared to commit funds in an amount that will fully recognize and show respect for the public value of the resources potentially affected by the Project. The Applicants submit that the methodology proposed in these comments, if accepted and applied, will ensure that there can be no basis for any reasonable party to conclude that the benefit to the resources at issue is anything other than substantially greater than the impacts of the Project.

H. Climate Change

The Applicants generally agree with the discussion in the DEIS related to the climate change impacts potentially tied to the S-R Line. On February 19, 2010, the President's Council on Environmental Quality ("CEQ") released draft guidance to federal agencies regarding consideration of the effects of climate change and greenhouse gas emissions in NEPA documents. http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf (also attached as Exhibit 10). Although that document has not yet been finalized, it provides useful direction for determining when a detailed assessment of greenhouse gas emissions would be meaningful. Specifically, the guidance notes that "if a proposed action would be reasonably anticipated to cause direct emissions of 25,000 metric tons or more of CO2-equivalent GHG emissions on an annual basis, agencies should consider this an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public." The 25,000 metric tons-per-year threshold provides a rough -- but useful -- means of distinguishing between proposed actions for which a detailed analysis of GHG emissions is necessary and proposed actions for which no such analysis is required. The S-R Line does not emit any GHGs itself, let alone cross the 25,000 metric tons per year threshold. GHG emissions attributable to the Project are all indirect, and very small, stemming from vehicle fuel use during construction and, thereafter, during maintenance activities. The DEIS' treatment of GHGs is entirely appropriate and in compliance with CEQ's guidance.

The Project, once constructed, will not be an "indirect" source of GHG emissions. It will carry electrons from any generation source connected to the regional grid, and will not distinguish between those from renewable or other non-carbon sources and those from fossil fuel-fired sources. The specific generators that transmit electricity over the Project will not be constant on a day-to-day basis, as sources come into and out of service, and the general mix of types of sources will evolve over time in response to factors unrelated to the Project, such as environmental and climate change regulatory policy, fuel costs, the health of the finance sector, state land use and siting decisions, and tax policy. The movement of energy across the

transmission line--which electrons move toward which users--will fluctuate constantly as power customers in the region change their usage throughout the day, week, month and year. The proposed line is every bit as likely to facilitate incremental renewable energy generation as it is to contribute to incremental fossil generation. The proposed Project does not conflict with any GHG or other electricity-related environmental policies enacted by Pennsylvania, New Jersey or the federal government. The Applicants' proposed route, using an already cleared right-of-way for 95-percent of its overall length, and all of its length that crosses NPS lands, would avoid the incremental carbon emissions that would inevitably be associated with the construction (i.e., clearing and grading) of one or more new right-of-way elsewhere as proposed under Alternatives 3, 4 and 5.

CEQ explicitly recognized in the draft guidance that "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to [the] particular project or emissions." Or, stated in slightly different terms, it is not possible to determine -- or even to obtain additional information capable of resulting in an identification of -- specific, reasonably foreseeable climate change impacts of the proposed action or alternatives thereto. The DEIS's treatment of climate change is appropriate for this and every other reason.

I. **Visual Impacts: The Visual Resources study and analysis performed by the NPS has several flaws in the methodology used to simulate the potential visual impacts and in some of the assumptions underlying the methodology.**

1. Visual Resource Study Area is too broad as p. 557 states that the visual study area is 20 miles from DEWA. This is greater than typical visual study areas by a factor of at least two. Visual study areas for similar linear projects typically extend only 5 miles from the project boundaries. Even in the case of tall, highly visible structures such as wind towers, visual study areas are no greater than 10 miles from the proposed structure.

2. The Visual Resources Study used a bare earth analysis despite the heavily wooded character of DEWA, thus greatly overstating the visibility of the towers. The DEIS itself describes the landscape character of DEWA as heavily wooded and this should be taken into account in the modeling in the Final EIS to avoid an unrealistic depiction of the potential visual impacts. The existing vegetation provides significant screening capabilities for the S-R Line and this is not reflected in the DEIS. The Applicants suggest that the USGS Survey 2006 Land Cover Dataset accurately reflects the vegetated nature of the study area and should be used to more accurately depict the visual impacts.

3. Furthermore, the Applicants recently performed a viewshed analysis as part of required historic architecture surveys, a copy of which is attached as Exhibit 11 together with the DEIS bare earth figure to show the contrast. The intent of this analysis was to assess potential impacts of the project on historic architecture within the vicinity of the DEWA and other NPS units. The area of potential effects (APE) for the historic architecture survey, proposed and

authorized by the NPS on April 21, 2011, consisted of areas within DEWA that are within an 8-mile radius from the centerline of the existing transmission right-of-way. The viewshed analysis was conducted both 1) to consider only the effects of topography on visibility, similar to that in the DEIS; and 2) in a manner that would allow for the consideration of the potential effects of intervening vegetation on the project's visibility.

When considering only the effects of topography alone, the results suggest that there are approximately 22,900 acres within the 8-mile radius in the DEWA where some portion of the line could potentially be seen under existing conditions. Following Project construction, this acreage would increase to approximately 24,700 acres. However, again, this analysis assumes that there is no intervening vegetation in a nearly completely forested park. When the effects of vegetation are also considered, only approximately 3,629 acres of land have unobstructed views of the line under existing conditions, and approximately 3,945 acres once the Project is constructed. These numbers represent the sum total of areas where either the existing or new Project would both be visible and not under forest cover.

4. Figures 77-86 of the DEIS show existing structures only within a short distance of the NPS Units, but show potential structures 20 miles from each NPS Unit. This is a comparison of apples to oranges and the only way to have an accurate comparison of the visual impacts is to use the same distances when analyzing the visibility of the structures.

5. Page 259 of the DEIS contains a statement regarding the air quality and visibility at DEWA that is misleading as it implies that visibility at DEWA is only affected by haze and that this effect only occurs on average 14 days out of each year and only during the summer months. In fact, there are other factors affecting visibility that should also be mentioned, such as weather patterns and moisture that can limit visibility in DEWA at any time of the year and for many more days than just 14 days.

6. The DEIS visual simulations in Appendix K were not prepared using the correct information as to ROW width, pole coloring or size and coloring of conduit. The biggest problem with Appendix K is that it assumes a 350 foot ROW for Alternative 2. For example, figures K-17 through K-19 show trees being cut along the Watergate Recreation Area – but these trees are not going to be removed because the ROW is not going to be as wide as the DEIS assumes. Figure K-12 near the Pioneer Trail is another good example of the overstatement of effects found within the NPS visual simulation exhibits. This figure shows a complete clearing, when in fact only a very limited amount of trees will be removed in this area.

The proposed towers are shown as light brown to orange in Appendix K. The self-weathering steel that will be used for the new towers typically weather to a neutral brown and is darker than shown on the simulation. Further, the size and appearance of the conductor shown in the visual stimulations for the Project is overly dark and exaggerated in thickness.

J. Other Specific Comments

1. Need for Action (p. i): This section should be amended to disclose the deadlines set by PJM for action by the Applicants to improve transmission capacity in the area and the financial burden currently borne by New Jersey electricity customers because of the lack of transmission capacity in the area. The second paragraph of this section should be amended to disclose with more precision the amount of acreage (4.6 acres) requested by the Applicants for additional right-of-way.

2. Background and Purpose of DEWA, MDSR, and APPA (pp. i, ii): This section discusses rapidly expanding population and associated development activity in the DEWA region. This discussion should be amended to disclose that the growing population of the Mid-Atlantic area, while it places demands on the NPS Units, also creates growing demand for reliable, affordable electric power, and would benefit from the reliability and capacity of the S-R Line and continued reliable operation of the B-K Line.

This section also discusses the values that led to creation of DEWA, MDSR and the APPA, and the substantial popularity of the NPS Units with recreationists and others. This discussion should be amended to explain that each NPS Unit was established by Congress with full understanding that the Applicants' transmission line and corridor were already in place. The discussion should also be amended to disclose that the rising and substantial visitation to and public enjoyment of the NPS Units has occurred notwithstanding the presence of the existing transmission line and corridor.[2]

The Applicants believe that the public's understanding of the decision currently before the NPS would be particularly enhanced if the DEIS were amended to describe more fully the circumstances surrounding authorization of DEWA. The Applicants recognize that public values and NPS priorities have evolved since DEWA was authorized by Congress as a NPS-administered recreation area in 1965. But the law that authorized DEWA is unchanged. The relationship between the NPS and the Applicants, as owners and managers of adjacent property interests, is largely a product of the law that created DEWA. That legacy is directly relevant to today's decision.

The Recreation Area was Authorized as a Component of a Multiple-Purpose Water Resource Project

When Congress authorized DEWA in 1965, it did so anticipating that the entire Middle Delaware area would be dominated by a new, large, multi-purpose federal dam and reservoir

[2] Some visitors are attracted by the corridor. As the New Jersey Department of Environmental Protection has pointed out in its comments on the DEIS, the Applicants' corridor provides valuable habitat for certain songbirds, and the corridor through the NPS Units has become a popular destination for bird watchers. Letter from Scott Brubaker, Director, Office of Permit Coordination and Environmental Review, Department of Environmental Protection, State of New Jersey, to Mr. John J. Donahue, Superintendant, Delaware Water Gap National Recreation Area at 6-8 (January 24, 2012).

project, Tocks Island Dam and Reservoir. Tocks Island had been authorized by Congress in 1962 as a principal feature of a comprehensive plan for development of the Delaware River basin.[3] The plan approved by Congress, hereafter referred to as the *Chief's Report*, contemplated eventual construction of 58 reservoirs, including 19 major control structures, to meet then-projected demands for municipal and industrial water, recreation, flood control, hydroelectric power and related purposes.

Less than three years after approving the comprehensive plan for the Delaware, Congress added to the authority for the Tocks Island Dam and Reservoir project by giving the NPS authority to manage the reservoir and adjacent lands as a "national recreation area." The recreation area was to be an integral part of the water project development. Congress authorized the new recreation area to:

> further the purposes of the joint resolution approved September 27, 1961 (re Delaware River Basin compact; 75 Stat. 688), and to provide in a manner coordinated with the other purposes of the Tocks Island Reservoir project for public outdoor recreation use and enjoyment of the proposed Tocks Island Reservoir and lands adjacent thereto by the people of the United States and for preservation of the scenic, scientific and historic features contributing to public enjoyment of such lands and waters ....[4]

Congressional authorization for the Interior Department's mission at DEWA anticipated future use of the area for a substantial additional amount of human-made infrastructure serving the project's multiple purposes, including conventional and pumped storage hydropower, flood control, and recreation. Congress authorized the Secretary of the Interior to use the broadest possible scope of authority at DEWA, and did not limit the Secretary's discretion to the authority of the NPS Organic Act:

> In the administration of the area for the purposes of this Act, the Secretary of the Interior may utilize such statutory authorities relating to areas of the national park system and such statutory authorities otherwise available to him for the conservation, management, or disposal of vegetative, mineral, or fish or wildlife resources as he deems appropriate to carry out the purposes of this Act.[5]

Congress did not unilaterally impose an expansive vision of multiple use management at DEWA on the NPS -- the NPS invited it. As described in *Damming the Delaware: The Rise and*

[3] House Document No. 522, 87th Cong., 2nd Sess, Letter from the Secretary of the Army to the Committee on Public Works transmitting the Chief of Engineers Report on the Comprehensive Development of the Delaware River Basin (August 16, 1962) (hereafter "*Chief's Report*").

[4] Delaware Water Gap National Recreation Area, Pub. L. No. 89-158, § 1, 79 Stat. 612.

[5] Pub. L. No. 89-158, § 4.

Fall of Tocks Island Dam, a leading history of events surrounding federal planning for development of the Delaware:

> Recreation, more than any other feature of the Tocks Island Project, was used to sell the [Tocks Island Dam] project to the public .... The National Park Service was responsible for the recreation section of the [1962] *Delaware River Basin Report* .... Most of its parks are unique natural areas located in the less populated West. In the East, the National Park Service had been largely limited to servicing nationally important historical areas, such as Independence Hall in Philadelphia. The lack of park-service involvement in the East was the result of land passing into private ownership long before anybody had conceived of recreation as a governmental responsibility. Tocks Island Dam thus presented an opportunity for the park service to develop a major recreational facility in the heart of the populous eastern states .... The National Park Service concluded that ... Tocks Island Reservoir could become "the most significant non-urban recreation area in the Eastern United States.[6] With nine major beach areas, thirty-one camping areas, boat rentals, miles of hiking an bicycle trails, horseback riding, picnicking, hunting, fishing, sailing, motorboating, canoeing, rock climbing, winter sports, nature centers, playgrounds, ball fields, historical sites, interpretive facilities (including Tocks Island Dam itself) and all the rest, the DWGNRA promised to have something for everyone. [DEWA] was being designed to handle up to 150,000 visitors per day, or 10.5 million per year. The national recreation area around Tocks Island Reservoir would be the busiest park in the National Park System, the largest east of the Rocky Mountains, the first east of the Mississippi River, and the first to be developed around a Corps of Engineers' dam project."[7]

The first management plan offered by the NPS after establishment of DEWA illustrates the intensity of recreational development that was anticipated. The NPS's vision for DEWA included: "11,000 picnic tables, 6,500 camping sites, 135 boat ramps, 1,860 boat docks, 33,000 parking spaces, 15 food-service areas, and beaches for 66,000 bathers."[8] DEWA was not established as a wilderness or ecological preserve, but as part of the major multi-purpose development plan for the middle Delaware River area envisioned in the *Chief's Report*.[9]

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[6] Richard C. Albert, *Damming the Delaware: The Rise and Fall of Tocks Island Dam* 81-82 (2nd ed. 1987) (citation omitted).

[7] *Id.* at 87.

[8] *Id.* at 86.

[9] The Comprehensive Plan submitted to Congress ("*Chief's Report*") includes a detailed description of the recreational opportunities tied to the plan's water development features. The recreation report, prepared by the NPS, says: "In view of the tremendous concentration of people in the Delaware River Basin, the greatest requirement for nonurban recreation purposes is usable land. This refers to acreage capable of absorbing large numbers of visitors on weekends and holidays and in areas of such size as to provide the nonurban setting desired. This means space for picnicking, beach space, parking areas, public service buildings, space for trails, scenic surroundings, and freedom from crowding. This "usable land' must of necessity be of such topographic character that it will be adaptable to

The Secretary of the Interior, testifying in 1962 in support of the Delaware basin development plan, observed that the uplands to be included in the recreation area around Tocks Island reservoir could also host new electric power development:

> Physical features in the vicinity of the Tocks Island site...are uniquely adaptable for development of pumped-storage hydroelectric facilities in additional to general of power at the mainstem dam itself. Analyses of incremental benefits and costs for such pumped-storage facilities are said to indicate that development will probably be feasible as either a Federal or non-Federal development.[10]

Congress and the Interior Department Anticipated that the Recreation Area Would Co-Exist with the Applicants' Transmission Line

Congress and the Interior Department knew that DEWA would have to be managed with all the new roads, utilities, conveniences and other infrastructure needed for mass recreation. Congress gave the Executive Branch unambiguous power to condemn all private property needed to fulfill the recreation and other purposes of the recreation area, including the Applicants' lands. Not only did the federal government never condemn the Applicants' lands, the agencies anticipated that the Applicants' transmission line would remain in place and co-exist with the recreation area and other project features and purposes. The Interior Department and the Corps of Engineers specifically planned for the line to remain in place once the recreation area was established, and Congress authorized NPS jurisdiction over the recreation area accordingly.

Congress was informed by the Corps of Engineers and Interior Department that the Applicants' transmission line and corridor would remain in place and continue to be in utility service after the recreation area was established and developed for public use. The following images are taken from the *Chief's Report*, on which Congress authorized the Tocks Island Dam and Reservoir Project. As noted above, the NPS authored the *Chief's Report* section on recreation, and the *Chief's Report* includes a strong, detailed statement of support by the Interior. The images, which are details drawn from Plate 12, page 394 of the *Chief's Report*, show distinctly the new recreation area, the new dam and reservoir, and the Applicants' transmission line:

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mass use." *Chief's Report*, Vol. IV, Appendix I, Page 111. According to the NPS, the Tocks Island area perfectly fits the bill. The NPS states: "The proposed project will be suitable for a wide variety of nonurban recreation activities providing sufficient land is acquired and made available for public use. The 11,100 acres of recreation water will certainly attract tremendous boating activity, and associated with boating will be fishing, water skiing and related water sports. Picnicking, camping, and swimming will unquestionably be popular activities also. The scenic qualities of the area will attract numerous visitors, and the development of scenic drives, parking overlooks, and interpretive trails will provide a broader base for this important aspect of recreation use. A demand for organized group camping should be anticipated and provided for in the plan of development. On lands not suited for mass public use, rental vacation cottages could be developed." *Chief's Report*, Vol. IV, Appendix I, Page 130.

[10] *Chief's Report*, Letter from Stewart L. Udall, Secretary of the Interior, to Lt. Gen. W. K. Wilson, Jr. Chief of Engineers, Department of the Army (March 26, 1962).

January 30, 2012
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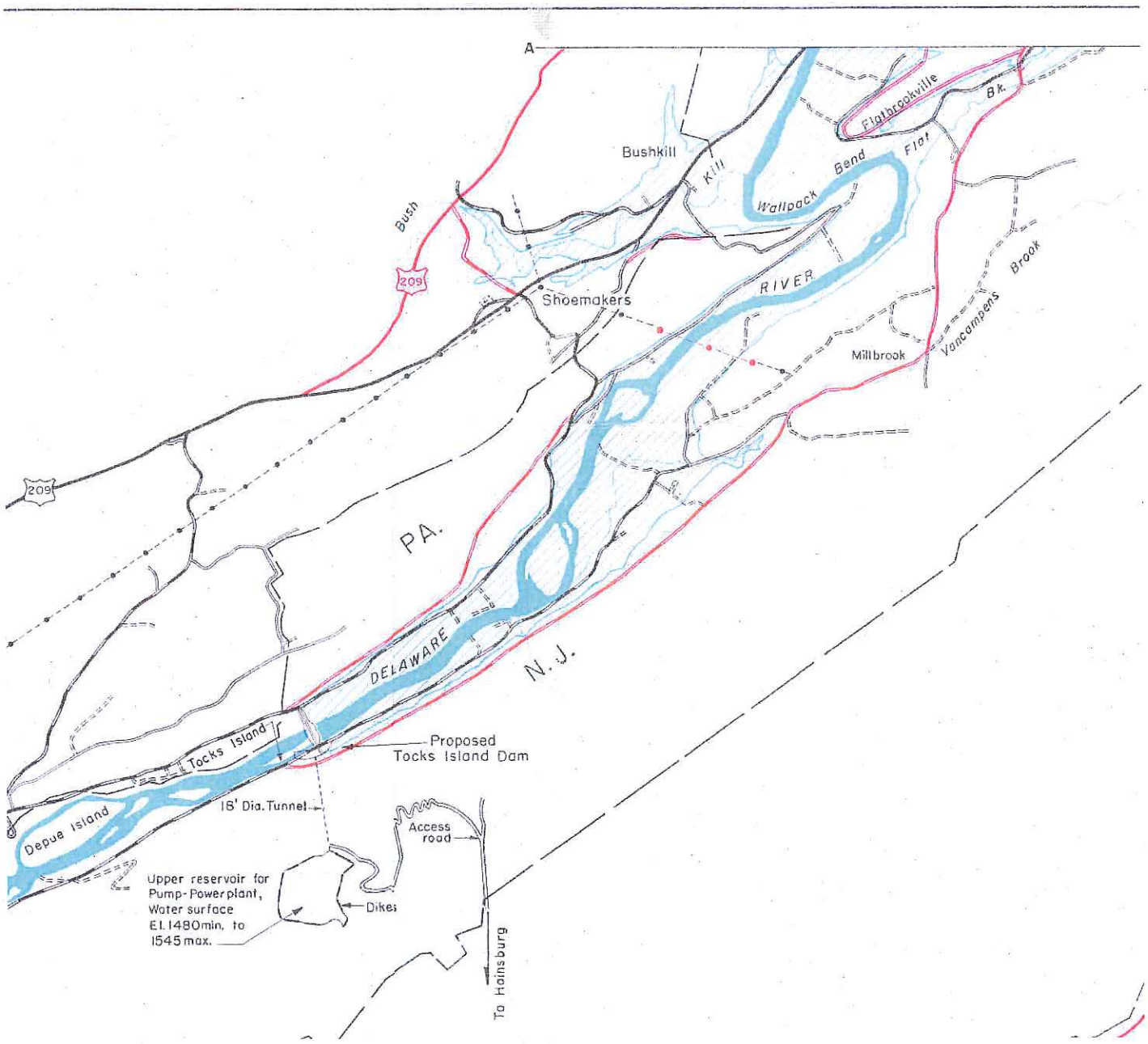

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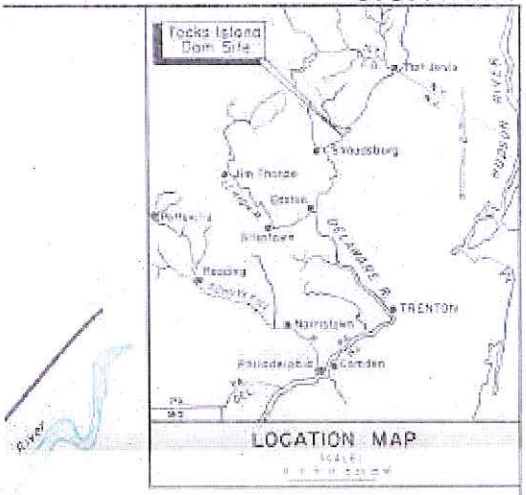

LEGEND

- Multiple-Purpose Pool El. 428
- Existing Stream
- Dirt Road
- Graded Road
- Hard Surface, Heavy Duty Road
- Secondary Hard Surface Road
- Existing Railroad
- Existing Power Line
- Proposed Relocated Graded Road
- Proposed Relocated Hard Surface Heavy Duty Road
- Proposed Relocated Secondary Hard Surface Road
- Proposed Rebuilt Power Line
- Land Acquisition for Recreation Development

REVIEW REPORT DELAWARE RIVER BASIN

TOCKS ISLAND RESERVOIR

In 1 Sheet — Scale as Shown

Corps of Engineers
Philadelphia, Pa.

Philadelphia District
June 1960

Drawer No. 228 — File No. 29099

PLATE 12

The images above, conveyed in a report co-authored and endorsed by the Interior Department, were relied upon by Congress in authorizing the Tocks Island Dam and Reservoir project. The Applicants' transmission line is shown crossing the Delaware River in the same place it does today, represented by a line comprised of a repeating series of dashes and dots. "Land Acquisition for Recreation Area" is shown with a line comprised of long, black dashes. The area that was planned for the recreation area is essentially the same area now known as DEWA.

The Applicants' transmission line is shown co-existing with the federal project, within the upland and flooded areas of the proposed recreation area. The segment of the Applicants' line that crosses the proposed reservoir pool is shown in red ink. The segments to the east and west outside the reservoir pool are shown in black. Per the image's legend, the black ink is for "Existing Power Line" and the red is for "Proposed Rebuilt Power Line."

The Corps of Engineers, in furtherance of both its plan for the new dam, and the Interior Department, in furtherance of its vision for the recreation area, illustrated for Congress their joint plan that the Applicants' line would remain in the same corridor. The term "rebuilt" is not defined in the *Chief's Report*, but the drawing and legend shown in the image specifically distinguish between "rebuilt" infrastructure and "relocated" infrastructure. The inference is clear: the term "rebuilt," as used in the *Chief's Report* drawing, meant that towers and conductors would be elevated above the new reservoir so they could continue to operate.[11] The term "rebuilt" could not have meant "relocated" or "removed," because the line is shown staying in the same place, crossing the river and the recreation area, as it does today. The existing line is also shown crossing the bay of the future reservoir in the Bushkill area. The planners anticipated that line, shown in black ink, would not need to be rebuilt to cross that portion of the new reservoir.[12]

The Corps of Engineers *Chief's Report* informed Congress that Tocks Island Dam and Reservoir would:

> necessitate the relocation of 27 miles of Federal Highway 209 as well as county roads, local roads, the community of Bushkill, Pennsylvania,

[11] Tocks Island Reservoir, with a planned maximum elevation of 428 feet above sea level, would have inundated the conductors crossing the Delaware River and the tower that stands immediately east of the Delaware River in New Jersey. The lowest part of the conductor span crossing the river is approximately 406 feet above sea level, and the bottom of the first tower in New Jersey is at 348.5 feet above sea level.

[12] Testifying before the Senate Subcommittee on Parks and Recreation in 1965, the NPS regional director explained that the area around Bushkill Creek, to be called the "Poxono Area" once flooded, "is expected to become the principal recreation site on the Pennsylvania side, with important boating developments around the Bushkill Bay, extensive beach and picnic developments and attractive wooded sites for family camping, nature study, and scenic enjoyment. The Poxono Area alone will accommodate over one million visitors a year." *Tocks Island National Recreation Area, Hearing on S. 36, H.R. 89 Before the Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs of the United States Senate* 41-42 (1965).

> parts of Dingmans Ferry, Pennsylvania, and a few buildings at Milford Pennsylvania .... The bridge on U.S. Route 6 to Tri-State New York, would be replaced. No railroad relocations will be required and there are no commercially valuable mineral deposits in the reservoir areas. A total of 62,370 acres of land will be acquired for the complete development. In addition to the 14,800 acres required for construction of the project, 9,500 acres would be required for directly related recreation and 38,070 acres for indirectly related recreation.[13]

There was never any suggestion by the Interior Department or the Corps of Engineers that the Applicants' line would be moved or would not continue to operate in the same place it does today. Coexistence of the Applicants' line with the recreation area has been part of the plan approved by Congress since day one.

Key members of Congress not only were presented with the *Chief's Report* and its images of the Applicants' line, but they saw for themselves the areas shown in the *Chief's Report*, including in all probability the transmission corridor and line. The House and Senate Committees with authority over the Interior Department conducted an extensive process of hearings during 1964 and 1965 on the proposal to establish NPS jurisdiction over a national recreation area surrounding the reservoir to be created by Tocks Island Dam.[14] The chairman and members of the House Committee on Interior and Insular Affairs visited the site of the

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[13] *Chief's Report*, Vol 1, pp 99-100. The *Chief's Report* also describes the electric utility infrastructure and operations in the area:

> The Tocks Island Project is located on the main stem of the Delaware River about 6-1/2 miles above the Delaware Water Gap. The project site lies in the service area of the General Public Utilities Integrated System consisting of four subsidiaries (two each in Pennsylvania and New Jersey) operating as a single system. In turn, GPU is a member for the well-known Pennsylvania-New Jersey-Maryland Interconnection. This large power pool is comprised of the following eight utilities: Public Service Electric and Gas Company ... Pennsylvania Power and Light Company ....

Chief's Report Vol. III, page F-9-10. The *Chief's Report* notes that construction of the Tocks Island Dam's hydropower facilities would require new transmission lines: "The firm and non-firm output of Tocks Island would require a double circuit, wood-pole 115-kv line about 25 miles in length ...." *Chief's Report*, Vol. III, F-37.

[14] *Tocks Island National Recreation Area: Hearing on S. 606 Before the Subcommittee on Public Lands of the Committee on Interior and Insular Affairs of the United States Senate,*, 88th Cong. (1964) ("1964 Senate Committee Hearing"); *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the Subcommittee on National Parks and Outdoor Recreation of the Committee on Interior and Insular Affairs of the House of Representatives*, 88th Cong. (1964) ("1964 House Committee Hearing"); *Tocks Island National Recreation Area, Hearing on S. 36, H.R. 89 Before the Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs of the United States Senate* (1965) ("1965 Senate Committee Hearing"); *Tocks Island National Recreation Area, Hearing before the Subcommittee on National Parks and Recreation of the Committee on Interior and Insular Affairs of the House of Representatives on H.R. 89 and Related Bills*, 89th Cong. 125 (1965) ("1965 House Committee Hearing").

proposed recreation area.[15] The chairman and several members of the Senate Subcommittee on Parks conducted an aerial tour of the area in a helicopter.[16] Congressman Morris K. Udall performed his own inspection in a "light" aircraft.[17] Interior Department and NPS officials, and members of the area's House and Senate delegations served as guides during the overflights and ground tours.[18]

The following images show what the Senators and Congressmen (and agency officials) would have seen from the air. These aerial photos from the late 1950's and mid-1960's show the Applicants' corridor where it crosses the Delaware River. These photos show, from high elevation, what legislators and others would have seen close-up at the time when Congress was deciding how the federal government should manage the lands now part of DEWA:

[15] *Hearing before the Subcommittee on National Parks and Recreation of the Committee on Interior and Insular Affairs of the House of Representatives on H.R. 89 and Related Bills*, 89th Cong. (1965).

[16] *Tocks Island National Recreation Area: Hearing on S. 36 and H.R. 89 Before the S. Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs*, 89th Cong. 6 (1965) ("The Chairman and one or two members of the Subcommittee flew over the region not too long ago in a helicopter with me and I think you know full well what the area is like without my telling you…." Statement of Sen. Joseph Clark).

[17] *Hearing before the Subcommittee on National Parks and Recreation of the Committee on Interior and Insular Affairs of the House of Representatives on H.R. 89 and Related Bills*, 89th Cong. 21 (1965) ("I had the pleasure of visiting Stroudsburg last summer, and flew over this area early one morning in a light plane; I was quire impressed with the potential it has. I think this will be one of the finest additions to our recreation resources that the Congress has ever approved and I would hope that we could pass this legislation before the air conditioners get too much of a workout here this summer." Statement of Rep. Udall)

[18] *Tocks Island National Recreation Area: Hearing on S. 36 and H.R. 89 Before the S. Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs*, 89th Cong. 35 (1965).

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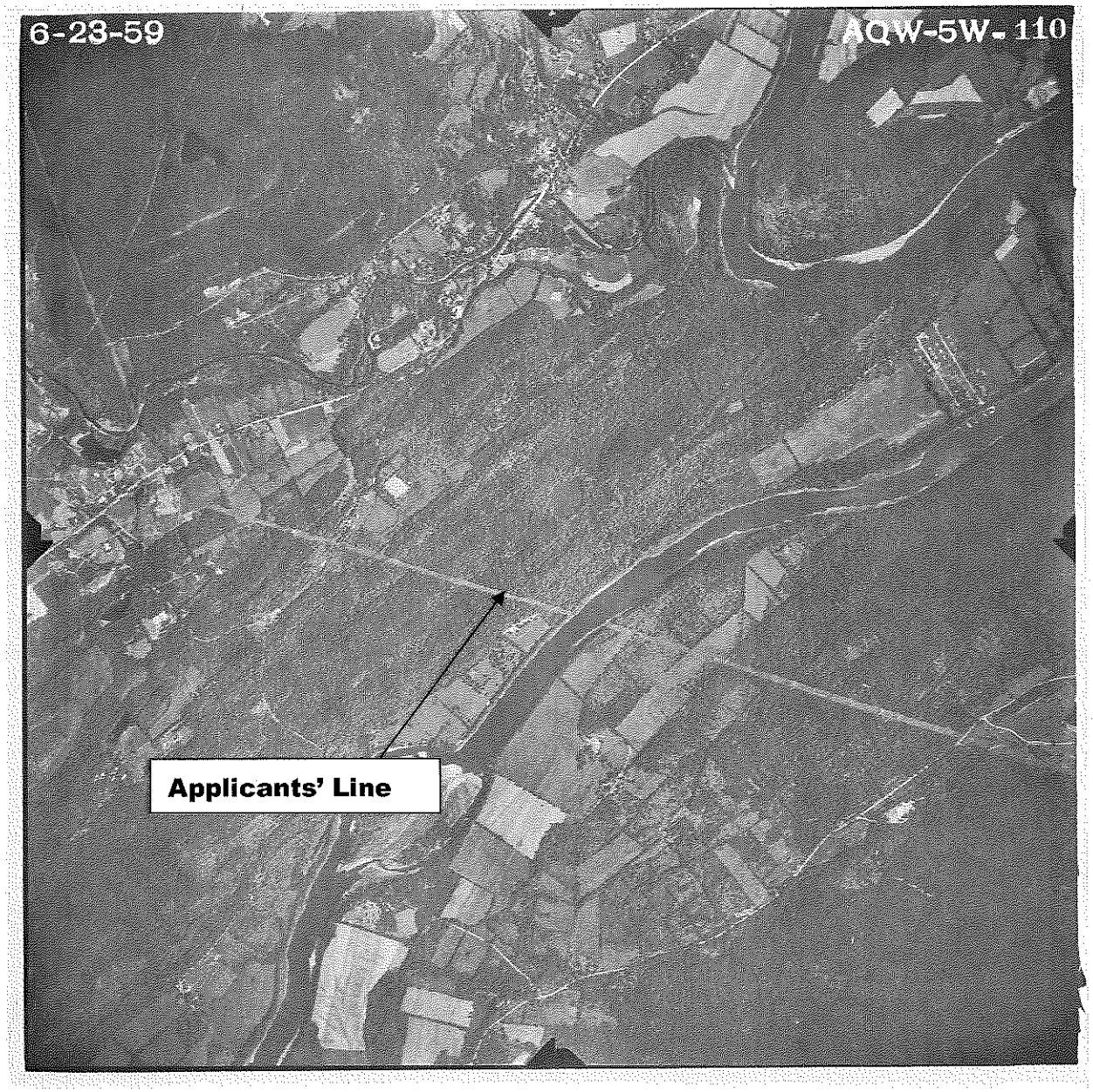

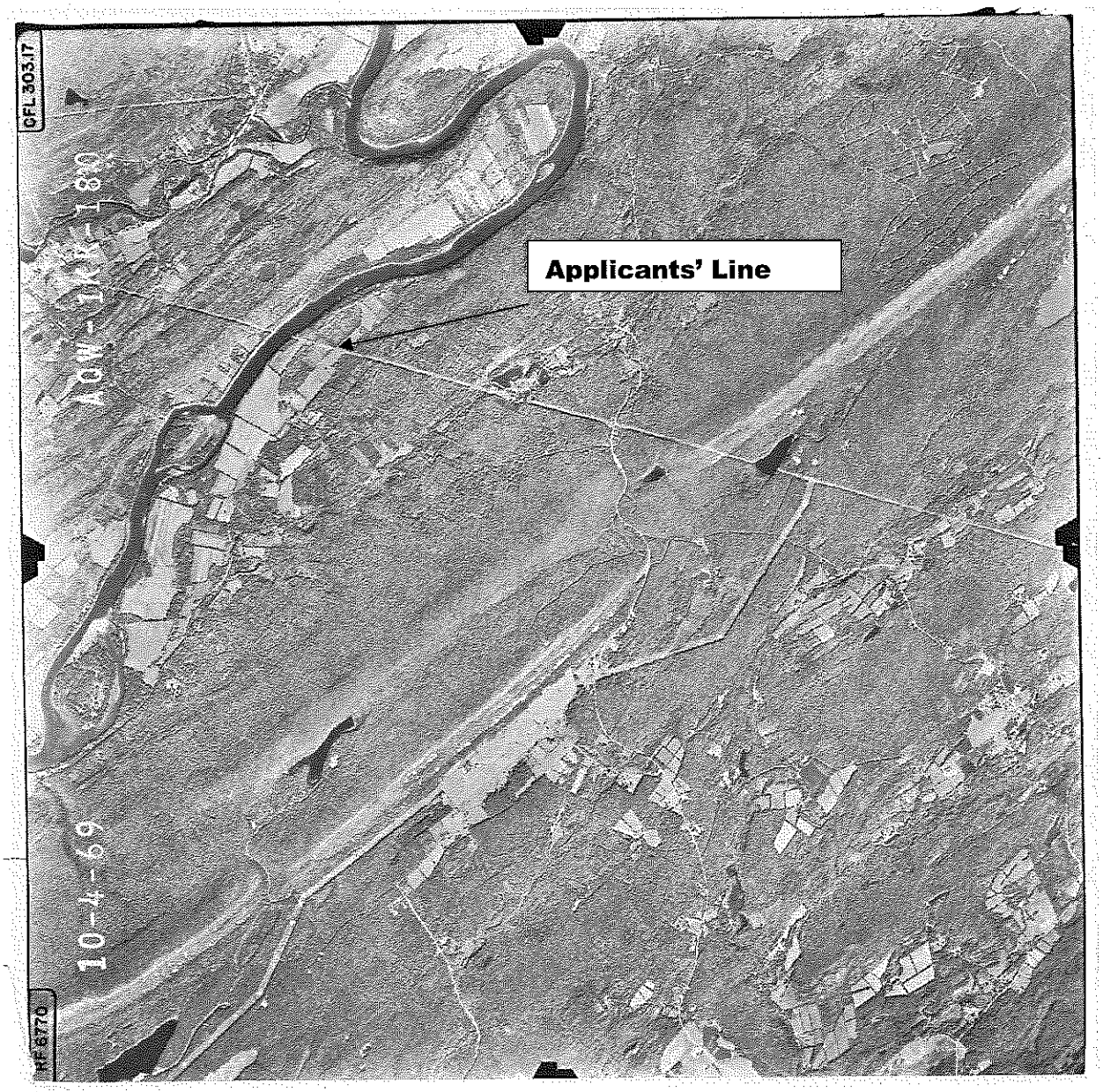

Congress and the relevant agencies knew that the new recreation area would include uses such as the Applicants' transmission line, and they explored how the NPS would approach management of the area, with its multiple uses. Congress and the Interior Department specifically discussed how the NPS would manage an area that was intended to be different from a traditional national park.

Testifying before the Subcommittee on National Parks and Outdoor Recreation of the House of Representative's Committee on Interior and Insular Affairs in support of the legislation to give the NPS authority to manage the area around Tocks Island Dam and Reservoir as "national recreation area," Secretary of the Interior Stewart Udall was questioned by Committee Chairman Wayne Aspinall about the land and resource management authorities that would be granted to the Department under the proposed legislation:

> Mr. Aspinall. Mr. Secretary, this is not to be part of the National Park system, is it? Let us get this in its proper category.
>
> Secretary Udall. My concept of what we have been doing, Mr. Chairman is this: I don't think it would be accurate to say this is a National Park in the sense we have 32 National Parks, nor is it a national monument. This is a national recreation area, a national seashore. These are two relatively new categories that this Committee has developed, and we have developed working together, and this will be administered by the National Park Service. It will be part of the National Park system in the broad sense of the term but it is not a national park in the sense that we have, as I say, 32 national parks.
>
> Mr. Aspinall. And you will not administer it as a national park?
>
> Secretary Udall. That is further clarification I should make. The National Parks themselves, the true national parks, are administered according to a very high set of standards. We have a different set of standards for National Seashores and National Recreation Areas.
>
> Mr. Aspinall. This is the first of these particular areas of this class which have come to us with the exception of the Whiskytown National Recreation Area; is that right?
>
> Secretary Udall. And the Lake Mead proposal would be somewhat similar.
>
> Mr. Aspinall. Yes, which is an outgrowth of the old Hoover Dam project. That is a similar proposal.
>
> Secretary Udall. That is right.
>
> Mr. Aspinall. That proposal was already established. At the time it was established there was no idea of a National Recreation Area as such.
>
> I think everyone who is interested in this should know that this particular legislation, together with Whiskytown, has an extra load to carry because we are attempting to set up a recreational area as such which will not be as sacrosanct in many respects as a national park area. …

> Mr. Udall. That is right, sir.[19]

The NPS repeatedly testified to Congress that the recreation area would be intensively developed for as many as 10 million visitors a year, with new facilities able to host more than 123,000 visitors a day. It was not to be an ecological preserve, but a component of a multi-purpose water resource project, integrated with the project itself and the surrounding communities and developments.

The NPS offered an expansive, permissive vision of future development in the recreation area. For example, in April 1965, Ronald F. Lee, the park service's Regional Director, assured Congress that the new area would be managed in a way that accommodated a range of uses:

> During the preparation of this master plan, careful and systematic exchange of information would be maintained with all appropriate public officials and with the planning boards and surrounding political subdivisions, counties and States so that insofar as possible, mutually satisfactory decision can be reached on such questions as precise boundary locations, access roads, and utilities. It would be the objective of the National Park Service to integrate the planning for the national recreation area into the planning for the surrounding region so as to minimize the creation of problems and to realize fully the potential benefits of this magnificent project for the region and for the Nation as a whole.[20]

During the same hearing, the NPS and Corps of Engineers carefully enumerated the specific types and number of private parcels and ownerships that would need to be acquired by the federal government to fulfill the purposes of the new area. At no point did any witness suggest that any utility facilities or easements would need to be acquired, although 4000 tracts, including "50 farms, 60 commercial establishments, 35 summer camps and 900 single-family dwellings" in the area to be flooded and "in the uplands" would need to be taken, [21] including one florist, two gun stores, a concrete block plant, and four auto repair garages.[22]

The NPS was probed during a hearing before the Senate Subcommittee on Public Lands for information about its land acquisition activities, specifically certain senators' concerns about the potential for unnecessary "takings" of private property, including golf courses, homes,

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[19] *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor Recreation of the Committee on Interior and Insular Affairs*, 88th Cong. 25-27 (1964) (statement of Sec. of the Interior Stuart L. Udall).

[20] *Hearing before the Subcommittee on National Parks and Recreation of the Committee on Interior and Insular Affairs of the House of Representatives on H.R. 89 and Related Bills*, 89th Cong. 125 (1965) (statement of Ronald F. Lee, Regional Director, National Park Service).

[21] *Id.* at 6, 20 .

[22] Id. at 76.

churches and other human-made structures and ownerships. The NPS witness, again Regional Director Ronald F. Lee, said "the authority here is general enough that we are still in the acquisition of the land including, and I refer particularly to subsection C, of Section 3, there is authority under which you could leave or allow property to continue if the existing use was consistent with the purposes of this act."[23]

There was no confusion in the conservation and progressive community of the era.[24] The new recreation area was to be something different for the area and the NPS. These statements submitted to House Committee on Interior and Insular Affairs in support of the Tocks Island Dam National Recreation Area legislation are typical:

- "The Appalachian Mountain Club has, during its entire history, been interested in preservation of the wilderness areas and in the preservation and maintenance of hiking trails as well as camping areas. We believe that the development of a Tocks Island National Recreation Area under National Park Services [stet] would assure a well-maintained mass recreation area providing swimming and boating, fishing, camping, hiking and other recreational facilities."[25]

- "Urge affirmative and quick action on bills authorizing creation of Tocks Island National Recreation Area need of space for outdoor activities critical in this area rapidly being used for real estate developments. Request this be included as part of hearings on bills."[26]

- "We respectfully urge your Committee to do their utmost for passage of legislation that will create a Tocks Island Area compatible with the scenic values of the region while satisfying the needs for recreation, flood control and power."[27]

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[23] *Tocks Island National Recreation Area: Hearing on S. 606 Before the S. Subcommittee on Public Lands of the Committee on Interior and Insular Affairs*, 88th Cong. 66 (1964) (statement of Ronald F. Lee, Regional Director, National Park Service).

[24] "[E]nvironmental groups seemed favorably disposed toward the (Tocks Island) project because they saw it as an alternative to the growing commercial development of the area. The dam and associated recreation area were perceived as a way to prevent the kind of unpleasant sprawl and destruction that have taken place in the nearby Pocono Mountains area." Irene Travis-Thomson, "The Tocks Island Dam Controversy," in When Values Conflict, Essays on Environmental Analysis, Discourse and Decision, edited by Laurence H. Tribe, Corinne S. Schelling and John Voss (1976), p. 40

[25] *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor Recreation of the Committee on Interior and Insular Affairs*, 88th Cong. 320 (1964) (Letter from Richard V. Zug, Chairman, Conservation Committee, Delaware Valley Chapter, Appalachian Mountain Club). [Note that this letter, and the other letters from this hearing report, are attachments to the report; therefore, the page numbers cited herein reflect the page on which the letter is found in the PDF version of the report and not the original report's pagination.]

[26] *Id.* at 314 (Telegram from Harry F. Nees, Conservation Chairman, Atlantic Chapter Sierra Club).

- "Creation of a greatly needed national recreation area in the east can surely be considered a counterpart to a great national park of the west. Though different in character, each fulfills certain national needs and makes maximum use of the respective land, water and other resources involved."[28]

- "The Tocks Island proposal would join the objectives of a major flood control project and a major national recreation area in a coordinated effort to achieve maximum compatibility."[29]

Congress's decision to grant the NPS authority to manage the new recreation area can be most fully understood in reference to the policy environment in which Congress acted. The record presented by the House and Senate hearings reveals at least three major threads of policy and politics weaving together to support creation of the new recreation area. The Kennedy and Johnson Administrations, educators, urban leaders, and civic welfare organization envisioned the area as a naturalistic playground for urban families, and particularly the underprivileged children of the East's major cities, to get away from their usual circumstances to enjoy water-based recreation and wholesome outdoor play.[30] Some witnesses emphasized their hope that the area would serve as a then-rare racially unsegregated vacation area.[31]

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[27] *Id.* at 344 (Letter from Jacques C. Boutinon Chairman, Conservation Committee, N.Y. Chapter of the Adirondack Mountain Club).

[28] *Id.* at 360 (Letter from Walter M. Phillips, Chairman, Americans for Democratic Action, Southeastern Pennsylvania Chapter).

[29] *Id.* at 401 (Letter from J. W. Penfold, Conservation Director, Izaak Walton League of America).

[30] "[The] President's program for a Great Society can well be served by establishing this fine recreational area for the crowded East. Many children and youth, who are our chief concern, and who belong to the poverty groups in need of a fuller life will benefit from this great national park." *Hearing on H.R. 89 and Related Bills Before the Subcommittee on National Parks and Recreation for the Committee on Interior and Insular Affairs of the House of Representatives*, 89th Cong. 104-105 (1965) (statement of Mrs. Arthur L. Davis, President, New Jersey Congress of Parents & Teachers).

[31] Mr. H.J. Caldwell of the Human Relations Council of West Essex, New Jersey wrote to the House Committee on June 3, 1964 to communicate his organization's:

> vigorous support of the proposed Tocks Island National Recreation Area .... This area ... would be of enormous value as a place of outdoor recreation for the most heavily populated section of the entire country .... If the government does not take over the area surrounding the reservoir, we can see, as the dismal and inevitable alternative, a commercial mess of hot dog stands, honky tonks, dubious taverns and cheap motels. Because of its special interest in the welfare of the American Negro, the Human Relations Council should particularly like to see this project go through. Here would be provided fishing, swimming, picnicking and cabins for weekending, all at most reasonable rates and all without any danger whatever of segregation or discrimination. It is perhaps not generally realized what a problem our Negroes have for their summer outings.

To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor Recreation, 88th Cong. 316 (1964).

These and other witnesses also spoke to their concern that, if the reservoir were to be created without federal ownership of the surrounding lands, the relatively rural area would be overtaken with tourism-related developments such as motels, bars and stores. The federal recreation area was seen as a tool to forestall the types of commercial strip developments then common along the New Jersey shore and elsewhere in the East.

Above all, the proposal to bring the federal government in as a land manager was seen as a major step to implement the recommendations of President Kennedy's Outdoor Recreation Resources Review Commission ("ORRRC"). The Commission was Chaired by Laurance Rockefeller, and overseen by a blue-ribbon board and advisory council of members of Congress (including Tocks Island recreation area advocate Rep. John Saylor, and the Chairman of the House Subcommittee on Parks, Rep. Ralph Rivers), cabinet secretaries, recreation and conservation leaders, business people, planners, and others, including Secretary of the Interior Stewart L. Udall and Horace M. Albright, one of the co-founders and second director of the NPS.

The Commission's 1962 report, *Outdoor Recreation for America*,[32] a landmark in the history of the Nation's public lands policy, documented a massive unmet need for recreational opportunities to serve an expanding post-World War II America.[33] The Commission called on Congress and the White House to commit to dramatic expansion of recreation resources across the country, especially near metropolitan areas (noting that "[m]uch of the West and virtually all of Alaska are of little use to most Americans looking for a place in the sun for their families on a weekend....")[34], and especially water-based recreation ("[m]ost people seeking outdoor recreation want water, to sit by, to swim and fish in, to ski across, to dive under, and to run their boats over.")[35]

The Commission urged Congress to protect certain rivers in their free-flowing state,[36] enact legislation to preserve "certain primitive areas as 'wilderness areas'"[37] but the overwhelming majority of its recommendations emphasized the need for federal leadership to

[32] Outdoor Recreation Resources Review Commission, *Outdoor Recreation for America: A Report to the President and to the Congress by the Outdoor Recreation Resources Review Commission* (1962) ("*ORRRC Report*").

[33] "Decade by decade, the expanding population has achieved more leisure time, more money to spend, and better travel facilities; and it has sought more and better opportunities to enjoy the outdoors. But the public has also demanded more of other things. In the years following World War II, this process greatly accelerated as an eager Nation, released from wartime restrictions, needed millions of new acres for subdivisions, industrial sites, highways, schools and airports. The resources for outdoor recreation--shoreline, green acres, open space, and unpolluted waters--diminished in the face of demands for more of everything else." *ORRRC Report* at 1.

[34] *Id.* at 3-4.

[35] *Id.* at 4, 173.

[36] *Id.* at 8.

[37] *Id.*

acquire open lands, especially land with swimmable water bodies, for outdoor play and relaxation by large numbers of vacationing urban dwellers.[38]

[38] The Commission proposed a multi-tiered classification system for recreation lands. The most intensively developed areas, such as the Atlantic City beaches, would comprise Class I areas; undeveloped wilderness areas would be designated Class V. Areas like the Tocks Island reservoir would fit in the Commission's Class II -- General Outdoor Recreation Areas.

> "Class II areas provide a wider range of opportunities than Class I sites and usually involve more extensive, less crowded use. Their special feature is the ability through development of facilities to sustain a large and varied amount of activity, such as camping, picnicking, fishing, water sports, nature walks, and outdoor games. ... Included are portions of public parks and forests, public and commercial camping sites, picnic grounds, trailer parks, ski areas, resorts, streams, lakes, coastal areas, and hunting preserves. ... Class II areas encompass a wide variety of physical resources that have been or can be developed and managed to provide a diversity of recreation experiences. One of their distinctive characteristics is that they are always equipped with some man-made facilities, which may vary from the simple to the elaborate. ... At lakes, reservoirs, and seashores, there may be well-equipped marinas, which provide not only boats but gear for fishing, skindiving, and water skiing. Summer homes may be shacks or palaces. Hunting preserves may provide lodges for their members and guests. Dude ranches and luxury hotels may provide more than the comforts of home. The wide variety of activities and facilities characteristic of general outdoor recreation areas (Class II) requires that management objectives be stated in very broad terms. Many factors, particularly the nature of the resources and the prospective demand, must be taken into consideration in determining for what purposes these areas will be used and how intensively they will be developed. ... Class II areas can frequently be established on portions of municipal water supply lakes and reservoirs; Federal, State and industrial reservoir areas; and many streams and lakes. In most cases, their recreation potential has not been fully realized. ... Outdoor recreation planning should be included in preliminary highway design and location, water resource developments, general urban expansion, and other land and water uses." *ORRRC Report* at 105

The Commission had areas like Tocks Island reservoir in mind when it recommended that "General outdoor recreation areas (Class II) should be carefully planned for and developed at Federal reservoirs. Too often Federal reservoir shorelines are characterized by aimless, unplanned developments, which result in cluttered and unattractive conditions ...." *ORRRC Report* at 130. Class III areas would include forest areas used for logging and other resource extraction activity, but which could incorporate recreation focused on enjoyment of the natural environment. The Commission cited "portions of the Allagash country of northern Maine and cutover areas in the northern Lake States" as belonging in this category. *ORRRC Report* at 107. Class IV would consist of "individual areas of remarkable natural wonder, high scenic splendor, or scientific important. More than one such area may be included in a single large administrative unit, such as a national park or forest. ... They range from large areas within Yosemite Valley and the Grand Canyon to smaller sites such as Old Faithful ...." *ORRRC Report* at 109.

The ORRRC offered specific advice and encouragement regarding the inherent compatibility of electric transmission infrastructure and public recreation lands, and the desirability of co-location: "Rights-of-way for high-tension transmission lines … are too often considered a necessary 'eyesore,' and the swath they cut through an area is frequently a non-man's land littered with refuse. They can be put to work. Given public action, at a very small cost, the land could be used for recreation …."[39]

The *ORRRC Report* discussed extensively the importance of recreation development at new federal reservoirs.[40] The ORRRC endorsed the Delaware River Basin compact and Commission as "[p]erhaps the most outstanding case of interstate action with respect to resource development and outdoor recreation. ... Here four States, Delaware, New Jersey, New York, and Pennsylvania, and the Federal Government are partners in the river basin planning project, which will include recreation among its major purposes."[41]

The Interior Department's Recreation Advisory Council responded to the *ORRRC Report* by in March 1962 by issuing the *Federal Executive Branch Policy Governing the Selection, Establishment, and Administration of National Recreation Areas*.[42] The agency's policy document found that "Present Federal programs should be augmented by a system of National Recreation Areas made up of a limited number of areas where recreation demand is not being met through other programs." The Department's guidance states that:

> The system of National Recreation Areas should:
>
> 1. Provide for Federal investment in outdoor recreation that is more clearly responsive to recreation demand than other investments that are based primarily upon consideration of preserving unique natural or historical resources, the need to develop and conserve public ands and forests, or the requirements of major water resource development undertakings;
>
> 2. Be areas which have natural endowments that are well above the ordinary in quality and recreation appeal, being of lesser significance than the unique scenic and historic elements of the National Park System, but affording a quality of recreation experience which transcends that normally associated with areas provided by State and local governments;

[39] *ORRRC Report* at 149.

[40] *See, e.g. ORRRC Report* at 181: "Outdoor recreation should be considered as an important purpose of Federal multipurpose water resource developments, and thus guaranteed full consideration in the planning, design, construction, and operation of projects."

[41] *ORRRC Report* at 142.

[42] *Federal Executive Branch Policy Governing the Selection, Establishment, and Administration of National Recreation Areas, Circular No. 1,* March 26, 1963.

3. Be consistent with Federal programs relating to national parks, national forests, public lands, fish and wildlife, water resource development, grants for urban open space, recreation programs on private agricultural lands, and programs for financial assistance to States in providing recreation opportunity.[43]

Congress had approved the Tocks Island Dam project in 1962 with a substantial zone above the high-water line set aside for federal ownership and potential recreational use, all under the control of the Corps of Engineers. The *ORRRC Report*, released in the same year, called for creation of new, large federal recreation areas in exactly the type of circumstances presented by Tocks Island Dam and Reservoir -- rural land, surrounding a federal reservoir, near major metropolitan areas, and within an easy day's drive on the nation's new growing network of interstate highways. In the case of Tocks Island, two new interstates, I-84 and I-80, were then under construction and, when completed, would readily carry recreationists directly into the area.

Bills to authorize what is now DEWA were first introduced in 1963, then again the following year. They received extensive hearings in 1964 and 1965, at all points drawing strong support from the Kennedy and Johnston administrations, local members of Congress and others.[44] Testifying in support of the national recreation area legislation, Secretary Udall drew a

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[43] *Id.* 1.

[44] There were a few dissenting voices from local landowners opposed to the proposed new federal presence in the area. These statements from the 1964 House hearings are representative of the opposition to the proposed federal recreation area: "True existing recreational plans of property owners, homesteaders and sportsmen will be destroyed without replacement by masses of city visitors roaming the vast acreage which cannot be patrolled." *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor Recreation*, 88th Cong. 324 (1964) (Letter from Charles Koons, Sandyston Community Club Inc.) "In many cases, the man who has shown foresight, ambition and resourcefulness in choosing the country life is eventually penalized by removal to provide a part-time playground for his city friend who chose the city life. If more open space for recreation is essential, the first approach should be the possibility of asking the private property owners to provide same and operate the same type public attraction as is planned by the bills in question. Given a choice between private development or government condemnation, the prescribed areas would rally to the need. [T]he point is: How much land can the State and Federal Governments claim within the framework of a democratic form of government? [T]here is more at stake here today than government approval or disapproval providing additional lands for public recreation. There is the choice between calling a halt to the removal of vast areas of private lands from private ownership when recreation, public or private, could very well be provided by the present landowners....The other choice is to approve this program, thereby penalizing the Americans who for hundreds of years have shown the foresight to maintain the value and beauty, to preserve the scenic, scientific and historic features of the area in question." *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor*

specific, clear link to the *ORRRC Report* and his Department's policies to implement the report, explaining:

> For the reasons just stated, the proposed Tocks Island National Recreation Area measures up fully to the criteria for such areas set forth in Policy Circular No. 1 adopted by the Recreation Advisory Council on March 26, 1963. The area would help fulfill the need for outdoor recreation opportunities close to urban areas, a need emphasized in the report of the Outdoor Recreation Resources Review Commission. The Delaware Rive Basin Commission…takes the view that the recreation facilities associated with the multi-purpose Tocks Island Reservoir project could be administered most effectively by the Federal Government through the National Park Service.[45]

The legislation ultimately enacted by Congress in 1965 built on the *ORRRC Report* and the previous authority granted to the Corps to acquire all the project area lands by designating the area as a "national recreation area," placing the NPS in charge the recreation area, and authorizing funding to acquire, develop and administer the lands.

Over the following years, Congress appropriated funds to acquire the lands now comprising DEWA.[46] For budget, environmental and other reasons, Congress never appropriated funds to start construction of Tocks Island Dam. The dam was deauthorized in 1992. When Congress deauthorized the dam, the Corps of Engineers lost authority, but the Secretary of the Interior retained all the discretion granted by the 1965 law establishing the national recreation area.[47] The recreation area and the Applicants' power line had co-existed for

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Recreation, 88th Cong. 279-285 (1964) (Statement by Mrs. Nancy Shukaitis, East Stroudsburg, Pennsylvania).

[45] *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor Recreation of the Committee on Interior and Insular Affairs*, 88th Cong. 4-5 (1964) (statement of Sec. of the Interior Stuart L. Udall).

[46] See, Richard C. Albert, *Damming the Delaware: The Rise and Fall of Tocks Island Dam* 176 (2nd ed. 1987); Kathleen Duca-Sandberg, *The History and Demise of the Tocks Island Dam Project: Environmental war or the War in Vietnam* 5 (2011) (http://scholarship.shu.edu/dissertations/30) ("The Tocks Island Dam project's final demise has been viewed as a victory far environmentalists, but this project was actually doomed much earlier when President Johnson needed money to simultaneously fight the War in Vietnam and push through his Great Society legislation. As early as 1967, Erne Magazine criticized the dam's costs, but it was a lucrative pork barrel project and lingered. Cost increases and budget cuts due to the war delayed the project which got tangled in later environmental legislation. My thesis demonstrates that a lack of funding in the late 1960s handed the growing environmental movement a later victory in the 1970s.").

[47] "Park records show 10,000 properties, many belonging to generations of families as far back as the colonial period, were bought or condemned. More than 3,000 homes occupied by 8,000 people were razed, 25 summer camps, 125 farms and more than 100 businesses, seven churches and three schools were all demolished or abandoned.' Since then, many historic landmarks on both the New Jersey and Pennsylvania sides of the river that managed to survive have languished under the care of the NPS because of a lack of funding for maintenance and restoration. In 2003 the Park Service encouraged former residents, who were displaced when the park was created,

more than a quarter century by the time Congress deauthorized the dam. They have co-existed now for almost a half-century, each operating to meet important public needs. Visitation to the recreation area has flourished. The Secretary has used the authority granted by Congress to accommodate a mixture of uses in the area, and to co-exist with the state, local and private interests that Congress expected to remain after arrival of federal land managers.

The general philosophy guiding park and other public land management decisions has evolved with the times. But the law that established the recreation area still sets the rules for NPS management. The law is a product of decisions made by Congress in 1965. Congress gave the NPS responsibility for management of a landscape that was characterized by the Interior Department as having "natural endowments that are well above the ordinary in quality and recreation appeal, being of lesser significance than the unique scenic and historic elements of the National Park System, but affording a quality of recreation experience which transcends that normally associated with areas provided by State and local governments."[48] Congress was assured that management of the area would be appropriate for the area: "The National Parks themselves, the true national parks, are administered according to a very high set of standards. We have a different set of standards for National Seashores and National Recreation Areas."[49]

Some of the statements made at the time seem anachronistic today, but the law is not an anachronism and the meaning given to it by Congress cannot be read out of it, nor can meanings not intended by Congress be read into it. The question presented by the Applicants' request for NPS approvals related to rebuilding the existing B-K line, and constructing the S-R line in the existing corridor is not simply whether the requested approvals would authorize actions that may have impacts on NPS resources. The question is whether Congress gave the Secretary lawful authority to decide that the recreation area can fulfill the purposes authorized by Congress notwithstanding the potential impacts of the Applicants' existing and proposed project. The answer is unequivocally "Yes".

Congress knew that the area would include with a complex set of then-existing and anticipated future developmental uses, including the Applicants' transmission line. And Congress gave the NPS very broad discretion to manage the area for those diverse uses:

> [T]he Secretary of the Interior may utilize such statutory authorities relating to areas of the national park system and such statutory authorities otherwise available to him for the conservation, management,

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to come back to live and refurbish their own homes and pay rent." Duca-Sandbert, *The History and Demise of Tocks Island Dam Project* at 2.

[48] *Federal Executive Branch Policy Governing the Selection, Establishment, and Administration of National Recreation Areas, Circular No. 1,* March 26, 1963.

[49] *To Authorize Establishment of the Tocks Island National Recreation Area in the States of Pennsylvania and New Jersey, and for Other Purposes: Hearing on H.R. 2441, H.R. 2632, H.R. 8696 Before the H. Subcommittee on National Parks and Outdoor Recreation of the Committee on Interior and Insular Affairs*, 88th Cong. 26(1964) (statement of Secretary of the Interior Stewart Udall).

> or disposal of vegetative, mineral, or fish or wildlife resources as he deems appropriate to carry out the purposes of this Act.[50]

The public should be fully informed that DEWA was not set aside as a wilderness preserve or for any single purpose. Congress knew the Applicants' line stood exactly where it stands today. Congress knew and intended that it would co-exist and function as a utility facility alongside the new recreation area. The NPS was authorized to manage the new recreation area alongside the existing transmission line.

The NPS's decision in this matter is not being written on a blank slate. The legislative history of the recreation area is fundamentally important to any analysis of the agency's decision-making authority. The Applicants' respectfully submit that the public would benefit from a more complete discussion of these matters in the DEIS.

3. Objectives (pp ii-iv): This section should be revised to disclose the geographic scope of consideration given to each objective, the reason for that choice of scope, and the relevance of the evaluation to the choice facing the decision-maker. It should be made clear whether the consideration of objectives is intended to mimic the geographic scope of the siting evaluations performed by the utility regulatory authorities in Pennsylvania and New Jersey, or if the scope is tied to resources and places under the NPS's jurisdiction.

The reader of the DEIS deserves a clear explanation whether the NPS is attempting to make a decision on the Applicants' permit applications as if NPS were a regional transmission grid planner, or if it is simply focused on how different alternatives impact those things under NPS jurisdiction. Are viewsheds inside the park units considered in the same way, and given the same weight in decision-making as viewsheds outside NPS lands that would be affected by the corridors proposed by the NPS? Does consideration of socioeconomic impacts include impacts experienced by power customers 50 miles from the NPS lands in the case of an outage caused by inadequate capacity in the existing transmission infrastructure? Various portions of the DEIS, especially those dedicated to evaluating routes other than the one proposed by the companies, seem to suggest that the DEIS is intended to inform a regional transmission planning decision. But other portions, such as the discussion of socioeconomics and health and safety, seems largely disinterested in the importance of the grid or reliable electric service to the mid-Atlantic region.

This DEIS gives every impression of incorporating two different analyses -- one purporting to make a choice about the way to build and operate the regional grid, and the other focused on management of NPS resources. The dual character of the DEIS leaves the reader unsure as to what decision, or decisions, the NPS is attempting to inform through the NEPA review. For the sake of those readers who wish to know what decision the NPS is proposing to make, the DEIS should be revised to explain fully any variations in the geographic scope of analysis as between the various objectives.

[50] Pub. L. No. 89-158, § 4.

4. Susquehanna to Roseland Transmission Line Location and Background (pp. 4-5): This section references the Applicants' request for additional right-of-way. The discussion should be revised to disclose the dimensions of the existing transmission corridor where it crosses NPS lands and the amount of additional right-of-way requested by the Applicants. The text could leave the reader with the impression that the Applicants' are seeking to widen the entire corridor through NPS lands, while in fact Alternative 2 seeks only an approximate 4% increase in the ROW crossing the NPS Units and Alternative 2b seeks no additional right-of-way. The Applicants are seeking additional ROW equal to less than .007% of the area of DEWA.

This section offers a description of the physical features of the existing and proposed line. As presented, the description is incomplete. The text of this section should be amended to disclose the ownership and other beneficial interests held by the Applicants in the existing ROW where it crosses NPS lands. As described in Section I.C., the Applicants' easements over the NPS Units provide that the Applicants have rights for "constructing, reconstructing, operating, maintaining and inspecting one or more lines for transmitting electrical energy together with the poles, towers and conductors and all necessary appurtenances." The companies and the NPS are neighboring property owners; each with rights to manage their own ownership interests, subject to certain reciprocal rights against interference or harm.

The decision-maker and reader would benefit in their understanding of the relationship of the current corridor and line to the NPS if the DEIS were amended to disclose that a dispute between PPL and the NPS over the rights of the company to maintain the ROW was resolved when the United States agreed that the company's property interests in the ROW were such that the NPS would "not require [PPL], pursuant to its existing easement rights, to apply for and obtain a special use or other form of permit or approval or authorization from the [NPS] as a condition to accessing its easements located in [DEWA] for conducting vegetation management work…." A copy of the Stipulation of Order of Settlement U.S. District Court for the Middle District of Pennsylvania, Civil Action No. 3:10-CV-01670-ARC, is attached hereto as Exhibit 12.

The final two sentences of the second paragraph of this section are inaccurate and misleading and should be revised. There is no formal or informal regulatory status applicable to the current or proposed line that is anything like what is suggested by the text in this paragraph. The existing line crossing NPS lands is "critical" to the grid, and the existing corridor is critical to the line. The proposed S-R Line would be "critical" to the grid, too. The new line would not transform the "critical" nature of the corridor or the line.

To the extent that this part of the DEIS is intended to advise the reader that corridor and line maintenance practices may intensify in the future, the DEIS is on to something true, but it is entirely mistaken about the cause of the change. The fact is that the federal rules governing transmission corridor maintenance, promulgated by NERC and administered by FERC, have changed in recent years to be much more rigorous and prescriptive. Electric utilities everywhere,

including the two Applicants, are revising their corridor management and line maintenance practices to meet the new standards. Those standards apply equally to vegetation management (i.e., tree clearing) and to upkeep and modernization of the wires, towers, foundations, and other hardware. The newly tightened rules apply to all factors influencing the reliability of transmission lines. The vegetation management and other maintenance practices that can be expected in the corridor in coming years will be governed by federal grid reliability rules, and not by any change in the "critical" nature of the line.

The second-to-last paragraph in this section, on page (v), should be revised for completeness. At a minimum, this paragraph should disclose that each state utility commission reached its decision to approve the S-R Project within their respective jurisdictions after extensive public hearings, detailed and comprehensive consideration of routing alternatives, development of extensive evidentiary records, and an opportunity for input from and participation by every potentially affected federal, state and regional resource management agency, including the NPS. The reader and decision-maker likely would benefit from knowing that the state siting authorities took into account the overall potential environmental, economic, reliability and other impacts associated with the proposed route, and weighed those impacts against the potential impacts of two other possible routes

The final clause of this one-sentence paragraph is true, but misleading. If the intent of the words is to offer the decision-maker and reader an understanding of the history of litigation around the state agency decisions to support the proposed line, an accurate and complete statement would be this: The NJBPU and PAPUC decisions have been challenged vigorously in state litigation by some of the same parties who have submitted comments to the NPS asking the agency to deny the Applicants' permits. The plaintiffs have raised in state litigation many of the same issues they have raised in their comments to the NPS. In all instances where a court has rendered an opinion on the two states' decisions, the agencies have been upheld. See the Commonwealth Court of Pennsylvania Order attached as Exhibit 13 upholding the decision of the PAPUC to approve construction of the S-R line. See the order attached as Exhibit 14 from the New Jersey Appellate Division denying the project opponents request to have the S-R Line decision remanded to the NJBPU.

II. ALTERNATIVE SPECIFIC COMMENTS

Portions of the alternatives are presented and analyzed in a manner that fails to reveal or assess important, fundamental facts related to the Project and key assumptions by the NPS. The presentation of alternatives, if left uncorrected, will fail to inform properly the decision-maker and the public.

A. **Alternative 1 – No Action**

The No-Action Alternative (Alternative 1) incorrectly describes the probable uses of the existing corridor and fails to describe or analyze the nature of the Applicants' ownership interests

and rights in the corridor. The effect of the analysis of Alternative 1 in the DEIS is to understate substantially the importance of the existing and future use of the corridor by the Applicants and the probable future condition of the line and corridor. The DEIS fails to acknowledge that the Applicants' legal rights to use the corridor and maintain the line in utility service exist independent of and are not subordinate to NPS discretion.

The DEIS suggests, incorrectly, that a choice by the NPS to disallow the Applicants' proposal would preserve the material features of the current line and corridor. The DEIS acknowledges that the line is more than 90 years old, but states that the Applicants have no plan to repair or replace it. A reader of the DEIS could easily infer from the description of Alternative 1 that, over time, the existing line might be allowed to degrade entirely into obsolescence and the corridor left undisturbed to revert to forest. The DEIS suggests that the result of a choice by the NPS to select Alternative 1 would be that the current set of aesthetic, environmental and other impacts from the line would continue or even decline over time. But that is not reality, and to suggest otherwise is to mislead the decision-maker and the public on a fundamental matter.

The corridor and the line in it today are, together, a vital feature of the regional transmission grid. They are not incidental. They are not feasible to replicate elsewhere. There is no reasonably foreseeable future in which the corridor is not essential to the line, and the line is not a critical part of the grid. There is no scenario under which the line and corridor would not need to be maintained in proper, up-to-date condition to meet contemporary needs and standards. The importance of these utility assets will, in fact, continue to grow over time, as the demand for electricity increases, and realistic options for new right-of-way construction narrow.

The Applicants' ROW rights are substantial legal rights, and include the right to replace the towers, foundations and conductors, clear vegetation threatening the lines or towers or roads, and otherwise take reasonable actions needed to keep the line in service (including the right to build, use and maintain access roads) and in compliance with all federal and other standards that govern electric transmission service. The NPS has a role in managing the impacts of these activities on NPS resources, but does not have authority or a legal right to disallow them. The United States could have acquired ownership rights when it acquired the many other private properties that today comprise DEWA and the APPA, but it did not do so and is thus subject to the terms of the easements just as any other landowner would be.

The Applicants' current plan to ensure that the line is maintained properly is to upgrade it as an integral part of the S-R Line. The inevitable consequence of a decision by the NPS to disallow the Applicants' proposal is that, instead of upgrading the existing line as part of the Project, the existing line would have to be upgraded.

The DEIS fails to make clear that the reasonably foreseeable future under Alternative 1 is one in which the Applicants maintain the right-of-way as required by federal reliability standards, operate the line, and replace or repair the towers, conductors, foundations and roads as

needed to maintain reliability. Under Alternative 1, the line, the towers, the foundations and the roads would be upgraded to meet current standards and needs. The repair and replacement steps needed to bring the current 230 kV line up to contemporary standards would involve replacement of the existing towers with new monopoles in approximately the same locations as the existing towers and these new towers would range from 130 feet to 160 feet in height. Placement of these new towers would require new foundations and new conductors strung initially on one side of the new towers. Additionally, the Applicants would need to use new and existing access roads for construction purposes that are similar to the access roads that would be needed for Alternatives 2 or 2b. The DEIS should be revised to properly disclose and analyze these facts. Simply stated, the difference between Alternative 1 and Alternative 2 is very small, limited to an approximate 20-25 percent difference in tower height as between those needed to upgrade the existing line, and those needed for the proposed Project. Every other feature and associated impact would be essentially the same.

B. **Alternative 2**

There are several statements in the DEIS that either do not correctly state the Applicants' proposal or overstate the impacts of the Applicants' proposal. These mistakes and overstatements often seem to arise from a fundamental failure to acknowledge the character of the existing 230 kV B-K Line and the fact that it has been a part of the landscape shared with the NPS Units (and their visitors) since the moment each of them was created.

1. The DEIS assumes that a 350-foot wide corridor would have to be cleared (175' on either side of the centerline) for all action alternatives (pp. 46, 359, 393). This is incorrect with respect to Alternative 2, as the graphic below demonstrates that there are no places where the existing ROW exceeds 325 feet and over half of the existing ROW is 200 feet or less. The Applicant has only requested an additional 50 feet of ROW for a .76 mile section that is currently only 100 feet. Therefore, it is legally impossible for the Applicants' to clear a 350 feet ROW contemplated as by the DEIS. In terms of actual clearing within the ROW, it is presently cleared, or scheduled to be cleared with respect to PPL sections, in a range from 100 to 200 feet depending upon the ROW section. Following construction, the Applicants expect to maintain the line to a cleared width of no more than 200 feet. Thus, the only additional ROW clearing that would be needed as a result of Alternative 2 is an additional 25 feet on either side of the centerline for 0.76 mile in PA or approximately 4% more cleared transmission corridor then exists now. The table below shows the existing ROW widths within the 4.31 miles of line within the NPS Units and the clearing and additional ROW that would be required for Alternative 2.

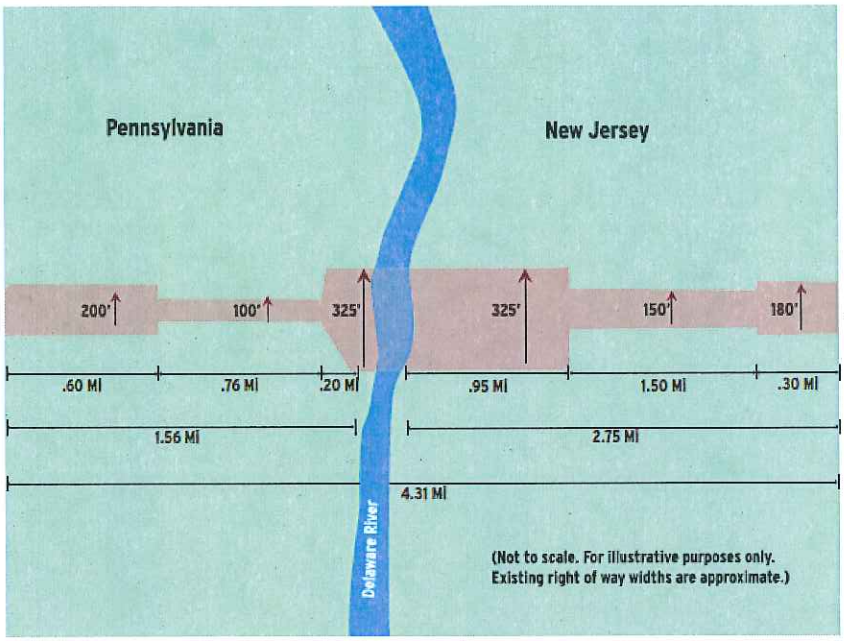


TABLE 1: EXISTING ROW AND CLEARING REQUIREMENTS				
Existing ROW Widths in NPS Units	Existing ROW Lengths in NPS Units	Vegetation Clearing for the Existing 230 kV Line	Additional ROW Required for Alternative 2	Additional Vegetation Clearing Required for Alternative 2
100 feet in PA	0.76 mile	100 feet	50 feet for 0.76 mile	50 feet for 0.76 mile or 4.6 acres
150 feet in NJ	1.50 mile	150 feet	None	None
180 feet in NJ	0.30 mile	180 feet	None	None
200 feet in PA	0.60 mile	200 feet	None	None
325 feet in PA	0.20 mile	100 feet	None	None
325 feet in NJ	0.95 mile	150 feet	None	None
TOTAL	4.31 miles			

The planned clearing by PPL unrelated to the S-R Line is necessary to be consistent with its vegetation management plan filed with NERC. PSEG's vegetative management plan clearing was completed in New Jersey before the filing date of this document. PPL's clearing is expected to be completed in Pennsylvania by the end of April 2012.

Additionally, the DEIS assumes that pulling and splicing sites for the installation of the conductors on the transmission line towers would be constructed outside of the ROW and this assumption is not correct (pp. 394, 396, 398, 400 and 401). The pulling and splicing sites will be within the footprint of transmission line rights of way for the S-R Line.

The overstatement of ROW widths and required vegetation clearing affects several of the resource discussions contained in the DEIS and the DEIS needs to be amended to accurately reflect the ROW widths and clearings and the actual impacts that could occur in the areas of:

- Wetland impacts;
- Visual Resource Impacts;
- Cultural Resource Impacts;
- Visitor Use Impacts;
- Special Status Species Impacts
- Landscape Connectivity
- Rare and Unique Community Impacts

1. The DEIS states that the proposed ROW and continual vegetation maintenance would completely bisect the habitat in the Hogback Ridge Woodlands, creating two sections of Woodlands and reducing interior forest habitat (p. 491). This statement is presented as if there is no existing ROW. Simply put, the existing ROW already bisects this habitat and existing required vegetation maintenance already impacts this habitat, therefore there would be no changes that reduce interior habitat or cause a "bisection" of this habitat area.

2. The DEIS mischaracterizes the amount and character of the existing access roads associated with Alternative 2 (p. 38, DEIS Table 3:50). Table 2 shows the Applicants' best estimates of the approximate acreages of the total new and existing access roads that would be used for the construction of the S-R Line. This table further breaks down the access road needs by those which are already within the ROW and thus do not require new land disturbance and those outside of the ROW. Of the approximately 7 total acres of new roads proposed by the Applicants', only approximately 0.5 acres is actual new construction outside the cleared existing ROW.

TABLE 2 – ROAD AREA / ALTERNATIVE 2	ACRES
1. New Access Roads within ROW	6.5
2. New Access Roads outside ROW	0.5
3. Existing Access Roads within ROW	1
4. Existing Access Roads outside ROW	10.25

3. The DEIS does not acknowledge the existence of access roads that are currently being used for maintenance of the B-K Line. These roads are suitable for pickup truck traffic now and would need to be improved for construction traffic, but the necessary improvements are not as severe as the construction of new roads.

4. The DEIS states that an access road is proposed in the Arnott Fen (p. 371). Although this was originally correct, it is important to note that the Applicants have subsequently met with the NPS and USFWS. As a result of these informal consultations an alternate proposed access road to the south of the Fen was identified that would have no impact to the Fen. It is the

Applicants' intent to utilize this southern access road, upon final approval from the NPS and using this road results in approximately 0.4 acres less of road impacts.

5. The DEIS analysis of adverse impacts to visitor use (pp. 625-642) fails to recognize that the existing transmission line has been in place in the NPS Units from the moment of their creation and the presence of this line has not limited visitor enjoyment of the NPS Units as evidenced by the amount of visitor use in the NPS Units and as discussed in Section ____ of this letter. The incremental impact of the construction of the S-R Line should not change this dynamic and the only direct impacts to visitor use that are substantially different to what exists now would occur during construction when there will be more physical activity within the ROW. However, as this construction will be limited to winter months, the amount of visitors likely to be impacted is much lower than in the months of higher visitor use.

6. The DEIS states that access roads would be constructed within 200 feet of the bank of MDSR (p. 646). This statement is incorrect as the closest access road in Pennsylvania is approximately 1,000 feet from the MDSR and the closest access in New Jersey is located approximately 500 feet from the MDSR.

7. The DEIS states that 23.94 acres of forested wetlands would be converted to shrub or emergent wetlands during ROW clearing (p. 381). This is inaccurate because, as previously discussed, the majority of the ROW is already cleared of vegetation and the NPS has overstated the amount of new clearing that would be necessary.

8. The DEIS has greatly overestimated, by a range of 2 to 20 times, the cost of construction of Alternative 2 and states that it would be 2.17 billion dollars (DEIS App. E). The cost budgeted by the Applicants is 1.25 billion dollars. The following factors have caused the NPS to overestimate the cost:

- Assumed 11 towers per mile – there will only be 5 towers per mile
- Assumed $3\ft. of shield wire – actual cost is $1\ft on average
- Assumed cost per mile of optical ground wire at $17\ft. – actual cost is $2\ft.
- Assumed $3 million per mile for cost of conductor wire – actual costs will be approximately $150,000 per mile for conductor wire.
- Overestimated the cost of ROW acquisition at $100 million when the actual costs were $3.4 million in Pennsylvania and $21.3 million in New Jersey.

9. The DEIS states there will be residential displacements in Lehman, Hardwick and Stillwater townships (p. 539). No residential displacements will occur except for the few instances where a residence has physically encroached on the ROW.

10. The intensive Phase I survey identified 25 archeological sites along the alignment for alternatives 1, 2 and 2b. Three of these sites (2 prehistoric, 1 historic) were within the APE. The Applicants have asserted that the remainder would not be affected by construction activities (Berger 2010b) by using strategies of avoidance and/or non-ground-disturbing construction techniques. Additional fieldwork conducted in 2011 (Berger 2011) has not been incorporated into this document.

11. The complete, Section 106 complaint, Phase I/II report detailing the results of the archeological investigations of Alternatives 1, 2 and 2B will be submitted to the NPS in the near future. That report will detail that only two archeological sites (prehistoric) are recommended eligible for the National Register of Historic Places and that the Project will not affect the site as the Project will employ strategies of avoidance and/or non-ground-disturbing construction techniques in that area. All other sites identified were either recommended not eligible or were not evaluated for eligibility because the Project will employ strategies of avoidance and/or non-ground-disturbing construction techniques thereby precluding the need to determine eligibility as the Project will not impact the site and therefore its eligibility is not relevant.

12. The DEIS should be revised to inform the decision-maker and the public that the existing transmission line and corridor through the DEWA is itself considered a historic component of the existing visual environment and cultural landscape. As part of the permitting requirements necessary for the proposed Project, the potential historic component of the PNJ Interconnection – Wallenpaupack to Siegfried Line and the Bushkill to Roseland Line, which includes the corridor and existing 230 kV through the DEWA, has been evaluated for eligibility for listing in the National Register of Historic Places (National Register). The results of the study conducted by The Louis Berger Group (Berger) concluded that the line and corridor appear to possess historical significance and integrity that qualify it as a resource eligible for listing on the National Register. The project corridor is recommended as eligible for listing in the National Register under Criterion A in the areas of engineering and industry as a segment of the 1928 PNJ Interconnection of the PSE&G, PP&L (predecessor organization to contemporary PPL), and the Philadelphia Electric Company (PECO) transmission lines. The PNJ Interconnection – Wallenpaupack to Siegfried Line and the Bushkill to Roseland Line is also recommended eligible for listing on the National Register under Criterion C as a significant engineering achievement of the late 1920s and specifically as an important advancement in the field of electrical utilities. The line and corridor are significant on a national level (in both New Jersey and Pennsylvania) with a period of significance from construction of Lake Wallenpaupack Dam, Pipeline, and Hydroelectric Plant (begun in 1924), the inception of the interconnection agreement in 1927, through the expansion of the interconnection into the Pennsylvania-New Jersey-Maryland Interconnection (PJM) in 1956. Both the Pennsylvania Historical and Museum Commission (PHMC) and the New Jersey Historic Preservation Office (NJHPO) concurred with the study via letters dated August 29 and September 9, 2011, respectively, and confirmed the line and corridor as National Register eligible. While these letters were received relatively late in the DEIS process, the Applicants note that the eligibility status of the line and corridor as a National

Register-eligible historic property was not included in DEIS and request that this eligibility status be included.

The existing line currently continues to function in its historical capacity. While the Applicants acknowledge that Alternative 2 would have an adverse effect on the historic nature of the existing line and corridor through the DEWA, the Applicants as well as the PHMC and NJHPO recognize that alterations and changes to the line itself, upgrade of towers and wires, etc., may be viewed as part of the necessary evolution of our infrastructure in keeping with modern technological advancements, demands, and requirements of the electrical grid system.

C. **Alternative 2b**

The DEIS states that Alternative 2b is based upon the "controversial assumption" that the Applicants have the right to clear danger trees outside of the deeded ROW (p. vi 55). The area of concern to the NPS is the 100 foot ROW held by PPL. The DEIS should be revised to eliminate the assertion that danger tree removal is controversial as PPL has the right to remove danger trees consistent with the Stipulation and Order of Settlement referenced in I.J. *See also* Greg Smith letter to NPS dated December 7, 2010 and located in Appendix D to the DEIS.

1. The DEIS states that an access road is proposed in the Arnott Fen (p. 371). This is incorrect and the NPS and USFWS have been provided with constructability drawings that show the proposed access is south of the Fen and would have no impact to the Fen.

2. The DEIS overstates the amount of access roads needed for 2b (p. 38 DEIS Table 3; 56). While 2b could have slightly more access roads than Alternative 2 because more towers are required, the road acreage is essentially the same as shown in Table 2 for Alternative 2.

3. The DEIS analysis of adverse impacts to visitor use (pp. 625-642) fails to recognize that existing transmission line has been in place in the NPS Units from the moment of their creation and the presence of this line has not limited visitor enjoyment of the NPS Units as evidenced by the amount of visitor use in the NPS Units and as discussed in Section I.J. on the background of DEWA. The incremental impact of the construction of the S-R Line should not change this dynamic and the only direct impacts to visitor use that are substantially different to what exists now would occur during construction when there will be more physical activity within the ROW. However, as this construction will be limited to winter months, the amount of visitors likely to be impacted is much lower than in the months of higher visitor use.

4. The DEIS states that access roads would be constructed within 200 feet of the bank of MDSR (p. 646). This statement is incorrect as the closest access road in Pennsylvania is approximately 1,000 feet from the MDSR and the closest access in New Jersey is located approximately 500 feet from the MDSR.

5. Alternative 2b will have the same effects on historic resources as described in comments 10-12 under the Alternative 2 comments.

D. **General Comments Applicable to Alternatives 3, 4 and 5**

The Applicants' September 13, 2010 comment letter on Alternatives from John Lain to the DEWA EIS Planning Team detailed the many significant problems with Alternatives 3, 4 and 5 and those comments are incorporated herein reference. Additionally, the DVD attached as Exhibit 1 shows critical constraints on these Alternatives that make them infeasible.

Another problem is that Alternatives 3, 4 and 5 are premised on the assumption that the impacts of these possible new routes proposed by the NPS would be substantially "mitigated" by removal of the B-K Line from DEWA. Two major analytical problems result from the inclusion of this assumption about Alternatives 3, 4 and 5 in the DEIS. The problems flow both from the inclusion of the assumption, and from the way the assumption is presented.

The first problem is that DEIS makes no analogous assumption about the possibility of substantial mitigation under either of the other alternatives, namely, those proposed by the companies. The two sets of alternatives are apples and oranges. The decision-maker and reader are unable to draw any reliable comparisons and contrasts between the alternatives proposed by the companies (2 and 2b) and those proposed by the NPS (3, 4 and 5).

The second problem is that the assumption is presented in a casual, almost off-hand way, as if it were a simple, inconsequential act to remove the line from DEWA and put it somewhere else. The DEIS offers no analysis of the costs or consequences of what is, in fact, a very complicated, expensive, unpredictable matter that would inevitably carry significant environmental consequences.

As discussed elsewhere in these comments (see Section I.D.), the existing 230 kV grid interconnection that currently spans DEWA and interconnects the Bushkill and Kittatinny substations would not be replicated by Alternatives 4 and 5. That interconnection is mandatory for grid reliability – the line connecting those two substations has to exist somewhere. If the line is removed from DEWA, it would need to be replicated elsewhere. Furthermore, DEIS assumes that the existing line would be removed, but fails to disclose that Alternatives 3, 4 and 5 would require regulatory approval and construction of an additional transmission corridor to connect the Bushkill and Kittatinny substations – a new line and new right-of-way that would be in addition to and located separate from the new corridors proposed by the NPS for the Project (which would, under the NPS proposals, connect other parts of the grid).

When the NPS assumes that the existing line would be removed and put somewhere else, the agency is assuming also that the government bodies that regulate power line siting would approve a new route connecting the Bushkill and Kittatinny substations and the new route for the Project. The agency offers no analysis or justification for this assumption. The DEIS appears to

take it for granted that those approvals would be forthcoming. But the record is quite clear that the regulatory agencies in Pennsylvania and New Jersey, when presented with a choice of alternative alignments and construction of new or expanded transmission corridors for the S-R Line, rejected construction of new corridors and ordered the companies to build the new line (and upgrade the existing line) within the existing corridor.

The new corridors for the S-R Line connection and the Bushkill-Kittatinny connection would each likely draw considerable public opposition, and each would present substantial environmental impacts. Indeed, replication of the Bushkill-Kittatinny connection would likely impose very substantial impacts on NPS and other federal lands, as discussed in Section II.C-F. It misleads the public and the decision maker to assume that the new ROW's would somehow be simple or easy to create.

Even if such approvals were, hypothetically, possible to obtain, the process to secure them would take many years. The additional time would further delay the Applicants ability to comply with the directive they have received from PJM to maintain the reliability and capacity of the transmission grid between the Susquehanna and Roseland substations, and would exacerbate the risk of failures in the regional grid. The risk of grid failures is, of course, a risk to the public, to the residential, commercial, industrial and government electricity users in the Mid-Atlantic. These customers depend on continued, reliable electrical service.

Further delays would also mean imposition of further costs on electricity customers in the region, who currently pay more than $200 million per year in congestion charges (which cover the cost to keep expensive local power plants operating) to compensate for the lack of sufficient reliable transmission capacity between Susquehanna and Roseland. The public is suffering from delay now, and would suffer even more if the companies were to have to enter the multi-year process of seeking the approval of grid and utility regulators to create two new transmission corridors.

When the DEIS asks the reader to assume that the companies would abandon the current corridor and transmission interconnection between Bushkill and Kittatinny, the agency is asking the reader (and, of course, the decision-maker) to believe that two well-run publicly traded companies subject to exacting oversight by state utility regulators and scrutiny from shareholders and ratepayers would voluntarily surrender assets worth many millions of dollars and essential to grid reliability in exchange for the remote and risky possibility of being able to build two new transmission corridors somewhere else. As mentioned before, DO 12 contains a "common sense" standard for the review of alternatives. The assumptions that the DEIS makes regarding Alternatives 3, 4 and 5 do not pass the common sense standard.

None of these considerations are revealed in the DEIS, and all are directly and substantially relevant to the decision that is before the agency. The reader and decision-maker would benefit if the DEIS were amended to describe the central assumption in Alternatives 3, 4 and 5 and its consequences more fully. The DEIS should be so amended.

D. **Alternative 3**

In addition, the general comments contained in this letter and the comments incorporated by reference from the Applicants' September 13, 2010 letter, the Applicants have the following comments on Alternative 3:

1. The NPS assumes a right of way of 350 feet for Alternative 3 (p. 56). The DEIS should compare this anticipated ROW width with the actual ROW width of Alternative 2 as presented in Section II.B above.

2. The DEIS states that duration of construction impacts would be less than 8 months (p. 549). This understates the likely construction impacts because the additional 1.1 miles of line, and the construction of new access roads, should be assumed to be greater than Alternative 2.

3. The DEIS inconsistently states length of Alternative 3 affecting NPS Units by stating on p. 549 that the length is 4.5 miles when correct length is 5.4 miles as correctly stated elsewhere in the DEIS.

E. **Alternative 4**

In addition, the general comments contained in this letter and the comments incorporated by reference from the Applicants' September 13, 2010 letter, the Applicants have the following comments on Alternative 4.

As discussed in Section I.D., Alternative 4 is not functionally equivalent to Alternative 2 or 2b and would not resolve the grid stability issues that are at the heart of the Applicants' Special Use Permit and ROW application. In the Applicants' comment letter to the NPS on the Alternatives dated September 13, 2010, the Applicants pointed out the critical flaws that made Alternative 4 infeasible. The Applicants hereby incorporate those same comments by reference as nothing presented in the DEIS has changed the Applicants' opinion as to the infeasibility of Alternative 4. In further support of the infeasibility of the construction of Alternative 4, the Applicants have enclosed a DVD of a flyover of critically constrained portions of the Alternatives.

1. Alternative 4 would add a new overhead transmission line crossing of the Delaware River at the existing Delaware River Viaduct approximately 2 miles south of DEWA, as compared to crossing the Delaware at an existing transmission line ROW. The DEIS correctly states that no new crossing would be required of the MDSR, but does not reflect the requirement for a new transmission line crossing of the Delaware River in other locations.

2. Alternative 4 would require an expanded ROW at the existing crossing of APPA in the CVNWR.

3. The NPS assumes a right of way of 350 feet for Alternative 4 (p. 56). The DEIS should compare this anticipated ROW width with the actual ROW width of Alternative 2 as presented in Section II.B above.

F. **Alternative 5**

In addition, the general comments contained in this letter and the comments incorporated by reference from the Applicants' September 13, 2010 letter, the Applicants have the following comments on Alternative 5.

As discussed in Section I.D., Alternative 5 is not functionally equivalent to Alternative 2 or 2b and would not resolve the grid stability issues that are at the heart of the Applicants' Special Use Permit and ROW application. In the Applicants' comment letter to the NPS on the Alternatives dated September 13, 2010, the Applicants pointed out the critical flaws that made Alternative 4 infeasible. The Applicants hereby incorporate those same comments by reference as nothing presented in the DEIS has changed the Applicants' opinion as to the infeasibility of Alternative 5. In further support of the infeasibility of the construction of Alternative 4, the Applicants have enclosed a DVD of a flyover of critically constrained portions of Alternative 5 that would have to be built outside NPS lands.

1. The DEIS correctly states that no new crossing would be required of the MDSR, but does not reflect the requirement for a new transmission line crossing of the Delaware River in other locations. This crossing would be at the Delaware River Viaduct which is a significant historic structure.

2. Alternative 5 would require a significant expansion of an existing ROW at the crossing of APPA, which is located in the CVNWR.

3. The NPS assumes a right of way of 350 feet for Alternative 5 (p. 56). The DEIS should compare this anticipated ROW width with the actual ROW width of Alternative 2 as presented in Section II.B above.

III. CONCLUSION

On behalf of the Applicants, we would like to thank the NPS for the opportunity to submit these comments and we trust that the NPS will find them helpful in the process of revising the DEIS to accurately describe the proposed Project and the alternatives and the impacts associated with the alternatives. As stated above in more detail, there are several key factors that need to be considered by the decision maker. These are:

- the pre-existing nature of the S-R Line;
- the Applicants legally enforceable property rights;
- the lack of equivalent functionality of Alternatives 3, 4 and 5 and their inability to be constructed by the PJM in-service date of June 2015;
- the greater overall environmental impacts that would occur if new ROW had to be constructed for Alternatives 3, 4 or 5; and
- the Applicants' mitigation.

We are confident that continued analysis of the Alternatives and the Project will lead the NPS to select Alternative 2 as the preferred alternative and we are hopeful that such a decision will be made in a timely fashion.

Sincerely,

John M. Lain
McGuireWoods, LLP

Thomas C. Jensen
SNR Denton

JML/ymp

cc: Pamela Underhill (w/out attachment)
John Donahue (w/out attachment)
Kim Hanemann (w/out attachment)
Gregory J. Smith (w/out attachment)
Geraldine Smith (w/out attachment)
Ronald J. Reybitz (w/out attachment)
Andrew Tittler (w/out attachment)

Exhibit List

1. Helicopter Flyover of Alternative 3, 4, and 5 Critical Constraints.
2. Letter from PJM to the NPS dated September 13, 2010.
3. Letter from Greg Smith of PPL to the NPS dated January 11, 2012.
4. Applicants' Construction and Restoration Standards.
5. Vegetation Management Plan (PPL).
6. Vegetation Management Plan (PSE&G).
7. Safety and Health Plan.
8. S-R Compliance Table with Appendix F of DEIS.
9. Applicants' Mitigation Methodology.
10. Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions.
11. Applicants' Historic Resource Viewshed Analysis.
12 U.S. District Court for the Middle District of Pennsylvania Stipulation and Order of Settlement, Civil Action No. 3:10-CV-01670-ARC.
13. Commonwealth Court of Pennsylvania Opinion and Order upholding decision of the PAPUC to approve construction of the S-R line.
14. New Jersey Appellate Division Order denying the project opponents request to have the S-R Line decision remanded to the NJBPU.

Gregory J. Smith

PPL Electric Utilities
Two North Ninth Street, GENN5
Allentown, PA 18101-1179

January 11, 2012

VIA FEDERAL EXPRESS
National Park Service
Denver Service Center - Planning Division
Attn: Morgan Elmer
12795 W. Alameda Parkway
P.O. Box 25287
Denver, CO 80225-0287

Re: Susquehanna to Roseland 500 kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement: Alternatives 4 and 5 Comments on Functional Equivalency

Dear Mr. Elmer:

On behalf of PPL Electric Utilities Corporation ("PPL") and Public Service Electric and Gas Company ("PSE&G") (collectively PPL and PSE&G are referred to as the "Applicants"), I am writing to the National Park Service (the "NPS") to provide the Applicants' initial comments related to Alternatives 4 and 5 as presented in the Susquehanna to Roseland 500 kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement ("DEIS"). These comments will be supplemented by additional material to be included with the Applicants' comprehensive comments on the DEIS, which will be filed no later than January 31, 2012.

The comments presented here are largely technical, though they address a central assumption applied in the DEIS, i.e., the feasibility of alternatives. The DEIS presents three alternative routes to the Applicants' proposal for locating the proposed Susquehanna-Roseland transmission project, Alternatives 3, 4 and 5. As explained in past correspondence, none of these alternatives are technically feasible, and neither Alternatives 4 nor 5 are functionally equivalent to the Applicants' proposal (DEIS Alternative 2 or 2b). The DEIS should be edited to disclose to the decision-maker and public the reasons, detailed below, why the NPS Alternatives 4 and 5 will not meet the purpose of the Applicants' proposed project.

The DEIS states that the NPS identified the "possible routes in each alternative that could connect the Susquehanna and Roseland substations". The DEIS explains that the "NPS identified routes solely to determine if construction on the routes is technically feasible". (DEIS at page v). The DEIS says on page 29 that Alternatives 3, 4 and 5 were "evaluated and determined to be technically feasible". Later on the same page, the DEIS says that Alternatives 3, 4 and 5 "were developed by the NPS simply to determine whether construction on a route was possible…."

The wording of the DEIS is not clear. Does it mean that the DEIS seeks to analyze whether it is technically feasible to put transmission towers on lands comprising

the three NPS alternative routes? Or does the language mean that the NPS intended to use the DEIS to present the alternative routes as "technically feasible" ways to improve the regional power grid to meet the same standards for reliability that would be achieved by the Applicants' proposed project? In other words, does the DEIS intend to show the decision-maker and the public alternative ways to improve the regional power grid while reducing impacts on resources managed by the NPS? The question "Would it be technically feasible to put towers and conductors here?" is quite a different question than "Would the towers and conductors work properly as part of the grid system?"

Without clarification, the DEIS raises the possibility that any party might interpret it to present for the decision-maker's consideration alternative ways to change the regional transmission grid that would meet the same standards for reliability that would be achieved by construction and operation of the Applicants' proposal. The Applicants do not believe that the NPS DEIS was intended to be, or should be used or interpreted as, a tool for regional grid planning. At many points in the DEIS, the NPS seems to disclaim any intent to substitute its judgment for that of the other government and private sector parties charged with ensuring safe, reliable and prudent operation of the regional grid. And the DEIS offers no analysis of grid operations as they would be affected by the NPS alternative routes. Yet the mere presence of alignments for Alternatives 4 and 5 in the DEIS carries an implication that these alternatives would work as parts of the grid.

The DEIS should be revised to eliminate any ambiguity on this central point. The decision-maker and the public need to know the insurmountable challenges required to achieve both technical feasibility and functional equivalency. The NPS Alternatives 4 and 5 are not functional equivalents of the Applicants' proposed project. Neither are they "technically feasible" in any sense other than the purely hypothetical sense that they can be imagined and drawn on a map.

This letter describes grid reinforcements necessary for the NPS Alternatives 4 and 5 to be functionally equivalent to the Applicants' proposal. In other words, our comments here show what would be needed to fix the problems presented by these alternatives because merely removing the Bushkill to Kittatinny line segment results in numerous grid reliability issues. These fixes, however, are not capable of transforming the routes into feasible alternatives to the Applicants' proposal. NPS Alternatives 4 and 5, remodeled to achieve functional equivalency, would add to the list of reasons why these alternatives are not feasible. They are unacceptably costly for electricity consumers, impractical from a line routing perspective, and would take an unacceptably long time to place in service.

Background

The letter sent by the Applicants' outside legal counsel, John Lain of McGuireWoods, on September 13, 2010 to the EIS Planning Team provided the Applicants' comments related to the alternatives proposed to be assessed by the NPS that were set forth in Newsletter 2 of its "Susquehanna to Roseland Transmission Line Environmental Impact Statement". The list of significant impacts/flaws for Alternatives 4 and 5 included in the September 13 letter are included in this letter by reference.

Subsequently, G. J. Smith's September 7, 2011 letter to John Donahue explained that with the exception of Alternatives 3 and 8 (subsequently relabeled 2b) the NPS action alternatives, specifically Alternatives 4 and 5, were not functional equivalents to Alternative 2. The content of the September 7 letter was presented to the NPS and others in an October 6, 2011 meeting by Steve Herling, PJM's Vice-President of System Planning. As was explained in the letter and by Mr. Herling, the assumption made in the DEIS concerning the removal of the line segment between Bushkill and Kittatinny failed to recognize that the removal degrades the reliability of the regional electric transmission system.

The removal of the Bushkill to Kittatinny 230 kV line segment eliminates one of the three 230 kV line terminals at Bushkill and one of the four 230 kV line terminals at Kittatinny. Doing so results in numerous reliability criteria violations, introduces loss of service risk to electricity consumers on both sides of the river, and increases operational risks related to maintenance outages. Alternatives 4 and 5, as initially presented to the public and the Applicants, did not provide functional replacements for the removal of the 230 kV line terminals at Bushkill and Kittatinny and result in the following reliability violations.

For Alternative 4:

- An overload of the 10.6 mile single circuit 230 kV line between Martins Creek and Northwood.
- An overload of the 6.4 mile double circuit 230 kV line between Kittatinny and Portland.
- An overload of a 230 to 115 kV transformer at Northwood.

For Alternative 5:

- An overload of the 10.6 mile single circuit 230 kV line between Martins Creek and Northwood.
- An overload of the 6.4 mile double circuit 230 kV line between Kittatinny and Portland.
- An overload of a 230 to 115 kV transformer at Northwood.
- An overload of the 41 mile double circuit 230 kV line between Greystone and Portland.
- Low voltage conditions at Shawnee, Fox Hill and Monroe.

The DEIS attempted to provide functional equivalency for Alternative 5 with the statement: "Although not analyzed in the EIS, alternative 5 assumes a 230-kV transmission line will run from alternative 5 up to the Bushkill Substation on the west side of the park. In addition, alternative 5 also assumes that a 230-kV transmission line would run up to Kittatinny Substation on the east side of the park" (see page 63). This was not the Applicants' understanding from earlier conversations with the NPS. Nevertheless, this letter discusses the impact of these additional line segments.

The DEIS does not appear to provide functional equivalency for Alternative 4. In order to simulate a functionally equivalent route, the Applicants' have evaluated two modifications that would be necessary. One is a 230 kV line that runs up to Kittatinny Substation on the east side of the park. This line would follow the same general route as proposed in the DEIS for Alternative 5 (see page 63 of the DEIS). The second

modification involves connecting the 230 kV line from Bushkill, on the Pennsylvania side of the river, in and out of Monroe Substation.

The addition of the 230 kV lines for Alternative 4 (to Kittatinny on the east of side of the river) and Alternative 5 (to Kittatinny on the east side of the river and to Bushkill on the west side of the river) will remove the reliability violations and makes these alternatives functionally equivalent to the other action alternatives in the DEIS. Doing so, however, introduces unacceptable cost and line routing issues as discussed below. In addition, any alternative other than the Applicants' proposal (Alternative 2 or Alternative 2b) will result in delaying project completion by several years beyond its anticipated June, 2015 date and as such will not meet the Project needs as described in Applicants' permit application. Furthermore, the Bushkill to Kittatinny line segment will need to remain in service until the reinforcements are completed; likely toward the end of the decade. As this facility was installed in the 1920's and is nearing the end of its useful life, there is a cost and reliability exposure associated with delays. In fact, but for the Susquehanna-Roseland Project portions of this line segment would be included in PPL's Vintage Transmission Conductor Replacement Program.

Alternative 4 Modifications Required for Functional Equivalency

The additional line proposed for Alternative 4 would run up to Kittatinny Substation on the east side of the park in New Jersey. This is a completely new line segment that, to the Applicants' knowledge, has not been included in any of the NPS alternatives carried forward in the DEIS. The Applicants have assumed that the route of this line segment would start at the Paulinskill Viaduct river crossing, follow the DEIS Alternative 4 line route to the existing FirstEnergy Kittatinny-Portland 230 kV line. At this location, the 230 kV side of the line would deviate from Alternative 4 to parallel the west side of the existing right-of-way northward for approximately 3.6 miles to a termination at Kittatinny Substation. The 500 kV side of the line would continue along the Alternative 4 route. Also, the 230 kV line in Pennsylvania will include a termination at Monroe Substation. The incremental cost to Alternative 4 is approximately $20 million. These modifications have a number of significant routing and environmental challenges and impacts. They include the following:

- Residences in the near vicinity of the new line in New Jersey, including:
  - Approximately 3 houses within the new 150-foot right-of-way.
  - Approximately 28 houses within 250 feet of the new 150-foot right-of-way.
  - Approximately 53 houses within 500 feet of the new 150-foot right-of-way.
- An additional 65 parcels crossed.
- An additional 19 acres of forest clearing (i.e., an approximate 75-foot-wide clearing for 2.1 miles).
- Crossings of waters and wetlands, including new crossings of the Paulins Kill and Yards Creek and associated wetlands.

Alternative 5 Modifications Required for Functional Equivalency

The additional lines proposed for Alternative 5 include the Paulinskill Viaduct to Kittatinny line in New Jersey and an additional single circuit 230-kV transmission line in Pennsylvania between the Monroe and Bushkill substations with terminations at both ends. On the New Jersey side, the line would follow the Alternative 5 route to the existing FirstEnergy Kittatinny-Portland 230 kV line. At this location, the 230 kV side of the line would deviate from Alternative 5 to parallel the west side of the existing right-of-way northward for approximately 5.8 miles to a termination at Kittatinny Substation. The 500 kV side of the line would continue along the Alternative 5 route for the remaining 42 miles in New Jersey. On the Pennsylvania side, the Applicants have assumed a line route that is identical to the Alternative 4 route between the Bushkill and Monroe substations. The incremental cost to Alternative 5 is approximately $80 million. These modifications have a number of significant routing and environmental challenges and impacts.

Impacts and flaws with the New Jersey line include

- Residences in the near vicinity of the new line, including:
  - Approximately 5 houses within the new 150-foot right-of-way.
  - Approximately 33 houses within 250 feet of the new 150-foot right-of-way.
  - Approximately 65 houses within 500 feet of the new 150-foot right-of-way.
- An additional 86 parcels crossed.
- An additional 32 acres of forest clearing (i.e., an approximate 75-foot-wide clearing for 3.5 miles).
- Crossings of waters and wetlands, including new crossings of the Paulins Kill, Yards Creek and Delawanna Creek and associated wetlands.

Impacts and flaws with the additional line in Pennsylvania include

- An additional line distance of 11.8 miles.
- Co-location for approximately 1.4 miles with an underground gas pipeline right-of-way. PPL has no existing easement rights along this right-of-way.
- Crossing Route 209 in Middle Smithfield Township through an area heavily congested with township, commercial, and school buildings.
- Crossing approximately 90 non-condemnable properties using a 150-foot right-of-way. While Pennsylvania law provides public utilities with the right of condemnation, there are limitations on this right in the following cases:
  - Dwellings and reasonable curtilage[1] around a house
  - Public worship places or burying grounds.
  - Based on these criteria, approximately 90 parcels that would need to be acquired for this path could not be condemned. This means that only one property owner refusing to sell could halt such a project, making this path infeasible.
- The Interstate 80 crossing at Route 209 is through an area where there is no existing right-of-way or easement. Additional rights would have to be secured in this area.

[1] Curtilage is an area surrounding a house for a distance of 100 meters, or to the property line, whichever is less.

Another Option for Providing Functional Equivalency

There is another option to eliminate the reliability violations and provide functional equivalency for Alternatives 4 and 5. That option would involve replacing the facilities that are overloaded with larger capacity facilities. For Alternative 4, the cost to replace the overloaded facilities is approximately $90 million. For Alternative 5, the cost is approximately $290 million.[2] In either case, the costs are excessive, and the time delay of several years is unacceptable. And, as stated previously, the Bushkill to Kittatinny line segment would need to remain in service until the reinforcements were completed; likely toward the end of the decade. As this facility was installed in the 1920's and is nearing the end of its useful life, there is a cost and reliability exposure associated with delays.

Conclusion

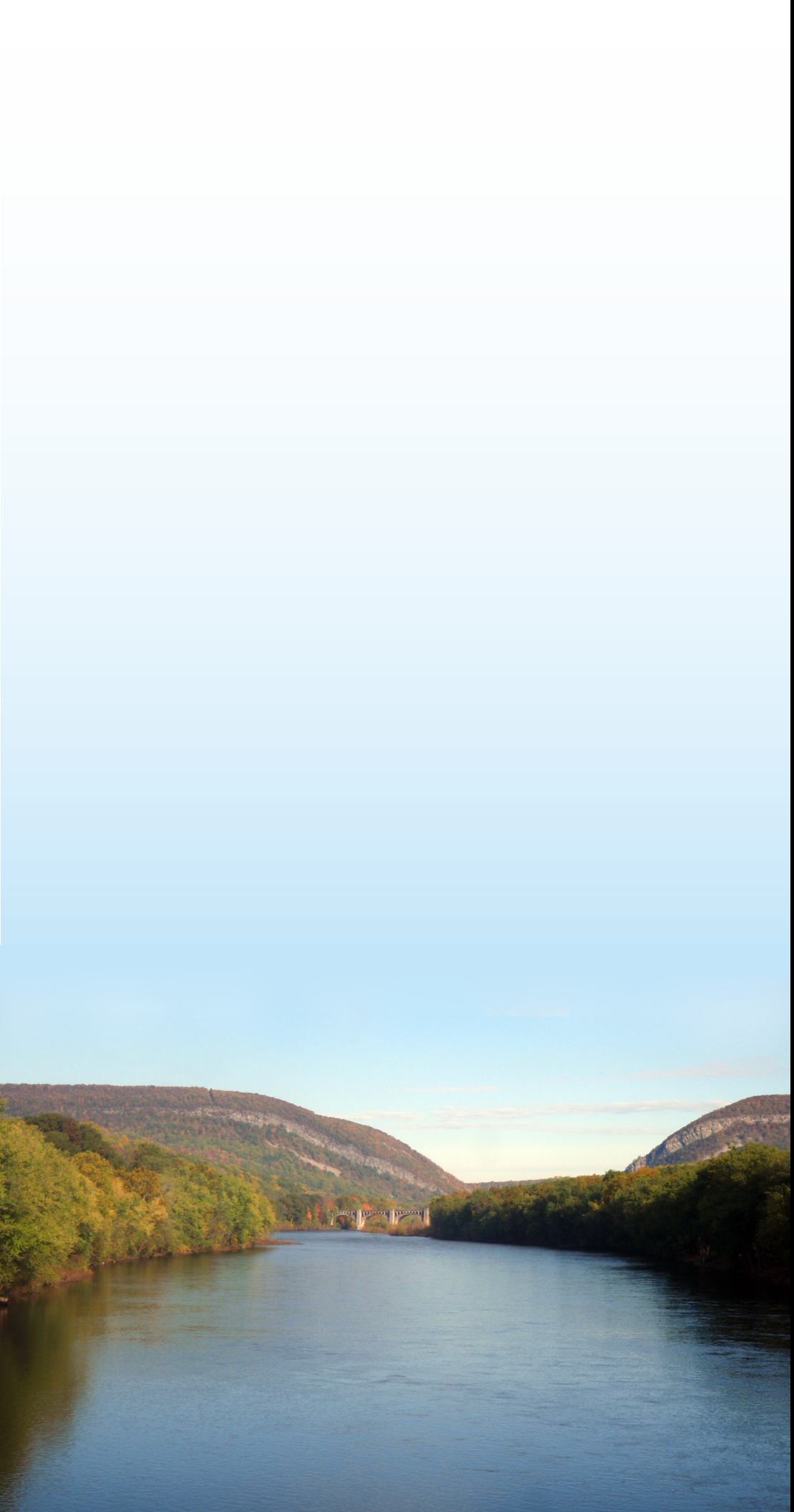
It is clear that Alternatives 4 and 5 are not reasonable alternatives because they are infeasible from a line routing perspective. And, from an electric transmission reliability perspective, they are not functionally equivalent to the Applicants' proposal. The flaw in both of these proposals is the assumption that the line segment between Bushkill and Kittatinny would be removed. Such an assumption would require construction or replacement of additional 230 kV lines and other facilities in Pennsylvania and New Jersey. Those projects have significant insurmountable constraints and unacceptable costs and schedule delays. Alternatives 4 and 5 do not meet the purpose and need of the Project, and are not reasonable alternatives to be considered.

The Applicants respectfully request that Alternatives 4 and 5 be eliminated from further consideration.

Sincerely,

Gregory J. Smith

[2] Note that for both Alternatives 4 and 5, no cost for the replacement of the Northwood Transformer is included as it is assumed that the Northwood overload can be resolve through generation re-dispatch.



Appendix M

Section 106 Compliance

APPENDIX M:
SECTION 106 COMPLIANCE

The Section 106 Process

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties (those resources eligible for the National Register of Historic Places) and afford the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on federal undertakings. The ACHP regulations for implementation of the Section 106 process (36 CFR Part 800) require federal agencies to consult with other parties, including the public, with an interest in the effects of the undertaking on historic properties. The Section 106 process includes initiating the Section 106 process, identifying historic properties, assessing adverse effects, and resolving adverse effects.

The National Park Service (NPS) managers are integrating Section 106 compliance with the NEPA process pursuant to the criteria set forth at 36 C.F.R. § 800.8(c)(1)(i)-(v) for the issuance of a construction and right-of-way (ROW) permit for the portion of the proposed Susquehanna-Roseland 500 kV Transmission Line that crosses park lands. The following compiles and summarizes the applicable information for the Section 106 process from the draft and final environmental impact statements (EIS) and associated consultation. The fourth step in the 106 process, the resolution of adverse effects, has been ongoing as the final EIS was being edited and printed; accordingly, this section will describe actions proposed up-to-and-including development and signing of the Record of Decision (ROD) for this final EIS, including a process for concluding Section 106 compliance. This section relates the conclusion of 106 compliance to the signed ROD and identifies Section 106 mitigation measures that will take place after the ROD is signed. All details and the agreement on the resolution of adverse effects can be found on the National Park Service (NPS) Planning, Environment, & Public Comment (PEPC) site at http://parkplanning.nps.gov/projectHome.cfm?projectID=25147 as they are developed.

Background and Proposed Project

PPL Electric Utilities Corporation and PSE&G (the applicant) applied for a construction and ROW permit to dismantle the 230-kV Bushkill-to-Kittatinny Line (B-K Line) and a small portion of the 230-kV Wallenpaupack to Siegfried Line northwest of the Bushkill substation, located on utility easements predating federal ownership and the establishment of the parks. The permit would provide conditions of access to the right-of-way for construction, and would allow the widening of the current ROW for a portion of the park crossing in which the applicant's existing rights are not sufficiently wide to permit their new transmission line to be built. The new transmission line would consist of one new 500-kV circuit and another circuit, built to carry 500 kV but initially energized to 230 kV, as replacement for the B-K Line and the small portion of the Wallenpaupack to Siegfried Line within the Delaware Water Gap National Recreation Area (DEWA).

The NPS put forward eight alternatives during project scoping. Two were dismissed from consideration after scoping. The NPS assessed six alternatives in the draft EIS, which was released in November, 2011. The draft EIS identified the "no-action alternative," or alternative 1, as the environmentally preferred alternative, but did not identify an "agency preferred alternative." In March 2012, the NPS identified the applicant's proposed route as the NPS preferred alternative. This alternative is described in the draft EIS as alternative 2, which crosses DEWA, the Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA), for a 4.3-mile segment of the 146-mile transmission line. This alternative is fully described in this final EIS in chapter 2, "Description of the Alternatives," under "Alternative 2: Applicant's Proposed Route." A summary of the route is as follows:

Alternative 2:

The route proposed by the applicant would follow the route of the existing B-K Line, which traverses approximately 4.3 miles of DEWA. Within DEWA boundaries, the route crosses MDSR and APPA approximately perpendicularly. In the draft EIS, 5.6 miles of alternative 2 were analyzed, 4.26 of which were within NPS boundaries. The alignment would enter DEWA from the west in Pennsylvania approximately 0.25 mile east of Big Bushkill Creek. The alignment would cross approximately 0.6 miles of DEWA land and then exit the park. Once the alignment exits the park, it would travel to the Bushkill Substation, cross a small (0.06-mile) portion of DEWA, cross the Fernwood Golf Course, and then re-enter DEWA south of the South Zone Ranger Station and north of DEWA Headquarters. The alignment would travel southeast within DEWA for approximately 0.85 mile, then cross 0.10 mile of MDSR just north of Depew Island. The route would continue southeast approximately 2.4 miles past the Watergate Recreation Site and cross APPA. The route would then traverse another 0.25 mile from APPA to the eastern DEWA boundary.

Under the NPS preferred alternative, the proposed NPS ROW and construction permit would allow the ROW to be cleared, which now varies in width from 100 to 350 feet, to a uniform 350-foot width. The applicant would replace the twenty-one existing 85-foot lattice towers within park boundaries with sixteen 195-foot monopoles or lattice towers. The NPS received schematic drawings and a visual simulation from the applicant, but final designs and exact placement were pending as of May 2012. Construction of the new line will require additional access roads to bring in construction equipment, as well as crane pads at tower sites and pads at conductor pull stations. Maintenance of the new transmission line will be more intensive than for the existing line. The new line will be a "critical" portion of the regional transmission infrastructure and vegetation will be limited to a height below 5–10 feet. The existing transmission line is considered "non-critical" and does not have this level of vegetation maintenance. Some of the temporary access roads would be converted to permanent roads to perform this maintenance.

The Area of Potential Effect

The Area of Potential Effect (APE) for this undertaking has two aspects (Figure M-1): an area of direct effects, defined as the area of ground disturbance; this includes, but is not limited to, tower locations, temporary construction pads and clearings, the ROW cleared area, and the access roads to and from the ROW; and an area of visual effects which extends 8 miles laterally from the transmission line alignment within park and state forest boundaries, and a half-mile laterally from the alignment up to the point outside the park at which multiple routes are possible (the Visual Split Location or VSL).

The APE for this undertaking is limited to the area in which the NPS' issuance of the permit dictates the route which the transmission line must follow. Beyond the VSL, the NPS has no authority to influence the applicants' actions or choice of route. The VSL for the western edge of the ROW lies on the park boundary; on the eastern edge, it extends for 0.7 miles beyond the park boundary. Consistent with state regulations related to utility applications, the applicant has conducted and continues to conduct direct consultations with the Pennsylvania and New Jersey Historic Preservation Office (HPO) on the project's effects on historic properties outside the boundaries of the NPS' permit authority.

Consulting parties

Although consultation is continuing to develop, at the time of the printing of this final EIS, consulting parties included the ACHP, the Pennsylvania SHPO and the New Jersey HPO, and twelve federally-recognized Indian tribes. The tribes include the Delaware Nation, Oklahoma; Delaware Tribe of Indians,

Oklahoma; Stockbridge-Munsee Community, Wisconsin; Seneca Nation of New York; Seneca-Cayuga Tribe of Oklahoma; Tonawanda Band of Seneca Indians of New York; Absentee-Shawnee Tribe of Indians of Oklahoma; Eastern Shawnee Tribe of Oklahoma; Shawnee Tribe, Oklahoma; Saint Regis Mohawk Tribe, New York; Oneida Nation of New York; and Onondaga Nation of New York. As the Section 106 process continues, additional consulting parties will be sought out by the NPS. The applicant will also be included in some of the consultation party discussions and meetings. A full list of consulting parties will be available on the PEPC website. The consulting parties were engaged in the Section 106 process both through the NEPA public comment process and review of the draft EIS, as well as additional consultation correspondence. Many of the consulting parties also participated in on-site consulting party meetings including two tribal consults (January and May 2012) and an overall consultation meeting (June, 2012). These correspondence letters can be found in Appendix I of this final EIS, as well as on the PEPC website.

Identification of Historic Properties

Subject matter experts have identified historic properties within the APE through compiling information on known park resources, evaluating historic properties surveys commissioned by the applicant along the route, and reviewing a cultural landscape survey commissioned by the NPS. Technical experts identified properties in three major categories: archeological sites, historic structures, and cultural landscapes; some overlap exists between the categories. Preliminary lists of historic properties affected by each alternative were in the draft EIS and the NPS asked consulting parties to comment on those lists during the public review period. After further refinement from subsequent studies, at least two archeological sites, 36 historic structures, and 43 cultural landscapes were identified within the APE for the preferred alternative. There are a few properties that still required concurrence on their eligibility for listing on the National Register of Historic Places at the time of the final EIS printing and additional historic properties could be identified during consultation. A list of the identified historic properties at time of printing, as well as effects on each, is below; a final list can be found on the PEPC website.

Assessment of Effect

The NPS has assessed the effects on historic properties of issuing the construction and ROW permit, and has determined that the action will have an adverse effect on at least one archeological site, at least 17 historic structures, and 18 cultural landscapes within the APE. There will be direct, physical adverse effects to the Horace Van Auken Farm, the Appalachian Trail, the Old Mine Road Historic District, the Owens/Stone Spring Farm springhouse landscape, and the Pennsylvania-New Jersey Interconnection (the current Bushkill-Kittatinny and Wallenpaupack to Seigfried lines); the remainder of the effects will be visual. At the time the final EIS was being compiled for printing, the NPS had not yet fully reviewed the archeological report or the historic structures report for the preferred alternative, and the result may be that additional adverse effects will be identified. Initial review of the historic structures technical report has already identified a difference between the NPS method for assessing visual and cultural landscape resource effects and the applicant's method for assessing visual effects on historic buildings. Preliminary assessments of effect were available in the draft EIS for consulting party review and comment; final determinations will be made in consultation with the consulting parties, and will be reflected in the list of properties and effects on the PEPC website.

Resolution of Adverse Effects

Through spring and summer 2012, the NPS consulted with the New Jersey HPO and Pennsylvania SHPO, the ACHP, and twelve Tribes. The NPS initiated consultation on resolving adverse effects at the time the final EIS was being compiled. Conference calls and on-site meetings will be held to allow all consulting parties to discuss the extent of adverse effects and appropriate measures to mitigate adverse effects.

Mitigation measures may include vegetative screening for visual effects, structure rehabilitation, archeological excavation, monitoring of construction excavation, and/or compensation, among many possible examples. In that case the process for concluding consultation on mitigation will be outlined in either a programmatic agreement or included in the ROD. The NPS plans to conclude the Section 106 consultation process by the signature of the ROD for this EIS. Mitigation measures will be undertaken pursuant to the ROD and permit, and may require additional discussion among the consulting parties if unexpected circumstances arise while construction is occurring. Results of mitigation consultations and a draft programmatic agreement (if necessary) will be available on the PEPC website.

Next Steps

A complete Section 106 package was submitted to all consulting parties on May 2, 2012. The package supplemented the draft EIS with updated information on the overall Section 106 process, description of the undertaking, area of potential effect, identification of historic properties, assessment of effect, resolution of effect, a schedule for completing the EIS, and identification of the next steps for Section 106.

Consultation discussions and on-site meetings were then pursued to discuss the overall Section 106 process and all of the aspects outlined in the draft EIS and the May 2, 2012, Section 106 package. The plan (as of July 2012) is to proceed as follows:

Date	Planned Consultation Actions
May 24, 2012	The NPS conducted on-site tribal consultation meeting (at DEWA) to follow-up on January 23-24 meetings conducted with five Tribes
June 26-27, 2012	The NPS conducted an on-site consulting party meeting (at DEWA)
July 2012	The NPS will conduct additional consultation to finalize discussions about resolving adverse effects through mitigation and compensation measures and concluding the Section 106 process
	The NPS and the consulting parties will finalize development of a process for concluding Section 106 consultations and implementation of any measures to resolve adverse effects. This process will be outlined in the ROD
October 2012	The NPS will finalize the resolution of adverse effects in the ROD.
	Permit issued, including mitigations measures required of the applicant.

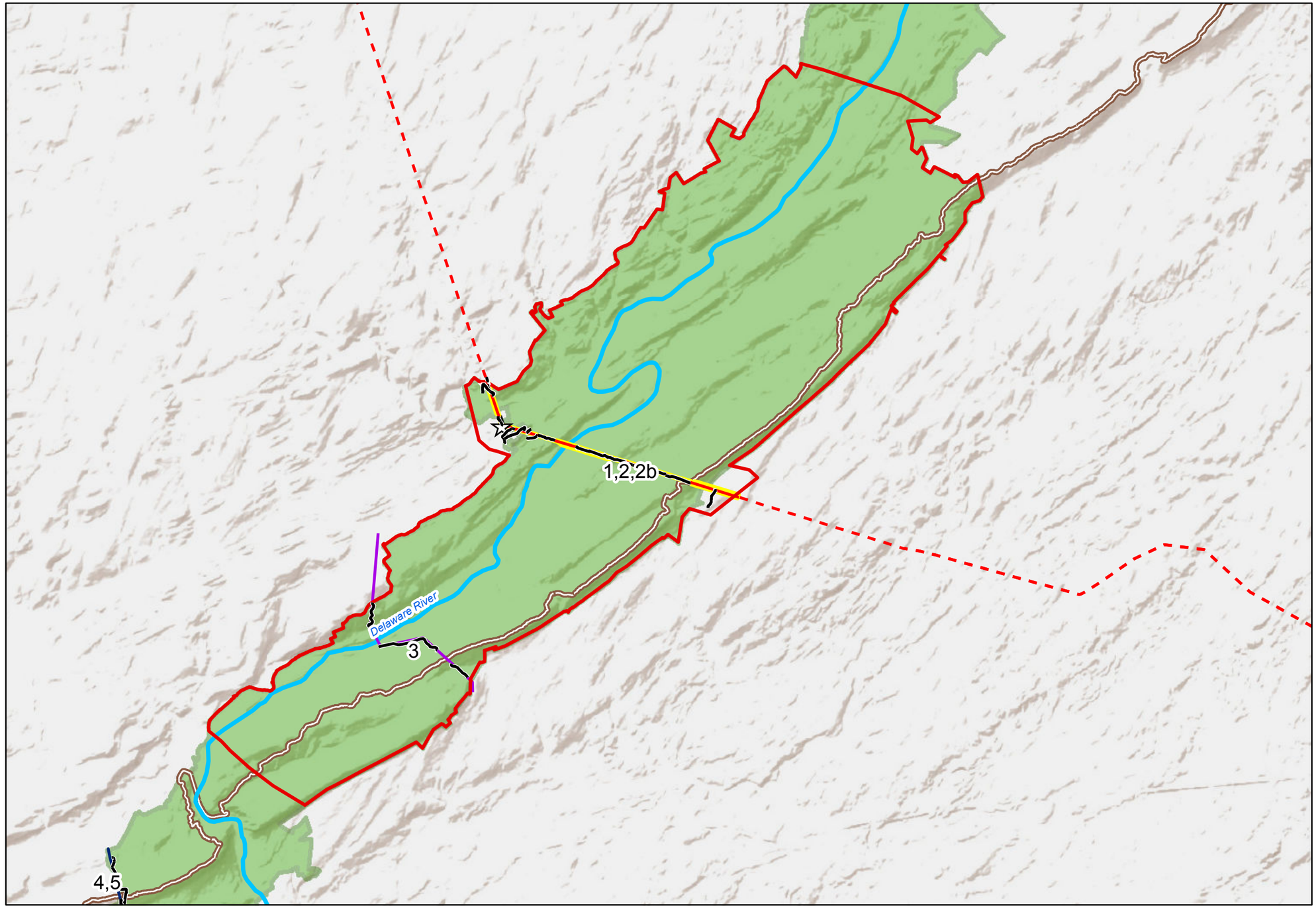
Section 106 Correspondence and Consultation Meeting History

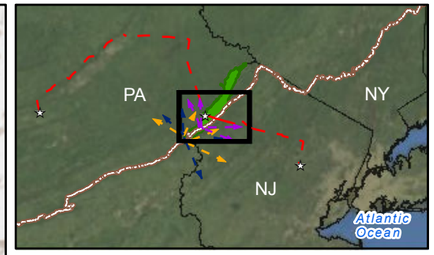
A history of the Section 106 correspondence and consultation meetings is provided in the table below:

Date	Meeting/Consultation
2010	
February 1	NPS sends initiation of consultation invitation to NJ HPO, PA SHPO and six Tribes
March 12	Delaware Nation responds to NPS. Requests continuing consultation
March 29	NPS invites additional Tribes to participate
	NPS mails CD with reports, photos, and archeological files to Stockbridge-Munsee Community and Oneida Nation of New York
April 9	NPS mails invitation to May 4 scoping meeting with Tribes, SHPOs and other federal and state agencies
April 16	Arnold L Printup email response, Saint Regis Mohawk Tribe, New York not interested in consulting at this time

Date	Meeting/Consultation
April 26	E-mail follow-up to April 9, 2010 invitation sent to seven tribes
May 4	NPS conducts scoping meeting with Tribes. Stockbridge-Munsee and Oneida Nation of New York participate by conference call
	Eastern Shawnee Tribe of Oklahoma requested meeting notes via call
	Stockbridge-Munsee Community interested in participating via conference call in May 20, 2010 call. Requests meeting notes
May 20	Conference call conducted with Tribes related to Project Scoping. Call notes available
June 7	NPS sends continuing consultation letter to NJ HPO, PA SHPO, and 12 tribes
June 11	Delaware Nation responds. Requests continuing consultation
July 6	Stockbridge-Munsee email response to June 6, 2010 letter requesting ongoing interest in consultation
July 7	Conference Call conducted with Tribes. Call notes available
July 13	E-mailed notes from May consultation to Stockbridge-Munsee Community, Eastern Shawnee, Oneida Nation of New York
July 15	E-mailed corrected notes from May consultation to Stockbridge-Munsee Community, Eastern Shawnee, Oneida Nation of New York
July 20	E-mailed follow-up for June 7, 2010 outgoing consultation request letter, email delivery failure report received from Towanda Seneca Nation
July 30	Alternatives Letter, sent to 12 tribes
August 3	Absentee-Shawnee Tribe of Indians contacts DEWA for additional information and continuing consultation
August 16	Received email response from Delaware Tribe to Alternatives Letter of July 30, 2010
	Received email response from Delaware Nation to Alternatives Letter of July 30, 2010
2011	
June 30	Information on NEPA and 106 process to date, sent to ACHP
July 18	Request for information on tribal resources for draft EIS, sent to 12 tribes and copied to NJ HPO and PA SHPO
August 15	NPS requests comments from NJ HPO, PA SHPO and 12 tribes on John Milner Associates cultural landscape report
August 31	NPS receives and acknowledges email response from Shawnee Tribe, Oklahoma requesting ongoing consultation
September 20	NPS receives response from Oneida Nation of New York (no comments)
September 21	NPS acknowledges Oneida Nation of New York response
September 30	NPS receives response from Eastern Shawnee Tribe of Oklahoma requesting ongoing consultation
October 3	NPS acknowledges and honors Eastern Shawnee Tribe of Oklahoma request
November 21	NPS sends availability of draft EIS for review and comment on Section 106 content, including preliminary historic property lists and effect determinations for all alternatives to NJ HPO, PA SHPO, ACHP, and 12 tribes
November 22	NPS receives email from Stockbridge-Munsee Community requesting on-site consultation visit to parks
November 30	Shawnee Tribe, Oklahoma emails review of EIS; NPS thanks tribe for review
December 11	Seneca-Cayuga Tribe of Oklahoma email address correction

Date	Meeting/Consultation
December 22	Invitation to site visit and meeting, sent to Delaware Tribe of Indians, Delaware Nation, Stockbridge-Munsee Community, Wisconsin, Eastern Shawnee Tribe of Oklahoma, and Oneida Nation of New York
December 28	Eastern Shawnee Tribe responds affirmatively to invitation
2012	
January 3	Delaware Nation contacts NPS expressing interest in on-site consultation. NPS acknowledges and responses
	NPS acknowledges and responds to Eastern Shawnee Tribes invitation acceptance
January 5	Invitation to site visit and meeting, sent to Oneida Nation of Wisconsin, Shawnee Tribe, and Absentee-Shawnee Tribe of Oklahoma at request of Eastern Shawnee Tribe and NER Ethnographer
	NPS requests RSVP from invited tribes
January 6	NPS requests RSVP from invited tribes
January 9	NPS requests RSVP from invited tribes
January 24-27	Tribal consultation meeting held at Delaware Water Gap HQ with Delaware Tribe, Delaware Nation, Stockbridge-Munsee Community, Eastern Shawnee Tribe of Oklahoma, and Absentee-Shawnee Tribe. Site visits were included. Tribal feedback was received
February 3	NPS mails on-site consultation thank you letter to January 24-27, 2012 consultation parties
	Eastern Shawnee Tribe provides council resolution supporting alternative 1, the “no-action” alternative. NPS receives resolution on February 15, 2012
February 6	NPS receives letter from ACHP requesting information and consultation
February 10	NPS mails resource reports to ACHP
February 13	Stockbridge-Munsee Community provides written resolution supporting alternative 1, the “no-action” alternative
February 24	Follow-up to site visit, including meeting notes, sent to Delaware Tribe, Delaware Nation, Stockbridge-Munsee Community, Eastern Shawnee Tribe of Oklahoma, and Absentee-Shawnee Tribe
February 27	NPS sends response to ACHP about letter of February 6, 2012
March 1	NPS sends applicant’s Phase I/II archeological survey report for park lands sent to 12 Tribes, NJ HPO, PA SHPO, and ACHP and requests comment
March 15	NPS receives report-request from NJ HPO
March 26	NPS mails architectural survey to NJ HPO, PA SHPO, ACHP, and 12 tribes and requests comments and receives request from NJ HPO for reports
April 12	NPS receives request for consultation on project from ACHP
April 17	NPS identifies preferred alternative, and notifies NJ HPO, PA SHPO, ACHP, and 12 tribes of likelihood of core drilling
April 27	NPS sends letter providing an update on the progress of the project, and to propose dates for a follow-up consultation meeting
May 2	Consultation package, including updated identification of historic properties, effect determinations, and invitation to consultation meeting on resolution of adverse effects, sent to NJ HPO, PA SHPO, ACHP, and 12 tribes
May 21	NPS sends letter requesting continued consultation
May 24	NPS conducts on-site consultation with Tribes at DEWA
May 31	Letter from NPS to USFWS regarding Tribes concerns for alternative 2 and the protection of the bald eagle, which is sacred to these tribes





Legend

- Substation
- Area of Potential Effects
- Proposed Access Road
- Appalachian National Scenic Trail
- Delaware River
- Delaware Water Gap National Recreation Area

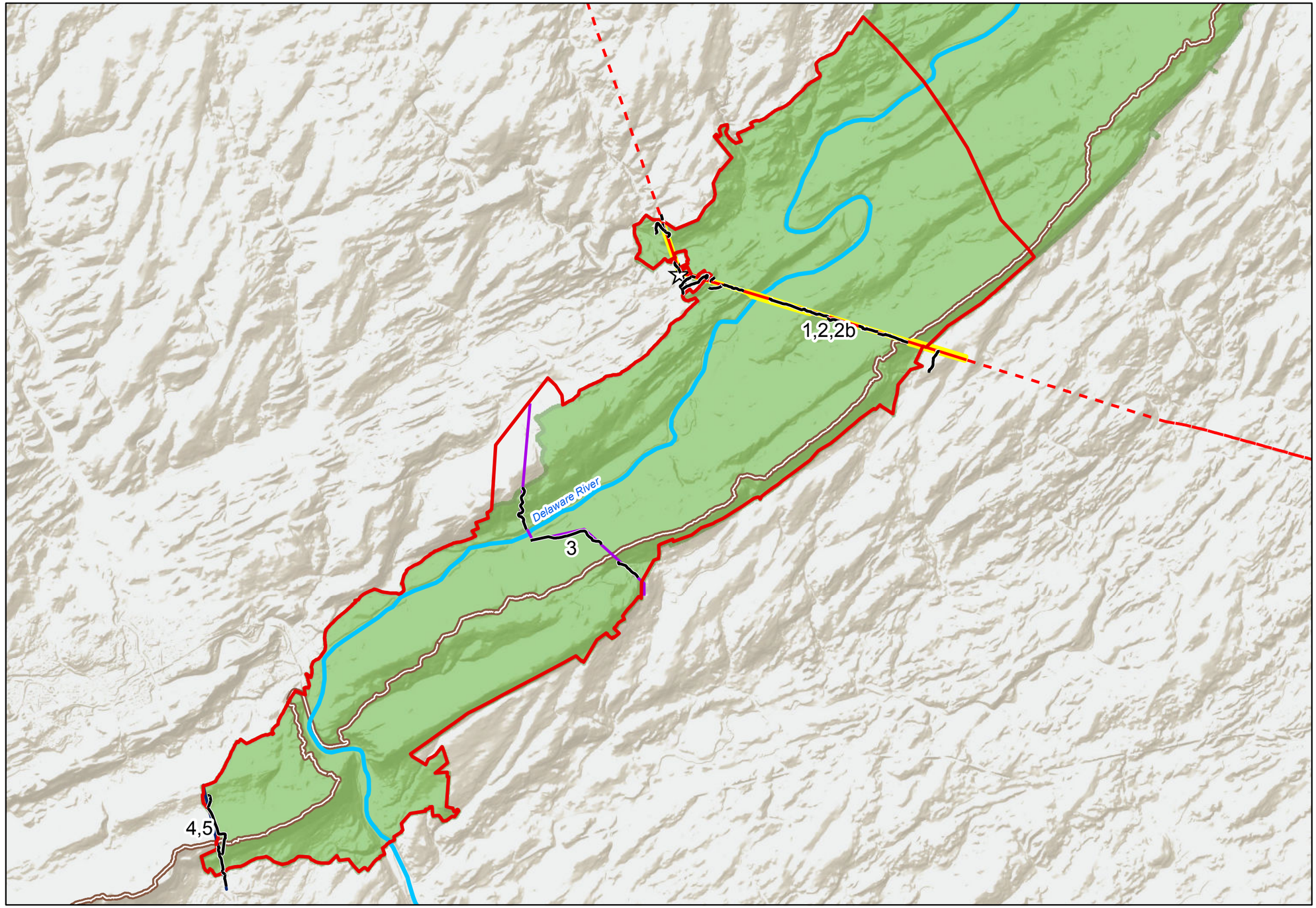
0 2 4
Miles

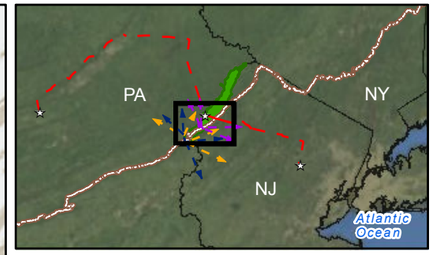
Susquehanna to Roseland Transmission Line Proposal and Right-of-Way Request EIS

Figure M-1
Alternative 2/2b and the Area of Potential Effects

Source: ESRI Streetmap 2006, Penn State 2010, ESRI ArcGISonline Map Service 2010, PennDOT 2011, NJOIT 2010, USGS 2006, NJ DEP 2008,

Projection: NAD 83 UTM Zone 18N
Date: July, 2012





Legend

- Substation
- Area of Potential Effects
- Proposed Access Road
- Appalachian National Scenic Trail
- Delaware River
- Delaware Water Gap National Recreation Area

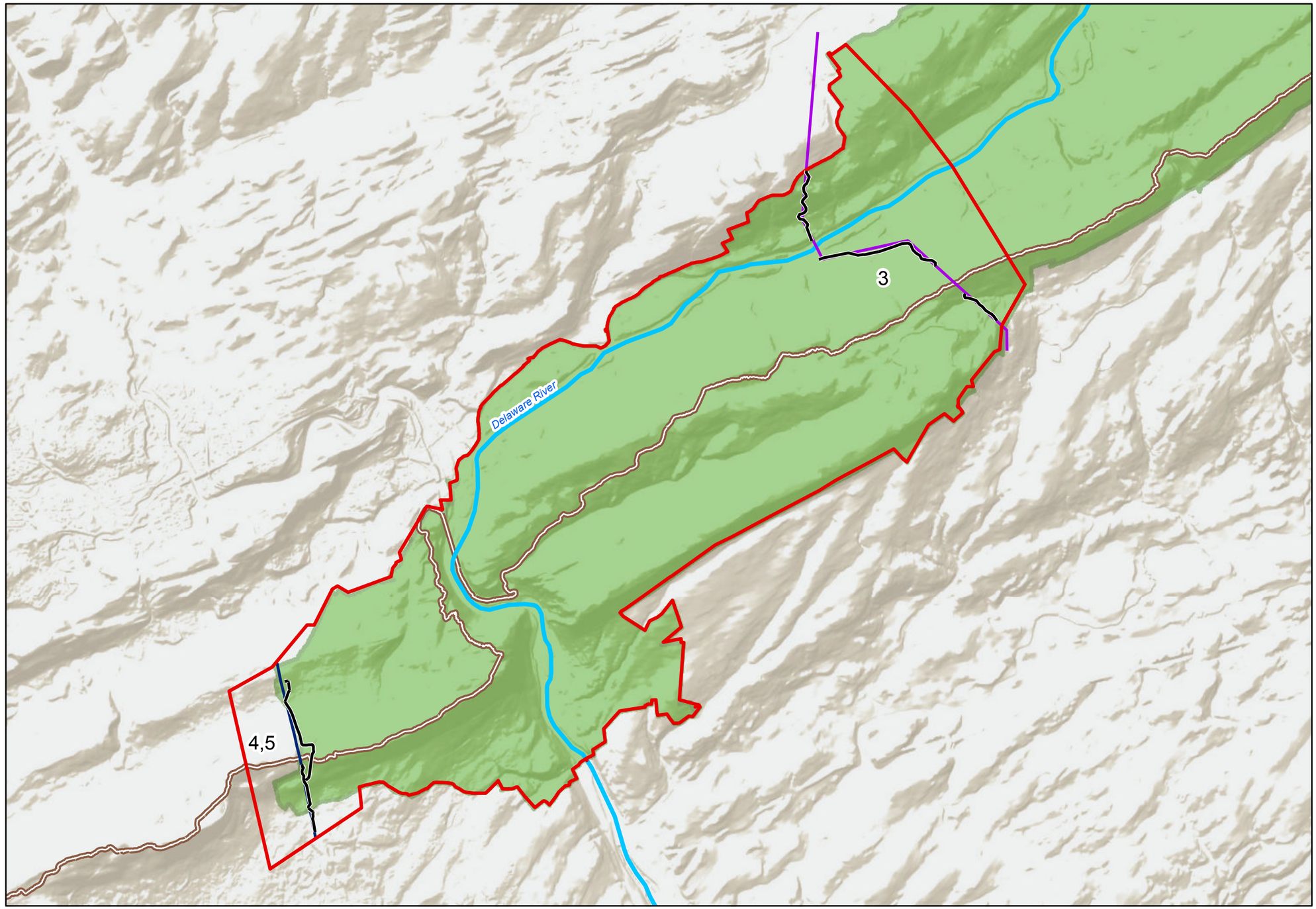
0 1 2
Miles

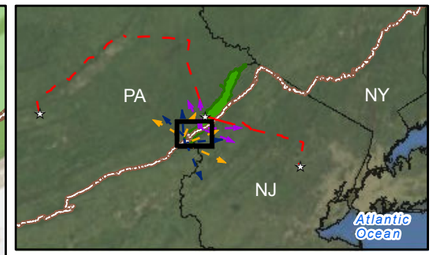
Susquehanna to Roseland
Transmission Line Proposal
and
Right-of-Way Request EIS

Figure M-2
Alternative 3 and the Area of Potential Effects

Source: ESRI Streetmap 2006, Penn State 2010, ESRI ArcGISonline Map Service 2010, PennDOT 2011, NJOIT 2010, USGS 2006, NJ DEP 2008,

Projection: NAD 83 UTM Zone 18N
Date: July, 2012





Legend

- Substation
- Area of Potential Effects
- Proposed Access Road
- Appalachian National Scenic Trail
- Delaware River
- Delaware Water Gap National Recreation Area

0 1 2
Miles

Susquehanna to Roseland Transmission Line Proposal and Right-of-Way Request EIS

Figure M-3
Alternative 4/5 and the Area of Potential Effects

Source: ESRI Streetmap 2006, Penn State 2010, ESRI ArcGISonline Map Service 2010, PennDOT 2011, NJOIT 2010, USGS 2006, NJ DEP 2008,

Projection: NAD 83 UTM Zone 18N
Date: July, 2012

COPY

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

FEB 01 2010

Tamara Francis
Cultural Preservation Director
The Delaware Nation
Post Office Box 825
Anadarko, OK 73005

Dear Ms. Francis:

The National Park Service (NPS) is preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of a high voltage electric transmission line traversing three National Park Service (NPS) units in Pennsylvania and New Jersey (Figure 1). The three park units are the Delaware Water Gap National Recreation Area (DEWA), Middle Delaware Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). I am writing to inform you about this project and to inquire if The Delaware Nation desires to consult with the NPS regarding the proposed project under Section 106 of the NHPA. Since the area of effect lies within the aboriginal homeland of the Delaware people, there may be historical, cultural and archeological resources in the area of potential effect that would be of interest to The Delaware Nation. I would especially like to know if you have any information about such sites and resources. I am available to discuss the project with you in more detail if that would assist our conversation about the proposed project. We are making a similar inquiry to the tribal governments and agencies listed in Enclosure 1.

Project Summary

PPL Electric Utilities Corporation and PSE&G, jointly known as the Applicants, have proposed the expansion of an existing 230,000-volt (230kV) electric transmission line from Susquehanna (Berwick, Pennsylvania) to Roseland, New Jersey (the S-R Line) (Figure 1). The project is based on direction for electric transmission expansion provided by the Regional Transmission Operator, PJM Interconnection, which oversees the overall movement of wholesale electricity between many electric utilities throughout a 13 state region. The proposed action includes replacing the existing 80-foot towers with new larger towers (up to 200 feet high) and adding an additional 500,000-volt (500kV) transmission line. This would necessitate widening the existing right-of-way, and in areas, would require granting additional legal rights beyond the Applicants' current rights. The proposed action would also include the construction of new access roads and the rehabilitation and widening of existing roads for accessing the transmission line corridor. The current EIS study area, developed by NPS (Figure 2), includes the area affected by the 4.18 mile portion of the S-R Line. The study area has been expanded beyond the right of way to include other areas within the parks affected by alternatives not yet developed by NPS and the surrounding human environment affected directly by the NPS action.

Development of Alternatives

The EIS would compare three routes that have been proposed by the Applicants to determine the alternative that would minimize impacts to the natural and cultural resources within the parks and surrounding areas. The three routes, Alternatives A, B, and C are displayed in Figure 3.

Other alternatives are currently being developed by the NPS and may include relocation of the project partially outside of park(s) boundaries; installation of portions of the entire upgraded power line underground; installation of the power line on the bottom of the river; or an alternative that uses direct current from two wires instead of the proposed three to eight wires. Additionally, the No Action Alternative is also being considered, in which the existing power lines running from Susquehanna to Roseland would be kept but the current request for permits would not be granted.

Consultation

If The Delaware Nation wishes to consult with the NPS regarding this project as provided for under the regulations for the National Historic Preservation Act, please write to the address below or contact Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov.

Due to the EIS schedule, we would appreciate hearing from you by February 28, 2010.

Please send responses to:

Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Sincerely,

John J. Donahue
Superintendent, DEWA

Pam Underhill
Superintendent, APPA

Enclosures:

Enclosure 1.	Listing of Agencies and Tribal Governments
Figure 1.	Location Map for the Parks
Figure 2.	Study Area Map
Figure 3.	PPL and PSE&G Proposed Route Map

Amanda Stein/DEWA/NPS
03/22/2010 09:00 AM

To "Jason Ross" <JRoss@delawarenation.com>
cc Kara Deutsch/DEWA/NPS@NPS, Sarah Bransom/APPA/NPS@NPS, Patrick Malone/DENVER/NPS@NPS, SRLINE EIS@NPS
bcc
Subject re: National Park Service: EIS

Good Morning Jason:

We accept The Delaware Nation as a consulting partner, under the Executive Order for Government-to-Government Consultation, and we will provide any information that you need in order to provide input to the Proposed Susquehanna to Roseland Transmission Line Environmental Impact Statement.

Thank you.

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

"Jason Ross" <JRoss@delawarenation.com>

"Jason Ross"
<JRoss@delawarenation.com>
03/12/2010 11:43 AM

To <amanda_stein@nps.gov>
cc
Subject re: National Park Service: EIS

Hello Ms. Stein,

The Delaware Nation received correspondence regarding the National Park Service (NPS) preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the construction of a high voltage electric transmission line traversing three National Park Service units in Pennsylvania and New Jersey….

The Delaware Water Gap National Recreation Area (DEWA), Middle Delaware Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA).

The Delaware Nation will be a consulting party on the projects and thank you for consulting with the Delaware Nation,

Jason Ross
Museum/Section 106 Assistant
Cultural Preservation Department
The Delaware Nation
P.O. Box 825
Anadarko, OK 73005
PH# 405) 247-2448
FAX# 405) 247-8905
www.delawarenation.com

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

MAR 29 2010

Karen Kieniatobe
Absentee-Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Dear Ms. Kieniatobe:

During recent public scoping meetings the National Park Service (NPS) was asked to broaden the scope of a proposed project on federal lands to include consultation with additional American Indian Tribes. As you know from past experience with Delaware Water Gap National Recreation Area (DEWA), soliciting your input in the project review process is something we would always plan on doing in any event.

The NPS is preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of a high-voltage electric transmission line traversing three (3) units of the National Park Service (NPS) (Figure 1). The three affected units are: Delaware Water Gap National Recreation Area (DEWA), Middle Delaware Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). I am writing to inform you about this project and to inquire if the Absentee-Shawnee Tribe of Indians of Oklahoma desires to consult with the NPS regarding the proposed project under Section 106 of the NHPA.

Since the area of effect lies within the aboriginal homeland of the ancestors of modern Delaware tribes, there may be historical, cultural and archeological resources in the area of potential effect that would be of interest to them. Additionally, some lands under consideration for alternative routes for the project fall in the homelands of other tribes (e.g. Shawnee, Iroquois, Mohawk). Therefore, it is important that we seek your input on this project. I would especially like to know if you have any information about historical, cultural and archeological resources in the area of potential effect. I am available to discuss the project with you in more detail if that would assist our cooperation on the proposed project. We are making a similar inquiry to the tribal governments and agencies listed in Enclosure 1.

Project Summary

PPL Electric Utilities Corporation and PSE&G, jointly known as the Applicant, has proposed the expansion of an existing 230,000-volt (230kV) electric transmission line from Susquehanna (Berwick, Pennsylvania) to Roseland, New Jersey (the S-R Line) (Figure 1). The Applicant is based on direction for electric transmission expansion provided by the Regional Transmission Operator, PJM Interconnection, which oversees the overall movement of wholesale electricity between many electric utilities throughout a 13 state region. The proposed action includes replacing the existing 80-foot towers with new larger towers (up to 200 feet high) and adding an additional 500,000-volt (500kV) transmission line. This would necessitate widening the existing right-of-way, and in areas, would require granting additional property rights beyond the Applicants' existing rights. The proposed action would also include the construction of new access roads and the rehabilitation and widening of existing roads for accessing the

transmission line corridor. The current EIS study area, developed by NPS (Figure 2), includes the area affected by the 4.18 mile portion of the S-R Line. The study area has been expanded beyond the right of way to include other areas within the park units affected by alternatives not yet developed by NPS and the surrounding human environment affected directly by the NPS action.

Development of Alternatives

The EIS could compare three routes that have been proposed by the Applicants to determine the alternative that would minimize impacts to the natural and cultural resources within the parks and surrounding areas. The three routes, Alternatives A, B, and C are displayed in Figures 3A and 3B.

Other alternatives are currently being developed by the NPS and may include relocation of the project partially outside of park(s) boundaries; installation of portions of the entire upgraded power line underground; installation of the power line on the bottom of the river; or an alternative that uses direct current from two wires instead of the proposed three to eight wires. Additionally, the No Action alternative is also being considered, in which the existing power lines running from Susquehanna to Roseland would be continued, but the current request for construction permits and additional right of way would not be granted.

Consultation

If the Absentee-Shawnee Tribe of Indians of Oklahoma wishes to consult with the NPS regarding this project as provided for under the regulations for the National Historic Preservation Act, please write to the address below or contact Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov.

We would appreciate your comments within 30 days of receipt of this letter.

Please send responses to:

Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Sincerely,

John J. Donahue
Superintendent, DEWA

Pam Underhill
Superintendent, APPA

Enclosures:

Enclosure 1.	Listing of Agencies and Tribal Governments
Figure 1.	Location Map for the Parks
Figure 2.	Study Area Map
Figure 3A & B.	PPL and PSE&G Proposed Route Maps

COPY

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

APR 09 2010

EA Engineering Science and Technology
APR 14 2010
RECEIVED SPARKS, MD

Mr. Michael Bedrin, Regional Director
Pennsylvania Department of Environmental Protection
North East Regional Office
2 Public Square
Wilkes-Barre, Pennsylvania 18711-0790

Dear Mr. Bedrin:

As required by the National Environmental Policy Act (NEPA) of 1969, as amended, the National Park Service (NPS) is preparing an Environmental Impact Statement (EIS) to analyze potential impacts for the proposed construction of a high voltage electric transmission line traversing three NPS units in Pennsylvania and New Jersey: Delaware Water Gap National Recreation Area (DEWA), Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). The NPS held its first set of public meetings in February 2010, and is currently finalizing a report which summarizes and analyzes the comments submitted during the public scoping period. The next step is developing alternatives to the Applicants' proposed route, as required by NEPA and initiating consultation under the National Historic Preservation Act (NHPA) and the Endangered Species Act.

The purpose of this letter is to invite you or your representative to an information session that the National Park Service is hosting on May 4 from 1:00pm to 4:00pm to engage Federal and State Agencies and Tribal Governments in our environmental review process. This meeting will provide an overview of the proposed project; will discuss the current status of the EIS schedule, and will be an opportunity for the agencies and governments to discuss their role and expertise in this process.

We request that you please RSVP by April 26 to Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov. Please provide Amanda with the name and contact information of the attendee.

Thank you for your assistance in facilitating coordination between the agencies and tribal governments on this project and we look forward to your participation on May 4.

Sincerely,

John J. Donahue
Superintendent, DEWA

Pamela Underhill
Superintendent, APPA

From:	Amanda Stein
To:	SRLINE_EIS@nps.gov
Subject:	Fw: EIS for Deleware Gap, , Middle Deleware, and the Appalachian National Scenic Trail
Date:	05/03/2010 06:50 AM

----- Forwarded by Amanda Stein/DEWA/NPS on 05/03/2010 08:49 AM -----

"Arnold Printup" <arnold.printup@srmt-nsn.gov>

04/16/2010 01:52 PM

Please respond to "Arnold Printup" <arnold.printup@srmt-nsn.gov>

To <Amanda_Stein@nps.gov>

cc

Subject EIS for Deleware Gap, , Middle Deleware, and the Appalachian National Scenic Trail

She:kon Amanda,

This Letter is in response to a request for consultation from your Agency in regards to an EIS for the following areas: Delaware Water Gap National Recreation Area, Middle Delaware Scenic and Recreational River, and the Appalachian National Scenic Trail. At this time we are not requesting to be a consulting party on this project, we choose to defer to the Delaware Nation at this time. Should you have any questions please contact my office at 1(518)358-2272 ext. 164.

Nia:wen,

Arnold L Printup
St.Regis Mohawk Tribe
THPO

Amanda Stein/DEWA/NPS
04/26/2010 11:35 AM

To amanda_stein@nps.gov
cc
bcc ron_popowski@fws.gov; Eric_schrading@fws.gov; amy.h.elliott@usace.army.mil; martinabarnes@fs.fed.us; rudnick.barbara@epa.gov; sean_mcguinness@nps.gov; Peter.colosi@noaa.gov; tfranfic@delawarenation.com; bobermey@emporia.edu; sherry.white@mohican-nsn.gov; snithpo@sni.org; tonsec@buffnet.net; kkieniatobe@astribe.com; rdushane@estoo.net; shawneetribe@shawnee-tribe.com; jbergevin@oneida-nation.org; admin@onondaganation.org; william.muszynski@drbc.state.nj.us; Eileen.swan@highlands.state.nj.us; Dan.Saunders@dep.state.nj.us; ddemara@state.pa.us; DDusman@paoca.org; Dave.Pasicznyk@dep.state.nj.us; dmclearen@state.pa.us; dave.chanda@dep.state.nj.us; jarway@state.pa.us; cdubrock@state.pa.us
Subject Invitation to May 4 NPS meeting; Susquehanna to Roseland EIS Agency/Tribal Government workshop

Good Morning,

I am writing in regard to Superintendent John Donahue and Superintendent Pamela Underhill's invitation (mailed April 9, 2010 via U.S. Postal Service) to the information session that the National Park Service (NPS) is hosting on May 4 from 1:00pm to 4:00pm. This workshop is to engage Federal and State Agencies and Tribal Governments in NPS' environmental review process of the proposed Susquehanna to Roseland Transmission Line Project through the Delaware Water Gap National Recreation Area, the Middle Delaware National Scenic and Recreational River, and the Appalachian National Scenic Trail.

Attached is the agenda and directions to the venue hosting the workshop. A conference call-in number may be arranged if there is interest.

Please respond with the names and contact information of those that plan on attending or please let me know if you do not plan on participating.

Thank you for your assistance and we look forward to your participation on May 4.

May 4 2010 Agenda NPS AGENCY SCOPING MEETING.doc

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109

Fax: 570-426-2402
amanda_stein@nps.gov

w/corrections

AGENCY/TRIBAL GOVERNMENT SCOPING MEETING NOTES

DELAWARE WATER GAP NATIONAL RECREATION AREA

MIDDLE DELAWARE SCENIC AND RECREATIONAL RIVER

APPALACHIAN NATIONAL SCENIC TRAIL

SUSQUEHANNA TO ROSELAND TRANSMISSION LINE

ENVIRONMENTAL IMPACT STATEMENT

MAY 4, 2010

Participating via phone:

Stephanie Lamster, US Environmental Protection Agency – Region 2;
Jesse Bergevin, Oneida Nation of New York;
Dianne Dusman, Pennsylvania Office of Consumer Advocate;
Joseph Corleto, New Jersey Department of Environmental Protection;

Attending the meeting:

Tom Borden, New Jersey Highlands Council
Larry Brady, US Department of the Army, Picatinny Arsenal
Kelly Davis, New Jersey Department of Environmental Protection
Amy Elliott, US Army Corps of Engineers
Michael Horne, US Fish and Wildlife Service
William Koch, US Fish and Wildlife Service
Shane McAleer, Delaware River Basin Commission
Robert Piel, New Jersey Department of Environmental Protection
Wayne Poppich, US Army Corps of Engineers
Samuel Reynolds, US Army Corps of Engineers

Introductions

Overview and status of the environmental review from the Superintendents

Open Discussion on Agency /Tribal Government Issues and Data

US Army Corps of Engineers (Corps)

What role will the Corps play in the Environmental Impact Statement (EIS) process as governed by the National Environmental Policy Act of 1969 (NEPA)?

The Corps has stated that they would like to join the park in the EIS process as a cooperating agency. Becoming a cooperating agency with the National Park Service (NPS) is under discussion with the Corps and the NPS. The Corps name will be on the EIS if they become a cooperating agency. The proposal spans two Districts (Baltimore and Philadelphia. Philadelphia District would be the primary contact for the Corps. The NPS would like this documented in writing.

The Corps is required to do a NEPA analysis as a part of the review and issuance of permits for which the Applicants (PPL and PSEG) have applied.

The Corps has not decided whether to review the Applicants proposal under one permit (individual) or treat each crossing as a separate permit (i.e., several Nationwide permits). Many of the crossings will not require a permit since the lines and towers will straddle the water and not impact the river/streams; however, PA and NJ state permits will still be needed.

Dilemma for the Corps and the States (PA and NJ):

The Corps has a concern about the mats used to protect ground resources. The Applicants will need to go back and grade, reseed, and restore, and place fill to restore areas. This may or may not meet the criteria for an adverse impact.

The Corps stated that it seems like many issues regarding the utilities proposal are still unresolved.

Wild and Scenic River Act – Question was raised as to whether or not there enough teeth in the designation to deny the permit? The Corps has not issued permits in the past if there are adverse impacts to a wild and scenic river.

New Jersey Department of Environmental Protection (NJ DEP)

NJ DEP and U.S. Environmental Protection Agency (EPA) have information on the specifics of the towers and foundations. This information was given to them by the Applicants in documentation submitted with the freshwater wetlands and flood hazard permit applications. NJ DEP has 90 days to make a decision on the permit applications submitted by the applicants. NJ DEP has not made a decision yet, but they need to make a decision by the end of June 2010.

Freshwater Wetlands and Flood Hazard Permit Applications

- The Applicants have minimized impacts to wetlands by using mats.
- Timing restricting for rare, threatened and endangered species will be included in the permit.
- If wetland impacts exceed five (5) acres then the permit application is reviewed by EPA.
- The Corps regulates permanent, temporary and secondary impacts. The Corps does not regulate temporary impacts due to non-regulated activities (such as placement of mats in wetlands), but does evaluate them as project impacts to aquatic resources if the scope of the overall review includes these impacts. There are approximately 30 acres of impacts by the mats on wetlands.
- If the Applicants cannot get permits from the NPS then NJ DEP's permits is not valid, the application to NJ is for the entire line.
- 4/10 of an acre of permanent wetland impacts in applicants permit application.
- The applicants do not have to expand right-of-way (ROW) in NJ.

NJ DEP has gone out in the field and looked at the wetlands along the ROW within NJ.

NJ DEP can condition the permit so that the Applicants cannot start construction without NPS approvals.

NJ DEP has requested a meeting in Trenton, NJ with all parties (NJ, Applicants, NPS, Corps) on May 12 to discuss the issues that have been brought up at this meeting.

The NPS cannot make this meeting because they will be concluding their alternatives development workshop. NJ DEP would reach out to NPS with potential dates.

The Applicants have given NJ DEP detailed construction plans, but not have given these plans to the NPS.

The State Historic Preservation Office (SHPO) may rely on the federal NEPA process, not the state permit process. The SHPO has commented that more information is needed before their approval.

A question was raised as to how permits can be issued from the states without an impacts analysis? Both states have applications before them for analysis. The states have the impact analysis completed by the applicants. Will the states be looking at the project cumulatively?

NPS stated that there is an advantage to the state not issuing the permits before the NPS NEPA process is complete - to avoid having the Applicants construct up to the park boundary before the NPS makes a decision on the proposal.

U.S. Department of the Army

The Applicants will start constructing next week at the Picatinny Arsenal; however they will be staying in the ROW. The Picatinny Arsenal staff is consulting with US Fish and Wildlife Service (USFWS) since they have a federally endangered species.

The Applicants proposal crosses a lake at the Arsenal.

Delaware River Basin Commission (DRBC)

The DRBC will be reviewing the project. The DRBC just received an application from the Applicants. It will be recommended for approval if applicable. The DRBC has limited specific criteria that they can hold the applicants.. Non-point source pollution control criteria will be considered. The DRBC looks at the entire project in its review.

Miscellaneous Items

- The NPS may want to contact the U.S. Coast Guard for consultation. The Corps will provide contact information.
- Access roads impacts are unknown at this time until data are collected along proposed access roads.

  The agencies did not receive information on the locations of access roads from the Applicants.

- An application for a Section 404 permit has been submitted to the Corps for Pike County, PA.

  The Pike county section of the existing line is the oldest, it is decaying and needs replacing regardless if this project happens or not.

- Within DEWA, the ROW on the PA side has not been cleared in decades. It will need to be cleared for the new lines. The Applicants do not currently maintain this area because it is not a critical path, it will become a critical path with the addition of the 500kV line; built to hold double circuit 500 KV

- This project is considered a major discharge by the EPA; therefore EPA is reviewing the state permits for both states.

  There are 2 EPA regions – the Appalachian Trail also falls within another EPA region. One region will take the lead in the review

- Pre-application meetings for state permits:
  - Staff from the Corps, Baltimore District have attended these meetings, which includes Monroe County.

Version 7/15/2010, includes correction (page 2)

May 20, 2010

Susquehanna to Roseland Transmission Line Environmental Impact Statement

National Park Service – Delaware Water Gap National Recreation Area, Middle Delaware Scenic and Recreational River, Appalachian National Scenic Trail

Conference call: 315-829-8463

Participants:

Jesse Bergevin, Historical Resources, Oneida Indian Nation of New York

Brinnen Carter, Cultural Resources Manager, DEWA

Amanda Stein, Biologist, DEWA

NPS provided an overview on the current EIS schedule and process.

Discussion:

Upper Susquehanna Basin is important to Oneida Indian Nation and culture.

Oneida Indian Nation is not aware of receiving any information or outreach from PA or NJ State SHPO office regarding this proposed project.

Oneida Indian Nation is not aware of receiving any information or outreach from PPL or PSE&G (Applicants) regarding this proposed project.

Oneida Indian Nation is disappointed that there has not been consultation by either state or by the applicants and is happy with consultation efforts of NPS.

Jesse Bergevin has reviewed the Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania) report as provided by NPS and is satisfied with the proposed recommendations set forth.

Jesse Bergevin advocates for avoidance over mitigation with proposed or any other alternatives brought forth.

NPS asked if a briefing prior to Public Alternatives meeting in August would be useful – Jesse Bergevin does not need in person meeting but suggested focusing on each nation individually.

Jesse Bergevin asked about what the implications are if US Army Corps of Engineers signs on as a cooperating agency. NPS states that this negotiation and discussion is currently ongoing and that NPS will keep parties abreast of what the results are of that discussion.

NPS suggests contacting PPL and Louis Berger regarding outreach to sovereign nations for the entire project. NPS will send contact information.

Action Items:

NPS will mail to Oneida Indian Nation of New York any existing letters received from PA and NJ SHPO regarding this proposed project.

NPS will send the link to the NPS PEPC website.

NPS will send contact information for PPL and Louis Berger Group

Notes on the May 4, 2010 Agency and Tribal Government Scoping workshop are forthcoming; NPS will send them once finalized.

Oneida Indian Nation will send letter that they have reviewed the Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania) report.

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015(H4217)

JUN 07 2010

Daniel D. Saunders
New Jersey State Historic Preservation Office
Post Office Box 404
Trenton, New Jersey 08625

Dear Mr. Saunders:

The NPS is preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of a high-voltage electric transmission line traversing three National Park Service (NPS) units in Pennsylvania and New Jersey (Figure 1). The three park units are the Delaware Water Gap National Recreation Area (DEWA), Middle Delaware Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). We are writing to initiate consultation about the proposed project under Section 106 of the National Historic Preservation Act (NHPA).

Project Summary

PPL Electric Utilities Corporation and PSE&G, jointly known as the Applicants, have proposed an expansion of the existing 230,000-volt (230kV) electric transmission line from Susquehanna (Berwick, Pennsylvania) to Roseland, New Jersey (the S-R Line). The project is based on direction for electric transmission expansion provided by the Regional Transmission Operator, PJM Interconnection, which oversees the overall movement of wholesale electricity between many electric utilities throughout a 13 state region. The Applicants' proposed action includes replacing the existing 80-foot towers with new larger towers (up to 200 feet high) and adding an additional 500,000-volt (500kV) transmission line. This would necessitate widening the existing right-of-way, and in areas, would require granting additional legal rights beyond the Applicants' current rights. The proposed action would also include constructing new access roads and rehabilitating and widening existing roads to access the transmission line corridor.

The NPS EIS purpose and need is to address the Applicants' proposed action and decide whether to grant the Applicants permits, and if so, where---and under what conditions---the NPS would allow construction of the upgraded electrical transmission lines. The current EIS study area, developed by NPS , includes the area affected by the 4.18 mile portion of the S-R Line. The study area has been expanded beyond the right of way to include other areas within the parks affected by alternatives developed by NPS and the surrounding human environment affected directly by the NPS action. For additional background materials please see the National Park Service's Planning, Environment and Public Comment (PEPC) website:

http://parkplanning.nps.gov/projectHome.cfm?parkId=220&projectId=25147

Development of Alternatives

The EIS is comparing several alternative routes, in addition to the route proposed by the Applicants, to determine the alternative that would minimize impacts to the natural and cultural resources within the parks and surrounding areas. Other alternatives are currently being developed by the NPS and may include relocation of the project partially outside of park(s) boundaries. Additionally, the No Action Alternative is also being considered, in which the existing 230kV power lines running through the parks would be kept but the current request for construction and right-of-way permits would not be granted.

Project Effects and Selecting Alternatives

The NHPA mandates that the NPS consult with both State and Tribal Historic Preservation Offices and the public on matters that will have effects of historic resources. From a discipline-based approach, the NPS anticipates there will be both direct and indirect effects of the project on archeological resources, historic structures, cultural landscapes, scenic and historic vistas and landscapes, and ethnographic resources. The NPS anticipates that all alternatives to be considered under the EIS will have these effects. Some of the resources are located within NPS property. Other resources are located on private property, state-owned lands in Pennsylvania and New Jersey, and other federal lands. Given the size of the project area, the NPS expects to provide our Section 106 consulting parties with significant numbers of cultural resource compliance reports to evaluate fully the proposed project's effects.

The NPS is aware that the SHPOs from both New Jersey and Pennsylvania have been consulting directly with the Applicants on this project. While the NPS will be incorporating the Applicants' data into our EIS process, the NPS consultation with states, tribes, and the public is a separate consultation process.

Currently, the NPS is between project scoping and the announcement of draft public alternatives. This is in preparation for public hearings in the third week of August, 2010. When the public alternatives to be carried into the Draft EIS are finalized, the NPS anticipates that fieldwork and literature and database reviews related to the resource studies will begin. When internal review of the resulting reports is complete, the NPS will forward these resource reports to 106 consulting parties for review and comment. Agency input is very important in the selection of

alternatives in the EIS process. The NPS encourages all consulting agencies and the public to comment on this project and help determine which alternative will be selected.

Consultation

If the New Jersey State Historic Preservation Office wishes to consult with the NPS regarding this project as provided for under the regulations for the National Historic Preservation Act, please write to the address below or contact Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov.

We would appreciate your comments within 30 days of receipt of this letter.

Please send responses to:

Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Sincerely,

John J. Donahue
Superintendent, DEWA

Pam Underhill
Superintendent, APPA

Enclosures:
Figure 1. Location Map for the Parks
Listing of State Historic Preservation Offices and Tribal Governments

cc:
Kara Deutsch
Brinnen Carter
Amanda Stein
Sarah Bransom

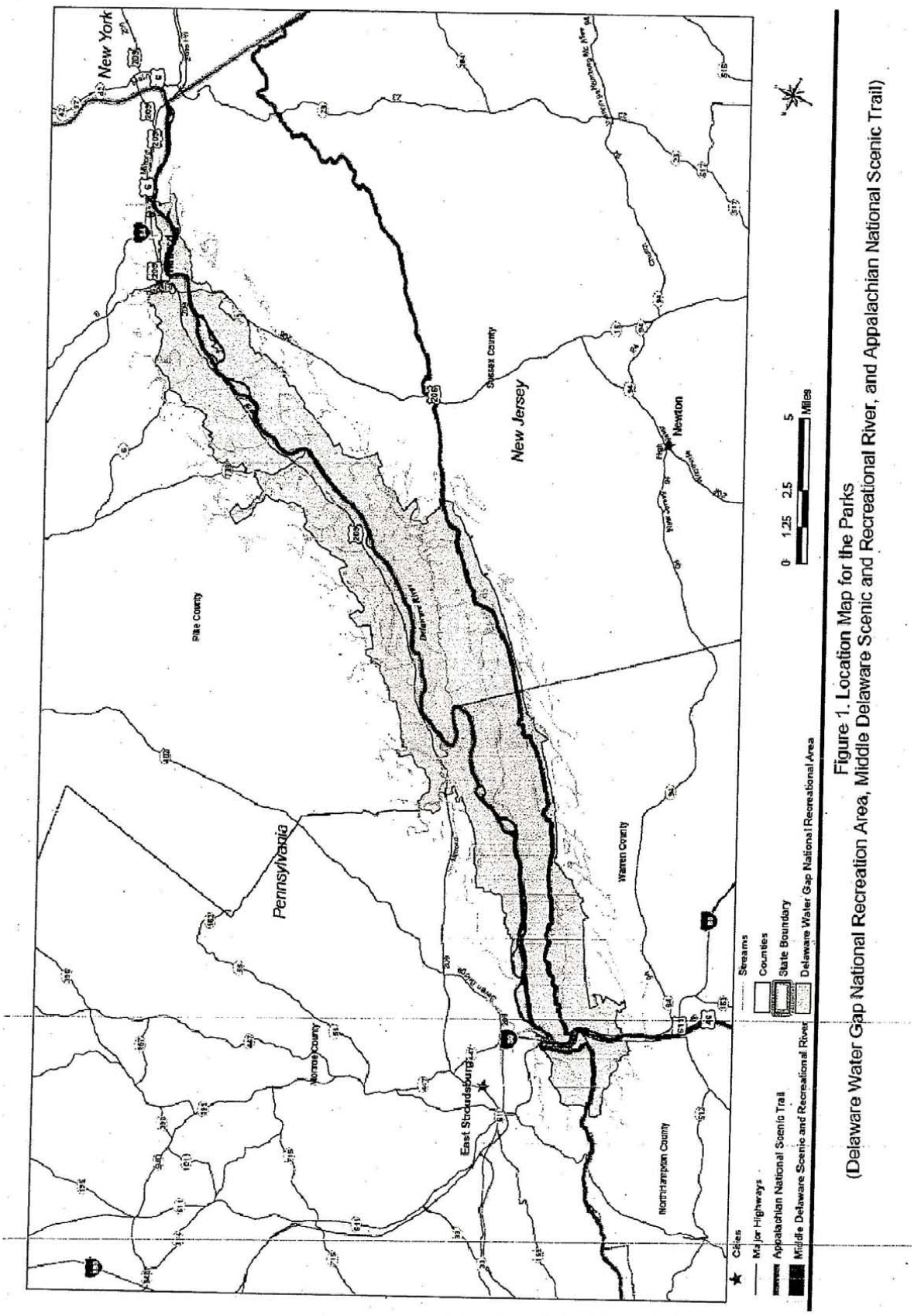


Figure 1. Location Map for the Parks
(Delaware Water Gap National Recreation Area, Middle Delaware Scenic and Recreational River, and Appalachian National Scenic Trail)

Mr. Emerson Webster, Chief
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Mr. Darwin Hill
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Ms. Karen Kieniatobe
Absentee-Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Ms. Robin Dushane
Eastern Shawnee Tribe of Oklahoma
Post Office Box 350
Seneca, Missouri 64865

Ms. Kim Jumper
Shawnee Tribe, Oklahoma
Post Office Box 189
Miami, Oklahoma 74355

Saint Regis Mohawk Tribe, New York
Mr. Jim Ransom
412 State Route 37
Awkesasne, New York 13655

Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

Mr. Irv Powless, Jr., Chief
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

"Jason Ross"
<JRoss@delawarenation.com>
06/11/2010 02:58 PM

To <amanda_stein@nps.gov>
cc
bcc
Subject Re: Applicants project (EIS)

History: This message has been replied to and forwarded.

HI Amanda,

The Delaware Nation received correspondence from the National Park Service regarding the Environmental Impact Statement (EIS) to analyze the potential impacts for the construction of a high-voltage electric transmission line traversing three National Park Service units in Pennsylvania and New Jersey.

1. Delaware Water Gap National Recreation Area (DEWA
2. Middle Delaware Scenic and Recreational River (MDSR)
3. Appalachian National Scenic Trail (APPA).

The Delaware Nation Cultural Preservation Director, Ms. Tamara Francis has reviewed the consultation packet and has determined that these areas are in the Delaware Nation area of interest and would be honored to be a consulting party on the project.

The Delaware Nation would like to commend you for taking the time and effort to consult with the Delaware Nation,

Jason Ross
Museum/Section 106 Assistant
Cultural Preservation Department
The Delaware Nation
P.O. Box 825
Anadarko, OK 73005
PH#405) 247-2448
FAX#405) 247-8905
www.delawarenation.com

"Sherry White" <Sherry.White@mohican-nsn.gov>

07/06/2010 12:10 PM

To <Amanda_Stein@nps.gov>
cc
bcc
Subject High-Voltage electric transmission line

History: This message has been replied to and forwarded.

Hi Amanda
I am responding to a letter we received on 6/10/10 regarding consultation on the high voltage electric lines. Yes the Stockbridge-Munsee Tribe is very interested in consultation on this project. The Delaware Water Gap holds many Native American sites including burials. We do have a few questions we would like addressed. Please call me at 715-793-3970.

Thank you
Sherry White

July 7, 2010

Susquehanna to Roseland Transmission Line Environmental Impact Statement

National Park Service – Delaware Water Gap National Recreation Area, Middle Delaware Scenic and Recreational River, Appalachian National Scenic Trail

Participants:

Sherry White, Tribal Historic Preservation Officer, Stockbridge-Munsee Community

Brice Obermeyer, NAGPRA and Section 106 Representative, The Delaware Tribe

Brinnen Carter, Cultural Resources Manager, DEWA

Amanda Stein, Biologist, DEWA

NPS provided an overview on the current EIS schedule and process.

Discussion:

Areas within the Delaware Water Gap National Recreation Area are important to the Stockbridge-Munsee Community and The Delaware Tribe and their cultures.

Ms. White and Mr. Obermeyer are not aware of receiving any information or outreach from PA or NJ State SHPO office regarding this proposed project.

The Stockbridge-Munsee Community and The Delaware Tribe are not aware of receiving any information or outreach from PPL or PSE&G (Applicants) regarding this proposed project. Both are disappointed that there has not been consultation by either state or by the Applicants.

The Stockbridge-Munsee Community and The Delaware Tribe were concerned that the preferred alternative was selected without having an opportunity to reviewing resource reports pertinent to the preliminary alternatives.

NPS relayed that the only report available at this time is the Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania) report for the Applicants' proposal. The Stockbridge-Munsee Community and The Delaware Tribe would like to review the report and would like to see maps of the proposed alternatives prior to Phase 1 surveys.

Action Items:

NPS will make sure that Stockbridge-Munsee Community and The Delaware Tribe are included on Agency and Tribal Government consultations.

NPS will provide for review a copy of the Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania) report as a PDF file on compact disc.

NPS will provide the Stockbridge-Munsee Community and The Delaware Tribe (and all other Tribal Governments) a letter displaying all of the preliminary alternative routes.

Request that the call notes be sent to Tamara Francis, Cultural Preservation Director, The Delaware Nation, along with other items listed in the action items.

Amanda Stein/DEWA/NPS

07/13/2010 09:17 AM

To sherry.white@mohican-nsn.gov, bobermey@emporia.edu, tfrancis@delawarenation.com

cc Brinnen Carter/DEWA/NPS@NPS, SRLINE EIS@NPS, Patrick Lynch/DEWA/NPS@NPS, Kara Deutsch/DEWA/NPS@NPS, Sarah Bransom/APPA/NPS@NPS, Patrick

bcc

Subject SRLINE EIS 25147 - - Call notes - - 07-21-2010

Good Morning,

Please find attached the notes from last week's conference call.

As a follow-up to the call we will be sending a letter from the Superintendents describing and displaying the preliminary alternatives, which will also include a compact disc with a digital version of the Applicants' archaeology report for their proposed transmission line route.

20107 7 SRLINE EIS Tribal Govt call notes.pdf

Please feel free to contact me with any questions.

Thank you,

Mandi

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

From:	Amanda Stein
To:	Poppich, Wayne G NAP
cc:	SRLINE EIS@NPS
Subject:	Re: FW: May 4 Agency/Tribal Government Scoping meeting notes - Susquehanna to Roseland EIS
Date:	07/15/2010 12:36 PM
Attachments:	NPS S-RLine EIS May 4 2010 Meeting Notes.doc

Thank you Wayne for correcting that. I will revise the notes for the record and resend to those on the email.

▼ "Poppich, Wayne G NAP" <Wayne.G.Poppich@usace.army.mil>

"Poppich, Wayne G NAP" <Wayne.G.Poppich@usace.army.mil>

07/15/2010 02:30 PM

To <Amanda_Stein@nps.gov>

cc

Subject FW: May 4 Agency/Tribal Government Scoping meeting notes - Susquehanna to Roseland EIS

Amanda:

I have a comment concerning the meeting minutes.

On page 2, 8th line from the bottom, "the Corps does not regulate temporary
impacts." The opposite is true. The Corps regulates permanent, temporary
and secondary impacts. We don't regulate temporary impacts due to non-regulated activities (such as placement of mats in wetlands), but we do
evaluate them as project impacts to aquatic resources if the scope of the overall review includes these impacts.

Wayne

-----Original Message-----
From: Amanda_Stein@nps.gov [mailto:Amanda_Stein@nps.gov]

Sent: Friday, July 09, 2010 3:22 PM
To: bill_koch@nps.gov; michael_horne@fws.gov; Reynolds, Samuel L NAP; Elliott, Amy H NAB02; Poppich, Wayne G NAP; lamster.stephanie@epa.gov; DeGeorgio.Alaina@epamail.epa.gov; Larry.brady1@us.army.mil; rlueckel@fs.fed.us; tfrancis@delawarenation.com; sherry.white@mohican-nsn.gov; rdushane@estoo.net; jbergevin@oneida-nation.org; Shane.McAleer@drbc.state.nj.us; tom.borden@highlands.state.nj.us; Dan.Saunders@dep.state.nj.us; kelly.davis@dep.state.nj.us; kellydavis.oer@gmail.com; Joseph.corleto@dep.state.nj.us; Larry.Baier@dep.state.nj.us; smcdougal@state.pa.us; rsafley@state.pa.us; tshervinsk@state.pa.us; jbuczynski@state.pa.us; DDusman@paoca.org; robert.piel@dep.state.nj.us
Cc: SRLINE_EIS@nps.gov; Sarah_Bransom@nps.gov; Patrick_Malone@nps.gov; Steven_Culver@nps.gov; Kara_Deutsch@nps.gov
Subject: May 4 Agency/Tribal Government Scoping meeting notes - Susquehanna to Roseland EIS

SRLINE EIS 25147

Attached are the notes from the May 4 Agency/Tribal Government Scoping meeting for the National Park Service Susquehanna to Roseland Transmission Line EIS.

My apologies for the delay in getting these notes to you.

Thank you,

(See attached file: NPS S-RLine EIS May 4 2010 Meeting Notes.doc)

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

NPS S-RLine EIS May 4 2010 Meeting Notes.doc

From:	Amanda Stein
To:	Elliott, Amy H NAB02; bill_koch@nps.gov; Dan.Saunders@dep.state.nj.us; DDusman@paoca.org; DeGeorgio.Alaina@epamail.epa.gov; jbergevin@oneida-nation.org; jbuczynski@state.pa.us; Joseph.corleto@dep.state.nj.us; kellydavis.oer@gmail.com; kelly.davis@dep.state.nj.us; lamster.stephanie@epa.gov; Larry.Baier@dep.state.nj.us; Larry.brady1@us.army.mil; michael_horne@fws.gov; rdushane@estoo.net; rlueckel@fs.fed.us; robert.piel@dep.state.nj.us; rsafley@state.pa.us; Samuel.l.reynolds@usace.army.mil; Shane.McAleer@drbc.state.nj.us; sherry.white@mohican-nsn.gov; smcdougal@state.pa.us; tfrancis@delawarenation.com; tom.borden@highlands.state.nj.us; tshervinsk@state.pa.us; Poppich, Wayne G NAP; robert.piel@dep.state.nj.us; sboltz@eaest.com; Jennifer McConaghie; Patrick Lynch; Sarah Bransom; Steven Culver; Patrick Malone; Kara Deutsch
cc:	SRLINE EIS@NPS
Subject:	Re: May 4 Agency/Tribal Government Scoping meeting notes - Susquehanna to Roseland EIS
Date:	07/15/2010 01:09 PM
Attachments:	NPS S-RLine EIS May 4 2010 Meeting Notes corrected.pdf

All,

It was brought to my attention that the statement regarding the U.S. Army Corps of Engineers' role in regulating temporary impacts was incorrect as stated in the meeting notes (page 2). It should read:

"The Corps regulates permanent, temporary and secondary impacts. The Corps does not regulate temporary impacts due to non-regulated activities (such as placement of mats in wetlands), but does evaluate them as project impacts to aquatic resources if the scope of the overall review includes these impacts."

The attached notes incorporate that correction.

NPS S-RLine EIS May 4 2010 Meeting Notes corrected.pdf

Thank you.

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209

Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

▼ Amanda Stein/DEWA/NPS

Amanda Stein/ DEWA/NPS

07/09/2010 03:21 PM

To bill_koch@nps.gov, michael_horne@fws.gov, Samuel.l. reynolds@usace.army.mil, "Elliott, Amy H NAB02" <Amy. H.Elliott@usace.army.mil>, "Poppich, Wayne G NAP" <Wayne.G.Poppich@usace.army.mil>, lamster. stephanie@epa.gov, DeGeorgio.Alaina@epamail.epa.gov, Larry.brady1@us.army.mil, rlueckel@fs.fed.us, tfrancis@delawarenation.com, sherry.white@mohican-nsn.gov, rdushane@estoo.net, jbergevin@oneida-nation. org, Shane.McAleer@drbc.state.nj.us, tom. borden@highlands.state.nj.us, Dan.Saunders@dep.state. nj.us, kelly.davis@dep.state.nj.us, kellydavis.oer@gmail. com, Joseph.corleto@dep.state.nj.us, Larry.Baier@dep. state.nj.us, smcdougal@state.pa.us, rsafley@state.pa.us, tshervinsk@state.pa.us, jbuczynski@state.pa.us, DDusman@paoca.org, robert.piel@dep.state.nj.us

cc SRLINE EIS@NPS, Sarah Bransom/APPA/NPS@NPS, Patrick Malone/DENVER/NPS@NPS, Steven Culver/ DENVER/NPS@NPS, Kara Deutsch/DEWA/NPS@NPS

Subject May 4 Agency/Tribal Government Scoping meeting notes - Susquehanna to Roseland EIS

SRLINE EIS 25147

Attached are the notes from the May 4 Agency/Tribal Government Scoping meeting for the National Park Service Susquehanna to Roseland Transmission Line EIS.

My apologies for the delay in getting these notes to you.

Thank you,

[attachment "NPS S-RLine EIS May 4 2010 Meeting Notes.doc" deleted by Amanda Stein/DEWA/NPS]

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

From:	Amanda Stein
To:	admin@onondaganation.org
cc:	SRLINE EIS@NPS
Subject:	SRLINE EIS: Consultation
Date:	07/20/2010 08:03 AM

D5015(H4217)

Good morning,

I am writing as a follow-up to a letter that was mailed on June 7, 2010. The National Park Service (NPS) is preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of the Susquehanna to Roseland Electric Transmission line through three units of the National Park system in New Jersey and Pennsylvania.

If the Onondaga Nation of New York wishes to consult with the NPS regarding this project as provided for under the regulations for the National Historic Preservation Act, please write to the address below or contact me by phone at (570) 426-2474 or email at amanda_stein@nps.gov

Please send responses to:

Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Thank you.

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

From: Amanda Stein
To: SRLINE EIS@NPS
Subject: Fw: SRLINE EIS: Consultation
Date: 07/23/2010 08:31 AM

----- Forwarded by Amanda Stein/DEWA/NPS on 07/23/2010 10:31 AM -----

Your document: SRLINE EIS: Consultation
tonsec@buffnet.net

Delivery time expired

What should you do?

- You can resend the undeliverable document to the recipients listed above by choosing the Resend button or the Resend command on the Actions menu.
- Once you have resent the document you may delete this Delivery Failure Report.
- If resending the document is not successful you will receive a new failure report.
- Unless you receive other Delivery Failure Reports, the document was successfully delivered to all other recipients.
-

▼ Routing path

NPSRES06/MAIL/NPS, NP006DENVER/MTA/NPS, NP006DENVER/MTA/NPS, NPSRES06/MAIL/NPS

To: tonsec@buffnet.net

cc: SRLINE EIS@NPS

Date: 07/20/2010 10:15:23 AM

Subject: SRLINE EIS: Consultation

D5015(H4217)
Good morning,

I am writing as a follow-up to a letter that was mailed on June 7, 2010. The National Park Service (NPS) is preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of the Susquehanna to Roseland Electric Transmission line through three units of the National Park system in New Jersey and Pennsylvania.

If the Tonawanda Seneca Nation wishes to consult with the NPS regarding this project as provided for under the regulations for the National Historic Preservation Act, please write to the address below or contact me by phone at (570) 426-2474 or email at amanda_stein@nps.gov

Please send responses to:

Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Thank you.

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

FILE

14 Recipients (no enc)

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

JUL 30 2010

Irv Powless, Jr.
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

Dear Chief Powless, Jr.:

The National Park Service (NPS) is preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of a high voltage electric transmission line traversing three NPS units in Pennsylvania and New Jersey: Delaware Water Gap National Recreation Area (DEWA), Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA) (Figure 1). We are writing to initiate consultation regarding the proposed project and to request information regarding cultural resources within the EIS study area.

PPL Electric Utilities Corporation and PSE&G, jointly known as the Applicants, have proposed to expand an existing 230,000 volt (230 kV) electric transmission line from Susquehanna (Berwick, Pennsylvania) to Roseland, New Jersey (the S-R Line). Within the parks, the Applicants' proposed project includes replacing existing 80-foot towers with 160 to 200 foot towers within an expanded right-of-way (300-350 foot), and adding a 500 kV transmission line. The project would involve granting additional legal rights beyond the Applicants' current rights; construction of new access roads; and reconstructing and widening existing roads for access to the transmission line corridor. The EIS study area includes the area affected by the 4.18 mile portion of the S-R Line and additional areas affected by the alternatives drafted as part of the EIS process.

The EIS would compare seven alternatives; six action alternatives and the No Action Alternative (Alternative 1). The No Action Alternative allows the existing 230 kV line to remain, but the current request for construction and right-of-way permits would not be granted. The Applicants' proposal is identified as Alternative 2 and the five other routes developed by NPS are identified as Alternatives 3, 4, 5, 6, and 7. The six action alternatives are displayed in Figures 2 through 6.

Previously, consultation letters have been sent by the Applicants and the NPS for transmission alignment alternatives proposed during the scoping period. The purpose of this letter is to request current information regarding the possible occurrence of archaeological resources, historic

structures, cultural landscapes, scenic and historic vistas and landscapes, and ethnographic resources specific to the project area, inclusive of the six preliminary action alternative sites currently being considered. We request any information on potential effects to those (if any). We intend to include your response information in our EIS document. Preliminary Phase I surveys at the Parks are scheduled to take place this summer. We would appreciate a timely review and response to this letter so that information you provide on the cultural resources within our project area could be used in preparing the surveys.

Please let us know if any of the following are located in the project area:

- Burial sites
- Ceremonial sites
- Cultural landscapes

We recognize the importance of keeping specific location information about burial sites and ceremonial sites confidential---and plan to protect information you might provide to the full extent of the relevant federal laws (e.g. Archeological Resource Protection Act [ARPA], American Indian Religious Freedom Act [AIRFA], and the Native American Graves Protection and Repatriation Act [NAGPRA]).

We appreciate your attention to our request and to the deadline we must meet. Due to our fieldwork and EIS schedule, we would appreciate hearing from you as soon as possible.

We are also including a digital copy of the Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania) report. This report was generated by the Applicants for their proposed route. Please review and provide comments. If you do not prefer providing written comments, we can arrange consultation over via phone or in-person. We will forward resource reports for the rest of the action alternatives to National Historic Preservation Act (NHPA) Section 106 consulting parties for review and comment once the internal review has been completed.

Thank you for your cooperation. If you have any questions concerning this matter, please contact Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov.

Sincerely,

John J. Donahue
Superintendent, DEWA

Pamela Underhill
Superintendent, APPA

Cc:
Patrick Lynch
Kara Deutsch
Brinnen Carter
Sarah Bransom
Amanda Stein

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North St., 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
P.O. Box 404
Trenton, New Jersey 08625

Samuel Reynolds, Chief, Application Section II
U.S. Army Corps of Engineers
Philadelphia District, Regulatory Branch
Wanamaker Building, 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390

Wayne Poppich
U.S. Army Corps of Engineers
Pocono Area Field Office
253 State Route 435 STE 4
Clifton Township, Pennsylvania 18424

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Enclosures:

Figure 1. Overview Map of NPS Units
Figure 2. Alternative 2 - Applicant's Proposal
Figure 3. Alternative 3
Figure 4. Alternatives 4 and 5
Figure 5. Alternative 6
Figure 6. Alternative 7

CD containing electronic version of Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania) report

Listing of Tribal Governments

Ms. Tamara Francis, Cultural Preservation Director
The Delaware Nation
P.O. Box 825
Anadarko, Oklahoma 73005

Mr. Brice Obermeyer (NAGPRA and Sec. 106 Rep, The Delaware Tribe)
Department of Sociology and Anthropology
Emporia State University
1200 Commercial Street, Box 4022
Butcher Education Center, RM 115D
Emporia, Kansas 66801

Ms. Sherry White, Tribal Historic Preservation Officer
Stockbridge-Munsee Community
Tribal Historic Preservation Office
P.O. Box 70
Bowler, Wisconsin 54416

Mr. Barry Snyder, Sr, President
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P.O. Box 231
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Mr. LeRoy Howard, Chief
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Mr. Emerson Webster, Chief
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Saint Regis Mohawk Tribe, New York
412 State Route 37
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Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

Mr. Irv Powless, Jr., Chief
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

Brinnan Carter/DEWA/NPS
08/02/2010 05:46 PM

To Amanda Stein/DEWA/NPS@NPS
cc Patrick Lynch/DEWA/NPS@NPS
bcc
Subject Karen Kantinobe — Shawnee Tribe

History: This message has been replied to.

Amanda,
Karen called me last week about the PPL powerline consultation. Could you contact her and give her a brief?
BC
==========
=Brinnen Carter, Ph.D., Cultural Resource Manager
=Delaware Water Gap National Recreation Area
=570-588-3840
==========
= "Let your Discourse with Men of Business be Short
= and Comprehensive." George Washington
==========

RECEIVED
AUG 16 2010
BY:

Delaware Tribe of Indians
170 NE Barbara
Bartlesville, Oklahoma 74006
(918) 336-5272 FAX (918) 337-6591

August 10, 2010

Amanda Stein
National Park Service
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania
18324

Re: Susquehanna to Roseland 500kv Transmission Project – Phase I Archaeological Survey
Revised End of Field Summary: The Delaware Water Gap National Recreation Area (New Jersey and Pennsylvania)

Dear Amanda Stein:

Thank you for informing the Delaware Tribe regarding the above referenced project. We concur with the recommendations given in the Phase 1 Archaeological Survey. If the project location cannot be moved, then a Phase 2 Archaeological Survey would be appropriate to determine the integrity of the archaeological sites that lie within the current project area. We wish to continue as a consulting party on this project and look forward to receiving a copy of the Phase 2 Survey if one is performed. We appreciate your cooperation and look forward to working together on our shared interests in preserving Delaware cultural heritage.

Sincerely,

Brice Obermeyer

Brice Obermeyer
Delaware Tribe Historic Preservation Office
1417 West
Emporia, KS 66801

"Jason Ross" <JRoss@delawarenation.com >

08/17/2010 03:52 PM

To <amanda_stein@nps.gov>
cc
bcc
Subject re: PPL Electric Utilities Corporation and PSE&G expansion

For Follow Up: Normal Priority
History: This message has been forwarded.

Hello Ms. Stein,

The Delaware Nation received correspondence from the U.S. Dept. of the Interior: National Park Service regarding the preparation of an Environmental Impact Statement (EIS) to analyze potential impacts for the construction of a high voltage electric transmission line traversing three NPS units in Pennsylvania and New Jersey: Delaware Water Gap National Recreation Area (DEWA, Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA).

The Cultural Preservation Director, Ms. Tamara Francis has reviewed the information provided and the Delaware Nation has determined that Alternative 6 or No Action Alternative is the best course of action. Also, the Delaware Nation prefers to avoid Delaware Water Gap National Recreation Area (DEWA).

Please do not hesitate to contact us and we look forward to working with you to achieve your goals,

Sincerely,

Tamara Francis

Cultural Preservation Director
The Delaware Nation
31064 State Highway 281
P.O. Box 825
Anadarko, OK 73005
(405)247-2448 x1180 phone
(405)247-8905 fax

Jason Ross
Museum/Section 106 Assistant
Cultural Preservation Department
The Delaware Nation
P.O. Box 825
Anadarko, OK 73005
PH# 405) 247-2448
FAX# 405) 247-8905
www.delawarenation.com

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

JUN 30 2011

Wayne Donaldson
Chairman, Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Old Post Office Building
Washington, D.C. 20004

Dear Mr. Donaldson:

Officials from the National Park Service (NPS) are preparing a Draft Environmental Impact Statement (DEIS) to analyze the potential impacts for the proposed construction of a high-voltage electric transmission line traversing three NPS units in Pennsylvania and New Jersey. These units include Delaware Water Gap National Recreation Area (DEWA), Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). The purpose of this letter is to inform you of the applicant's proposed project and to provide a status report on the NPS accomplishments to date.

Project Summary

PPL Electric Utilities Corporation and PSE&G, jointly known as the applicant, are proposing to expand an existing 230,000 volt (230 kV) electric transmission line from Susquehanna (Berwick, Pennsylvania) to Roseland, New Jersey (the SR Line). The applicant's proposed action includes replacing the existing 80 foot towers with newer larger towers (up to 200 feet high) and adding an additional 500,000 volt (500 kV) transmission line. This would necessitate widening the existing right-of-way (ROW), and in areas, would require granting additional legal rights. The proposed action would also include constructing new access roads and rehabilitating and widening existing roads to access the transmission corridor. The DEIS purpose and need is to address the applicant's proposed action and decide whether to grant the applicant permits, and if so, where and under what conditions NPS managers would allow construction of the upgraded transmission line. For additional background materials please see the National Park Service's Planning, Environment and Public Comment (PEPC) website:

http://parkplanning.nps.gov/projectHome.cfm?projectID=25147

EIS Alternatives and Analysis of Impacts

The EIS study area includes the area affected by the 4.18 mile portion of the SR Line and additional areas affected by the alternatives drafted as part of the DEIS process. The DEIS compares eight alternatives; seven action alternatives and the No Action Alternative (Alternative #1). The No Action Alternative allows the existing 230 kV line to remain, but the current request for construction and right-of-way permits would not be granted. The applicant's proposal is identified as Alternative #2. The applicant recently requested that NPS staff analyze an additional alternative (Alternative #8). The alignment for Alternative #8 would follow the same route as described for Alternative #2. The difference between these two alternatives is that Alternative #2 would require widening of the ROW and Alternative #8 would

construct the proposed 500 kV transmission line within the existing ROW (which, in certain stretches, is 100 feet in width). Alternative #8 would also require two additional 200 foot towers on NPS lands compared to Alternative #2. The five other routes developed by the NPS are identified as Alternatives #3, #4, #5, #6, and #7. Please see the enclosed map for the locations of these Alternatives.

From a discipline-based approach, NPS managers anticipate there will be both direct and indirect project effects on archaeological resources; historic structures; traditional cultural properties; cultural landscapes; scenic and historic vistas; landscapes; and ethnographic resources. NPS managers also anticipate that all action alternatives considered under the DEIS will have these effects. Thus, in accordance with Section #106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, as revised in 1999 and 2004, the National Park Service has initiated formal consultation with the Pennsylvania Bureau for Historic Preservation; the New Jersey State Historic Preservation Office; and Tribal Governments in regard to the applicant's proposal. Additionally letters have been sent to the agencies and tribal governments listed in the enclosure.

Public Involvement and Next Steps

Throughout the process, NPS managers have engaged and maintained communication with the public via press releases, newsletters, the Planning, Environment and Public Comment (PEPC) website, and a telephone hotline. Additionally, two public hearings were held to solicit input from the public and other interested stakeholders. Public scoping meetings were held in February 2010, whereby over 6,300 comments were received; in August 2010, over 1,700 comments were received during the public alternatives meetings. All comments were reviewed and substantive comments were incorporated into the analysis during the development of the DEIS.

Realizing that technical expertise provided by U.S. Fish and Wildlife (FWS) staff, at both the Ecological Services Division and the Cherry Valley National Wildlife Refuge (CVNWR), would contribute greatly towards reaching an important decision regarding potential impacts to wildlife and habitat with the DEIS study area, NPS managers invited and officials from the FWS accepted the role of Cooperating Agency. NPS and USFWS staff have held several calls and meetings to exchange information and discuss potential impacts. The NPS staff will review the first full draft of the DEIS in the summer of 2011; this is the first opportunity to review the entire document in context. NPS managers will hold public meetings in February 2012, to solicit comments on the first public release of the DEIS. The NPS Record of Decision is expected in December 2012.

For questions about the project please contact the project manager, Ms. Amanda Stein by phone at (570) 426-2472 or email at amanda_stein@nps.gov. If you have technical questions about the cultural resource work please contact the Cultural Resources Manager, Brinnen Carter Ph.D. by phone at (570) 588-3480 or by email at brinnen_carter@nps.gov.

Sincerely,

for John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6279

Enclosures (map and agency/tribe list)

cc:
Leslie Morlock, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Kara Deutsch, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
Chuck Smythe, National Park Service, NER
Jennifer McConaghie, National Park Service, NER

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North St., 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
P.O. Box 404
Trenton, New Jersey 08625

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Enclosure 1. Listing of Agencies and Tribal Governments

FEDERAL AGENCIES

U.S. Fish and Wildlife Service
New Jersey Field Office
927 North Main Street
Heritage Square, Building D
Pleasantville, New Jersey 08232

U.S. Fish and Wildlife Service
Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

U.S. Fish and Wildlife Service
Wallkill River, Great Swamp and Cherry Valley National Wildlife Refuge
1547 Route 565
Sussex, New Jersey 07461

U.S. Army Corps of Engineers
Philadelphia District, Regulatory Branch
Wanamaker Building, 100 Penn Forest East
Philadelphia, Pennsylvania 19107-3390

U.S. Army Corps of Engineers
Baltimore District
P.O. Box 1715
Baltimore, Maryland 21203

U.S. Army Corps of Engineers
New York District, Regulatory Branch
Jacob K. Javits Federal Building
New York, NY 10278-0090

U.S. Environmental Protection Agency
Region 2
290 Broadway
New York, New York 10007-1866

U.S. Environmental Protection Agency
Region 3, Office of Environmental Programs
1650 Arch Street (2PM52)
Philadelphia, Pennsylvania 19103-2029

U.S. Department of the Army
171 Buffington Road
Picatinny Arsenal, New Jersey 07806-5000
U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
1000 Independence Avenue, SW
Washington, District of Columbia 20585

U.S. Department of Agriculture
U.S. Forest Service
11 Campus Boulevard. Suite 200
Newtown Square, Pennsylvania 19073

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Northeast Regional Office
55 Great Republic Drive
Gloucester, Massachusetts 01930

STATE GOVERNMENTS
Multi-State:

Delaware River Basin Commission
25 State Police Drive
P.O. Box 7360
West Trenton, New Jersey 08628-0360

STATE GOVERNMENTS
New Jersey:

New Jersey Highlands Council
100 North Road
Chester, New Jersey 07930

New Jersey State Historic Preservation Office
P.O. Box 404
Trenton, New Jersey 08625

New Jersey Department of Environmental Protection
Division of Fish and Wildlife
P.O. Box 400
501 East State Street, 3rd Floor
Trenton, New Jersey 08625-0400

New Jersey Board of Public Utilities
Siting Approval Office
Two Gateway Center, 8th Floor
Newark, New Jersey 07102

New Jersey Department of Transportation
Executive Director, Northern District
200 Stierli Court
Mount Arlington, New Jersey 07856-1332

New Jersey Department of Environmental Protection
Division of Parks & Forestry
Regional Superintendent
P.O. Box 404
501 State Street, 4th Floor
Trenton, New Jersey 08625-0404

STATE GOVERNMENTS
Pennsylvania:

Pennsylvania Department of Conservation and Natural Resources
409 Lackawanna Ave
3rd Floor, Oppenheim Building
Philadelphia, Pennsylvania 19130

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North St., 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Pennsylvania Department of Transportation
Transportation & Safety Building, Room 1200
Harrisburg, Pennsylvania 17120

Pennsylvania Fish and Boat Commission
Environmental Services Division
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9620

Pennsylvania Department of Environmental Protection
P.O. Box 2063
Harrisburg, Pennsylvania 17105-2063

Pennsylvania Game Commission
Bureau of Wildlife Management
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797

Pennsylvania Office of Consumer Advocate
555 Walnut Street, 5th Floor, Forum Place
Harrisburg, Pennsylvania 17101-1923

Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17105-1923

TRIBAL GOVERNMENTS

Ms. Tamara Francis, Cultural Preservation Director
The Delaware Nation
P.O. Box 825
Anadarko, Oklahoma 73005

Mr. Brice Obermeyer (NAGPRA and Sec. 106 Rep, The Delaware Tribe)
Department of Sociology and Anthropology
Emporia State University
1200 Commercial Street, Box 4022
Butcher Education Center, RM 115D
Emporia, Kansas 66801

Ms. Sherry White, Tribal Historic Preservation Officer
Stockbridge-Munsee Community
Tribal Historic Preservation Office
P.O. Box 70
Bowler, Wisconsin 54416

Mr. Barry Snyder, Sr, President
Seneca Nation of Indians
P.O. Box 231
Salamanca, New York 14779

Ms. Kathleen Mitchell, THPO
Seneca Nation Tribal Historic Preservation Office
467 Center Street
Salamanca, New York 14779

Mr. LeRoy Howard, Chief
Seneca-Cayuga Tribe of Oklahoma
P.O. Box 1283
Miami, Oklahoma 74355

Mr. Emerson Webster, Chief
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Mr. Darwin Hill
Tonawanda Seneca Nation Office
7027 Meadville Road
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Ms. Karen Kieniatobe
Absentee-Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Ms. Robin Dushane
Eastern Shawnee Tribe of Oklahoma
P.O. Box 350
Seneca, Missouri 64865

Ms. Kim Jumper
Shawnee Tribe, Oklahoma
P.O. Box 189
Miami, Oklahoma 74355

Mr. Jim Ransom
Saint Regis Mohawk Tribe, New York
412 State Route 37
Awkesasne, New York 13655

Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

Mr. Irv Powless, Jr., Chief
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

14 Recipients

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015(H4217)

JUL 18 2011

Karen Kieniatobe
Absentee-Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Dear Ms. Kieniatobe:

As we have notified you in previous correspondence, Park Managers are preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed construction of a high-voltage electric transmission line traversing the park, Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). We are writing to continue consultation regarding the proposed project and to request information regarding Tribal resources within the EIS study area.

We are seeking your input about this project in regard to three specific topics:

- Tribal Laws and Policy
- Ethnographic Resources
- Sacred Burial and Ceremonial Sites

We are interested in learning about your current tribal law and policy having to do with lands in the study area (see Project Summary below) and projects of this nature in the study area, as well as any information on any tribally-significant sites in the study area.

We recognize the importance of keeping location information about burial sites and ceremonial sites confidential---and will protect information you provide to the full extent of Federal laws (e.g. Archeological Resource Protection Act [ARPA]; American Indian Religious Freedom Act [AIRFA]; and the Native American Graves Protection and Repatriation Act [NAGPRA]). If you prefer providing non-written comments, we can arrange for consultation via phone or in-person.

We appreciate your attention to our request and to a deadline that we are working hard to meet. As such, we would appreciate your input within 30 days of receipt of this letter. We intend to include your information, except for that which is confidential, in the EIS document and will forward a copy of the draft EIS once our internal review has been completed.

Project Summary

PPL Electric Utilities Corporation and PSE&G, jointly known as the applicant, are proposing to expand an existing 230,000 volt (230 kV) electric transmission line from Susquehanna (Berwick, Pennsylvania) to Roseland, New Jersey (the SR Line). The applicant's proposed action includes

replacing the existing 80 foot towers with newer larger towers (up to 200 feet high) and adding an additional 500,000 volt (500 kV) transmission line. This would necessitate widening the existing right-of-way (ROW), and in areas, would require granting additional legal rights beyond the applicant's current rights. The proposed action would also include constructing new access roads and rehabilitating and widening existing roads to access the transmission corridor. The EIS purpose and need is to address the applicant's proposed action and decide whether to grant the applicant permits, and if so, where and under what conditions would the construction of the upgraded transmission line be permitted. For additional background materials please see the National Park Service's Planning, Environment and Public Comment (PEPC) website:

http://parkplanning.nps.gov/projectHome.cfm?projectID=25147

EIS Alternatives and Analysis of Impacts

The EIS addresses the area affected by the 4.18 mile portion of the SR Line and additional areas affected by the alternatives drafted as part of the EIS process. The EIS would compare eight alternatives; seven action alternatives and the No Action alternative (Alternative #1). The No Action alternative allows the existing 230 kV line to remain, but the current request for construction and right-of-way permits would not be granted. The applicant's proposal is identified as Alternative #2. The applicant recently requested that the NPS analyze an additional alternative (Alternative #8). The alignment for Alternative #8 would follow the same route as described for Alternative #2. The difference between these two alternatives is that Alternative #2 would require widening of the ROW and Alternative #8 would construct the proposed 500 kV transmission line within the existing ROW; which in certain stretches is 100 feet in width. Alternative #8 would also require two additional 200 foot towers within NPS lands compared to Alternative #2. The five other routes developed by the NPS are identified as Alternatives #3, #4, #5, #6, and #7. Please see the enclosed map for the locations of the alternatives and currently known Tribal resources, identified from NPS records, the applicant's surveys, and our consultant's surveys.

Included for your reference are maps (with accompanying table) of archaeological resources found in relation to the proposed Northeast Upgrade Project. The Tennessee Gas Pipeline Company (TGP) filed an application with the Federal Energy Regulatory Commission (FERC) on March 31, 2011, to expand its pipeline and associated infrastructure along the existing 300 line in Pennsylvania and New Jersey *(FERC Docket No. PF10-23)*. The proposal does not include a potential crossing of DEWA, which includes the Middle Delaware National Scenic and Recreational River. The two alternatives listed in the document would in fact cross DEWA and MDSR, but are not the preferred alternative of the applicant. The Northeast upgrade consists of installing a pipeline loop segment which is pipeline constructed parallel to the existing pipeline to increase capacity. If the loop were constructed within the existing easement, as the two alternatives to the proposal would do, it would require the issuance of a new right-of-way to meet engineering and safety requirements. The current status is that TGP has applied for a permit from DEWA to conduct archeological investigations under the Archaeological Resources Protection Act. To date no application has been received.

Contact Information

Thank you for your cooperation. For general questions on our government-to-government relations, please feel free to contact us (see phone numbers below). For questions about the

project please contact Amanda Stein by phone at (570) 426-2472 or by e-mail at amanda_stein@nps.gov. If you have questions about cultural resource and tribal issues, please contact Brinnen Carter, Ph.D., by phone at (570) 588-3480 or by e-mail at brinnen_carter@nps.gov.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6279

Enclosures (map and tables)

cc:
Leslie Morlock, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Kara Deutsch, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
Chuck Smythe, National Park Service, NER
Jennifer McConaghie, National Park Service, NER

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North St., 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
Post Office Box 404
Trenton, New Jersey 08625

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

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Anadarko, Oklahoma 73005

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Emporia, Kansas 66801

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Shawnee Tribe, Oklahoma
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Miami, Oklahoma 74355

Mr. Jim Ransom
Saint Regis Mohawk Tribe, New York
412 State Route 37
Awkesasne, New York 13655

Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

Mr. Irv Powless, Jr., Chief
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

14 recipients

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

AUG 15 2011

Tamara Francis
Cultural Preservation Director
The Delaware Nation
Post Office Box 825
Anadarko, Oklahoma 73005

Dear Ms. Francis:

The National Park Service (NPS) is preparing an Environmental Impact Statement/Assessment of Effects (EIS/AoE) to analyze the potential impacts for the proposed construction of a high voltage electric transmission line traversing three NPS units in Pennsylvania and New Jersey: Delaware Water Gap National Recreation Area (DEWA), Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). We are writing to continue consultation for the EIS/AoE and share information regarding cultural resources within the project's study area. For this project the NPS intends to use the National Environmental Policy Act (NEPA) process to fulfill Section 106 as a requirement per 36 CFR 800.

The purpose of this letter is to share archaeological, historic structures, cultural landscape, and scenic resource reports (Enclosures 1-4 provided as digital files on compact disc), as promised in our letter of July 30, 2010. Combined Phase I archeological surveys were conducted at the Parks during 2010. The remaining work was conducted between Summer 2010, and now.

We would appreciate a timely review of these reports and response to this letter so that any comments you have can be used in the draft EIS/AoE. If you prefer to provide oral comments, we can arrange consultation over the phone or in-person. The National Historic Preservation Act (NHPA) Section 106 calls for us to consult on our projects, and the Constitution calls for us to conduct our consultations on a government-to-government basis. We look forward to your review and comment.

If you have any questions concerning this matter, please contact Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov.

Sincerely,

John J. Donahue
Superintendent, DEWA

Pamela Underhill
Superintendent, APPA

cc:
Leslie Morlock, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Kara Deutsch, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
Jennifer McConaghie, National Park Service, NER

Wendy Walsh, U.S. Fish and Wildlife Service

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North St., 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
P.O. Box 404
Trenton, New Jersey 08625

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Enclosures on CD:

Phase I Archeological Resource Report

Assessment of Effects on Historic Architectural Resources

Cultural Landscapes, Affected Environment and Findings of Effect

Draft Visual Resources Summary Report

Listing of Tribal Governments

Ms. Tamara Francis, Cultural Preservation Director
The Delaware Nation
P.O. Box 825
Anadarko, Oklahoma 73005

Mr. Brice Obermeyer (NAGPRA and Sec. 106 Rep, The Delaware Tribe)
Department of Sociology and Anthropology
Emporia State University
1200 Commercial Street, Box 4022
Butcher Education Center, RM 115D
Emporia, Kansas 66801

Ms. Sherry White, Tribal Historic Preservation Officer
Stockbridge-Munsee Community
Tribal Historic Preservation Office
P.O. Box 70
Bowler, Wisconsin 54416

Mr. Barry Snyder, Sr, President
Seneca Nation of Indians
P.O. Box 231
Salamanca, New York 14779

Ms. Kathleen Mitchell, THPO
Seneca Nation Tribal Historic Preservation Office
467 Center Street
Salamanca, New York 14779

Mr. LeRoy Howard, Chief
Seneca-Cayuga Tribe of Oklahoma
P.O. Box 1283
Miami, Oklahoma 74355

Mr. Emerson Webster, Chief
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Mr. Darwin Hill
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Ms. Karen Kieniatobe

Absentee-Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Ms. Robin Dushane
Eastern Shawnee Tribe of Oklahoma
P.O. Box 350
Seneca, Missouri 64865

Ms. Kim Jumper
Shawnee Tribe, Oklahoma
P.O. Box 189
Miami, Oklahoma 74355

Mr. Jim Ransom
Saint Regis Mohawk Tribe, New York
412 State Route 37
Awkesasne, New York 13655

Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

Mr. Irv Powless, Jr., Chief
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

From:	Amanda Stein
To:	Kim Jumper
cc:	SRLINE EIS@NPS; Brinnen Carter
Subject:	Re: Susquehanna to Roseland 500 kV Transmission Line
Date:	08/31/2011 10:40 AM

Ms. Jumper:

Thank you for your response. I have copied the project administrative record on this email.

We anticipate publication of the draft EIS in December 2011 and will soon be sending a newsletter, providing an update on the status of the review.

Thank you.

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

▼ Kim Jumper <kjumper_shawneetribe@hotmail.com>

Kim Jumper
<kjumper_shawneetribe@hotmail.com>

To <amanda_stein@nps.gov>
cc
Subject Susquehanna to Roseland 500 kV Transmission Line

08/31/2011 11:37 AM

This letter is in response to the above referenced project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that

no known historic properties will be negatively impacted by this project. We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

Thank you for giving us the opportunity to comment on this project.

Sincerely,
Kim Jumper, THPO
Shawnee Tribe

From:	Amanda Stein
To:	Jesse Bergevin
cc:	SRLINE EIS@NPS; Brinnen Carter
Subject:	Re: Archaeological, Historic Structures, Cultural Landscapes and Scenic Resources Reports for the Proposed Susquehanna to Roseland 500kV Transmission Line Project
Date:	09/21/2011 03:06 PM

Mr. Bergevin,

Thank you for your response in regard to the August 19, 2011 letter and follow-up voicemail on 9/20/2011. I have copied the project administrative record on this email.

We anticipate the publication of the draft EIS in December 2011 and will soon be mailing a newsletter providing an update on the status of the review. We will continue consultation and will provide any additional reports as they are completed.

Please feel free to contact me if you have any additional questions.

Thank you.

Amanda Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

▼ "Jesse Bergevin" <jbergevin@oneida-nation.org>

"Jesse Bergevin"
<jbergevin@oneida-nation.org>

To <Amanda_Stein@nps.gov>

cc

09/20/2011 11:36 AM

Subject Archaeological, Historic Structures, Cultural Landscapes and Scenic Resources Reports for the Proposed Susquehanna to Roseland 500kV Transmission Line Project

On August 19, 2011, the Oneida Indian Nation (Nation) received a letter and documentation from the United States Department of the Interior, National Parks Service (NPS) that shared the archaeological, historic structures, cultural landscapes and scenic resources reports for the proposed Susquehanna to Roseland 500kV Transmission Line project (Project) in Pennsylvania and New Jersey. Your letter asks the Nation to review and provide comment on the reports as part of NPS' effort to prepare an Environmental Impact Statement/Assessment of Effect for the Project. At this time, the Nation has no comments on the reports provided for the Project and their findings and recommendations.

As planning for the project progresses, the Nation requests that NPS continue to consult with the Nation concerning decisions or determinations in the Section 106 process concerning the Project's APE, level of effort to identify historic properties, presence or absence of historic properties, National Register of Historic Places eligibility, findings of no effect or adverse effect and measures to address or resolve adverse effects.

If you have any questions, please call me at (315) 829-8463.

Thank you,

Jesse Bergevin
Historic Resources Specialist
Telephone: (315) 829-8463
Facsimile: (315) 829-8473
E-mail: jbergevin@oneida-nation.org

From: Amanda Stein
To: SRLINE EIS@NPS
cc: sboltz@eaest.com
Subject: Fw: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS
Date: 10/03/2011 07:28 AM
Attachments: 2011 vers Correspondence with Tribal Governments SHPOs.docx

---

Updated Tribe correspondence log.

2011 vers Correspondence with Tribal Governments SHPOs.docx

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

----- Forwarded by Amanda Stein/DEWA/NPS on 10/03/2011 09:27 AM -----

Deb Nordeen/DEWA/NPS

09/30/2011 11:33 AM

To Amanda Stein/DEWA/NPS@NPS
cc
Subject Fw: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS

Tribal information for SR EIS.

----- Forwarded by Deb Nordeen/DEWA/NPS on 09/30/2011 11:33 AM -----

Robin Dushane
<RDushane@estoo.net>

09/30/2011 11:16 AM

To "Deb_Nordeen@nps.gov" <Deb_Nordeen@nps.gov>

cc

Subject RE: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS

Deb,
The Eastern Shawnee Tribe appreciates the update on the project referenced above.
We are interested in consulting on this project proposal.
I look forward to receiving the draft EIS in December.
Sincerely,
Robin Dushane
Eastern Shawnee Tribe
Cultural Preservation Director
12705 S. 705 Rd.
Wyandotte, OK 74370
918 666 2435 ext 247 wk
918 533 4104 cell

-----Original Message-----
From: Deb_Nordeen@nps.gov [mailto:Deb_Nordeen@nps.gov]
Sent: Friday, September 23, 2011 8:58 AM
Subject: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS

The National Park Service is preparing an Environmental Impact Statement to evaluate the impacts of a power transmission project that replaces an existing 230 kilovolt (kV) line that currently crosses three park units: Appalachian National Scenic Trail, Delaware Water Gap National Recreation Area, and Middle Delaware National Scenic and Recreational River. The attached newsletter updates you on the process.

Deb Nordeen
Supervisory Park Ranger, Interpretation & Education Public Affairs
Delaware Water Gap National Recreation Area
570-426-2452

(See attached file: DEWA_newsletter3_Sept2011(8.5x11) lo res.pdf)

From:	Amanda Stein
To:	RDushane@estoo.net
cc:	SRLINE EIS@NPS; Brinnen Carter
Subject:	Re: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS
Date:	10/03/2011 07:27 AM

Ms. Dushane,

Thank you for your response in regard to the September 2011 newsletter. I have copied the project administrative record on this email.

We will continue consultation and will provide any additional reports as they are completed.

Please feel free to contact me if you have any additional questions.

Thank you.

Amanda J. Stein
Biologist / Project Manager
Delaware Water Gap National Recreation Area
HQ 1 River Road, off US 209
Bushkill, PA 18324-9999

Office Phone: 570-426-2472
Cell: 570-234-4109
Fax: 570-426-2402
amanda_stein@nps.gov

▼ Deb Nordeen/DEWA/NPS

----- Forwarded by Deb Nordeen/DEWA/NPS on 09/30/2011 11:33 AM -----

Robin Dushane
<RDushane@estoo.net>

09/30/2011 11:16 AM

To "Deb_Nordeen@nps.gov" <Deb_Nordeen@nps.gov>

cc

Subject RE: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS

Deb,
The Eastern Shawnee Tribe appreciates the update on the project referenced above.
We are interested in consulting on this project proposal.
I look forward to receiving the draft EIS in December.
Sincerely,
Robin Dushane
Eastern Shawnee Tribe
Cultural Preservation Director
12705 S. 705 Rd.
Wyandotte, OK 74370
918 666 2435 ext 247 wk
918 533 4104 cell

-----Original Message-----
From: Deb_Nordeen@nps.gov [mailto:Deb_Nordeen@nps.gov]
Sent: Friday, September 23, 2011 8:58 AM
Subject: National Park Service September 2011 Newsletter: Susquehanna to Roseland 500kV Transmission Line EIS

The National Park Service is preparing an Environmental Impact Statement to evaluate the impacts of a power transmission project that replaces an existing 230 kilovolt (kV) line that currently crosses three park units: Appalachian National Scenic Trail, Delaware Water Gap National Recreation Area, and Middle Delaware National Scenic and Recreational River. The attached newsletter updates you on the process.

Deb Nordeen
Supervisory Park Ranger, Interpretation & Education Public Affairs
Delaware Water Gap National Recreation Area
570-426-2452

(See attached file: DEWA_newsletter3_Sept2011(8.5x11) lo res.pdf)

FILE

PPL

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

NOV 21 2011

Mr. Wayne Donaldson
Chairman, Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Old Post Office Building
Washington, D.C., 20004

Dear Mr. Donaldson:

On June 30, 2011, we sent you a letter notifying you that park managers are preparing an Environmental Impact Statement (EIS) to analyze the potential impacts for the proposed Susquehanna to Roseland high voltage electric transmission line traversing three units of the National Park System. This letter is in follow-up to our previous correspondence. First, we would like to notify you that for this project review, we will be using the National Environmental Policy Act (NEPA) process to fulfill Section 106 as a requirement per 36 CFR 800.8(c). Second, we are providing a status report on this important review process that addresses the following four (4) areas:

(1) Involvement of Consulting Parties

We have been consulting with the New Jersey State Historic Preservation Office (SHPO); the Pennsylvania SHPO; and twelve affiliated Federally-recognized Indian tribes (see enclosure) on historic properties concerns. The identification and evaluation of properties for eligibility to the National Register of Historic Places, within the areas of potential effect for the action, is ongoing and survey results and reports have been and will continue to be shared with all consulting parties for review and comment.

(2) Update on Alternatives

During the public review of the alternatives in the fall of 2010, the applicant submitted comments recommending the evaluation of an alternative to their original proposal. After significant study and discussion, we included this alternative in the analysis. The new alternative, Alternative 2b (previously identified as alternative 8), would use the same corridor as the applicant's original proposal. The primary difference is that there would be no expansion of the Right-Of-Way (ROW). This alternative would address construction within the existing ROW, which in some places is only 100 feet wide. As park managers evaluated the alternatives, it was also determined that Alternatives # 6 and # 7 did not meet the criteria for alternative selection and were not sufficiently responsive to the applicant's request, so they were dismissed. At this point in time, no alternative has been identified as the preferred option.

(3) Public Involvement and Next Steps

The draft EIS, (See enclosed CD), will be available for a sixty (60) day public review and comment period. Three public meetings, scheduled for January 2012, are within the comment period to present

information on the draft EIS and to collect public comments. Consulting party comments on the alternatives and effects to historic properties will also be solicited during this review period.

Between February and April 2012, analyses and responses to all public comments will be completed; a preferred alternative will also be identified during this period. Between May and September 2012, the Final EIS and Federal Register Notice will be prepared. A Record of Decision (ROD) is scheduled for October 2012. All of the identified alternatives are likely to have adverse effects upon historic properties. We expect to work with the consulting parties, on the attached list, to develop a Programmatic Agreement to resolve the adverse effects before finalizing the ROD.

(4) Locations of Relevant Section 106 Information in the DEIS

- A map of the alternatives can be found in Chapter 2, p. 31;
- The area of potential effects (APE) on historic properties for each alternative is identified in Chapter 3, pp. 209-213;
- A preliminary assessment of effects upon known and potential historic properties within each APE can be found in Chapter 4, pp. 503-534; these assessments have not yet been discussed with consulting parties; and
- A summary of consultation and coordination efforts for Section 106 can be found in Chapter 5, pp. 722-724, and copies of letters can be found in Appendix I.

For questions about the project please contact the project manager, Amanda Stein, by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov. If you have technical questions about the cultural resource work please contact the Cultural Resources Manager, Brinnen Carter, Ph.D., by phone at (570) 588-3480 or by email at Brinnen_Carter@nps.gov.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6279

Enclosures:

List of SHPOs and affiliated Tribes
Draft Environmental Impact Statement (DEIS)

cc:
Brinnen Carter, National Park Service, DEWA
Kara Deutsch, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
Jennifer McConaghie, National Park Service, NER

Wendy Walsh, U.S. Fish and Wildlife Service

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Listing of Tribal Governments

Ms. Tamara Francis
Cultural Preservation Director
The Delaware Nation
Post Office Box 825
Anadarko, Oklahoma 73005

Mr. Brice Obermeyer
Delaware Tribe Historic Preservation Office
1420 C of E Drive, Suite 190
Emporia, Kansas 66801

Chief Paula Pechonick
Delaware Tribe of Indians
170 N. Barbara Avenue
Bartlesville, Oklahoma 74006

Ms. Sherry White
Tribal Historic Preservation Officer
Stockbridge-Munsee Community
Post Office Box 70
Bowler, Wisconsin 54416

Mr. Robert Chicks, President
Stockbridge-Munsee Community
N8476 Moh He Con Nuck Road
Post Office Box 70
Bowler, Wisconsin 54416

Mr. Barry Snyder, Sr, President
Seneca Nation of Indians
Post Office Box 231
Salamanca, New York 14779

Ms. Kathleen Mitchell, THPO
Seneca Nation Tribal Historic Preservation Office
467 Center Street
Salamanca, New York 14779

Mr. LeRoy Howard, Chief
Chief Seneca-Cayuga Tribe of Oklahoma
23701 South 655 Road
Grove, OK 74344

Mr. Emerson Webster, Chief
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Mr. Darwin Hill
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Ms. Karen Kieniatobe
Absentee-Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Ms. Robin Dushane
Eastern Shawnee Tribe of Oklahoma
Post Office Box 350
Seneca, Missouri 64865

Ms. Kim Jumper
Shawnee Tribe, Oklahoma
Post Office Box 189
Miami, Oklahoma 74355

Mr. Jim Ransom
Saint Regis Mohawk Tribe, New York
412 State Route 37
Awkesasne, New York 13655

Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

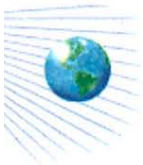
Mr. Irv Powless, Jr., Chief
Onondaga Nation of New York
RR#1, Box 319-B
Nedrow, New York 13120

Listing of State Historic Preservation Offices

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
Post Office Box 404
Trenton, New Jersey 08625

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North Street, 2nd Floor
Harrisburg, Pennsylvania 17120-0093

12/11/2011



Bob Karotko/DEWA/NPS
11/23/2011 12:08 PM

To Amanda Stein/DEWA/NPS
cc
bcc
Subject Fw: FW:DEWA Consultation Request

****

Robert J. Karotko
Deputy Superintendent

EXPERIENCE: DELAWARE WATER GAP NATIONAL RECREATION AREA

Delaware Water Gap National Recreation Area
1 River Road
Bushkill, Pennsylvania 18324-9999
Phone: 570-426-2412
Fax: 570-426-2407
e-mail: bob_karotko@NPS.GOV

----- Forwarded by Bob Karotko/DEWA/NPS on 11/23/2011 12:08 PM -----

Chuck Smythe/Boston/NPS
11/23/2011 11:43 AM

To Morgan Elmer/DENVER/NPS@NPS, Jennifer McConaghie/PHILADELPHIA/NPS@NPS
cc Brinnen Carter/DEWA/NPS@NPS, Bob Karotko/DEWA/NPS@NPS
Subject FW:DEWA Consultation Request

FYI.

Sherry indicated she is available anytime in December.

Happy Thanksgiving.

Chuck Smythe
Ethnography Program Manager, Northeast Region
National Park Service
15 State Street
Boston, MA 02109
617-223-5014 (ph)
617-223-5260 (fax)
chuck_smythe@nps.gov

----- Forwarded by Chuck Smythe/Boston/NPS on 11/23/2011 11:39 AM -----

"Sherry White" <sherry.white@mohican-nsn.gov>
11/22/2011 04:48 PM

To <john_donahue@nps.gov>
cc <chuck_smythe@nps.gov>, <Brennan_Carter@nps.gov>
Subject

Good Afternoon Mr. Donahue
The Stockbridge-Munsee Tribe has received many reports and information regarding transmission power and gas lines proposed to run through the Delaware Water Recreational Area.
It is very hard for me to give any comments or express concerns without doing a site visit and hearing what type of archeology has been done and what types of protection will be given to areas that contain Native objects. We are all aware that the Delaware Water Gap holds many Native American site, burials, and a rich history. With this in mind I would like to request a on site consultation with the Stockbridge-Munsee and Delaware Tribes.
I feel this would give us a better understanding of what is being proposed and what issues the tribes need to address resulting in moving the consultation process along smoothly.
I look forward to hearing from you in the near future.

Sherry White
Tribal Historic Preservation Officer
Stockbridge-Munsee Tribe
W13447 Camp 14 Road
P.O.Box 70
Bowler, WI 54416

NOTICE: This message is intended for the use of the addressee and may contain information that is privileged and confidential. If the reader is not the intended recipient, you are hereby notified that any copying or dissemination of this message is prohibited. If you have received this message in error, please notify us by reply e-mail or by telephone (715-793-4024) and immediately delete the message and all of its attachments. E-mails may be subject to internal audit in accordance with tribal confidentiality policies.

From: Boltz, Suzanne
To: SRLINE_EIS@nps.gov
Subject: FW: Susquehanna to Roseland High Voltage Electric Transmission Line
Date: 11/30/2011 02:18 PM

EA Engineering, Science, & Technology, Inc.
Suzanne Boltz ~ Project Manager
15 Loveton Circle
Sparks, MD 21152
410.329.5143 (Office)
410.771.4204 (Fax)
410.458.8272 (Cell)
sboltz@eaest.com

-----Original Message-----
From: Amanda_Stein@nps.gov [mailto:Amanda_Stein@nps.gov]
Sent: Wednesday, November 30, 2011 4:14 PM
To: Boltz, Suzanne
Subject: Fw: Susquehanna to Roseland High Voltage Electric Transmission Line

Suzie - FYI.

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999
- - - - - - - - - - - - - -
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

----- Forwarded by Amanda Stein/DEWA/NPS on 11/30/2011 04:13 PM -----

Amanda Stein/DEWA/NPS 11/30/2011 04:13 PM		To
	Kim Jumper <kjumper_shawneetribe@hotmail.com>	cc
	SRLINE EIS@NPS, Brinnen Carter/DEWA/NPS@NPS, Jennifer McConaghie/PHILADELPHIA/NPS@NPS, Kara Deutsch/DEWA/NPS@NPS, Morgan Elmer/DENVER/NPS@NPS, Steven Culver/DENVER/NPS@NPS, William B Allen/APPA/NPS@NPS	Subject
		Re: Susquehanna to Roseland High Voltage Electric Transmission Line

(Document link: Amanda Stein)

Ms. Jumper,

Thank you for your response and for your time. We will continue to provide project-related materials as they become available.

Please feel free to contact me at any time if you have any questions regarding this project review.

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999
- - - - - - - - - - - - - -
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

Kim Jumper
<kjumper_shawneetribe@hotmail.com>

11/30/2011 04:07 PM

To <amanda_stein@nps.gov>

cc

Subject Susquehanna to Roseland High Voltage Electric Transmission Line

This letter is in response to the above referenced project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. We have no issues or concerns at this time, but in the event that

archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

Thank you for giving us the opportunity to comment on this project.

Sincerely,
Kim Jumper, THPO
Shawnee Tribe

From: Amanda Stein
To: sboltz@eaest.com
cc: Steven Culver; Morgan Elmer; Jennifer McConaghie; SRLINE EIS@NPS
Subject: Fw: From NPS.gov:
Date: 12/11/2011 12:20 PM

Suzie,

Please update accordingly.

Thank you.
Mandi

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999
- - - - - - - - - - - - - -
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

----- Forwarded by Amanda Stein/DEWA/NPS on 12/11/2011 02:19 PM -----

Deb Nordeen/DEWA/NPS

12/08/2011 12:44 PM

To Brinnen Carter/DEWA/NPS@NPS, Amanda Stein/DEWA/NPS@NPS, Janel Kenas/DEWA/NPS@NPS
cc John J Donahue/DEWA/NPS@NPS
Subject Fw: From NPS.gov:

Updated tribal contact information for park correspondence and mailing lists.

Deb Nordeen
Supervisory Park Ranger, Interpretation & Education
Public Affairs
Delaware Water Gap National Recreation Area
(office) 570-426-2432
(cell) 570-460-1822
----- Forwarded by Deb Nordeen/DEWA/NPS on 12/08/2011 12:43 PM -----

loganl@sctribe.com

12/07/2011 03:28 PM

To DEWA_Interpretation@nps.gov

cc

Subject From NPS.gov:

Email submitted from: loganl@sctribe.com at /dewa/contacts.htm

Mailing Address
Logan B. Line
23701 South 655 Road
Grove, OK 74344
USA

Sirs: We recently received correspondence from you addressed to our old address. Please direct any further correspondence to: Mr. LeRoy Howard, Chief Seneca-Cayuga Tribe of Oklahoma 23701 South 655 Road Grove, OK 74344 Thank you for your cooperation in this matter. Logan Line Public Relations Officer

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

DEC 22 2011

Dr. Brice Obermeyer
Delaware Tribe
Department of Sociology and Anthropology
Emporia State University
1200 Commercial Street, Box 4022
Butcher Education Center, RM 115D
Emporia, Kansas 66801

Dear Dr. Obermeyer:

We value the excellent government-to-government relationship we have with your tribe. We have received a request from the Stockbridge-Munsee Community to consult "on-site" with the Stockbridge-Munsee and Delaware tribes about the proposed electric transmission line crossing the Delaware Water Gap National Recreation Area (DEWA), the Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA). This includes consideration of the Pennsylvania Power and Light/Public Service Electric and Gas (PPL/PSEG) proposal to build a new 500kV electrical transmission line in the park, called the Susquehanna-Roseland transmission line (SRLine). The SR Line was recently (October 5, 2011) included on the Obama Administration's list of seven proposed electric transmission line projects for accelerated permitting and construction, committing the National Park Service to an expedited review.

As part of our government to government relationship with your tribe, which in this case involves an Environmental Impact Statement (EIS) process, which will also be used to fulfill our Section 106 responsibilities [as per 36 CFR 800.8(c)], we would like to invite you to this consultation to discuss the proposed project and its potential impacts on the resources of the parks. The environmental review includes the analysis of potential impacts on park resources from ROW expansion, construction of new nearly 200 foot towers to support the higher rated line, and development of a network of access roads through natural areas. Proposed construction practices include blasting and excavation which may have the potential to impact archaeological resources.

We propose to hold the consultation at DEWA headquarters during the week of January 22nd, 2012 and most likely the mornings of:

JANUARY 24th, 25th, and 26th, 2012

The Federal EIS team and consultants will be at DEWA this week because these dates coincide with three public hearings the National Park Service is holding to solicit comments on the Draft EIS. The public hearings, which you are also welcome to attend, start with an open house from 2:30 - 4:30 pm to learn about the project, followed by a public hearing from 6:00 - 9:00 pm to

submit oral or written comments into the record. Locations of the public meetings are in Bushkill, PA (1/24), Stroudsburg, PA (1/25) and Lafayette, NJ (1/26).

Consultations will include a detailed overview of the project, its impacts on park archeological resources, our assessment of those impacts, and field visits to view the alternative proposed routes within the park. We are seeking your views and comments about the projects, including proposals for responding to any adverse effects that may result, both during the consultation and later, if appropriate, in written form. It will help us decide which alternative to choose as the National Park Service's preferred alternative.

We are inviting representatives of the following tribes to this consultation, based on their demonstrated interest in the project, either through correspondence or discussions:

The Stockbridge-Munsee Community
The Delaware Nation
The Delaware Tribe
The Eastern Shawnee Tribe of Oklahoma
The Oneida Nation of New York

To facilitate your participation in this consultation, we have arranged to provide travel costs for up to **two tribal representatives**. Please contact our project manager, Amanda Stein, on **570-426-2472 as soon as possible** about your plans to attend and which dates would be most convenient for you. She will instruct you on whom to contact to assist you with travel reservations and plans. If you cannot attend in person, we will make arrangements to conduct a teleconference on one of those mornings to gather your input.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

cc:

Chief Paula Pechonick
Delaware Tribe of Indians
170 NE Barbara
Bartlesville, Oklahoma 74006

Pamela Underhill, Superintendent, APPA
Bill Leonard, Acting Deputy Superintendent, DEWA
Brent Allen, NEPA Compliance Officer, APPA
Morgan Elmer, Project Manager, NPS Denver Service Center
Kara Deutsch, NEPA Compliance Officer, DEWA
Brinnen Carter, Acting Chief of Resources, DEWA
Jennifer McConaghie, NHPA Compliance Specialist, NPS NER

Chuck Smythe, American Indian Liaison, NPS NER
Andrew Tittler, DOI Office of the Solicitor
Amanda Stein, National Park Service, DEWA
Steven Culver, National Park Service, DSC

Clint Riley, U.S. Fish and Wildlife Service
Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Robin Dushane
<RDushane@estoo.net>
12/28/2011 04:22 PM

To "amanda_stein@nps.gov" <amanda_stein@nps.gov>
cc
bcc
Subject confirm attending consultation

History: This message has been forwarded.

Amanda,
Thank you for the invitation to consult on the proposed electric transmission line in the DEWA, MDSR and APPA.
Our office is most interested in attending this important meeting.

I wish to apprise you office of two other federally recognized Shawnee Tribes-
The Shawnee Tribe
PO Box 189
Miami, OK 74255
Attn: Jody Hayes
shawneetribe@shawnee-tribe.com

And

The Absentee Shawnee Tribe
2025 S. Gordon Cooper Dr.
Shawnee, OK 74801
Attn: Henrietta Ellis, THPO
hellis@astribe.com

Most likely there will be two representatives from our tribe attending.
Best regards,

Robin Dushane
Eastern Shawnee Tribe
Cultural Preservation Director
12705 S. 705 Rd.
Wyandotte, OK 74370
918 666 2435 ext 247 wk
918 533 4104 cell

From: Amanda Stein
To: SRLINE EIS@NPS
Subject: Fw: Potential Dates for NAGPRA Consultation at Morristown NHP
Date: 01/03/2012 11:51 AM

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999
- - - - - - - - - - - - - - -
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

----- Forwarded by Amanda Stein/DEWA/NPS on 01/03/2012 01:51 PM -----

Chuck Smythe/Boston/NPS

01/03/2012 12:17 PM

To Amanda Stein/DEWA/NPS@NPS, John J Donahue/DEWA/NPS@NPS, Brinnen Carter/DEWA/NPS@NPS, Tom Dyer/Boston/NPS@NPS

cc

Subject Fw: Potential Dates for NAGPRA Consultation at Morristown NHP

FYI: Delaware Nation is keeping the dates of Jan. 22-24 open.

Chuck Smythe
Ethnography Program Manager, Northeast Region
National Park Service
15 State Street
Boston, MA 02109
617-223-5014 (ph)
617-223-5260 (fax)
chuck_smythe@nps.gov

----- Forwarded by Chuck Smythe/Boston/NPS on 01/03/2012 12:15 PM -----

Tammy <orang711@yahoo.com>

01/03/2012 12:11 PM

Please respond to Tammy <orang711@yahoo.com>

To "Chuck_Smythe@nps.gov" <Chuck_Smythe@nps.gov>

cc Ivy Barker Smith <barkeriam@yahoo.com>, ivy smith <ismith@delawarenation.com>

Subject Re: Potential Dates for NAGPRA Consultation at Morristown NHP

Got your email. Keeping the dates open.
Let us know as soon as possible, I need to get permission to attend.

Tammy Francis

From: "Chuck_Smythe@nps.gov" <Chuck_Smythe@nps.gov>
To: Tammy <orang711@yahoo.com>
Sent: Tuesday, January 3, 2012 10:46 AM
Subject: Re: Potential Dates for NAGPRA Consultation at Morristown NHP

Hi Tammy,

Thanks for your note below; I will get back to you about the Morristown consultation.

On another consultation issue, I am advising the Delaware Water Gap about the power line project which will likely go through the park, and two other NPS sites. This is a large project that the President has put on a fast track. The park sent a letter out to you on Dec. 22 which describes the proposed consultation during the week of Jan. 22. I am trying to find out if it is feasible to have the tribal consultation early in that week (Jan. 23-24), prior to public meetings also scheduled in that week.

According to your note below, you would be available during the first part of the week of Jan. 22. If you can, try to keep those dates open until the

park get back to me about this.

Best Wishes for the new year!

Chuck

Chuck Smythe
Ethnography Program Manager, Northeast Region
National Park Service
15 State Street
Boston, MA 02109
617-223-5014 (ph)
617-223-5260 (fax)
chuck_smythe@nps.gov

From: Amanda Stein
To: Robin Dushane
cc: SRLINE EIS@NPS
Subject: Re: confirm attending consultation
Date: 01/03/2012 11:52 AM

Ms. Dushane,

Thank you for your response. We will have someone contact you soon to work through the details.

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999
- - - - - - - - - - - - - - -
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

▼ Robin Dushane <RDushane@estoo.net>

Robin Dushane
<RDushane@estoo.net>

12/28/2011 04:22 PM

To "amanda_stein@nps.gov" <amanda_stein@nps.gov>
cc
Subject confirm attending consultation

Amanda,
Thank you for the invitation to consult on the proposed electric transmission line in the DEWA, MDSR and APPA.
Our office is most interested in attending this important meeting.

I wish to apprise you office of two other federally recognized Shawnee Tribes-
The Shawnee Tribe
PO Box 189
Miami, OK 74255
Attn: Jody Hayes

shawneetribe@shawnee-tribe.com

And

The Absentee Shawnee Tribe
2025 S. Gordon Cooper Dr.
Shawnee, OK 74801
Attn: Henrietta Ellis, THPO
hellis@astribe.com

Most likely there will be two representatives from our tribe attending.
Best regards,

Robin Dushane
Eastern Shawnee Tribe
Cultural Preservation Director
12705 S. 705 Rd.
Wyandotte, OK 74370
918 666 2435 ext 247 wk
918 533 4104 cell

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

JAN 05 2012

Corina Williams, THPO
Cultural Heritage Department
Oneida Tribal Historic Preservation Officer
Oneida Nation of Wisconsin
Post Office Box 365
Oneida Wisconsin, 54155

Dear Ms. Williams:

On the advice of our Regional Ethnographer, Chuck Smythe, we invite you to the consultation about the Susquehanna to Roseland transmission line project. Dates are the week of January 22nd, 2012. Due to the short turn-around, could you call Amanda Stein at (570) 426-2472 as soon as you can about whether or not you would like to attend. We are enclosing a copy of the Oneida Indian Nation's invitation, which has additional details. We will pay travel for up to two representatives. We will also be inviting The Absentee Shawnee Tribe and The Shawnee Tribe.

Thank you for considering sending representatives to this consultation.

Sincerely,

John J. Donahue, Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and Recreational River
(570) 426-2418

Pam Underhill, Superintendent
Appalachian National Scenic Trail
(304) 535-6278

cc:

Bill Leonard, Acting Deputy Superintendent, DEWA
Brent Allen, NEPA Compliance Officer, APPA
Morgan Elmer, Project Manager, NPS Denver Service Center
Kara Deutsch, NEPA Compliance Officer, DEWA
Brinnen Carter, Acting Chief of Resources, DEWA
Jennifer McConaghie, NHPA Compliance Specialist, NPS NER
Amanda Stein, PPL Project Manager, DEWA
Chuck Smythe, American Indian Liaison, NPS NER

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

From:	Amanda Stein
To:	SRLINE EIS@NPS
cc:	Morgan Elmer; sboltz@eaest.com
Subject:	Tribal correspondence
Date:	01/05/2012 01:56 PM
Attachments:	TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx

I hope to update my Tribal correspondence spreadsheet and will then include that in the record too.

Thank you,
Mandi

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999
- - - - - - - - - - - - - - -
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

----- Forwarded by Amanda Stein/DEWA/NPS on 01/05/2012 03:53 PM -----

Chuck Smythe/Boston/ NPS	To	Brinnen Carter/DEWA/NPS@NPS, Amanda Stein/ DEWA/NPS@NPS
01/05/2012 12:57 PM	cc	
	Subject	Fw: Consultation at Delaware Water Gap NRA

I am forwarding the 8 messages I sent out this morning, fyi. This is the first of 8.

Chuck Smythe
Ethnography Program Manager, Northeast Region

National Park Service
15 State Street
Boston, MA 02109
617-223-5014 (ph)
617-223-5260 (fax)
chuck_smythe@nps.gov
----- Forwarded by Chuck Smythe/Boston/NPS on 01/05/2012 12:55 PM -----

Chuck Smythe/ Boston/NPS

01/05/2012 11:21 AM

To Tammy <orang711@yahoo.com>

cc Ivy Barker Smith <barkeriam@yahoo.com>, ivy smith <ismith@delawarenation.com>

Subject Consultation at Delaware Water Gap NRA

Hi Tammy,

The park has prepared a draft agenda (attached) which provides the details of the dates and times of the meetings about the effects of the power line construction project at the Delaware Water Gap NRA. The dates have changed slightly from what I sent out yesterday. These are the final dates: Jan. 23-27, including travel days.

Please see the attached invoice.

Until I hear differently, I will put you down along with Summer. I realize you may have to leave early for other work and family commitments.

Please contact Jodi Quintana as soon as possible to make your travel arrangements. She can be reached at 303-987-6639. Unless she says differently, the NPS will pay for your airfare in advance, and reimburse for all other expenses (rental car, hotel, mileage, airport parking, etc.).

Call if you have any questions.

I am looking forward to seeing you.

Chuck Smythe
Ethnography Program Manager, Northeast Region
National Park Service

15 State Street
Boston, MA 02109
617-223-5014 (ph)
617-223-5260 (fax)
chuck_smythe@nps.gov

TRIBAL CONSULTATION -- SRLINE --- DRAFT AGENDA.docx

TRIBAL CONSULTATION -- JANUARY 24, 2012

ATTENDEES (PRESENT)

Stockbridge-Munsee Community	Sherry White, THPO
	Joanne Schedler, Tribal Council Member
	Jonathan Schedler
Delaware Nation	Tamara Francis, Cultural Preservation Director
	Ivy Smith, Clerk, Cultural Preservation
	Corey Smith, Cultural Preservation Assistant
Delaware Tribe	Jim Hammon
	Greg Brown
The Absentee Shawnee Tribe	Henryetta Ellis, THPO
	Billie Jane James
Eastern Shawnee Tribe	Robin Dushane, THPO
National Park Service	John Donahue, Superintendent, DEWA/MDSR
	Pamela Underhill, Superintendent, APPA
	Bill Leonard, Acting Deputy Superintendent, DEWA/MDSR
	Kara Deutsch, Acting Chief of Resources, DEWA/MDSR
	William B. Allen, Environmental Protection Specialist, APPA
	Amanda Stein, Project Manager and Biologist, DEWA
	Brinnen Carter, Cultural Resource Manager and Archaeologist, DEWA
	Johnny Carawan, Management Assistant, DEWA
	Lori Rohrer, Museum Specialist and Curator, DEWA
	Chuck Smythe, Ethnography Program Manager and American Indian Liaison, NER
	Morgan Elmer, Project Manager, Denver Service Center
	Richard Clapp, Museum Technician, DEWA
US Fish and Wildlife Service	Michael Horne, Refuge Manager, Cherry Valley National Wildlife Refuge

Welcome – John Donahue and Pam Underhill welcomed the tribe to the consultation and invited them to partake in coffee and doughnuts purchased for the consultation.

Introductions – The meeting began with a round of introductions of all participants, as well as their role in the consultation.

Review of Agenda – John Donahue invited the tribes to review the Agenda (distributed, SEE Attachment A) and make any changes they would like. After a brief review, tribal representatives thought the agenda would be acceptable.

Consultation Project Briefing

John Donahue:

- DEWA/MDSR superintendent welcomed tribal representatives and discussed the importance of this project and responsibility of consulting on a nation-to-nation basis
- He then emphasized the importance of hearing Tribal input and observations on the power line project
- He then introduced Michael Horne, Refuge Manager at Cherry Valley National Wildlife Refuge and Pamela Underhill, Superintendent of the Appalachian National Scenic Trail and explained how they are affected by the power line project
- He then discussed the maps presented to the Tribes, of the Delaware Water Gap National Recreation Area and Appalachian National Scenic Trail and the Alternatives
- He stated that the 50th Anniversary of the park is coming up soon, in 2015
- He explained that DEWA is over 70,000 acres of land in PA and NJ split by the Delaware River
- He stated that the vision for the park is to be a continuous refuge from the mountain top in PA to the mountain top in NJ and the river valley in between
- He explained that there is around 100 utility company right of ways and 3 bridges within the park and that they all affect the park
- He shared that recently a utility company, Tennessee Gas, has decided to avoid the park, in part because of observing the process that has occurred with the PPL/PSE&G Power Line Project

Pamela Underhill:

- Talked about the history of the Appalachian National Scenic Trail, from the first conception in 1921 to volunteers completing the "People's Trail" in 1937 and the role that Benton MacKaye had in its conception and development
- She explained that because of the length of the Appalachian Trail, she has to constantly balance preserving the natural state with the reality that utilities, power lines and roads must cross the Trail

John Donahue:

- Talked about the permitting process needed for PPL and PSE&G to construct in the parks
- Explained the intent of PPL and PSE&G: Replacing the current 230 kV line with two 500 kV lines and replacing existing towers with 200' towers.
- Explained that PPL and PSE&G will require wider Right of Way (ROW) for any alternative, permanent access roads, more frequent access, and temporary crane pads to upgrade the current line to 500 kV. This ROW will be new. The new power line would be an essential part of the grid to New York City and eastern US. The current line is not.
- Briefly talked about how Alternative 2 and 2b are the original plans presented by PPL and PSE&G
- Talked about the history of local farm families selling parts of their lands in the 1920's to the power companies and over the years the surrounding trees and vegetation has grown and covered the current ROW, towers, and access roads, making them almost invisible. Existing towers are 85' tall, and the surrounding forest is 120-130' tall. Then starting last year PSE&G cleared their ROW in NJ without park permission. This clearing is just the beginning as they will have to build permanent roads and clear larger ROW to make it possible to build 200 foot towers to replace the current 85-foot towers, and flatten out bench areas to stage heavy equipment.

- John explained that for the NPS, the focus is on the resources that will be impacted, and the permanent impact --- lost use. This project will create a condition that will affect every future visitor, as no one will be able to have the same experience as we have today. Hunters, fisherman, bird watchers, and hikers will all be affected by the power line project. The power companies have said that they will try to compensate for this, although no written proposal has been received.
- Emphasized that this is a billion dollar project and that the park and the power companies will need to come to an agreement because of increasing political pressure
- Talked about deadlines: Final EIS will be completed this summer; Legislated to have a preferred Alternative by March of 2012 and to have a Record of Decision by October 2012

Robin Dushane THPO, Eastern Shawnee Tribes:

- Questioned whether the No Action Alternative will be the preferred alternative picked by the park in March. John explained that the environmentally preferred alternative is No Action, and that the park is legislated to select a preferred Alternative that is due in March and that it could be any of the current Alternatives, as it is still in discussion. Robin asked "If the preferred alternative is No Action, can the power company still continue with the project." John explained that PPL and PSE&G will litigate and more than likely sue to gain a permit to construct, if the NPS managers choose the no-action alternative. Pamela Underhill added that the ultimate decision makers, on the preferred alternative, will be either the NPS Regional Director, the Director of the National Park Service, or perhaps the Secretary of Interior or one of his representatives.

John Donahue explained:

- that this project is one of 7 that has been fast tracked by the White House and included in work by the Rapid Response Team (RRT)
- that there is a not a conclusion already, but NPS must make a decision by October 2012 and produce a Record of Decision (ROD)
- that the NPS is required to work with the applicant to mitigate the impacts through compensation and minimizing the impact
- That the park's stance is that there are things that can't be mitigated such as 4 miles of habitat being changed forever, as well as changes to the visitor experience and impacts on historic and cultural resources
- that the area called the Hogback, affected by Alternative 2 and 2b, is one of the most biologically significant areas in the park

Chuck Smythe:

- Asked when the park picks a preferred Alternative will there be mitigation. Pamela Underhill answered that the parks will work with PPL and PSE&G, as they know that there will be impacts and that the mitigation packages will be presented and then discussed.

Robin Dushane asked:

- What other Federal Lands are within the Alternatives and what are the opinions of the states towards this project. John answered that the Picatinny Arsenal is also affected, but that they are not working with DEWA, as PSE&G already has a wide enough ROW for the proposed power line according to the Arsenal's environmental team. John followed up that both states were in favor of the project from the beginning. And stated that the only group working with the park on this project is the US Fish & Wildlife Service.

Sherry White THPO, Stockbridge-Munsee Community:

- Asked for more information on the different Alternatives

Brinnen Carter, Cultural Resource Manager, DEWA:

- Described the different Alternatives, starting with Alternative 1, the No Action Alternative.

- He explained that Alternative 2 and 2b are the routes picked by PPL and PSE&G
- He explained that Alternatives 6 and 7 have been dismissed, leaving 4 basic action alternatives and the no action alternative. Alternative 2b is a modification of Alternative 2, using largely the same route and construction, with the addition of two towers.
- Discussed each Alternative in detail.
- Discussed the respect we have for Tribal sovereignty and their right to communicate with whoever they choose in the US government, about whatever topic they choose.

The Tribes questioned how the Alternatives were picked

- John Donahue explained that we are required to have a reasonable number of alternatives to consider and that each of the alternatives follow an existing utility ROW

Questions and Answers:

- Robin Dushane asked what the white dots on the maps stand for? Brinnen responded that they are positive shovel tests; historic and prehistoric archeological resources
- Robin then asked if the prehistoric sites are on the National Register of Historic Places, referring to Alt. 3. Brinnen responded no.
- Greg Brown, Delaware Tribe, asked if there has been testing in Worthington State Park? Brinnen responded No, they did not grant permission for testing
- Greg Brown asked what will happen if the park selects Alternative 3? More testing? John Donahue answered that if we decide not to select alternative 2 or 2b , that the utility companies will have to go back to the Highlands Commission for money and etc...And he adds that we are only looking at the 1 to 5 miles affected in the park lands
- Pamela Underwood explained that each alternative is viable and has been determined to be so by [electrical engineering] experts and that the goals of the AT and DEWA are to minimize impacts and issue permits only for crossing federal lands
- Robin Dushane asked: Are there 200 foot towers existing today? Brinnen answered Yes, closest are near Scranton, PA.
- Robin Dushane asked: Will birds be impacted by the height of the new towers? Amanda Stein, Project Manager and Biologist DEWA, explained that information is in the Draft EIS Report and that the park feels that the towers could impact migratory birds, and eagles.
- Chuck Smythe asked for more information about the archeological testing that has taken place. Brinnen responded discussing that the work was done on Alt. 2 and 2b and that until the time when another Alternative is selected PPL and PSE&G is not going to fund the testing on the other Alternatives directly.
- Greg Brown asked how much damage and access would happen if the current line is removed. Brinnen answered there would be minimal damage as the lattice towers are component parts and can be broken down and removed via hand or helicopter.
- Sherry asked if the foundation holes will be deeper with the new towers. Brinnen answered that the foundations would be at least 16 foot deep. Sherry stated that she has concerns. Brinnen stated Paleo Sites have been found that are around 10 feet below the surface so there would have to be a monitoring system and the project would stop if anything is discovered.
- Sherry asked if burials are found will they be moved or will the building be stopped? John Donahue stated that construction would stop for 30 days or whatever is stated in the permit. **Sherry stated that they (the Tribes) would all agree that the burials should not be moved.**
- Chuck Smythe talked about the NAGPRA process and that there would have to be a plan of action in place. Brinnen stated that there would have to be additional phase 1, NAGPRA and other additional work

- Tamara Francis, Delaware Nation said that **it is important for the Tribes to know of the pad locations when plans come out.** John Donahue said that when a site Alternative is selected PPL and PSE&G will have to submit a plan and then we will share with the Tribes. Pamela Underwood stated that if any Alternative but 2 or 2b is selected the power companies are expected to sue the park to get that Alternative [2 or 2b].
- Discussion continued about the number of towers that are involved in each Alternative
- Discussion concluded with a discussion about the Organic Act and issues created by each Alternative relative to the Organic Act mandates.

DEPARTURE FOR FIELD VISITS --- Field visits were made at Fernwood, Community Drive, Smithfield Beach, River Road, National Park Drive/Totts Gap Road, Totts Gap Road (Cherry Valley side), Old Mine Road (Worthington, then Watergate, and NPS 602)

DEBRIEFING and TRIBAL REPRESENTATIVES COMMENTS
January 27, 2012

- The Stockbridge-Munsee Community favors the No Action Alternative and is going to advise counsel to draft a resolution to that effect.
- The Absentee Shawnee Tribe favors the No Action Alternative and is going to advise counsel to draft a resolution.
- The Eastern Shawnee Tribe favors the No Action Alternative and is going to advise counsel to draft a resolution.
- The Delaware Tribe favors the No Action Alternative and is going to advise counsel to draft a resolution.
- The Delaware Nation was not present at the debriefing.

Brinnen Carter reminded the consulting tribes that they have the sovereign right to send copies to whomever they choose in the US Government, from the Secretary of the Interior to the Superintendents of the parks.

General Concerns:
Joanne Schedler, Tribal Council Member, The Stockbridge-Munsee Community: any route will disturb homesteads, burial grounds, and sacred lands. The park has saved our ancient homelands and villages. They are coming through and disturbing all that --- we just don't want any of that.

Sherry White, THPO, The Stockbridge-Munsee Community: Proper archeology has not been done. Would like to see proper archeological work completed because she has worked with the government long enough to know that once the project starts it will not stop if burials or artifacts are found. So what happens when they do hit something? I doubt they will actually move anything.

Greg Brown, Delaware Tribe: Would like to see more intensive testing and monitoring when they actually dig the holes. He also stated the Tribes would more than likely want to have input on the contractors working on the archeology and be able to have Tribal Monitors. Could there be an archeologist acceptable to the tribes/

John Donahue: The park will follow NAGPRA provisions. And yes, more archeological work needs to be done.

Brinnen Carter: will need a more intensive survey once an alternative has been selected....

John Donahue: What we did with Columbia Gas was have them fund a position (archeologist) that was there all the time. In this case, we may need two positions, one on each side of the river.

Robin Dushane, Eastern Shawnee Tribe:asked a question about the $30 million compensation package. Will that be limited to that amount?

John Donahue: I expect it to increase.

Robin Dushane: Could any of that be used to complete extensive archeological work.

John Donahue: the archeological work is part of the project and would not be part of a mitigation package. It would be an expense of doing business.

For the NPS, a significant issue is what is impairment (how is that term defined) --- IT IS NOT CLEAR. He discusses a legal case. So whatever alternative is selected, we will have to make that determination.

There is more discussion of bird impacts (Kittatiny Ridge is a national flyway, and bald eagles nest not far from alternative 2) and Kara fielded questions about the Towers and Power Lines.

To Do List Created:

1. Send schedule of all deadlines to Tribes (Jan. 31)
2. Inform Tribes of the Mitigation Package presented from PPL/PSE&G (Jan. 31)
3. Inform tribes of Preferred Alternative when selected (Mid March)
4. Send to Tribes responses to Public Comments and schedule additional consultations, maybe in Oklahoma
5. (End of April) Notify tribes of plans for additional archeological investigations and testing
6. Send to Tribes final EIS (Late Summer)
7. Send to Tribes any information of additional Archeological work completed
8. Meet for additional consultation (Oklahoma?) after decision on preferred alternative.

Mandi copy

COPY

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015 (H2215)

FEB 03 2012

Sherry White, Tribal Historic Preservation Officer
Stockbridge-Munsee Community, Band of Mohican Indians
Post Office Box 70
Bowler, Wisconsin 54416

Dear Ms. White:

Thank you very much for coming to Delaware Water Gap National Recreation Area, Middle Delaware Scenic and Recreational River, and the Appalachian National Scenic Trail and formally consulting with us about the proposed Susquehanna-to-Roseland 500kV Electrical Transmission Line (SRLine).

We enjoyed talking with you frankly and in-depth about the proposed project, the arc of project development and review, the affected environment for the six alternatives, and effects each alternative would have on a variety of resources. I hope that the field visits you made to the alternatives, both in Pennsylvania and New Jersey, gave you a much better sense of the project's effects on the three parks. Our staff is preparing minutes from the meetings and field reviews we conducted and we will forward them as soon as they are proofed internally. We will also be forwarding the project-related information you requested during the out-briefing.

As we mentioned in our out-briefing, the timing of project decision-making is now short. For your tribe to have effective input into decision-making related to the agency preferred alternative, we should receive any written comments or tribal government resolutions prior to the window in March 2012, when National Park Service (NPS) officials will choose that alternative.

We respect the sovereignty of your tribe and value the excellent government-to-government relationships we have with all the tribes (Delaware Tribe, Delaware Nation, Stockbridge-Munsee Community, Shawnee Tribe, and Eastern Shawnee Tribe) attending the consultation.

As promised, we will keep you informed when the NPS decides on a preferred alternative. If you have any questions or concerns, please call us at (570) 426-2418, or (570) 588-3840.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6279

Cc: Kimberly Vele, President
Stockbridge-Munsee Community, Band of Mohican Indians
N8476 Moh-He-Con-Nuck Road
Post Office Box 70
Bowler, Wisconsin 54416

John Jarvis, Director
Dennis Reidenbach, NE Regional Director
Gay Vietzke, NE Regional Deputy Director
Bill Leonard, Acting Deputy Superintendent, DEWA
Amanda Stein, SRLine Project Manager, DEWA
Kara Deutsch, Acting Chief of Resources/NEPA Coordinator, DEWA
Brinnen Carter, Cultural Resource Manager, DEWA

EASTERN SHAWNEE TRIBE
OF OKLAHOMA

P.O. Box 350 · Seneca, MO 64865 · (918) 666-2435 · FAX (918) 666-2186

RESOLUTION NUMBER 020112-R-04

RESOLUTION FOR THE EASTERN SHAWNEE TRIBE, INCLUDING THE OFFICE OF CULTURAL PRESERVATION, WITH REGARD TO THE SUSQUEHANNA TO ROSELAND 500KV TRANSMISSION LINE RIGHT-OF-WAY AND SPECIAL USE PERMIT DRAFT ENVIRONMENTAL IMPACT STATEMENT WITH THE APPALACHIAN NATIONAL SCENIC TRAIL AND THE DELAWARE WATER GAP NATIONAL RECREATION AREA UNITS – NATIONAL PARK SERVICE (NPS), DEPARTMENT OF INTERIOR

WHEREAS, the Eastern Shawnee Tribe of Oklahoma is a federally recognized Indian Tribe organized under the Oklahoma Indian Welfare Act of 1936, with a Constitution approved by the Secretary of the Interior, April 4, 1994 and Amended March 2, 1999; and

WHEREAS, the Constitution of the Eastern Shawnee Tribe of Oklahoma, Article IX, Section 1, empowers the Business Committee to protect and preserve the Interests of the Tribe; and

WHEREAS, the Eastern Shawnee Tribe of Oklahoma is committed to protecting and preserving the interests of the tribal membership; and

WHEREAS, the Eastern Shawnee Tribe of Oklahoma wishes to enforce its rights under law as a federally recognized Indian tribe and its moral authority as a sovereign Indian nation; and

WHEREAS, the Eastern Shawnee Tribe of Oklahoma as a sovereign Indian nation, responsible for all matters which concern the Tribe's historic and treaty lands, as well as those areas which are of religious and cultural significance, including Traditional Cultural Properties; and

WHEREAS, the Eastern Shawnee Tribe of Oklahoma has concerns regarding lost use of important recreational areas and detriments to the environment within NPS lands; and,

WHEREAS, the Eastern Shawnee Tribe of Oklahoma recognizes the importance of Executive Order 13175, *Consultation and Coordination of Indian Tribal Governments*, which states that it is the federal agency's role for meeting the responsibilities that arise from the unique legal relationship between the Federal Government and Indian Tribal governments; and President Obama's *Memorandum for the Heads of Executive Departments and Agencies, And Independent Regulatory Agencies;* and,

WHEREAS, the Eastern Shawnee Tribe of Oklahoma fully supports the Organic Act (16 USC 1) which commits the NPS to making informed decisions that perpetuate the conservation and protection of NPS resources unimpaired for the benefit and enjoyment of future generations.

NOW THEREFORE BE IT RESOLVED, the Business Committee of the Eastern Shawnee Tribe of Oklahoma, in recognition of all applicable Federal authorities, Executive Orders and Memoranda, recommends Alternative #1 (No Action) and authorizes the above resolution as our official comment on the Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit Draft Environmental Impact Statement.

CERTIFICATION

The foregoing Resolution **NUMBER 020112-R-** 04 was adopted at a duly called regular meeting of the Business Committee of the Eastern Shawnee Tribe of Oklahoma conducted on **February 1, 2012.** A quorum was present at said meeting with the vote reflecting;

5 **FOR**
0 **AGAINST**
0 **ABSTAINING**
0 **ABSENT**
0 **VACANCY**

Judith Brown — Feb. 1, 2012
Judith Brown, **Date**
Secretary

Jack Ross — 2-1-2012
Jack Ross, **Date**
Second Chief

EXECUTIVE BRANCH

Vetoed: YES ____ **NO** ✓

Glenna J. Wallace — 2-3-12 — 3:47 p.m.
Glenna J. Wallace, Chief **Date** **Time**
Eastern Shawnee Tribe of Oklahoma

TRIBAL CONSULTATION REPORT by Robin Dushane respectfully submitted on February 1, 2012

Our tribe was asked by the Delaware Water Gap National Recreation Area and the Appalachian Scenic Trail to attend a three day consultation visit in regard to Utility Right of Way and Special Use Permits requested by Pennsylvania Power and Light (PPL) and Public Service Electric and Gas (PSE&G). This consultation was held in Shawnee, Pennsylvania.

On January 23rd , 2012 I traveled to Pennsylvania to view and assess the impacts to habitation areas of historic Shawnee people. Five sovereign nations sent cultural resource staff to meet with NPS personnel. Those nations present included authorized representatives from the Absentee Shawnee Tribe, Eastern Shawnee Tribe, Delaware Nation, Delaware Tribe and the Stockbridge Munsee Community.

Permits are being sought to build numerous 200 foot tall utility transmission lines through park lands. It is the recommendation of the Cultural Preservation Department Director to join our voice with four other Sovereigns in opposing the damage to these park units for visitors and neighbors that would result from the proposed utility towers, transmission lines and right-of-ways.

I have based my decision to support Alternative #1 (No Action) on the following observations;

1) The NPS Organic Act (16 USC 1) states that NPS will "conserve the scenery and natural and historic objects and the wild life therein and provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations".
2) The preferred route (Alternative #2) of the Utility Companies is to build these obtrusive power lines next to one of only two known communal roosts for wintering bald eagles within these federal lands of the Parks Service. These roosts have remained active for over 40 years. Towers at this proposed height would potentially cause collision risks. The eagle is sacred to the Shawnee people, whether here or in or aboriginal homeland, and we fully support all efforts for their protection.
3) Audible effects from 500kV Electric transmission lines will adversely affect the visitors experience at these parks.
4) Building these power lines will have detrimental effects to area wetlands, multiple natural resources, archaeological resources and the water quality of the Delaware River.
5) 300 foot right-of–way areas for these power lines must be free of vegetation which will involve repeated use of pesticides. Because the topography is severe (very steep) these chemicals will run off and affect the water quality of the Delaware River and adjoining creeks throughout these parks.
6) The power lines will be managed by a central grid and such grids may be subject to terrorist actions due to the location of such a grid to New York City.
7) Visual impairments to the view shed will be seen within the park and outside the park due to electrical towers crossing the Kittatinny Ridge (a premier mountain ridge on the New Jersey side of the park).
8) Twenty-six million people from all over the world visit these park units annually. Their experience in the parks will forever be altered by the detrimental effects stated above if this proposal is implemented.

Milford Wayne Donaldson, FAIA
Chairman

Clement A. Price Ph.D.
Vice Chairman

John M. Fowler
Executive Director

Preserving America's Heritage

February 6, 2012

The Honorable Jon B. Jarvis
Director
National Park Service
1849 C Street, NW
Washington, DC 20241

Ref: Proposed Right-of-Way Request for the Susquehanna to Roseland Transmission Line Appalachian National Scenic Trail, Middle Delaware National Scenic and Recreational River, and Delaware Water Gap National Recreation Area Pennsylvania and New Jersey

Dear Mr. Jarvis:

In response to a notification by the National Park Service (NPS), the Advisory Council on Historic Preservation (ACHP) will participate in consultation to develop a memorandum of agreement for the proposed Right-of-Way Request for the Susquehanna to Roseland Transmission Line in Delaware and New Jersey. Our decision to participate in this consultation is based on the *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, contained within our regulations, "Protection of Historic Properties" (36 CFR Part 800). The criteria are met for this proposed undertaking because the Section 106 review of the undertaking presents important questions of interpretation of our regulations and its standards for developing environmental documents to comply with Section 106. In addition, the proposed undertaking has the potential for presenting procedural problems because it has already drawn substantial public controversy and may potentially be involved in litigation.

Section 800.6(a)(1)(iii) of our regulations requires that we notify you, as the head of the agency, of our decision to participate in consultation. By copy of this letter, we are also notifying Mr. John J. Donahue, Superintendent of the Delaware Water Gap National Recreation Area and Middle Delaware National Scenic and Recreational River, and Ms. Pamela Underhill, Superintendent of the Appalachian National Scenic Trial, of this decision.

Our participation in this consultation will be handled by Katry Harris, who can be reached by telephone at (202) 606-8520 or by e-mail at kharris@achp.gov. We look forward to working with your agency and other consulting parties to consider alternatives to this undertaking that could avoid, minimize, or mitigate potential adverse effects on historic properties and to reach a memorandum of agreement.

Sincerely,

John M. Fowler
Executive Director

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

"Katry Harris"
<kharris@achp.gov>
02/10/2012 10:10 AM

To <Amanda_Stein@nps.gov>
cc
bcc
Subject RE: SRLINE EIS Cultural Resource Reports

Thanks, Amanda. I'll be on the lookout for this important delivery.

Katry Harris, Program Analyst
ACHP
(202) 606-8523

-----Original Message-----
From: Amanda_Stein@nps.gov [mailto:Amanda_Stein@nps.gov]
Sent: Thursday, February 09, 2012 4:21 PM
To: Katry Harris
Cc: John J. Donahue; Brinnen_Carter@nps.gov; Kara_Deutsch@nps.gov; SRLINE_EIS@nps.gov
Subject: SRLINE EIS Cultural Resource Reports

Ms. Harris:

On behalf of Superintendent John Donahue, I am sending to you via FedEx a CD containing digital versions of the following resource reports that were developed for the NPS Susquehanna to Roseland Transmission Line Environmental Impact Statement:

NPS resource reports

Assessment of Effects on Cultural Landscape Resources (Milner, June 2011)
Assessment of Effects on Historic Architectural Resources (Milner, February 2011)
Phase 1B Archeological Survey (Milner, 2011)
Visual Resource Report (DEA, November 2011)

Applicant's resource reports developed for Alternative 2

Historic Corridor Report (Berger, August 2011)
Phase Ib, Phase II Archeological and Geomorphological Investigations End of Field Summary (Berger, September 2011)

You should receive the CD by Monday, February 13th at the latest. I am in the process of pulling together all related correspondence with the SHPOs.

Thank you.

Amanda J. Stein
Biologist / Project Manager
National Park Service
Delaware Water Gap National Recreation Area
1 River Road Bushkill, PA 18324-9999

==========
amanda_stein@nps.gov
office: (570) 426-2472 cell: (570) 234-4109 fax: (570) 426-2402

Stockbridge-Munsee Community

BAND OF THE MOHICAN INDIANS

TRIBAL COUNCIL OFFICES

RECEIVED
FEB 21 2012

February 13, 2012

Mr. John Donahue, Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and Recreational River
HQ River Road, off Rt. 209
Bushkill, Pennsylvania, 18324

Dear Mr. Donahue:

Recently two representatives of the Stockbridge-Munsee Tribe, JoAnn Schedler and Sherry White, traveled to the Delaware Water Gap (DWG) to consult with your agency on the Susquehanna to Roseland 500-kv Transmission Line Right –of-Way and Special Use Permit. Review of the EIS proposal of PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G) along with the sites visit have been very helpful in assisting us with our determination.

The history of the Delaware Tribes, the Shawnee, and the Stockbridge-Munsee Tribe in the DWG is well documented. Along with burial sites, we are concerned with the historic sites that lie within the DWG and the safety of the existing eagles that nest within the Park.

We feel it is our utmost responsibility to protect and preserve the rich history of our ancestors that lie within the Park. The proposed Transmission Line has a high possibility to cause harm to these sites, therefore we ask you to support Alternative 1: the No-action alternative denying the application for the ROW and construction permit to replace the B-K Line with a new double-circuit line through the Delaware Water Gap.

Should you have any questions or concerns please contact Ms. Sherry White, Tribal Historic Preservation Officer for our Tribe.

Respectfully,

Robert Chicks

Robert Chicks, President

N8476 MOH HE CON NUCK ROAD • BOWLER, WI 54416 • (715) 793-4111 • FAX: (715) 793-1307

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015(H2215)

FEB 24 2012

Ms. Robin Dushane
Eastern Shawnee Tribe of Oklahoma
Post Office Box 350
Seneca, Missouri 64865

Dear Ms. Dushane:

Thank you very much for traveling coming to Delaware Water Gap NRA, Middle Delaware Scenic and Recreational River, and the Appalachian National Scenic Trail to formally consult with us about the proposed Susquehanna-to-Roseland 500kV Electrical Transmission Line (SRLine).

Enclosed are minutes from the meetings and field reviews we conducted. To reiterate what we mentioned in the outbriefing and follow-up letter, the timing of project decision-making is now short. For your tribe to have effective input into decision-making related to the agency preferred alternative, we should receive any written comments or tribal government resolutions prior to the window in March 2012 when NPS officials will choose that alternative.

We respect the sovereignty of your tribe and value the excellent government-to-government relationships we have with all the tribes (Delaware Tribe, Delaware Nation, Stockbridge-Munsee Community, Shawnee Tribe, and Eastern Shawnee Tribe) attending the consultation.

As promised, we will keep you informed when the NPS decides on a preferred alternative. If you have any questions or concerns, please call on 570-426-2418, or 570-588-3840.

Sincerely,

John J. Donahue
Superintendent, DEWA/MDSR

Pam Underhill
Superintendent, APPA

Cc (w/ enclosure):
Glenna J. Wallace
10080 S. Bluejacket Road
Wyandotte, Oklahoma 74370

Cc (w/out enclosure):

John Jarvis, Director
Dennis Reidenbach, NE Regional Director
Gay Vietzke, NE Regional Deputy Director
Bill Leonard, Acting Deputy Superintendent, DEWA
Amanda Stein, SRLine Project Manager, DEWA
Kara Deutsch, Acting Chief of Resources/NEPA Coordinator, DEWA
Brinnen Carter, Cultural Resource Manager, DEWA
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
Jennifer McConaghie, National Park Service, NER
Chuck Smythe, National Park Service, NER

Clint Riley, U.S. Fish and Wildlife Service
Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Denver Service Center – TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225–0287

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

FEB 27 2012

Mr. John M. Fowler
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, D.C. 20004

Dear Mr. Fowler:

We received your correspondence dated February 6, 2012, regarding the Advisory Council on Historic Preservation's (ACHP) interest in participating in the National Park Service's (NPS) review of the proposed Susquehanna to Roseland Transmission Line project as it crosses the Appalachian National Scenic Trail (APPA), the Delaware Water Gap National Recreation Area (DEWA) and the Middle Delaware National Scenic and Recreational River (MDSR).

Thank you for reviewing the Draft Environmental Impact Statement (DEIS). We assembled it using National Park Service standards for developing environmental documents to comply with Section 106, in accordance with 36 CFR §800.8(c)(1). Your questions about the environmental documents were thoughtful, and we will answer them as follows:

ACHP Question (page 1)
(i) Identify consulting parties

The DEIS does not adequately document the NPS identification of consulting parties consistent with 36 CFR §800.3(f). We request that the NPS clarify the following:

- US Fish and Wildlife Service (FWS) is a cooperating agency in the preparation of the DEIS. Has the FWS designated the NPS as the lead federal agency for Section 106? Such designation should be documented with correspondence from the US FWS to NPS.
- Has the NPS consulted with Indian tribes regarding the presence or absence of historic properties of religious and cultural significance to them?
- Has the NPS identified any other consulting parties? Has the NPS invited or received request to be consulting parties from adjacent local governments, the Appalachian Trail Association, or other historic preservation organizations?

NPS Response
NPS managers are considering either granting or denying the applicant's proposal by issuing, issuing with necessary terms and conditions, or not issuing the requested construction and ROW permit for crossings of NPS lands and waters. Two of the identified alternatives (4 and 5) cross the boundaries of the newly-authorized Cherry Valley National Wildlife Refuge (CVNWR) but not on federally owned property. Accordingly, the US Fish and Wildlife Service (USFWS) agreed to participate as a cooperating agency in

the EIS in February 2011. If the NPS selects either alternative 4 or alternative 5 as the Agency's Preferred Alternative, USFWS will be responsible for Section 106 review of the resources within its jurisdiction.

The three park units are actively engaged in Section 106 consultation with the Pennsylvania and New Jersey State Historic Preservation Officers and twelve affiliated federally-recognized Tribes. Recently, at the request of the Stockbridge-Munsee Community, the NPS held onsite consultation (during the week of January 23, 2012) with representatives from five Tribes to discuss the EIS alternatives and potential impacts to resources. In addition to the Stockbridge-Munsee, Tribes included the Delaware Nation, Delaware Tribe, Shawnee Tribe, and Absentee-Shawnee Tribe. We expect them to provide us with comments on the consultation in the next several weeks. When the NPS selects the Agency Preferred Alternative consultation will continue with the Tribes and SHPOs to discuss measures to avoid, minimize, or mitigate adverse effects, should the agency preferred alternative be an action alternative.

In accordance with National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) procedures, the NPS has informed and engaged agencies, governments, tribes, stakeholders, and the public throughout the EIS process via scoping meetings, briefings, conference calls, data requests, press releases, newsletters, alternatives meetings, and public meetings. Chapter 5 of the DEIS describes the consultation that occurred during the development of the draft document including consultation with stakeholders and other agencies.

ACHP Question (page 2)
(ii) *Identify historic properties and assess effects*

> The DEIS does not adequately document descriptions of the affected historic properties, including information on the characteristics that will qualify them for the National Register, and explanations of why the criteria of adverse effects were found applicable. Please provide us with a copy of the archaeological technical report referenced in the DEIS. Please clarify if other technical reports were prepared regarding other types of historical properties and provide us with copies if or when they are available.
>
> In addition, we are unclear as to the level of effort the NPS has made to identify, evaluate, and assess effects to historic properties on non-federal lands which may be affected by this undertaking. Please forward any documentation or technical reports regarding such efforts.
>
> Further, we would like to participate in consultation with NPS and other consulting parties regarding the NPS assessment that the no-action alternative would have an adverse impact on historic properties.

NPS Response
As part of the EIS process, NPS staff and contractors used a range of documents, from existing determinations of eligibility (DOEs) to National Register forms and Historic Resource Studies, to establish the historical---or non-historical---status of individual resources within the respective park units. The DEIS provides summary information on these resources. Supporting documents about the historic buildings and cultural landscapes are freely available for review by the ACHP. Where NPS managers did not have sufficient information (e.g., archeological sites), shovel-testing surveys and deep-testing surveys were conducted by both the NPS (Alternatives 3-7) and the applicant (Alternative 2/2b). On February 10, 2012 we mailed a CD containing digital versions of the following resource reports to Ms. Katry Harris:

NPS resource reports

Assessment of Effects on Cultural Landscape Resources (Milner, June 2011)
Assessment of Effects on Historic Architectural Resources (Milner, February 2011)
Phase 1B Archeological Survey (Milner, 2011)
Visual Resource Report (DEA, November 2011)

Applicant's resource reports developed for Alternative 2

Historic Corridor Report (Berger, August 2011)
Phase Ib, Phase II Archeological and Geomorphological Investigations End of Field Summary (Berger, September 2011)

In mid-2008, prior to the NPS receiving the applicant's complete permit application (March 2009), the applicant's environmental compliance and permitting contractor, The Louis Berger Group, Inc. (LBG) contacted both the Pennsylvania State Historic Preservation Office (PA SHPO) and the New Jersey Historic Preservation Office (NJ HPO).

Discussions between the NPS and the PA SHPO indicated that the PA SHPO is in possession of archeological survey reports prepared for non-NPS lands in Pennsylvania. DEWA is also in receipt of the historic architectural reports prepared by LBG staff for Pennsylvania lands outside NPS lands. DEWA also received copies of correspondence (see Enclosure 1, correspondence dated 9/3/2008, 10/28/2008, 10/29/2008, 10/31/2008, 11/19/2008) to and from the applicant and the NJ HPO with project descriptions, requests for establishing both archeological and historic architectural areas-of-potential effect, and the Applicant's plans to contact local historical organizations, the National Park Service, and local governments. The applicant continues preparing cultural resource reports for both state historic preservation offices for the applicant's preferred route outside of NPS lands (NPS Alternative 2, 2b, and lengthy segments of alternatives 3 and 4). A complete record of these reports and related consultation correspondence should be available from the respective SHPOs.

We look forward to cooperating with the ACHP and other consulting parties further on the assessment of effect from the agency preferred alternative when it is selected.

ACHP Question (page 2)
(iii) *Consult with SHPOs, Indian tribes and other consulting parties*
The DEIS does not document NPS' consultation with SHPOs, Indian tribes, and other consulting parties prior to the publication of the DEIS. Please provide us with any relevant documentation or summaries of consultation prior to the publication of the DEIS.

NPS Response
Appendix I of the DEIS contains NPS' consultation with SHPOs, Indian tribes, and other consulting parties prior to the publication of the draft document. Additional correspondence is provided (please see Enclosures 2, 3, 4 and 5).

ACHP Question (page 2)
(iv) *Involve the public in accordance with NEPA procedures*
The DEIS does not indicate whether any comments regarding historic preservation issues have been received or whether such comments may have led NPS to invite certain individuals or

organizations to be consulting parties. Please provide us with such documentation when it is available.

NPS Response

The NPS has and continues to engage the public throughout the entire process. For a description of the public involvement process and a list of recipients of the draft document please see Chapter 5 (pages 717-720) of the DEIS. Prior to the release of the DEIS the NPS provided two opportunities for the public to provide comment. The public scoping period took place January-March 2010 and provided an opportunity for the public to review and provide comments on a description of the proposal, the purpose and need of the review, background information, and a list of issues and impact topics. The *Public Scoping Comment Summary Report* (April 2010), found on the NPS Planning, Environment and Public Comment (PEPC) website, summarizes comments received can be found at the following site:

http://parkplanning.nps.gov/document.cfm?parkID=220&projectID=25147&documentID=33590

On pages 21-23 commenters suggested that the NPS consult with additional state and federal agencies and additional tribal governments throughout the EIS process. The NPS contacted these agencies and tribes and included them in subsequent project updates and meeting notices. On page 24 of the report commenters expressed their concern for the adverse impacts to the many cultural resources throughout the park due to the transmission line upgrade. All comments were addressed in the DEIS.

The second comment period (August-September 2010) provided an additional opportunity for the public to review and provide comments on the preliminary alternatives developed for the DEIS. The *Alternative Workshop Public Comment Summary Report* (November 2010) found on the NPS Planning, Environment and Public Comment (PEPC) website, summarizes comments received can be found at the following site:

http://parkplanning.nps.gov/document.cfm?parkID=220&projectID=25147&documentID=37279

On page 28, commenters stated that consultation with state and federal agencies should be required. Commenters also stated that there would be impacts to historic sites along the proposed routes. All comments were addressed in the DEIS. We are still coding and organizing the approximately 27,000 comments received on the DEIS.

ACHP Question (page 2)

(v) *Develop in consultation alternatives and measures to avoid, minimize, or mitigate adverse effects*

The DEIS evaluates a range of alternatives for the undertaking, however, all alternatives are expected to adversely affect historic properties. Further, the DEIS does not document consultation with SHPOs, Indian tribes, or other consulting parties regarding alternatives or measures to avoid, minimize, or mitigate adverse effects. Since the ACHP is formally participating in Section 106 consultation, we look forward to working with the NPS and other consulting parties to ensure that opportunities for avoidance and minimization are adequately considered prior to the final approval of right of way for this undertaking.

NPS Response

While several alternatives have been identified in the DEIS, including the environmentally preferred alternative, the agencies' preferred alternative will not be selected until public involvement is complete. Public input and participation is essential in deciding the final outcome. The no action alternative does not have significant negative impacts on resources. However, it is virtually impossible to implement a large infrastructure project such as the Applicant's proposal in DEWA without adversely affecting historic properties which are prolific both in the parks and the surrounding area.

Pages F-14 and F-15of the DEIS Appendix F provide some of the best management practices and mitigation measures that would be required for all action alternatives. Once the NPS selects the Agency Preferred Alternative (expected in March 2012) consultation will continue with Tribes, SHPOs, ACHP and other consulting parties to discuss specific measures to avoid, minimize, or mitigate adverse effects to cultural resources.

To assist readers in understanding the consultation process, the NPS will include in the Final EIS a section that details the compliance with Section 106 through the NEPA process, including a summary of the NPS Section 106 consultation during identification, assessment of adverse effects, and resolution of adverse effects on historic properties.

For further discussion on the development of a memorandum of agreement, we suggest you contact Dr. Stephanie Toothman, Associate Director for Cultural Resources and Dr. Bert Frost in the Associate Director of Natural Resources Stewardship and Science Office. The Final EIS will include copies of any agreements with consulting parties that are developed prior to the publication of the FEIS. I greatly appreciate your interest and assistance in this important undertaking.

We look forward to working with you. If you have any additional questions or concerns please contact us at (570) 426-2418 or (304) 535-6278 or you can contact Amanda Stein, Project Manager at (570) 426-2472.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

Enclosure 1 (correspondence dated 9/3/2008, 10/28/2008, 10/29/2008, 10/31/2008, and 11/19/2008)

Enclosure 2 (correspondence dated 4/21/2010, 6/17/2010, 6/22/2010, 7/28/2010, 8/31/2010, 8/15/2011, 10/14/2011, 11/21/2011 and 1/21/2012)

Enclosure 3 (correspondence dated 1/14/2010, 3/16/2010, 3/18/2010, 6/1/2010, 6/7/2010, 6/17/2010, 8/15/2011, and 11/21/2011)

Enclosure 4 (correspondence dated 2/1/2010, 3/29/2010, 4/9/2010, 6/7/2010, 7/30/2010, 8/10/2010, 8/17/2010, 7/18/2011, and 8/15/2011)

Enclosure 5 (correspondence dated 6/30/2011, 11/21/2011, and 2/9/2012)

cc:
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
Jennifer McConaghie, National Park Service, NER
Chuck Smythe, National Park Service, NER

Clint Riley, U.S. Fish and Wildlife Service
Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

MAR 01 2012

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North Street, 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Dear Mr. McLearen:

As part of our ongoing effort to consult with you regarding the National Park Service's (NPS) preparation of an Environmental Impact Statement (EIS) analyzing potential impacts of the proposed Susquehanna to Roseland Transmission Line as it affects three national park units, we are providing a copy of the archaeological survey recently submitted by the applicant. This report is a supplement to information the NPS previously provided for your review (correspondence dated 7/17/2010, 8/15/2011 and 11/21/2011) regarding archaeological, historic structures, cultural landscape and scenic resources along the applicant's proposal and the action alternatives.

Enclosed are a hardcopy report and a compact disc containing the digital report, titled *Phase I/II Archeological Survey: The Delaware Water Gap National Recreation Area (DEWA) Monroe and Pike Counties, Pennsylvania and Warren County, New Jersey, Volumes 1 and 2* (January 2012). This report provides an overview of the history and archeology of the DEWA, survey methods and procedures which guided the archeological field investigations, and detailed discussions and analyses regarding the results of the Phase Ib and Phase II archeological investigations and geo-morphological testing within DEWA.

We are concurrently reviewing the report and would appreciate a timely review and response to this letter (within 30 days of receipt) so that any comments you have can be incorporated into the Final Environmental Impact Statement/Assessment of Effect. As a National Historic Preservation Act Section 106 consulting party, we look forward to your review and comment.

In closing, as you are aware, the Draft Environmental Impact Statement did not contain an agency preferred alternative. The selection of the preferred alternative will take place in March 2012. Once selected, we will continue consultation with all Section 106 consulting parties to resolve any identified adverse effects to the cultural resources for the preferred alternative. We may request a meeting with your or your representative in April 2012 to facilitate this discussion.

Thank you for your cooperation. If you have any questions concerning this matter, please contact Amanda Stein by phone (570) 426-2472 or email at amanda_stein@nps.gov.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

cc:
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
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Clint Riley, U.S. Fish and Wildlife Service
Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Mr. John M. Fowler
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, D.C. 20004

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
P.O. Box 404
Trenton, New Jersey 08625

Denver Service Center - TIC
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12795 W. Alameda Parkway
Denver, Colorado 80225-0287

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

MAR 01 2012

Sherry White
Tribal Historic Preservation Officer
Stockbridge-Munsee Community
Post Office Box 70
Bowler, Wisconsin 54416

Dear Ms. White:

As part of our ongoing effort to consult with you regarding the National Park Service's (NPS) preparation of an Environmental Impact Statement (EIS) analyzing potential impacts of the proposed Susquehanna to Roseland Transmission Line as it affects three national park units, we are writing to follow-up on items you requested during the on-site consultations held the week of January 23, 2012. During those discussions, you expressed interest in reviewing the applicant's comments and mitigation proposal. These items are provided on the enclosed compact disc as digital files, along with the previously-provided Visual Resource Report (DEA, November 2011). We are also providing a copy of the archaeological survey recently submitted by the applicant. This report is a supplement to information the NPS previously provided for your review (correspondence dated 7/30/2010, 8/15/2011 and 11/21/2011) regarding archaeological, historic structures, cultural landscape and scenic resources along the applicant's proposal and the action alternatives.

A copy of the report, titled *Phase I/II Archeological Survey: The Delaware Water Gap National Recreation Area (DEWA) Monroe and Pike Counties, Pennsylvania and Warren County, New Jersey, Volumes 1 and 2* (January 2012) is enclosed with this letter. This report provides an overview of the history and archeology of the DEWA, survey methods and procedures which guided the archeological field investigations, and detailed discussions and analyses regarding the results of the Phase Ib and Phase II archeological investigations and geo-morphological testing within DEWA.

We are concurrently reviewing the report and would appreciate a timely review and response to this letter (within 30 days of receipt) so that any comments you have can be incorporated into the Final Environmental Impact Statement/Assessment of Effect. As a National Historic Preservation Act Section 106 consulting party, we look forward to your review and comment.

As you are aware, the Draft Environmental Impact Statement did not contain an agency preferred alternative. The selection of the preferred alternative will take place in March 2012. Once selected, we will continue consultation with the Tribes and all Section 106 consulting parties to resolve any identified adverse effects to the cultural resources for the preferred alternative. We may request a meeting with your or your representative in April 2012 to facilitate this discussion.

In closing, the EIS schedule has not yet been formalized, and is not available at this time. The Comment Summary Report about the Draft Environmental Impact Statement is still in development and should be complete in April 2012. We will provide your Tribe a copy, once it is finalized.

Again, thank you for consulting with us and continuing to demonstrate interest in this project. If you have any questions concerning the information provided with this letter, please contact Amanda Stein by phone (570) 426-2472 or email at amanda_stein@nps.gov.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

cc:
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
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Amanda Stein, National Park Service, DEWA
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Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Mr. Douglas McLearen, Chief, PA SHPO
Mr. Daniel Saunders, NJ SHPO
Mr. John M. Fowler, ACHP

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HPO Project # 08-1556-21
HPO-C2012-128

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MAR 28 2012

State of New Jersey
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NATURAL & HISTORIC RESOURCES
HISTORIC PRESERVATION OFFICE
P.O. Box 420
Trenton, NJ 08625-0420
TEL. (609) 984-0176 FAX (609) 984-0578

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

March 15, 2012

Mr. John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area
Headquarters River Road at Route 209
Bushkill, Pennsylvania 18324

Dear Mr. Donahue,

As Deputy State Historic Preservation Officer for New Jersey, in accordance with 36 CFR Part 800: Protection of Historic Properties, as published in the *Federal Register* on December 12, 2000 (65 FR 77725-77739) and amended on July 6, 2004 (69 FR 40544-40555), I am providing consultation comments for the following proposed undertaking:

Multiple Counties, Multiple Municipalities
Susquehanna (PA) to Roseland (NJ) 500 kV Transmission Project
Draft Environmental Impact Statement (DEIS)
Federal Energy Regulatory Commission

The Historic Preservation Office (HPO) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed undertaking. The DEIS does not include an architectural survey with descriptions of the historic architectural resources and the characteristics that qualify them for inclusion in the National Register of Historic Places (NRHP) or explanations of why the criteria of adverse effect were found applicable or inapplicable to individual historic architectural properties.

The HPO would appreciate receiving the technical report and/or survey forms that provided the basis of the conclusions contained within the cultural resources section of the submitted DEIS. Once the HPO has reviewed this more detailed information, we will be able to offer comments in accordance with 800.4 Identification of Historic Properties and 800.5 Assessment of Adverse Effects.

Sincerely,

Daniel D. Saunders
Deputy State Historic
Preservation Officer

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United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

MAR 26 2012

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
Post Office Box 404
Trenton, New Jersey 08625

Dear Mr. Saunders:

We are writing to provide additional information for your consideration and review as part of our ongoing effort to consult with you regarding the Environmental Impact Statement (EIS) that analyzes potential impacts of the proposed Susquehanna to Roseland Transmission Line as it affects three national park units.

We enclose a copy of the report *Susquehanna to Roseland 500 kV Transmission Project: Historic Architecture Eligibility & Effects Delaware Water Gap National Recreation Area and Appalachian National Scenic Trail (March 2012)* with this letter. This report, developed by the applicant's consultant (The Louis Berger Group, Inc), provides the results of the determinations of eligibility and assessments of effect, conducted to determine potential impacts on National Register-eligible historic buildings of the applicant's proposal (alternative 2) within the eight-mile Area of Potential Effects (APE) within Delaware Water Gap National Recreation Area (DEWA) and the Appalachian National Scenic Trail (APPA). This APE is in both New Jersey and Pennsylvania.

We are concurrently reviewing this report. As such, you should be aware that any final NPS decisions on National Register eligibility and assessments of effect are still pending. We may not agree with the Berger determinations. If you need the NPS decisions prior to providing comments, please let us know as soon as possible.

We would appreciate a timely review and response to this letter (within 30 days of receipt) so that any comments you have can be incorporated into the Final Environmental Impact Statement/Assessment of Effect. We are making every effort to meet the applicant's PJM mandated timeframe. As a National Historic Preservation Act Section 106 consulting party, we look forward to your review and comment.

Again, thank you for your continued interest in this process. If you have any questions concerning the information provided with this letter, please contact Amanda Stein by phone (570) 426-2472 or email at amanda_stein@nps.gov.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

Enclosure

cc:
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
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Denver, Colorado 80225-0287

Preserving America's Heritage

April 12, 2012

Mr. John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and Recreational River
Bushkill, PA 18324

Ms. Pamela Underhill
Superintendent
Appalachian National Scenic Trail
P.O. Box 50
Harpers Ferry, WV 25425

Ref: ***Proposed Right-of-Way for Susquehanna to Roseland Transmission Line Pennsylvania and New Jersey***

Dear Mr. Donahue and Ms. Underhill:

As you know, the Advisory Council on Historic Preservation (ACHP) is formally participating in the Section 106 consultation regarding the referenced undertaking. In response to our request dated February 6, 2012, the NPS has sent us substantial documentation regarding the identification of historic properties which may be affected by the proposed undertaking and its efforts to consult with the Pennsylvania and New Jersey State Historic Preservation Officers (SHPOs) and federally recognized Indian tribes. We have reviewed this documentation which serves as the basis for the following comments for the NPS to consider in its Section 106 review process. We will use the steps in the Section 106 process defined in the regulations, "Protection of Historic Properties" (36 CFR Part 800), to organize our comments.

Step 1 – Initiate the process

From the documentation provided, we understand that the Pennsylvania-Jersey-Maryland Regional Transmission Operator, the Applicant for the undertaking, , initiated consultation with the SHPOs in 2008. These initiation letters also indicated that the Applicant would be contacting an array of local historic preservation organizations and federally recognized Indian tribes. Please confirm whether any of these historic preservation organizations indicated an interest and were invited by NPS to participate as consulting parties in the Section 106 consultation. As you know, it has come to the attention of the ACHP that other individuals have concerns regarding the management of historic properties within the Delaware Water Gap National Recreation Area (NRA); we also encourage the NPS to invite other individuals with a demonstrated interest in the preservation of historic properties to be consulting parties in this consultation.

ADVISORY COUNCIL ON HISTORIC PRESERVATION
1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

We understand that the US Fish and Wildlife Service (FWS) may only need to meet its Section 106 responsibilities for this undertaking if either Alternative 4 or 5 for the project are selected. If either of these alternatives is selected, ACHP recommends that NPS and FWS revisit FWS participation in the Section 106 consultation and any Section 106 agreement that might result. We do not recommend that federal agencies meet their responsibilities separately for a single undertaking, as the NPS has proposed.

Step 2 – Identify and evaluate historic properties

The Applicant initially defined the area of potential effect (APE) for the entire proposed project length of its proposed alternative, specifying that the limits of disturbance would be the APE for direct effects, and a 1/3-mile buffer around the proposed right-of-way would be the APE for indirect effects. Subsequent correspondence with the New Jersey SHPO revised the indirect APE for the portion of the project in that state to a 1/4-mile buffer, and further reduced to a 500-foot buffer around proposed access roads. NPS has not provided documentation indicating that the Pennsylvania SHPO concurred with the proposed APE.

The Applicant has conducted Phase I, II, and Geomorphological surveys to identify archaeological sites which may be listed or eligible for listing in the National Register of Historic Places, within the direct APE both on and off federal lands. The Applicant has also conducted preliminary surveys of buildings, structures, objects, and historic districts within the indirect APE both on and off federal lands. The New Jersey SHPO has provided detailed comments on all these reports. The Pennsylvania SHPO has only commented on the Phase I Archaeological Report. The NPS has not provided documentation indicating the comments of Indian tribes or other consulting parties regarding the determinations of eligibility presented in these reports. It is a requirement of the Section 106 process that the NPS seek and obtain concurrence from the SHPOs regarding its determinations of eligibility. In addition, the NPS should acknowledge the special expertise of Indian tribes in the identification of historic properties of religious and cultural significance to them. The NPS needs to complete the process of identifying and evaluating the eligibility of historic properties within the direct and indirect APEs for the Applicant's preferred alternative before the potential effects of this alternative can be assessed. This includes the concurrence of the relevant SHPO.

The NPS has not provided any documentation of an APE or any efforts to identify historic properties off federal lands which may be affected by the other project alternatives presented and considered in the Draft Environmental Impact Statement (DEIS) for the action. As ACHP staff has discussed with NPS headquarters staff and legal counsel, the ACHP does not agree that the APE for the proposed undertaking be limited to only federal lands. This proposed transmission line cannot connect the two end points without crossing the Delaware River, and therefore crossing federal lands, and it is an unreasonable alternative to design the project to avoid the federal lands surrounding the Delaware River. As a result the segment of the transmission line through federal lands does not have independent utility from the whole project. Therefore, the APE must be defined to address the potential effects of the entire project.

We have also discussed and reiterate here that the level of effort to identify historic properties off federal lands need not be exhaustive. We recommend that the NPS consult with the SHPOs, Indian tribes, and other consulting parties and consider conducting a file search of known National Register listed and previously determined eligible historic properties within the APE for the additional alternatives. With this knowledge, the NPS will be able to assess the potential for the other alternatives potential to adversely affect historic properties.

Step 3 – Assess adverse effects

We acknowledge the NPS assertion that the Applicant's preferred alternative for the project may adversely affect historic properties, both directly and indirectly. The NPS has not provided documentation regarding an assessment of the potential for the other alternatives considered in the DEIS to affect historic properties.

The ACHP recommends, consistent with guidance from the Council on Environmental Quality (CEQ), that federal agencies assess the relative potential for adverse effects among all alternatives for a project presented in a DEIS or other documentation prepared pursuant to the National Environmental Policy Act (NEPA). This recommendation is provided to encourage federal agencies to consider the potential effects to historic properties, along with all other environmental factors, in its decision to select a particular alternative. Such consideration helps the agency to better support its alternatives selection decision. Accordingly, we recommend that the NPS assess the relative effects of the alternatives considered in the DEIS and consult with the SHPOs, Indian tribes, and other consulting parties regarding the historic property implications of such assessments prior to selecting an alternative for the project.

Step 4 – Resolution of adverse effects

The ACHP also recommends, consistent with the guidance of CEQ, that federal agencies complete the Section 106 process prior to issuing a Record of Decision (ROD) or other NEPA decision. In this case, since adverse effects to historic properties are anticipated, the NPS should prepare its project planning schedule to accommodate the preparation and execution of Section 106 agreement for this undertaking prior to issuance of the ROD.

In order to move this Section 106 consultation forward, we encourage the NPS to schedule a consultation meeting in the near future to include the SHPOs of Pennsylvania and New Jersey, Indian tribes, and other consulting parties. The ACHP may be represented at the meeting on site, but the meeting should also allow for others to participate by telephone or video conferencing if they are unable to travel. The agenda for such a meeting should focus on the APE for the entire undertaking, the steps to complete the identification of historic properties on the Applicant's preferred alternative in Pennsylvania, and the level of effort proposed to identify historic properties on the additional alternatives in the DEIS. In addition, the parties should consult about the steps and schedule for completing the Section 106 process in coordination with NPS' NEPA process.

We hope the NPS will consider these comments and recommendations provided regarding the Section 106 review for this undertaking. Please feel free to contact Katry Harris by telephone at (202) 606-8520 or by e-mail at kharris@achp.gov, if you wish to discuss these issues further.

Sincerely,

Caroline D. Hall
Assistant Director
Office of Federal Agency Programs
Federal Property Management Section

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015
APR 17 2012

Ms. Sherry White
Stockbridge-Munsee Community
Post Office Box 70
Bowler, Wisconsin 54416

Dear Ms. White:

Thank you again for travelling to the Delaware Water Gap National Recreation Area in January 2012 and meeting to consult on the Draft Environmental Impact Statement. We appreciate the comments that you provided (letter dated February 13, 2012) that identifies your recommendation for the selection of the No Action Alternative (alternative 1) and outlines concerns for impacts to your ancestral homelands, burial sites, and Bald eagle populations.

After substantial consultation and analysis, the National Park Service (NPS) selected Alternative 2 as the preferred alternative for the Susquehanna-Roseland 500 kV Transmission Line, as described and analyzed in the December 2011 draft Environmental Impact Statement, which will cross Delaware Water Gap National Recreation Area, Middle Delaware National Scenic and Recreational River, and the Appalachian National Scenic Trail. This alternative follows the route of the current Bushkill-Kittatinny transmission line, and is the original route identified by the applicant. The NPS will be sending out information on the route and its effects upon historic properties and engaging in more in-depth consultation under Section 106 of the National Historic Preservation Act in the very near future. The package will include a list of historic properties affected by the action, an assessment of effect, and a plan for resolving adverse effects through a programmatic agreement.

Currently, the applicant, PPL Electric Utilities Corporation and PSE&G, are beginning the design and planning process for siting the transmission towers for the new line, and plan to conduct geotechnical borings in the right-of-way to identify suitable sites. This boring is likely to occur before the larger Section 106 discussions are fully underway. If you are interested in discussing the geotechnical boring and its possible effects upon historic properties, please contact us within one week of receipt of this letter. The urgency and the benefit of the work is that blasting could be eliminated from the project as a result of this work.

We look forward to sharing further information and continuing to consult with you. If you have any additional questions or concerns please feel free to contact either of us. For questions about the project, you may also contact Amanda Stein, Project Manager at (570) 426-2472; for questions about cultural resources or tribal issues, you may contact Brinnen Carter at (570) 588-3480.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

cc:
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
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Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

APR 17 2012

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North St., 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Dear Mr. McLearen:

After substantial consultation and analysis, the National Park Service (NPS) selected Alternative 2 as the preferred alternative for the Susquehanna-Roseland 500 kV Transmission Line, as described and analyzed in the December 2011 draft Environmental Impact Statement, which will cross Delaware Water Gap National Recreation Area, Middle Delaware National Scenic and Recreational River, and the Appalachian National Scenic Trail. This alternative follows the route of the current Bushkill-Kittatinny transmission line, and is the original route identified by the applicant. The NPS will be sending out information on the route and its effects upon historic properties and engaging in more in-depth consultation under Section 106 of the National Historic Preservation Act in the very near future. The package will include a list of historic properties affected by the action, an assessment of effect, and a plan for resolving adverse effects through a programmatic agreement.

Currently, the applicant, PPL Electric Utilities Corporation and PSE&G, are beginning the design and planning process for siting the transmission towers for the new line, and plan to conduct geotechnical borings in the right-of-way to identify suitable sites. This boring is likely to occur before the larger Section 106 discussions are fully underway. If you are interested in discussing the geotechnical boring and its possible effects upon historic properties, please contact us within one week of receipt of this letter. The urgency and the benefit of the work is that blasting could be eliminated from the project as a result of this work.

For questions about the project, please feel free to contact either of us or Amanda Stein, Project Manager by phone at (570) 426-2472, or e-mail at Amanda_Stein@nps.gov.

Sincerely,

For John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

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United States Department of the Interior
NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015/L3031

April 27, 2012

Mr. Greg Brown
Delaware Tribe of Indians
170 N Barbara Avenue
Bartlesville, OK 74006

Dear Mr. Brown:

I am writing to provide a progress report on the status of the Susquehanna-to-Roseland Transmission Line project (SRLine) and to propose dates for another on-site consultation. We would like to further discuss and consult on the preferred alternative, identified historic properties that may be affected (particularly archeological sites), and the determinations of effect on such properties. The National Park Service (NPS) has established consulting party relationships with 12 Indian Tribes; representatives from five of these Tribes participated in the most recent consultations onsite at the Delaware Water Gap National Recreation Area (DEWA) in January, 2012. We propose a follow-up consultation to discuss the preferred alternative selected by the NPS, which is described in the Draft Environmental Impact Statement as Alternative 2.

At this point the NPS has determined an area of potential effect (APE) for the preferred alternative, identified historic properties within the APE, and determined that the alternative will have an adverse effect on certain historic properties. We are gathering additional information and identifying individual historic properties that will be adversely affected by Alternative 2.

The NPS is currently preparing a comprehensive package to be shared with our consulting parties that will include additional information on the APE, historic properties identified and those affected, determinations of effect, and a request for further consultation by all parties, so that our consultation can be informed by comprehensive material. This will be mailed to all the Tribal Historic Preservation Officers for all of the consulting Tribes, State Historic Preservation Officers and the Advisory Council on Historic Preservation (ACHP) as soon as it is completed.

Earlier in the year, you requested that we continue consultation after the NPS preferred alternative was announced. Are you available for an on-site meeting at the DEWA headquarters on May 24th? Representatives from three Tribes will be consulting on site in Morristown National Historical Park in Morristown, New Jersey, on May 22nd. It would most likely be more

convenient for these representatives to also attend our consultation rather than make a separate trip. We can also establish a conference call line for Tribes and other consulting parties that cannot attend in person.

Please contact Amanda Stein by phone (570) 426-2472 or e-mail amanda_stein@nps.gov if you would like to participate in the proposed consultation meeting on May 24, or if you have any questions. Thank you.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

cc:
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Denver, Colorado 80225□0287

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO

D5015

MAY 02 2012

Mr. Darwin Hill
Tonawanda Seneca Nation Office
7027 Meadville Road
Via Basom, New York 14013

Dear Mr. Hill:

The National Park Service (NPS) would like to continue consultation with you under Section 106 of the National Historic Preservation Act on the issuance of a construction and right-of-way permit for the portion of the proposed Susquehanna-Roseland 500 kV Transmission Line that crosses park lands. This project was described and analyzed in the December 2011 draft Environmental Impact Statement (EIS), which was sent, with a transmittal letter, to your office for review and comment on November 21, 2011. Since the publication of and public comment on the draft EIS, the NPS has selected a preferred alternative, described in the draft EIS as Alternative 2; this selection was previously disclosed to your office in our letter of April 17, 2012. This alternative will cross Delaware Water Gap National Recreation Area (DEWA), the Middle Delaware National Scenic and Recreational River (MDSR), and the Appalachian National Scenic Trail (APPA), for a 4.3-mile segment of the 146-mile transmission line. We are including a description of the Area of Potential Effects (APE), a list of the historic properties identified within the APE, and an assessment of effect for the project upon those properties. We also address points raised in the Advisory Council's letter of April 12, 2012, as they relate to the project and preferred alternative.

Description of Project and Area of Potential Effects

PPL Electric Utilities Corporation and PSE&G (the applicant) applied for a construction and right-of-way permit to dismantle the current 230 kV Bushkill-Kittatinny Line, located on a utility easement that predates federal ownership and the establishment of the Parks. The permit would provide conditions of access to the right of way for construction, and would allow the widening of the current right-of-way for a portion of the park crossing in which the applicant's existing rights are not sufficiently wide to permit their new transmission line to be built. The new transmission line would consist of one new 500kV circuit and another circuit, built to carry 500 kV but initially energized to 230kV, as replacement for the Bushkill-Kittatinny line.
The proposed NPS ROW and construction permit would allow the clearing of the right-of-way, which now varies in width from 100 to 350 feet, to a uniform 350-foot width. The applicant would replace the existing twenty-one 85-foot lattice towers within Park boundaries with sixteen

195-foot monopole or lattice towers. The NPS has received schematic drawings from the applicant, but final designs and exact placement are pending. A visual simulation of the new monopole towers can be found in the illustrations on the enclosed CD. Construction of the new line will require additional access roads to bring in construction equipment, as well as crane pads at tower sites and pads at conductor pull stations. A map of the preliminary tower and pad sites and proposed access roads is on the enclosed CD (*Figure 3..., Figure 4...,* and *DEWA Constructability Drawings*). Maintenance of the new transmission line will be more intensive than for the existing line. The new line will be a "critical" portion of the regional transmission infrastructure and vegetation will be limited to a height below 5-10 feet. The existing transmission line is considered "non-critical" and does not have this level of vegetation maintenance. Some of the temporary access roads would be converted to permanent roads to perform this maintenance.

The APE for this undertaking has two aspects: an area of direct effects, defined as the area of ground disturbance, including, but not limited to the tower locations, temporary construction pads and clearings, the right-of-way cleared area, and the access roads to and from the right-of-way; and an area of indirect (visual) effects, which extends eight miles laterally from the transmission line alignment within park and state forest boundaries, and a half-mile laterally from the alignment up to the point outside the park at which multiple routes are possible (the Visual Split Location or VSL). Topographic and vegetative analysis further identified the areas within that zone where the existing and/or proposed lines will be visible; a map indicating the specific areas of visibility is on the enclosed CD. This APE was described in chapter 3 of the draft EIS.

The APE for this undertaking is limited to the area in which the NPS' issuance of the permit dictates the route which the transmission line must follow. Beyond the VSL, the NPS has no authority to influence the applicant's actions or choice of route. The VSL for the western edge of the right-of-way lies on the park boundary; on the eastern edge, it extends for 0.7 miles beyond the park boundary, as indicated in the figure on the enclosed CD. The applicant has conducted and continues to conduct direct consultations with the Pennsylvania and New Jersey SHPOs according to state regulations through their public utility applications on the effects on historic properties outside the boundaries of the NPS' influence. The New Jersey HPO is requiring a 1/4-mile buffer around the proposed right-of-way, and a 500-foot buffer around proposed access roads; the Pennsylvania SHPO has not requested an alternative to the applicant's proposed 1/3-mile buffer around the right-of-way.

Identification of Historic Properties within the APE

Historic properties within the APE have been identified through a compilation of known park resources, historic properties surveys commissioned by the applicant along the route, and a cultural landscape survey commissioned by the park. Historic properties were identified in three major categories: archeological sites, historic structures, and cultural landscapes; there is some overlap between the latter two categories. Two archeological sites, 32 historic structures, and 43 cultural landscapes were identified within the APE in these resource reports. The reports identifying and evaluating the properties have previously been sent to your office; the final reports are on the enclosed CD as well. There are three properties that still require concurrence

on their eligibility to the National Register of Historic Places, which we expect to receive within the next month. A list of the identified properties, as well as effects on each, is enclosed with this letter.

Historic Properties Adversely Affected

The NPS has assessed the effects on historic properties of issuing the construction and right-of-way permits, and has determined that the action will have an adverse effect on at least one archeological site, twelve historic structures, and seventeen cultural landscapes within the APE. There will be direct, physical adverse effects to the Horace Van Auken Farm, the Appalachian Trail, the Old Mine Road Historic District, the Owens/Stone Spring Farm springhouse landscape, and the Pennsylvania-New Jersey Interconnection (the current Bushkill-Kittatinny line); the remainder of the effects will be indirect/visual. We have not fully reviewed the archeological report or the historic structures report, which we received in February and April of this year; there may be several additional adverse effects identified.

Resolution of Adverse Effects

We continue to consult with the New Jersey and Pennsylvania SHPOs and twelve federally-recognized Indian tribes. We would also like to enter consultation with you on measures to minimize, mitigate for, or compensate for these adverse effects. Depending upon the course and speed of consultation, the mitigation of adverse effects will either be formalized in the Record of Decision (ROD) or in a programmatic agreement (PA) signed by the date of the ROD. Your input and participation will be vital in determining the mitigation measures and method of formalization. Mitigation measures may include vegetative screening for visual effects, structure rehabilitation, excavation, and/or compensation, among many possible examples. The NPS is also participating in part of the ongoing consultation between the applicant and the New Jersey HPO on the mitigation of the adverse effect to the eligible Bushkill-Kittatinny line from its demolition, as the portion of the line that passes through the park is one of the historic properties that the NPS must address in its own consultation.

Schedule for Completion of the EIS/ROD

The NPS plans to issue the final EIS on September 1, 2012, and sign the Record of Decision (ROD) on October 1, 2012. The NPS would issue the ROW and construction permit once the Notice of Availability of the ROD has been published in the Federal Register. We are committed to completing Section 106 compliance by the ROD's signature date. Mitigation measures developed during consultation would be included in the permit. This is a demanding consultation schedule. The NPS takes its Section 106 responsibilities seriously and must ensure that the effects to historic properties are considered and addressed within the combined NEPA/NHPA process.

Next Steps

We request your concurrence on our initial findings of effect and any comments on the enclosed information within 30 days. We also need your comments on subsequent information within the

same consultation window. We would also like to schedule an initial conference call with consulting parties in May to discuss the project and begin discussions on resolving the adverse effects and developing mitigation measures, and will contact you shortly to discuss dates; we would be happy to hold a separate tribal conference call, if you would prefer. We are developing mitigation measures internally as a starting point for our discussions. We are also planning to arrange on-site meeting for all consulting parties during June to continue consultation on the resolution of adverse effects. The current consulting party list includes the Advisory Council on Historic Preservation, the Pennsylvania SHPO and the New Jersey HPO, and twelve federally-recognized Indian tribes; no other parties have indicated an interest in becoming a consulting party or provided specific comments on historic property concerns during the comment period on the draft EIS. The applicant will likely be included in at least some of the consultation meetings. Packets containing the Section 106 consultation information above are being sent to the consulting parties identified in the attached list, including your office.
We look forward to working with you on resolving the effects to historic properties from the issuance of this permit. If you have any questions concerning this matter, please contact Amanda Stein by phone at (570) 426-2472 or email at Amanda_Stein@nps.gov.

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

Enclosures: Table of Historic Properties and Compact disc

cc:
Andrew Tittler, DOI Office of the Solicitor
Kara Deutsch, National Park Service, DEWA
Brinnen Carter, National Park Service, DEWA
Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
David Uschold, National Park Service, NER
Sarah Killinger, National Park Service, NER
Chuck Smythe, National Park Service, NER
Jennifer McConaghie, National Park Service, NER

Clint Riley, U.S. Fish and Wildlife Service
Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Section 106 Consulting Parties for the
Susquehanna-Roseland Transmission Line Right-of-Way Permit

Advisory Council on Historic Preservation

New Jersey State Historic Preservation Office

Pennsylvania Historical and Museum Commission

The Delaware Nation

The Delaware Tribe

Stockbridge-Munsee Community

Seneca Nation of Indians

Seneca-Cayuga Tribe of Oklahoma

Tonawanda Seneca Nation

Absentee-Shawnee Tribe of Indians of Oklahoma

Eastern Shawnee Tribe of Oklahoma

Shawnee Tribe, Oklahoma

Saint Regis Mohawk Tribe, New York

Oneida Nation of New York

Onondaga Nation of New York

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO:

D5015

MAY 21 2012

Mr. Jessie Bergevin, Historical Resources
Oneida Nation of New York
5218 Patrick Road
Verona, New York 13478

Dear Mr. Bergevin:

We are writing to invite you to participate in our continuing consultation on the Susquehanna to Roseland Transmission Line project. We plan to initiate consultation with all of the parties with a teleconference on June 4, 2012. The purpose of this call will be to establish the issues of importance to the consulting parties. This teleconference will take place from 10:00 A.M. EDT until 1:00P.M. (EDT). The call in number will be: 1-877-922-2936, Passcode: 8751529#.

We will subsequently host a face to face consultation for all parties on June 26 and June 27, 2012, at the Fernwood Hotel in Bushkill Pennsylvania. In addition to the consulting parties invited herein, the applicant will be invited to join us for a discussion on the second day of the consultation.

We sincerely, hope that you can join us for both of these upcoming consultation events. Your valuable input will enhance our ability to make the best decisions possible.

Sincerely

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

cc:
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Amanda Stein, National Park Service, DEWA
Brent Allen, National Park Service, APPA
Steven Culver, National Park Service, DSC
Morgan Elmer, National Park Service, DSC
David Uschold, National Park Service, NER
Sarah Killinger, National Park Service, NER
Chuck Smythe, National Park Service, NER
Jennifer McConaghie, National Park Service, NER
Shaun Eyring, National Park Service, NER

Clint Riley, U.S. Fish and Wildlife Service
Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

United States Department of the Interior

NATIONAL PARK SERVICE
Delaware Water Gap National Recreation Area
Bushkill, Pennsylvania 18324

IN REPLY REFER TO

D5015

MAY 31 2012

Mr. Eric Davis
U.S. Fish and Wildlife Service
927 N. Main Street, Building D
Pleasantville, New Jersey 08232-1454

Mr. Clint Riley
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

Dear Mr. Davis and Mr. Riley:

In developing an Environmental Impact Statement (EIS) to analyze the potential impacts of the proposed Susquehanna to Roseland Transmission Line Project the National Park Service (NPS) is using the National Environmental Policy Act (NEPA) process to fulfill Section 106 as a requirement per 36 CFR 800.8(c). Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties and consult with Tribes, State Historic Preservation Offices, the Advisory Council on Historic Preservation, and other interested parties in this process.

Throughout the Section 106 consultation process with the NPS, the Tribes have voiced their concerns regarding potential impacts to Bald Eagle populations along the route of the preferred alternative (alternative 2), in meetings, by written comment on the draft EIS, and in Tribal resolutions(see enclosures). The proposed alignment crosses a known communal roosting area for wintering Bald Eagles and crosses the Kittatinny Ridge, a migratory flyway for raptors. Active nests are also found north and south of the existing transmission line. Higher tower heights and additional sets of conductors increase the risk of collision.

The Bald Eagle is sacred to the Tribes and they support all efforts to assure this species' continued protection. Potential adverse effects on Bald Eagles was one reason that the Delaware Tribe, Stockbridge-Munsee Community, and Eastern Shawnee Tribe of Oklahoma have recommended the no action alternative. In our most recent consultation on May 24, 2012, the participating Tribes requested that we contact you and emphasize this perspective.

As a consulting party in this review, we ask that the Fish and Wildlife Service engage Tribal representatives when identifying measures that will protect the Bald Eagle, including development of permits and the Avian Protection Plan.

If you have any further questions please contact my staff, Amanda Stein by phone at (570) 426-2472 or by email at amanda_stein@nps.gov .

Sincerely,

John J. Donahue
Superintendent
Delaware Water Gap National Recreation Area &
Middle Delaware National Scenic and
Recreational River
(570) 426-2418

Pamela Underhill
Superintendent
Appalachian National Scenic Trail
(304) 535-6278

Enclosures

cc:
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Chuck Smythe, National Park Service, NER
Jennifer McConaghie, National Park Service, NER

Pamela Shellenberger, U.S. Fish and Wildlife Service
Wendy Walsh, U.S. Fish and Wildlife Service

Ms. Sherry White
Tribal Historic Preservation Officer
Stockbridge-Munsee Community
Post Office Box 70
Bowler, Wisconsin 54416

Mr. Greg Brown
Delaware Tribe of Indians
170 N. Barbara Avenue
Bartlesville, Oklahoma 74006

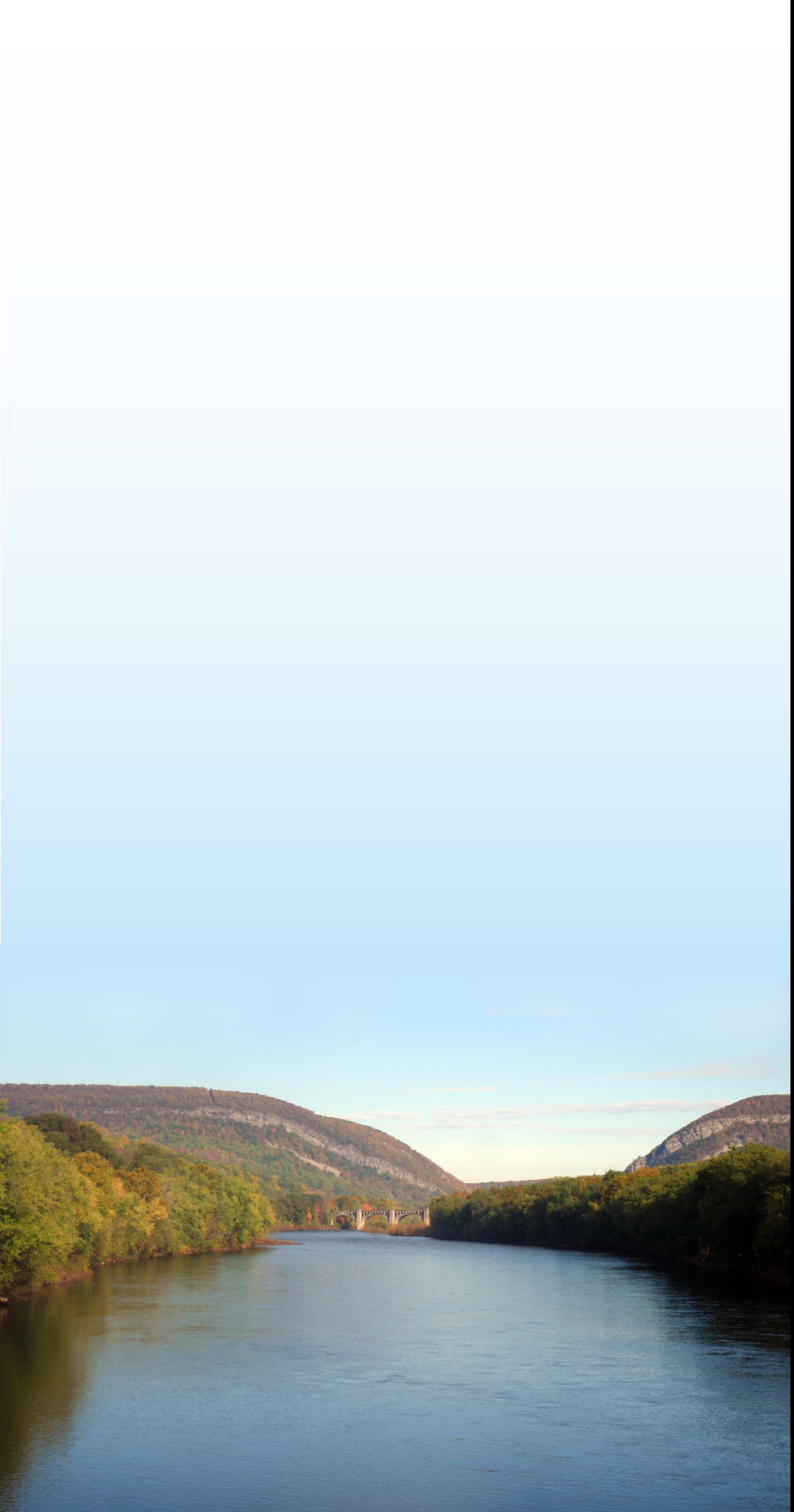
Ms. Robin Dushane
Eastern Shawnee Tribe of Oklahoma
Post Office Box 350
Seneca, Missouri 64865

Mr. Reid Nelson
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Old Post Office Building
Washington, D.C. 20004

Mr. Daniel D. Saunders
New Jersey State Historic Preservation Office
Post Office Box 404
Trenton, New Jersey 08625

Mr. Douglas McLearen, Chief
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Division of Archaeology and Protection
400 North Street, 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Denver Service Center - TIC
Attn: SRLINE EIS
12795 W. Alameda Parkway
Denver, Colorado 80225-0287



Appendix N

Applicant Materials Received Subsequent to the DEIS*

*Provided for informational purposes only; not analyzed or otherwise included in the FEIS

APPENDIX N:
APPLICANT MATERIALS RECEIVED SUBSEQUENT TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Provided for informational purposes only; not analyzed or otherwise included in the final environmental impact statement.

PART 1 - NEW CONSTRUCTION

1. General

1.1. THE PRIMARY PURPOSE OF THIS WORK IS TO PROVIDE ADEQUATE CLEARANCE OF THE ELECTRICAL CONDUCTORS AND STRUCTURES FROM TREES AND OTHER VEGETATION GROWING ON THE RIGHTS – OF – WAY TO ENSURE THE SAFETY OF PUBLIC SERVICE ELECTRIC AND GAS ("PSE&G" OR THE "COMPANY") EMPLOYEES, CONTRACTORS AND THE GENERAL PUBLIC AND TO PROMOTE TRANSMISSION SYSTEM RELIABILITY AND SECURITY. SINCE THE COMPANY RECOGNIZES THE NEED FOR THE PRESERVATION OF NATURAL RESOURCES AND THE ENVIRONMENT, THE COMPANY EMPLOYS SEVERAL DIFFERENT METHODS OF VEGETATION MAINTENANCE. THE FOLLOWING OBJECTIVES SHOULD BE KEPT IN MIND IN CARRYING OUT ALL VEGETATION MAINTENANCE WORK:

1.1.1. THE SAFETY OF PSE&G EMPLOYEES, CONTRACTORS AND THE GENERAL PUBLIC IS THE COMPANY'S HIGHEST PRIORITY THEREFORE, ALL VEGETATION IN THE STRUCTURE AREAS, ALONG THE ACCESS ROADWAYS AND IN THE SPAN LENGTHS AND WIDTHS, WHEN NOT LIMITED BY EASEMENT AND/OR ENVIRONMENTAL RESTRICTIONS, SHALL BE REMOVED.

1.1.2. IN ENVIRONMENTALLY SENSITIVE AREAS (SUCH AS WETLANDS, WETLAND BUFFERS, RIPARIAN BUFFERS AND/OR THREATENED AND ENDANGERED HABITATS) DISCRIMINATORY TYPE TREE REMOVAL METHODS WILL BE EMPLOYED TO PRESERVE SELECTED VEGETATION, PARTICULARLY THE LOW-GROWING TREE VARIETIES, SHRUBS AND/OR OTHER GROUND COVER.

1.1.3. VEGETATION REMOVAL EFFORTS WILL ENCOURAGE FUTURE GROWTH OF LOW-GROWING MORE DESIRABLE SPECIES THAT WERE PREVIOUSLY SHADED OR COVERED BY LARGER NATURAL FOREST TREES.

2. Types of Vegetation Management

2.1. SELECTIVE TREE REMOVAL SHALL BE INTERPRETED TO MEAN THAT ALL TREES RECOGNIZED AS BEING FAST-GROWING SPECIES SHALL BE CUT TO GROUND LEVEL. ALL OTHER VEGETATION SHALL BE TRIMMED ACCORDING TO THE REMOVAL DIAGRAMS ON PAGES B-811, 9, 10, 11, AND 12 AND INSTRUCTIONS CONTAINED IN PART 1, PARAGRAPH 5.4 HEREIN. SELECTIVE OR CONTROLLED TYPE TREE REMOVAL SHALL BE EMPLOYED IN THOSE AREAS IDENTIFIED AS "RESTRICTED" IN LAND USE EASEMENTS.

2.2. GROUND LINE MAINTENANCE SHALL BE INTERPRETED TO MEAN THAT ALL TREES AND SHRUBS SHALL BE CUT TO THE GROUND LEVEL (1 INCH ABOVE THE SOIL) IF POSSIBLE, BUT NO MORE THAN 3 INCHES (3") ABOVE SOIL LINE, EXCEPT WITHIN ENVIRONMENTALLY SENSITIVE AREAS. IN WETLAND AREAS MOWER HEADS WILL BE SET AT 6 INCHES ABOVE THE SOIL LINE. IN AREAS DETERMINED TO SUPPORT NEW JERSEY THREATENED OR ENDANGERED PLANT SPECIES, MOWERS WILL BE SET AT 3 INCHES OR GREATER (3 INCHES IN UPLAND HABITAT, 6 INCHES IN WETLAND HABITAT). GROUND LINE-TYPE TREE REMOVAL METHODS SHALL BE EMPLOYED ALONG ALL ACCESS ROADWAYS, ALL STRUCTURE SITES AND IN ALL SPANS WITH NO EASEMENT OR ENVIRONMENTAL RESTRICTIONS. IF AN AREA HAS BEEN CLEARED, THE AREA WILL BE MAINTAINED IN SAME MANNER.

3. Center Line Marking

3.1. CENTER LINE MARKING OF THE RIGHTS – OF – WAY WILL BE THE ONLY FIXED INDICATIONS PROVIDED BY THE COMPANY FOR TREE MARKING AND CUTTING.

4. Tree Marking

4.1. IF REQUESTED BY PROPERTY OWNERS OR REGULATORY OFFICIALS, TREES SHALL BE MARKED.

5. Vegetation Management Practices

5.1. Access Roads

5.1.1. ROADWAYS SHALL BE COMPLETELY CLEARED OF ALL GROWTH. NORMAL WIDTH OF CLEARING FOR ROADWAYS SHALL BE FIFTEEN FEET (15') UNLESS OTHERWISE DESIGNATED. ALL STUMPS AND OTHER GROWTH SHALL BE CUT TO GROUND LEVEL.

5.2. Structure Sites

STRUCTURE SITES SHALL BE COMPLETELY REMOVED OF GROWTH FOR AN AREA OF FIFTY FEET (50') BEYOND THE STRUCTURE FOUNDATION PERIMETER, UNLESS OTHERWISE DESIGNATED. THIS REQUIRES ALL GROWTH TO BE CUT AT GROUND LEVEL AND ALL STUMPS TO BE REMOVED. THIS CLEARED AREA IS TO PROVIDE A SAFE WORK ZONE AROUND EACH TOWER.

5.2.1. Minimum Clearance

5.2.2. EVERY PRECAUTION SHALL BE TAKEN BY THE TREE CONTRACTOR TO PROVIDE SUFFICIENT AND CONSISTENT CLEARANCE BETWEEN CONDUCTORS AND TREES IN AREAS WHERE EASEMENT RESTRICTIONS LIMIT TREE REMOVAL. MINIMUM ALLOWABLE CLEARANCE SHALL BE NOT LESS THAN THIRTY FEET (30') VERTICALLY BETWEEN THE CONDUCTOR AT ITS MAXIMUM ALLOWABLE OPERATING TEMPERATURE AND THE NEAREST PORTION OF ANY TREE. THIS DISTANCE IS NOT TO BE CONSIDERED FROM THE COLD CONDUCTOR AS USUALLY SEEN IN THE FIELD. THE DISTANCE REQUIRED FROM THE COLD CONDUCTOR MAY BE FIFTY FEET (50') OR MORE. THE PROPER CLEARANCE WILL BE OBTAINED WHEN THE TREES ARE REMOVED OR TRIMMED SO THAT NO GROWTH EXTENDS ABOVE THE CUTTING LINE INDICATED ON THE PLAN AND PROFILE. THE REQUIRED VERTICAL CLEARANCE IS SHOWN IN THE DIAGRAMS ON PAGES B811, 10, 11, 12 AND 13. MINIMUM ALLOWABLE CLEARANCE IS BASED ON OSHA REGULATION 1910.333 ENTITLED "MINIMUM APPROACH DISTANCE TO ENERGIZED CONDUCTORS FOR UNQUALIFIED PERSONNEL".

5.3. Incompatible Vegetation

5.3.1. RAPID GROWING TREES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: ASH, ASPEN, TULIP, BIRCH, WILD CHERRY, GUM, POPLAR, SYCAMORE, SILVER MAPLE, WILLOW, LOCUST AND WHITE PINE. WHENEVER POSSIBLE EVERY EFFORT SHOULD BE MADE TO REMOVE THESE SPECIES OF TREES FROM THE RIGHTS – OF – WAY.

5.3.2. REGARDLESS OF SPECIES OR SIZE, ALL TREES ON THE RIGHTS – OF – WAY DETERMINED, BY AN AUTHORIZED AND TRAINED COMPANY EMPLOYEE OR REPRESENTATIVE, TO BE DEAD, DECAYED OR DYING SHALL BE REMOVED TO GROUND LEVEL.

5.4. Special Trimming

5.4.1. TRIMMING OF ORNAMENTAL TREES OFTEN REQUIRES SPECIAL TRIMMING PROCEDURES. WHEN SUCH TRIMMING IS REQUIRED, A COMPANY ARBORIST SHALL BE CONSULTED.

6. Notification

6.1. PROPERTY OWNERS OF RIGHTS – OF – WAY LEASED BY PSE&G SHALL BE NOTIFIED AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT OF MAINTENANCE. THE PROPERTY OWNER MUST RECEIVE NOTICE BY CERTIFIED LETTER.

6.2. PROPERTY OWNERS ADJACENT TO PSE&G OWNED RIGHTS – OF – WAY SHOULD BE NOTIFIED AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT OF MAINTENANCE. REASONABLE EFFORT SHALL BE MADE TO NOTIFY THE PROPERTY OWNERS IN PERSON. IF PERSONAL CONTACT IS NOT POSSIBLE, THE ADJACENT PROPERTY OWNERS MAY BE NOTIFIED BY REGULAR MAIL.

6.3. IN THE EVENT OF AN EMERGENCY, PSE&G MAY ENTER LEASED RIGHTS - OF - WAY WITHOUT NOTICE TO THE PROPERTY OWNER PRIOR TO COMMENCEMENT OF WORK. FOLLOWING RESOLUTION OF THE EMERGENCY, PSE&G WILL MAKE REASONABLE EFFORTS TO CONTACT THE PROPERTY OWNER WITH AN ACCOUNT OF THE EVENT.

6.4. THE CORRESPONDING TOWNSHIPS SHALL BE NOTIFIED PRIOR TO PROPERTY OWNER NOTIFICATION. TOWNSHIP NOTIFICATION SHALL BE MADE TO AN APPROPRIATE TOWNSHIP REPRESENTATIVE.

PART 2 – VEGETATION MANAGEMENT IN UPLANDS AREAS

1. General

1.1. THE TERM "RIGHTS – OF – WAY MAINTENANCE" REFERS TO ANY EFFORTS DIRECTED TOWARD MAINTAINING EXISTING TRANSMISSION AND DISTRIBUTION RIGHTS – OF – WAY FOR THE FOLLOWING PURPOSES:

1.1.1. TO CONFORM WITH COMPANY OPERATING, SAFETY AND SECURITY REQUIREMENTS.

1.1.2. TO PERMIT ACCESS TO TOWERS, POLES, CONDUCTORS AND EQUIPMENT FOR CONSTRUCTION AND MAINTENANCE AND TO PROVIDE LINE OF SIGHT VISIBILITY FOR INSPECTION AND SECURITY PURPOSES.

1.1.3. TO COMPLY WITH APPLICABLE LAWS AND ORDINANCES.

1.1.4. TO PROMOTE GOOD PUBLIC RELATIONS.

1.1.5. TO FOSTER THE NATURAL ENVIRONMENT AND WILDLIFE.

1.2. ALL VEGETATION MANAGEMENT WILL BE PERFORMED IN ACCORDANCE WITH THE STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES (BPU), THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC) AND EASEMENT RIGHTS/RESTRICTIONS.

1.3. UPON COMPLETION OF THE INITIAL CUTTING AND CONSTRUCTION, AN ANNUAL FOLLOW-UP INSPECTION SHALL BE ESTABLISHED TO DETERMINE THE NEED FOR MAINTENANCE. AUTHORIZED PERSONNEL THOROUGHLY INSTRUCTED IN THE VEGETATION MANAGEMENT PROGRAM SHALL CONDUCT THE INSPECTIONS.

1.4. UPLAND AREAS IDENTIFIED AS REQUIRING MAINTENANCE WILL BE MAINTAINED UTILIZING THE GROUND LINE MAINTENANCE METHOD DESCRIBED IN PART 1, UNLESS RESTRICTED OR IDENTIFIED AS ENVIRONMENTALLY SENSITIVE AREAS. ALL MAINTENANCE ACTIVITIES WILL CONFORM WITH THE PSE&G OVERHEAD TRANSMISSION ENVIRONMENTAL COMPLIANCE MATRIX.

1.5. CERTAIN EASEMENTS ON TRANSMISSION RIGHTS – OF – WAY PROVIDE DEFINITE RESTRICTIONS REGARDING THE CUTTING OF TREES. THESE RESTRICTIONS SHALL HAVE PRECEDENCE OVER NORMAL TREE MAINTENANCE PRACTICES. RESTRICTED AREAS WILL BE MAINTAINED, AS STIPULATED BY THE EASEMENT, UTILIZING THE SELECTIVE REMOVAL METHODS AS DESCRIBED IN PART 1. REGARDLESS OF METHOD UTILIZED, THIRTY FEET (30') OF CLEARANCE BETWEEN THE TREE LINE AND THE CONDUCTOR AT ITS MAXIMUM OPERATING TEMPERATURE MUST BE MAINTAINED.

1.6. EXISTING RIGHTS – OF – WAY, WHICH WERE ORIGINALLY CLEARED TO GROUND LINE, SHALL BE ALLOWED TO SUSTAIN NATURAL REGROWTH OF LOW GROWING SHRUBS, HERBACEOUS PLANTS AND GRASSES. LOW GROWING VEGETATION WILL LIMIT THE GROWTH OF LESS DESIRABLE TREE SPECIES.

1.7. RIGHTS – OF – WAY THAT HAVE BEEN MAINTAINED BY MOWING SHALL CONTINUE TO BE MOWED.

1.8. Chemical Treatment (Herbicide Application)

1.8.1. TRANSMISSION RIGHTS – OF – WAY WILL BE CHEMICALLY TREATED AS A GENERAL PRACTICE. CHEMICAL TREATMENT SHALL BE SELECTIVELY SPRAYED ON WOODY STEMMED VEGETATION. CONTRACTOR MUST ABIDE BY ALL GOVERNING REGULATIONS REGARDING THE PROPER APPLICATION, LICENSING, TRANSPORTATION AND STORAGE OF THE CHEMICAL TREATMENT. CHEMICAL TREATMENT WILL PROMOTE GROWTH OF LOW GROWING VEGETATION AND IN TURN LIMIT GROWTH OF LESS DESIRABLE TREE SPECIES.

1.8.2. PROPERTY OWNERS OF LEASED PROPERTY HAVE FIRST RIGHT OF REFUSAL OF CHEMICAL APPLICATION.

1.8.3. APPLICATION OF HERBICIDES WITHIN ENVIRONMENTALLY SENSITIVE AREAS IS PROHIBITED UNLESS SPECIFICALLY PERMITTED. EXCEPTIONS MAY BE GRANTED ON A CASE BY CASE BASIS.THERE WILL BE LIMITED APPLICATION OF HERBICIDES WITHIN WETLANDS OR THE RIPARIAN ZONES OF STREAM, USING HERBICIDES APPROVED FOR USE IN AQUATIC ENVIRONMENTS, .IN ADDITION, NO HERBICIDES ARE UTILIZED IN AREAS IDENTIFIED AS CONTAINING THREATENED OR ENDANGERED PLANTS.

2. Notification

2.1. PROPERTY OWNERS OF RIGHTS – OF – WAY LEASED BY PSE&G SHALL BE NOTIFIED AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT OF MAINTENANCE. THE PROPERTY MUST RECEIVE NOTICE BY CERTIFIED LETTER.

2.2. PROPERTY OWNERS ADJACENT TO PSE&G OWNED RIGHTS – OF – WAY SHOULD BE NOTIFIED AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT OF MAINTENANCE. REASONABLE EFFORT SHALL BE MADE TO NOTIFY THE PROPERTY OWNERS IN PERSON. IF PERSONAL CONTACT IS NOT POSSIBLE, THE ADJACENT PROPERTY OWNERS MAY BE NOTIFIED BY REGULAR MAIL.

2.3. IN THE EVENT OF AN EMERGENCY, PSE&G MAY ENTER LEASED RIGHTS – OF – WAY WITHOUT NOTICE TO THE PROPERTY OWNER PRIOR TO COMMENCEMENT OF WORK. FOLLOWING RESOLUTION OF THE EMERGENCY, PSE&G WILL MAKE REASONABLE EFFORTS TO CONTACT THE PROPERTY OWNER WITH AN ACCOUNT OF THE EVENT.

2.4. THE CORRESPONDING TOWNSHIPS SHALL BE NOTIFIED PRIOR TO PROPERTY OWNER NOTIFICATION. TOWNSHIP NOTIFICATION SHALL BE MADE TO AN APPROPRIATE TOWNSHIP REPRESENTATIVE.

2.5. IN ADDITION TO THE PROPERTY OWNER NOTIFICATION, NOTIFICATION OF HERBICIDE APPLICATION MAINTENANCE MUST BE MADE TO AT LEAST TWO NEWSPAPERS HAVING THE GREATEST LIKELIHOOD OF INFORMING THE PUBLIC WITHIN THE AREA OF APPLICATION. THE NOTIFICATION MUST BE GIVEN A MAXIMUM OF 30 DAYS AND A MINIMUM OF 7 DAYS PRIOR TO THE PROPOSED APPLICATION DATE. THE NOTIFICATION SHOULD CONTAIN AT LEAST; THE PROPOSED DATE AND LOCATION OF APPLICATION, APPLICATOR'S NAME, ADDRESS AND REGISTRATION NUMBER, AND THE BRAND NAME AND ACTIVE INGREDIENTS OF THE HERBICIDE. ALL NOTIFICATIONS AND APPLICATION PROCEDURES SHALL BE DONE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE NJDEP.

PART 3 – VEGETATION MANAGEMENT IN WETLANDS, WETLAND BUFFERS AND RIPARIAN BUFFER AREAS

1. General

1.1. THE TERM "RIGHTS – OF – WAY MAINTENANCE" REFERS TO ANY EFFORTS DIRECTED TOWARD MAINTAINING EXISTING TRANSMISSION RIGHTS – OF – WAY FOR THE FOLLOWING PURPOSES:

1.1.1. TO CONFORM WITH COMPANY OPERATING, SAFETY AND SECURITY REQUIREMENTS.

1.1.2. TO PERMIT ACCESS TO TOWERS, POLES, CONDUCTORS AND EQUIPMENT FOR CONSTRUCTION AND MAINTENANCE AND TO PROVIDE LINE OF SIGHT VISIBILITY FOR INSPECTION AND SECURITY PURPOSES.

1.1.3. TO COMPLY WITH APPLICABLE LAWS AND ORDINANCES.

1.1.4. TO PROMOTE GOOD PUBLIC RELATIONS.

1.1.5. TO FOSTER THE NATURAL ENVIRONMENT AND WILDLIFE.

1.2. UPON COMPLETION OF THE INITIAL CUTTING AND CONSTRUCTION, AN ANNUAL FOLLOW-UP INSPECTION SHALL BE ESTABLISHED TO DETERMINE THE NEED FOR MAINTENANCE. PERSONNEL THOROUGHLY INSTRUCTED IN THE VEGETATION MANAGEMENT PROGRAM WILL CONDUCT THE INSPECTION.

1.3. ALL CHIPS AND DEBRIS FROM CUTTING OF TREES WILL BE REMOVED FROM THE WETLANDS, WETLANDS BUFFERS OR WATERBODY RIPARIAN BUFFER AREAS AND STORED IN UPLAND AREAS UNTIL THEY CAN BE REMOVED FROM THE SITE.

1.4. CERTAIN EASEMENTS ON TRANSMISSION RIGHTS – OF – WAY PROVIDE DEFINITE RESTRICTIONS REGARDING THE CUTTING OF TREES. THESE RESTRICTIONS SHALL HAVE PRECEDENCE OVER NORMAL TREE REMOVAL PRACTICES. RESTRICTED AREAS WILL BE MAINTAINED, AS STIPULATED BY THE EASEMENT, UTILIZING THE SELECTIVE METHODS AS DESCRIBED IN PART 1. REGARDLESS OF METHOD UTILIZED, THIRTY FEET (30') OF CLEARANCE BETWEEN THE TREE LINE AND THE CONDUCTOR AT ITS MAXIMUM OPERATING TEMPERATURE MUST BE MAINTAINED.

1.5. FIFTY PERCENT (50%) OF THE INCOMPATIBLE AND/OR INVASIVE TREE SPECIES MAY BE REMOVED IN WETLAND, WETLAND BUFFERS OR RIPARIAN BUFFERS AREAS, IF CONSISTENT WITH STANDARDS PROVIDED IN PART 4 BELOW. TO THE GREATEST EXTENT FEASIBLE, REMOVED TREES SHOULD BE REPLACED WITH WOODY SPECIES SELECTED FROM THE DESIREABLE VEGETATION LIST (SEE PAGE 14).

1.6. EXISTING RIGHTS – OF – WAY, WHICH WERE ORIGINALLY CLEARED TO GROUND LINE, SHALL BE ALLOWED TO SUSTAIN NATURAL REGROWTH OF LOW GROWING SHRUBS, HERBACEOUS PLANTS AND GRASSES. LOW GROWING VEGETATION WILL LIMIT THE GROWTH OF LESS DESIRABLE TREE SPECIES.

1.7. RIGHTS – OF – WAY THAT HAVE BEEN MAINTAINED BY MOWING SHALL CONTINUE TO BE MOWED. ADJACENT TO STREAMS, PSE&G WILL MAINTAIN A 25 FOOT RIPARIAN BUFFER WHICH WILL NOT BE MOWED. TREES IN THESE AREAS WILL BE HAND CUT. SHRUBS AND HERBACEOUS VEGETATION WILL BE MAINTAINED ADJACENT TO THE STREAM TO PROVIDE SHADING FOR THE STREAM.

1.8. MOWER HEIGHTS WILL BE SET AT A MINIMUM OF 6 INCHES WITHIN ALL WETLANDS, AND ESTABLISHED RIPARIAN BUFFERS

1.9. TO INSURE STREAM BANK STABILITY, WOODY VEGETATION WITHIN 25 FEET OF TOP OF BANK SHALL BE MANAGEMED TO ENSURE A "NO-NET LOSS" OF ROOT MAT.

1.10. Chemical Treatment (Herbicide Application)

1.10.1. TRANSMISSION RIGHTS – OF – WAY WILL BE CHEMICALLY TREATED AS A GENERAL PRACTICE. CHEMICAL TREATMENT WILL PROMOTE GROWTH OF LOW GROWING VEGETATION AND IN TURN LIMIT GROWTH OF LESS DESIRABLE TREE SPECIES. PSE&G WILL UTILIZE AN HERBICIDE ACCEPTABLE IN AQUATIC AREAS. CHEMICAL TREATMENT SHALL BE SELECTIVELY SPRAYED ON WOODY STEMMED VEGETATION. CONTRACTOR MUST ABIDE BY ALL GOVERNING REGULATIONS REGARDING THE PROPER APPLICATION, LICENSING, TRANSPORTATION AND STORAGE OF THE CHEMICAL TREATMENT. ALL NOTIFICATION AND APPLICATION PROCEDURES SHALL BE DONE IN ACCORDANCE WITH RULES AND REGULATIONS OF THE NJDEP.

1.10.2. PROPERTY OWNERS OF LEASED PROPERTY HAVE FIRST RIGHT OF REFUSAL OF CHEMICAL APPLICATION.

2. Notification

2.1. PROPERTY OWNERS OF RIGHTS – OF – WAY LEASED BY PSE&G SHALL BE NOTIFIED AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT OF MAINTENANCE. THE PROPERTY MUST RECEIVE NOTICE BY CERTIFIED LETTER.

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PART 4- MAINTENANCE IN HABITAT FOR STATE OR FEDERALLY LISTED FLORA OR FAUNA

1. Maintenance Mowing and Herbicide Use

1.1 PSE&G WILL NOT EMPLOY BROADCAST SPRAYING OF HERBICIDES. SUBSEQUENT TO THE INITIAL CLEARING OF LARGE WOODY VEGETATION AND SUBSEQUENT SELECTIVE CUTTING AND MOWING OPERATIONS, SELECTED HERBICIDES WHICH CONTROL WOODY AND BROAD-LEAFED VEGETATION WILL BE APPLIED. THIS WILL BE ACCOMPLISHED THROUGH THE USE AN ULTRA LOW VOLUME EMULSIFIED HERBICIDE APPLIED BY AN INVERTED LOW-LEVEL DIRECTIONAL SPRAY CONTAINED ON THE REAR OF A MODIFIED TRACK-MOUNTED ATV. THE SELECTED VERTICAL DIRECTIONAL APPLICATION OF EMULSIFIED HERBICIDES APPLIES THE EMULSIFICATION DIRECTLY ONTO THE VEGETATION AND SOILS IN A UNIFORM PATTERN OF DROPLETS, WHICH ALLOWS FOR CONTROL AND MAINTENANCE OF THE UNDESIRABLE VEGETATION DURING THE GROWING SEASON. THE SELECTED EMULSIFIED HERBICIDE MIXTURE FALLS DIRECTLY ONTO THE PLANTS/SOILS AND DOES NOT BECOME AIRBORNE AS THE HERBICIDE MIXTURE IS NOT IN AN AEROSOL STATE.

1.2 MAINTENANCE MOWING AND HERBICIDE USE WITHIN AREAS IDENTIFIED AS STATE ENDANGERED OR THREATENED FAUNAL SPECIES HABITAT SHALL FOLLOW THE GUIDANCE PROVIDED IN NO-HARM/BEST MANAGEMENT PRACTICES FOR WILDLIFE HABITAT ALONG UTILITY-LINE RIGHT OF WAYS, UPDATED DECEMBER 12, 2007 BY THE NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF FISH AND WILDLIFE, ENDANGERED AND NONGAME SPECIES PROGRAM, AND PSE&G'S OCTOBER 28, 2009 CORRISPONDANCE WITH THE NJDEP CONCERNING ENGANGERED SPECIES COMPLIANCE FOR VEGETATION MAINTENANCE.

1.3 MAINTENANCE MOWING AND HERBICIDE USE WITHIN AREAS IDENTIFIED A FEDERAL ENDANGERED OR THREATENED SPECIES HABITAT SHALL FOLLOW THE GUIDANCE PROVIDED IN PSEG'S OCTOBER 23, 2009 CORRESPONDENCE TO THE U.S. FISH AND WILDLIFE SERVICE ESTABLISHING A SET OF CONSERVATION MEASURES PSEG WILL IMPLEMENT AS PART OF THEIR RIGHT-OF-WAY MANAGEMENT TECHNIQUES AND PRACTICES.

1.4 MAINTENANCE MOWING AND HERBICIDE USE WITHIN AREAS IDENTIFIED AS STATE ENDANGERED OR RARE FLORA SPECIES HABITAT SHALL FOLLOW THE GUIDANCE PROVIDED BY THE NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF NATURAL LANDS MANAGEMENT, NATURAL HERITAGE PROGRAM IN THEIR SEPTEMBER 29, 2009 CORRESPONDENCE TO PSEG. IN ADDITION, MOWING IN STATE ENDANGERED OR RARE FLORA HABITAT WILL BE CONDUCTED USING SMALL MACHINERY OR BY HAND AND MUST BE MAINTAINED AT A HEIGHT OF A MINIMUM OF 3 INCHES. 1.4 HERBICIDE APPLICATION WITHIN RIPARIAN BUFFERs WILL BE PAINTED OR SNIP & DRIPPED DIRECTLY ONTO THE STUMP OR CUT END OF THE SPECIES REQUIRING REMOVAL.

PART 5 – MAINTENANCE IN THE PINELANDS

1. Removal

1.1. PRIOR TO ANY WORK BEING CONDUCTED ON RIGHTS – OF – WAY WITHIN THE PINELANDS ALL ENVIRONMENTAL AND EASEMENT RESTRICTIONS MUST BE IDENTIFIED. THE PINELANDS COMMISSION MUST THEN BE CONTACTED IN ORDER TO ASCERTAIN THE NEED FOR A CERTIFICATE OF FILING.

2. Maintenance PRESCRIPTION

2.1. ALL MAINTENANCE ACTIVITIES WITHIN THE PINELANDS WILL FOLLOW THE PINELANDS PRESCRIPTION.

PART 6 – VEGETATION MANAGEMENT - GENERAL

1. Roadways, Pathways and Boardwalks

1.1. WHERE REQUIRED AND AS PERMITTED BY TERRAIN, ROADWAYS SHALL BE ESTABLISHED WITHIN RIGHTS – OF – WAY TO FACILITATE PASSAGE OF AUTHORIZED VEHICLES AND EQUIPMENT, INCLUDING TREE AND BRUSH CUTTING EQUIPMENT. SUCH ROADWAYS MUST REMAIN ACCESSIBLE.

1.2. IN MOUNTAINOUS OR WOODED TERRAIN, AUTHORIZED PERSONNEL SHALL ESTABLISH PATHWAYS TO FACILITATE TRANSVERSING THE RIGHTS – OF – WAY. THE PATH SHALL BE A MINIMUM OF FOUR FEET WIDE AND FREE OF PLANT GROWTH. STEPS SHALL BE CONSTRUCTED WHERE REQUIRED TO IMPROVE FOOTING ON STEEP BANKS AND SLOPES. FIELD STONES OR CROSS ARMS MAY BE CUT AND USED FOR THIS PURPOSE.

1.3. IN WETLANDS AND HIGH WATER TABLE AREAS, BOARDWALKS MUST BE CONSTRUCTED UNLESS ANOTHER MEANS OF ACCESS IS AVAILABLE. THE STRUCTURE SHALL BE CONSTRUCTED OF TREATED PLANKS AND PILING. ALL APPROPRIATE PERMITS MUST BE OBTAINED PRIOR TO CONSTRUCTION.

2. Erosion Control

2.1. TO PREVENT SOIL EROSION FROM BEGINNING AND TO CONTROL EROSION THAT HAS STARTED, IT MAY BE NECESSARY TO SPREAD A GRASS SEED MIXTURE. THE LOCAL SOIL CONSERVATION DISTRICT STANDARD WILL DEFINE THE GRASS SEED MIXTURE.

2.2. WHEN EROSION BECOMES A SERIOUS PROBLEM, A SPECIFIC MEANS OF RESTORATION WILL BE DETERMINED BY PSE&G.

PART 7 – PRECAUTIONARY MEASURES

1. New Construction and Maintenance

1.1. IN ADDITION TO THE ITEMS LISTED SEPARATELY ON THE PRECEDING SHEETS, THE FOLLOWING PRECAUTIONARY MEASURES MUST BE TAKEN WHETHER PERFORMING VEGETATION MANAGEMENT FOR NEW CONSTRUCTION.

2. Safety In The Vicinity of Electrical Wires

2.1. MANY CONTRACTORS AND WORKMEN WHO DO TREE WORK MAY NOT FAMILIAR WITH THE HAZARDS OF WORKING IN THE VICINITY OF ELECTRICAL WIRES, ESPECIALLY HIGH VOLTAGE TRANSMISSION LINES. SPECIAL CARE SHALL BE TAKEN TO ENSURE ALL PERSONS WORKING ON THE RIGHTS – OF – WAY COMPLY WITH COMPANY SAFETY REQUIREMENTS AS SHOWN ON SHEET A892 OF THE SAFETY SECTION OF THE TOWER HANDBOOK, THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND THE AMERICAN NATIONAL STANDARDS INSTITUTE, STANDARD ANSI-Z133.1 LATEST ISSUE, "SAFETY REQUIREMENTS FOR TREE PRUNING, TRIMMING, REPAIRING OR REMOVAL". THESE CONTRACTORS SHALL BE QUALIFIED LINE CLEARANCE CONTRACTORS.

2.2. IN ADDITION, EXTREME CARE SHALL BE TAKEN TO ENSURE THAT ANY TREE BEING FELLED CANNOT COME WITHIN FIFTEEN FEET (15') OF ENERGIZED TRANSMISSION CONDUCTOR. IF THIS CLEARANCE CANNOT BE MAINTAINED, THE CIRCUIT SHALL BE CLEARED, TAGGED, SHORT-CIRCUITED AND GROUNDED AT THE TERMINAL ENDS AND TESTED FOR POTENTIAL IN THE VICINITY OF THE WORK AREA UNDER PSE&G'S WORK STANDARDS.

3. Fire Hazards

3.1. THE COMPANY SHALL GUARD AGAINST THE HAZARD OF BRUSH FIRE, ESPECIALLY DURING THE FALL AND WINTER SEASONS. THE PRESENCE OF OIL BASED SPRAY IN CONJUNCTION WITH DRY LEAVES PRESENTS A HIGHLY FLAMMABLE SITUATION.

3.2. THE PRESENCE OF PHRAGMITES (GIANT FOXTAIL) AND OTHER MEADOW GRASSES ON RIGHTS – OF – WAY IN HIGH-WATER TABLE AREAS PRESENTS A SERIOUS FIRE HAZARD. EXCEPT IN SPECIAL LOCATIONS, SUCH GRASSES ARE PRESENTLY CONTROLLED BY CUTTING OR BY CHEMICAL TREATMENT ON AN ANNUAL BASIS. A RADIUS OF APPROXIMATELY FIFTY FEET (50') FROM THE STRUCTURE FOUNDATION PERIMETER MUST BE CUT OR TREATED TO PROVIDE ADEQUATE PROTECTION.

4. Poisonous Plants

4.1. IN AREAS NEAR OR USED AS PASTURE OR GRAZING FOR LIVE STOCK, SPECIAL PRECAUTIONARY MEASURES SHALL BE TAKEN. ALL POISONOUS TREES, BRUSH OR OTHER VEGETATION CUT ON PASTURES, GRAZING LANDS, ALONG FENCE AND TREE ROWS OR OTHER AREAS ACCESSIBLE TO LIVESTOCK, SHALL BE COMPLETELY REMOVED FROM THE AREA.

5. Snake Bites

5.1. THE PERFORMANCE OF WORK ON THE RIGHTS – OF - WAY REQUIRES THAT CERTAIN SAFETY PRECAUTIONS BE TAKEN. THE POSSIBILITY OF POISONOUS SNAKE BITE, ESPECIALLY IN THE NORTHERN SECTION OF THE STATE, MUST BE RECOGNIZED. POISONOUS SPECIES SUCH AS RATTLESNAKES AND COPPERHEADS ARE PREVALENT. PERSONNEL WORKING IN THESE REGIONS MUST WEAR PROTECTIVE BOOTS OR WORK SHOES

WITH SEPARATE LEATHER LEGGINGS TO KNEE HEIGHT. SNAKE BITE KITS SHALL BE CARRIED ON WORK VEHICLES.

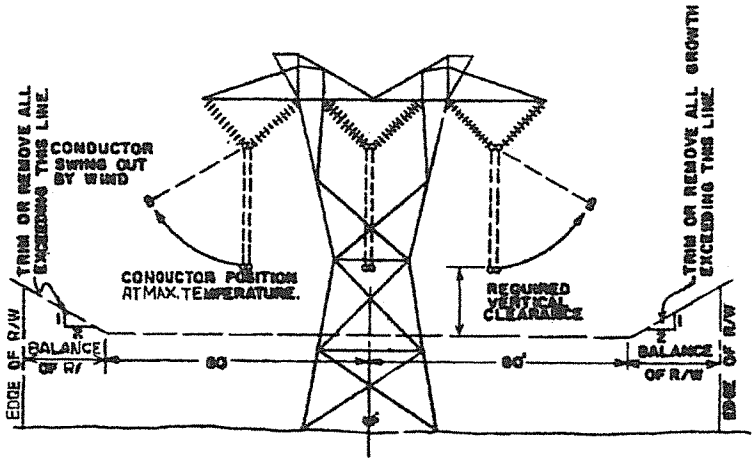
6. Toxicological Information Chemical Brush and Weed Control

6.1. THE TOXICOLOGICAL PRECAUTIONS TO BE TAKEN WHEN APPLYING BRUSH AND WEED CONTROL CHEMICALS DEPEND UPON THE CARRIER BEING USED. ONLY EPA APPROVED PRODUCTS SHALL BE USED AND AT THE RECOMMENDED DOSAGE, MANUFACTURERS RECOMMENDATIONS FOR SKIN CONTACT AND CLEANUP SHALL BE FOLLOWED.

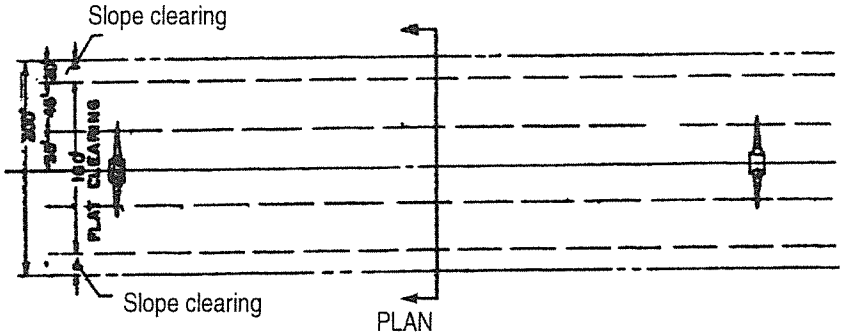
6.2. UNDER NO CIRCUMSTANCES SHALL ARSENICAL WEED KILLERS BE USED FOR BRUSH OR WEED CONTROL ON RIGHTS – OF – WAY. THESE COMPOUNDS ARE POISONOUS AND ALSO REQUIRE SPECIAL PRECAUTIONS DURING MIXING AND APPLICATION TO PREVENT SKIN BURNS CAUSED BY SPLASHING.

6.3. SINCE IT IS LITERALLY IMPOSSIBLE TO WASH ALL HERBICIDAL MATERIALS OUT OF SPRAY EQUIPMENT, THIS EQUIPMENT SHALL NOT BE USED FOR ANY OTHER TYPE OF SPRAY APPLICATION SUCH AS INSECTICIDES.

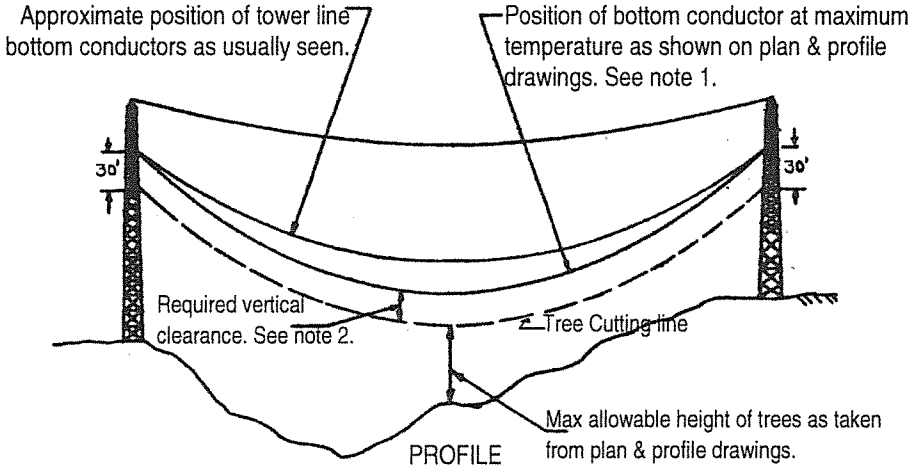
6.4. IN KEEPING WITH APPLICABLE ORDINANCES, NO HERBICIDAL MATERIALS SHALL BE USED ON TRANSMISSION RIGHTS – OF – WAY WITHOUT PERMISSION OF THE PROPERTY OWNER. MANUFACTURERS RECOMMENDATIONS FOR SKIN CONTACT AND CLEANUP SHALL BE FOLLOWED.



SECTION A-A



PLAN

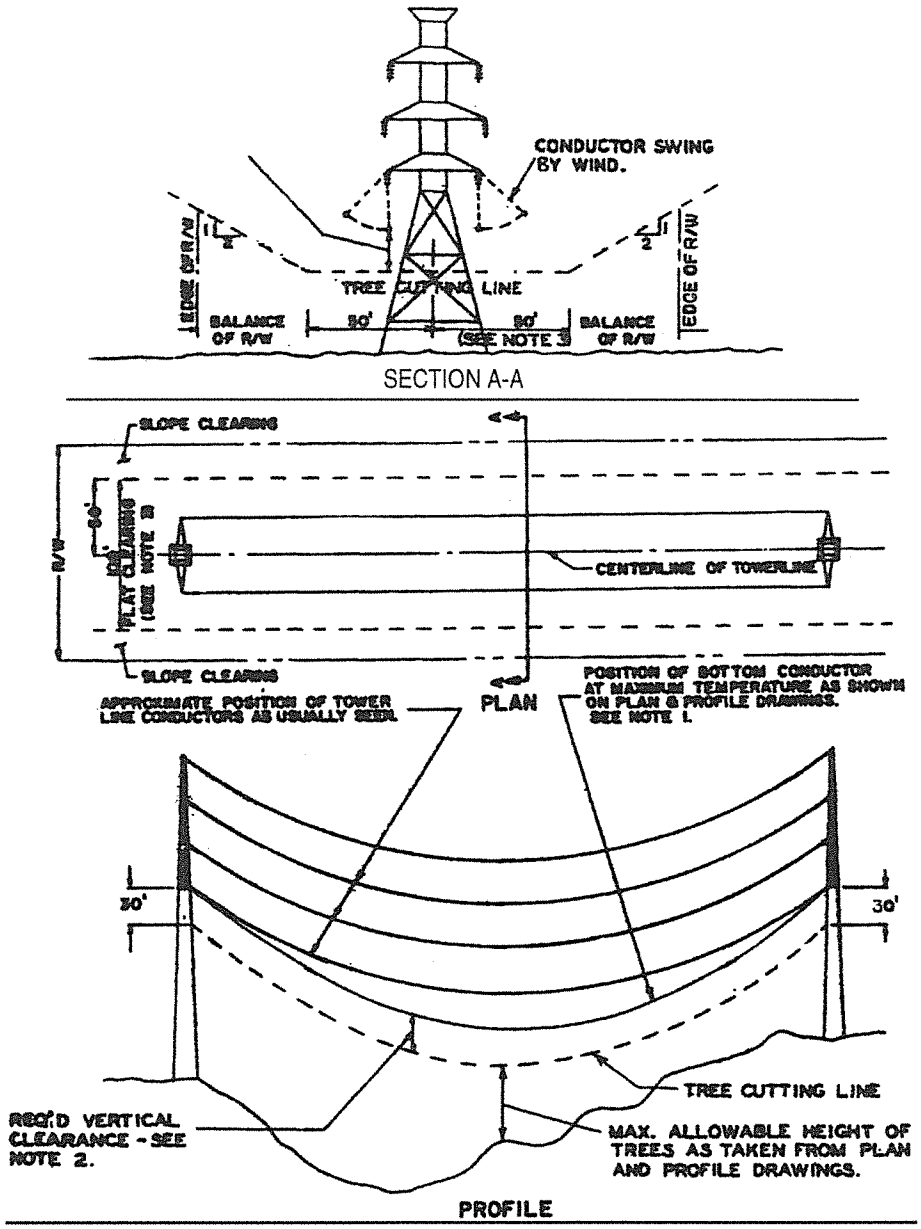


PROFILE

Right-of-way maintenance for proper electrical clearance (500 kV)
Figure 1

NOTES:

1. Position of conductors of maximum temperature taken at 212°F.
2. Required vertical clearance from conductor at maximum temperature (212°F.) to tree cutting line - 30 feet
3. This information taken from DWG. DO-12808-J.



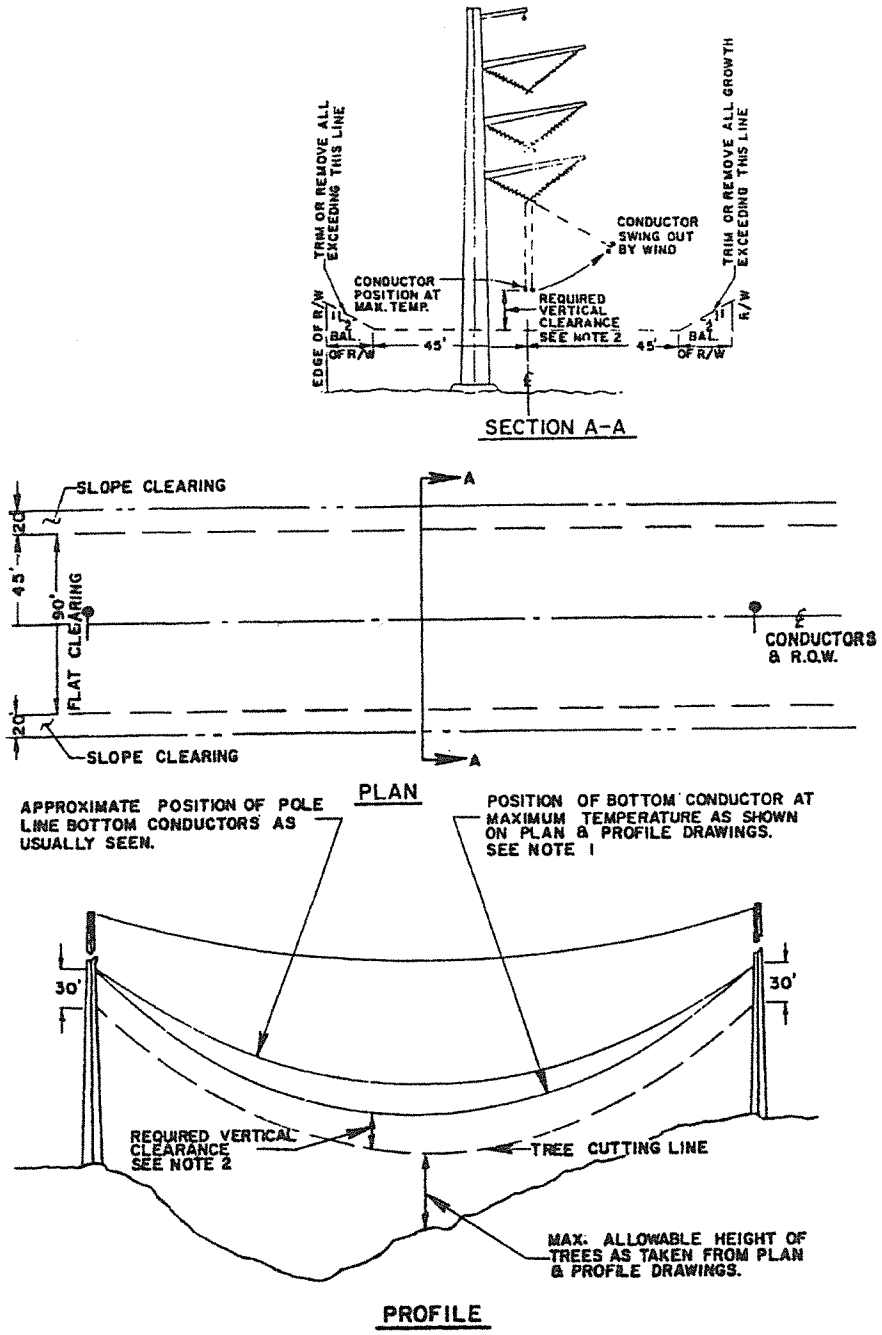
Right-of-way maintenance for proper electrical clearance for

138 kV or 230 kV Double circuit-lattice structures and steel poles

Figure 2

NOTES:

1. Position of conductors at maximum temperature taken at 257°F.
2. Required vertical clearance from conductor at maximum temperature (257°F.) to tree cutting line 30 feet.
3. Width of tree clearing is to be normally limited to the edge of the right of way, which may be less than 50 feet from the center line of towers.
4. This information taken from DWG. DO-12807-J.

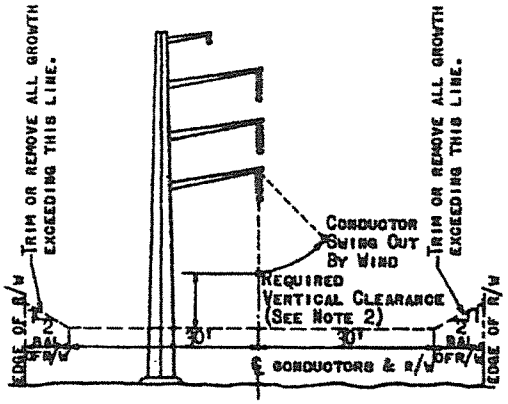


Right-of-way maintenance for proper electrical clearance of 500 kV single circuit poles

Figure 3

NOTES:

1. Position of conductors at maximum temperature taken at 212°F.
2. Required vertical clearance from conductor at maximum temperature (212°F.) To tree cutting line - 30 feet.
3. This information taken from DWG, DO-13214-J.



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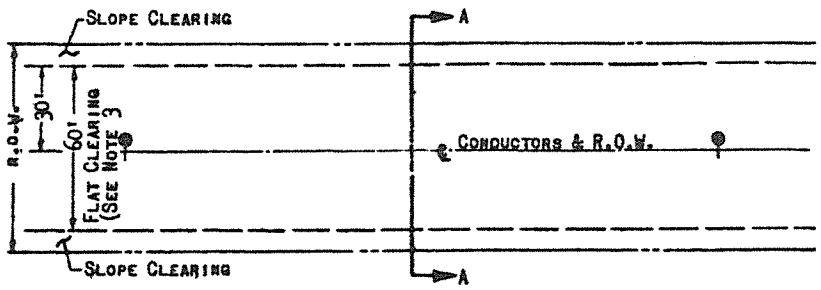

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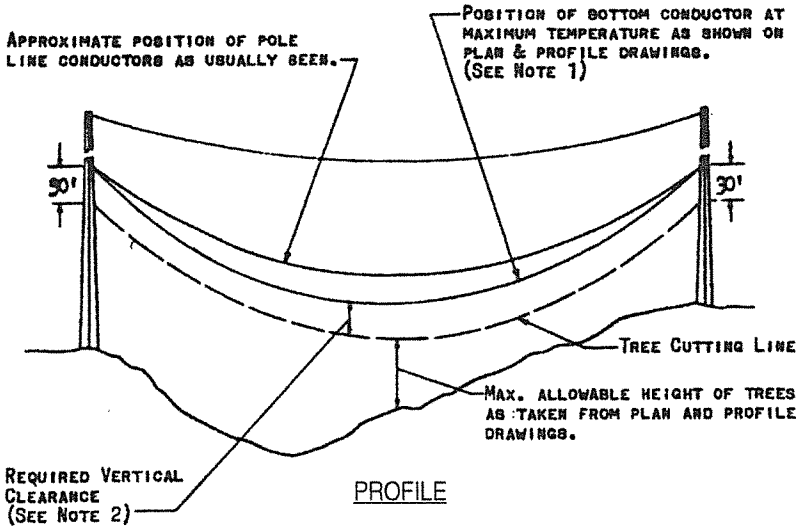


PROFILE

Right-of way maintenance for proper electrical clearance (138 kV or 230 kV) single circuit steel poles

Figure 4

NOTES:

1. Position of conductors at maximum temperature taken at 257°F.
2. Required vertical from conductor at maximum temperature (257°F) to tree cutting line - 30 feet.
3. Width of tree clearing to be normally limited to the edge of the right-of way.
4. This information taken from DWG. DO-13229-J.

Division of Land Use Regulation Response to "Examples of Desirable shrubs species for Transmission ROWs"

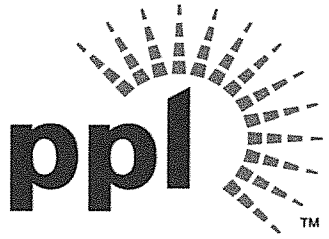
Common name	Scientific name	Origin
Non-native potentially invasive "undesirable"plants specified on original list:		
Forsythia	Forsythia spp.	Asia
Common privet	*Ligustrum vulgare* L.	Europe
Burnish (Burning?) bush	*Euonymus alatus* (Thunb.) Siebold	Asia
Desirable vegetation specified on original list:		
Low brush blueberry	*Vaccinium angustifolium* Aiton	
Mountain Laurel	*Kalmia latifolia* L.	
Rhododendron	*Rhododendron* spp.	
Blueberry	*Vaccinium* spp.	
Spicebush	*Lindera benzoin* (L.) Blume	
Red buckeye	*Aesculus pavia* L.	
Fringe tree	*Chionanthus virginicus* L.	
Winterberry	*Ilex verticillata* (L.) A. Gray	
Crabapple	*Malus* spp. Mill	
Staghorn (Shaghorn) sumac	*Rhus typhina* L.	
Smooth sumac	*Rhus glabra* L.	
Viburnums	*Viburnum* L.	
Buttonbush	*Cephalanthus occidentalis* L.	
Silky Dogwood	*Cornus amomum* Mill.	

Taxonomy referenced from: USDA Plants Database Website (http://plants.usda.gov/)

PPL Electric Utilities Corporation

Transmission Vegetation Management Program

EU-200-NERC-FAC-003-001
Effective Date July 31, 2011



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Manager- Vegetation Management

Approved: _____ _____
Stephanie Raymond **Date**
Director EU Project & Contract Management

Revision History

Revision 0	Date: 05/08/2007
Writer	Bill Taylor
Approver	Dave Schleicher
Reason Written	Documentation of PPL EU program

Revision 1	Date: 12/31/2007 – 2-25-08
Writer	Gerald Diehl, Jim Robinson, Earl Burnside
Approver	Martha Dodge
Reason Written	Updated PPL Electric Utilities transmission Line Miles (200 kV and above). Section I item A, increased Lancaster total mileage from 170 to 181 with 11 miles of OTCR-YORK 230 kV. Added a Compliance Criteria section (Section IV) that clarifies Clearance 2 – item A, WSZ distances - item B, Clearance 1 – item C and Optimal Vegetation Management Cycles – item D. Added procedures for audits of Planned and Unplanned work – Section V item D. Added procedure to determine Bulk Power Outage category for reporting – Section V item E. Added Section VI – Training/Communications Added Appendix D with references which define evaluation and remediation periods for various emergent vegetation encroachment conditions. Amended Appendix G -Audit forms for work performed. Added Appendix H - Work sheets for transmission outage determination. Amended PPL Spec LA-79827-5 to reflect

	WSZ differences for apical and lateral growth rates. Also, added section to Contractor Responsibilities to Outline procedure to follow in the event of work related interruption.

Revision 2	Date: 03/2009
Writer	Earl Burnside
Approver	Kenneth L. Armstrong
Reason Written	Amended Section I, part C, section 2 Organizational Structure. Reduced number of System Forester positions from two (2) to one (1). Clarification footnotes added to TVMP Section IV and Appendix D to note: "No corrective remediation pruning actions required for encroachments of Wire Security Zone- WSZ (only) where maximum-sag conductor conditions have been identified, species acceptability –per PPL EU Specification LA-79827-6 confirmed, and vegetation growth has been determined to be maximized or vegetation is dead". Appendix A replaced with revised PPL Electric Utilities Specification LA-79827-6; previously Appendix A was PPL Electric Utilities Specification LA-79827-**5**. All references in TVMP body to PPL Electric Utilities Specification LA-79827-5 replaced with LA-79827-6.

Revision 3	Date: 12/2009
Writer	Earl Burnside
Approver	David A. Rodak
Reason Written	Amend Section I Introduction to reflect more Accurate BES mileage and to update PPL EU Vegetation management structure Amend Section IV Compliance Criteria to clarify procedural requirements in the event of vegetation encroachment of defined compliance criteria.

	Amend Section IV Compliance Criteria, part A Clearance 2 defined to define maximum sag Determination. Amend Section IV Compliance Criteria, part C PPL's Wire Security Zone to define required remediation actions in the event of a WSZ encroachment by desirable vegetation and to clarify WSZ distance to be applied to PPL Line # 128 Amend Section V Identification of Transmission Vegetation Clearing needs to incorporate the use of LiDAR technology and responsibilities of VM personnel in relation to reported conditions and the process for PPL EU engineering reviews of data to determine validity of reported conditions. Amend Section VI Transmission Vegetation Management Approved Procedures, part A to Incorporate LiDAR tool and to reflect new software data capture tools and reflect contractor invoice submission changes to one per month. Amend Section VI, part C to strengthen Imminent Threat Procedure for expectations and requirements of when to declare vegetation related Imminent Threats. Amend Section VI, part D to incorporate LiDAR and use of new software used to track work audit data. Amend Appendix A to reflect specification update LA-79827-7, as approved 7-09 Amended Appendix B to reflect new contract Format. Amended Appendix D to reflect LiDAR data considerations and incorporate PPL EU engineering

	review timelines Added Appendix I – PPL Electric Utilities Corporation, Transmission Vegetation Management Plan, EU-200-NERC-FAC-003-1 Supplemental Procedures Effective 9-16-09

Revision 4	**Date: 07/2011**
Writer	Ed Cunningham, ECI
Approver	Earl Burnside, Phil Walnock
Reason Written	To update information, combine previous addendum, reorganize, modify Appendix and add additional sections to better describe PPL's transmission vegetation management program. The following changes effective 7/31/2011: Change from Roman Numeral section designation to standard numbering. *ADDED* footnotes throughout for clarity. *Old* I. (A) – revised to reflect change from five to six regions, revised to 2.1 PPL EU Transmission Line Miles *REVISED* in TABLE A. *Old* I. (B) – Transmission Line Desired Clearing Width moved to 5.0 PPL EU Transmission Vegetation clearance Standards; 5.1 and to TABLE C in 6.0 PPL EU Clearance Requirements. *Old* I.(C) - VM Employee Qualifications moved to 7.0 Transmission Vegetation Management Personnel and consolidated; *ADDED* 7.1 Qualifications, 7.2 Training and 7.3 Organization Structure. *Old* II. Moved to 3.0 PPL Transmission Vegetation Management Goals/Objectives/Strategies

	Old III. Transmission Vegetation Management Practices moved to 5.2- Transmission Vegetation Maintenance Methods. *Old* IV. Compliance Criteria moved to 9.0 PPL EU Reporting Requirements. *Old* TABLE A now TABLE C in 6.0 PPLEU Clearance Requirements. *Old* V. Moved to 8.0 and updated to include LiDAR Supplemental Procedures EU-200-NERC-FAC-003-001 Effective September 16, 2009. *Old* VI. Transmission Vegetation Management Approved Procedures – *CHANGED* to 4.0 PPL EU Transmission Vegetation Management Annual Work Determination. *Old* VI. (A) Changed to 4.1 Annual Scope of Work. *Old* VI (B). Vegetation to Conductor Clearance Mitigation Procedure: *CHANGED* to 12.0 Customer Inquiry and Complaint Resolution; 12.2 Property Owner Refusal Process. *Old* VI. (C) Process for Identifying and Communicating and "Imminent Threat" Vegetation Concern: *MOVED* to 8.4.3 and updated. *Old* VI. (D) Vegetation Management Auditing Procedure *AMENDED AND CHANGED* to 4.2 Work Completion and Data Collection. *Old* VI. (E) Amended and *MOVED* Procedure for Bulk Power Outage Category Verification to 9.0 Compliance Reporting Requirements: 9.1 Procedure for Bulk Power Outage Category Verification; 9.2 Post Outage Investigation Procedures and Documentation.

	ADDED 4.3 Danger Tree Identification Process. *ADDED 5.2* Transmission Vegetation Management Methods. *Old* VII. Training and Communications *CHANGED* to: 7.2 Training; 10.0 Property Owner Communication; and 12.0 Customer Inquiry and Complaint Resolution. *ADDED* 10.0 Property Owner Communication. *ADDED* 11.0 Implementing Integrated Vegetation Management (IVM). *ADDED* 12.0 Customer Inquiry and Complaint Resolution *ADDED* 13.0 Additional Information 13.1 List of Acronyms and Abbreviations 13.2 References **Appendix Revisions:** *Old* Appendix A.: LA-79827-7 *DELETED* from Appendix: *ADDED* 5.1 Transmission Vegetation Maintenance Methods Old Appendix B. Contract for Vegetation Management - *DELETED* Old Appendix C. ANSI A300 - *DELETED*; see 13.2 References *Old* Appendix D – Emergent Work Remediation Schedule, now Appendix A. *Old* Appendix E now Appendix B-1 Sample 500kV Transmission Survey; and Appendix B-2 Sample 230kV Transmission Survey.

	ADDED Appendix C-1 PPL EU Sample Transmission Vegetation Maintenance Plan *ADDED* Appendix C-2 PPL EU Sample Transmission Vegetation Maintenance Plan Status Report *Old* Appendix F - Audit Report Sheets *CHANGED* to Appendix D – Completion Acceptance Report by Circuit *Old* Appendix G – Bulk Power Outage Category Verification Worksheet- *DELETED* *Old* Appendix H – Work Action Flow Charts – NOW Appendix E: Process Flow Charts E-1 LiDAR C2 as Observed E-2 LiDAR C2 Max Sag E-3 Foot/Helicopter Patrol C2 as Observed E-4 Foot/Helicopter Patrol C Max Sag

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PPL EU Transmission Vegetation Management Program ("TVMP")

1.0 Introduction

The Federal Energy Regulatory Commission ("Commission") has approved and made mandatory and enforceable various Reliability Standards proposed by the North American Electric Reliability Corporation ("NERC") in order to ensure the reliability of the bulk electric system ("BES"). One such Reliability Standard relates to Transmission Vegetation and is known as NERC Reliability Standard FAC-003-1. FAC-003-1 requires Transmission Owners ("TO") such as PPL Electric Utilities Corporation ("PPL EU" or the "Company") to, among other things, prepare and keep current a Transmission Vegetation Management Program ("TVMP"). The purpose of the TVMP is to memorialize PPL EUs' required practices intended to prevent vegetation-related transmission outages from occurring within the ROW and to minimize vegetation outages from occurring outside the ROW on all 200 kV and above transmission lines, as well as any other lower voltage transmission lines that are designated as critical to reliability.

PPL EUs' TVMP includes requirements and procedures intended to comply with FAC-003-1. Personnel involved in PPL EUs' transmission vegetation management compliance functions must be familiar with the contents of the TVMP and certify that they have read and understood the latest version of its contents.

Among other things, the TVMP:

- Defines a schedule for ROW vegetation inspections based upon the type of inspection to be conducted, such as aerial inspection or ground inspection and requires documentation to be maintained confirming that the scheduled inspections were conducted; [R1.1, M1.1][1]

- Sets forth the clearance distances, known as Clearance 1 ("C1"), that must be achieved between transmission lines and vegetation at the time regularly scheduled vegetation management work is conducted; [R1.2, R1.2.1, M1.2][2]

[1] R1.1 and M1.1 – NERC FAC-003-1 Requirements and Measures

[2] R1.2, R1.2.1, M1.2– NERC FAC-003-1 Requirements and Measures

- Sets forth the clearance distances, known as Clearance 2 ("C2"), that must be maintained to prevent flashover between vegetation and overhead ungrounded supply conductors; [R1.2, R1.2.2, M1.2][3]

- Contains measures that must be followed when restrictions exist that interfere with PPL Electric Utilities' ability to achieve the Clearance 1 distances; [R1.4, M1.4]

- Establishes a process that requires personnel who identify an imminent threat of a transmission line outage based upon vegetation conditions to communicate such information as soon as possible on the day such condition is identified to the PPL Electric Utilities Power Dispatcher; [R1.5, M1.5]

- Requires that a plan relating to vegetation work that will be conducted to ensure the reliability of the system is created and conducted on an annual basis. The plan is a living document that will be updated as changing conditions require alterations to the timing or type of work to be completed; [R2][4]

- Requires documentation of all changes to the annual vegetation work plan; [R2]

- Sets forth the systems and procedures governing the documentation and tracking of the planned vegetation management work and ensuring that the work is completed according to adopted work specifications; [R2, M2[5]]

- Requires reporting and documentation of sustained transmission outages, determined by PPL EU to have been caused by vegetation, to be made as soon as possible after they occur; [R3, R4, M3, M4][6]

- Discusses the appropriate qualifications and training of all personnel directly involved in the design and implementation of the TVMP [R1.3, M1.3][7].

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[3] R1.2, R1.2.2, M1.2- NERC FAC-003-1 Requirements and Measures

[4] R2- NERC FAC-003-1 Requirements and Measures

[5] M2- NERC FAC-003-1 Requirements and Measures

[6] R3, R4, M3, M4- NERC FAC-003-1 Requirements and Measures

[7] R1.3, M1.3- NERC FAC-003-1 Requirements and Measures

PPL EU is a subsidiary of PPL Corporation of Allentown, PA. PPL EU provides electric delivery service to approximately 1.35 million homes and businesses in twenty-nine counties of eastern and central Pennsylvania. The Company is a recipient of the Tree Line USA award, along with numerous J.D. Power awards for customer satisfaction. For vegetation management ("VM") purposes, the PPL EU service territory is divided into six operating regions: Lehigh, Northeast, Central, Susquehanna, Harrisburg, and Lancaster. This entire service territory is shown on the map in section 2.2.

2.0 PPL EU Transmission System Overview/Description

2.1 PPL EU Transmission Line Miles (200 kV and above)

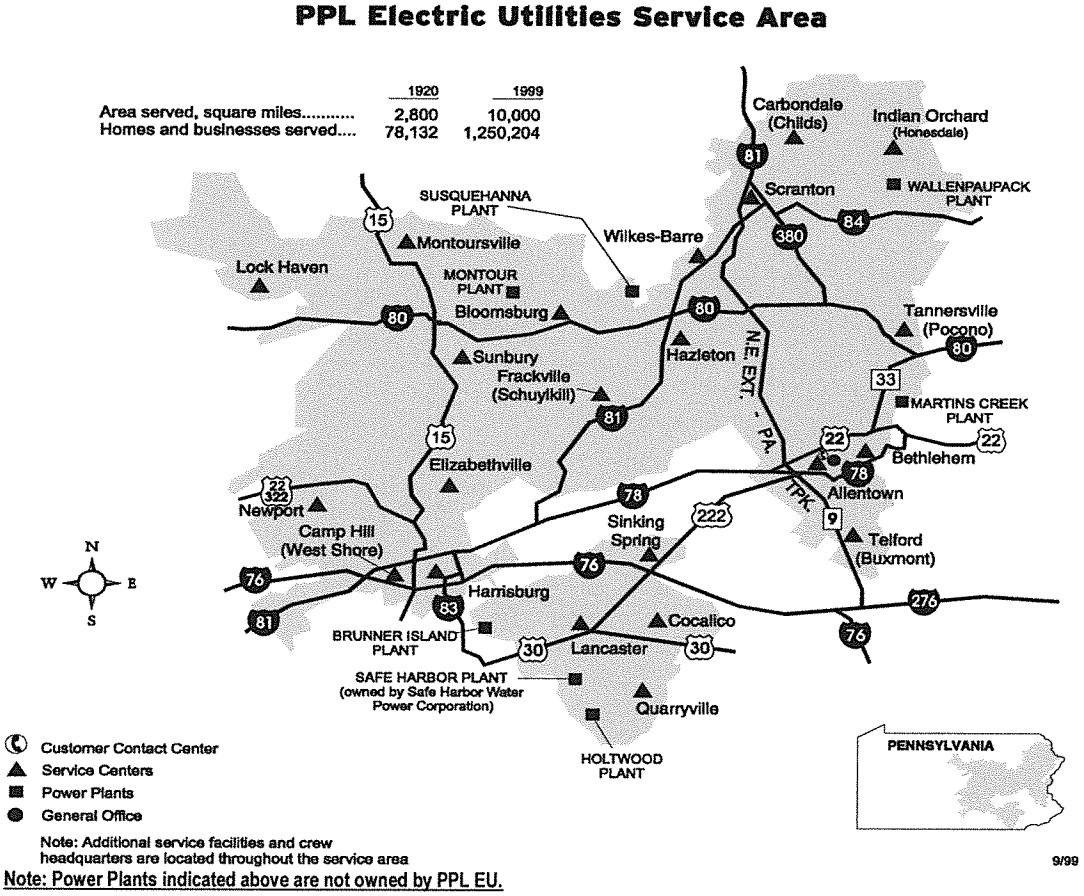
PPL EU manages vegetation in or adjacent to its rights of way ("ROWs") for approximately 1,351 miles of transmission line (200 kV and above). The approximate breakdown, by region, is listed in Table A.

Table A

REGION	Miles (200 kV & Above)
Lehigh	262
Northeast	151
Central	216
Susquehanna	332
Harrisburg	178
Lancaster	212
System	**1,351**

Currently, no PPL EU lower voltage transmission lines have been designated as critical to the reliability of the electric system by Reliability*First* Corporation, the NERC-designated Regional Entity ("RE") for PPL EU's service territory.

2.2 PPL EU Service Area



Note: Power Plants indicated above are not owned by PPL EU.

3.0 PPL EU Transmission Vegetation Management Goals/Objectives/Strategies (R1)

The primary objectives of the vegetation management program are as follows:

- Compliance with applicable laws and regulations, including compliance with all aspects of FAC-003-1
- Avoid C2 conditions from vegetation located within PPL EU ROW
- Minimize outages from vegetation located adjacent to PPL EU ROW
- Provide for the safety of the public, employees and contractors
- Establish and maintain stable, low-growing plant communities on PPL EU ROW by employing components of Integrated Vegetation Management ("IVM")

- Respect the environment by minimizing adverse environmental impacts
- Maintain a positive Company image

4.0 PPL EU Transmission Vegetation Management Annual Work Determination (R1.1; R2)

4.1 Annual Scope of Work

The primary means of determining the annual transmission VM work scope is via the use of LiDAR. An aerial LiDAR survey of all transmission lines >200kV is conducted annually to inspect for Wire Security Zone ("WSZ") / C2 encroachments and to determine VM work scope for the next calendar year. An annual schedule is developed for this survey for the 230kV and 500 kV circuits. Other means used to supplement information regarding annual VM work scope include ground patrols and emergency patrols.

After the LiDAR survey is completed, the annual work planning process proceeds as follows: PPL EU VM personnel review all information relative to ROW vegetation conditions from various sources to make a determination of the appropriate VM practices to be applied.

Typically work planning occurs during the third and fourth quarter of the year prior to when the work will be performed. Annual work planning after the completion of the LiDAR patrols and/or consideration of information from other sources proceeds as follows:

4.1.1 PPL EU provides Tree Contractor a database template for all lines (projects) that are to be worked on in the up-coming year.

4.1.2 Tree Contractor returns preplan template details with cost estimates to PPL EU.

4.1.3 PPL EU reviews returned Tree Contractor preplan template details for acceptance.

4.1.4 Following the annual budgeting process, the work is scheduled in the 3rd quarter or 4th quarter of the preceding year. PPL EU VM reserves the right to amend pre-planned estimates as changing vegetation conditions warrant. PPL EU will document adjustments to the annual work plan as they occur.

Samples of the PPL EU VM annual inspection schedule and annual work plan are found in Appendices B-1, B-2 and C-1.

4.1.5 Unplanned/Emergent Work
Work identified through LiDAR, aerial patrols, ground patrols, or other means is interpreted, identified and completed in accordance with PPL EU Specification LA-79827 and as outlined in this TVMP, including Appendix A.

4.1.6 PPL EU Forestry Audit of Unplanned Emergent Work
For unplanned emergent work identified by routine and comprehensive aerial and ground patrols, LiDAR or other means, regional forestry personnel will audit 100% of the remediation work completed by the contractors. All such clearing work done by a PPL EU employee will be audited at 100% by a different PPL EU forester or his/her designee.

4.2 Work Completion and Data Collection (M1.1)

Steps to be taken to ensure proper documentation of completed transmission circuit work, prior to invoicing approvals, as noted below:

4.2.1 Upon completion of physical VM work on a circuit, the contractor completes the PPL EU Line Clearance Maintenance Program: Completion Acceptance Report by Circuit ("CARC") and submits to PPL EU VM Forester (Appendix D).

4.2.2 The PPL EU VM Forester (or his/her designee) is responsible for a 100% field review of the work completed by the contractor as reported on the CARC form.

4.2.3 Contractor should not invoice for completed work submitted until a 100% field review has been completed and all work accepted by PPL EU Forester.

4.2.4 The PPL EU VM Forester (or his/her designee), upon 100% field inspection of completed work, completes the CARC form, signs and returns to PPL EU VM Senior Analyst for data entry and forwards approved invoice for payment.

The status of line completion, inspection and acceptance is captured utilizing the PPL EU Annual Transmission Vegetation Plan Acceptance Report (Appendix C-2).

4.3 Danger Tree Identification Process

A danger tree is generally defined as a tree exhibiting a combination of the following characteristics:

- Tall enough to pass within 6' of 230 kV and 10' of 500kV facilities if they fell and including:
  - Excessive lean (toward the PPL EU facilities),
  - Diseased, decayed, weak or otherwise structurally damaged,
  - Shallow or eroded roots, and/or
  - Subject to excessive wind throw.

Once identified, danger tree removal becomes a part of the annual work plan.

5.0 PPL EU Transmission Vegetation Clearance Standards (R1.2)

5.1 Transmission Line Desired Clearing Widths

PPL EU's BES transmission lines are located, for the most part, on prescriptive ROW easements as opposed to lands owned in fee-simple by PPL EU. The widths and VM rights on these easements vary with the applicable legal ROW agreements. The desired ROW widths, by voltage, are found in Table C.

5.2 Transmission Vegetation Maintenance Methods (R2)

The vegetation on PPL EU ROW is maintained utilizing a combination of VM techniques as described in:

- The PPL Electric Utilities Specification LA-79827.
- The American National Standard for Tree Care Operations-Tree, Shrub and Other Woody Plant Maintenance – Standard Practices ANSI A 300 (Part 1).
- The American National Standard for Tree Care Operations-Tree, Shrub and Other Woody Plant Maintenance – Standard Practices (Integrated Vegetation Management, a. Electric Utility Rights-of-way), ANSI A 300 (Part 7).

Trees will generally be pruned by guidelines detailed in the most current revision of the American National Standards Institute (ANSI) - Standard Practices A300. Transmission vegetation maintenance activities, as further

described in PPL EU Specification LA-79827, are done by qualified line clearance contractors. As per (ANSI) Z133.1, a qualified line clearance tree trimmer is defined as: "A tree worker who, through related training and on-the-job experience, is familiar with the hazards in line clearance and has demonstrated his/her ability in the performance of the special techniques involved". Contractors involved in herbicide application activities are licensed as Commercial Pesticide Applicators, as required by the Pennsylvania Department of Agriculture.

Vegetation Maintenance Methods:

5.2.1 Pruning

Tree pruning is not considered the preferred management technique to provide clearances for vegetation located within an active ROW. Removal of vegetation that poses a clearance concern is the preferred method of management. Directional and crown reduction pruning will generally be completed only with PPL EU VM authorization. Side pruning is utilized when a tree grows adjacent to the conductor.

5.2.2 Danger Trees

"Danger Trees" are those off-ROW trees located adjacent to the ROW, which, in falling, would either strike the conductor or pass within PPL EU minimum clearances stated in Table B. Danger trees should be removed as specified at the time of treatment as determined by PPL EU VM personnel. Section 4.3 provides a definition/description of danger tree characteristics for removal consideration.

TABLE B

Clearance for Danger Trees

Line Voltage	Minimum Conductor Clearance Width from Falling Vegetation in Feet
230 kV	6 feet
500 kV	10 feet

5.2.3 Tree Removal

All non-compatible species, as defined in PPL EU Specification LA-79827, should be removed from the ROW corridor (Wire Zone and Border Zone areas) in accordance with said specification.

5.2.4 Disposal of Cleared Vegetation

Debris disposal shall be performed in accordance with Specification LA-79827 and the legal requirements as stated in the designated easement for the specific ROW location. Disposal methods include: piling, slashing, drop and lop, and chipping.

5.2.5 Herbicide Application

Four methods (listed in preferred priority of usage) are currently accepted by PPL EU as tools in its VM program: Cut-stubble, foliar, stump treatment and basal application. All applications, regardless of method employed, must be made in accordance to label instructions and in accordance with Pennsylvania Department of Agriculture regulations. Application methods utilized include:

- Cut-Stubble
- Foliar Application
- Stump Treatment
- Basal Application

6.0 PPL EU Clearance Requirements (R1.2)

PPL EU Clearance 1 (C1) and Clearance 2 (C2) distances for NERC FAC-003-1 compliance at rated conductor temperature and associated sag are defined in Table C. In addition, Table C also defines Wire Security Zone[8] (WSZ) distances that are provided to vegetation management contractors through PPL EU Specification LA-79827. The WSZ distances are greater than the FAC-003-1 C2 distances and are used by PPL EU to identify vegetation concerns that should be remediated before they encroach on C2 distances. This is further explained later in this TVMP.

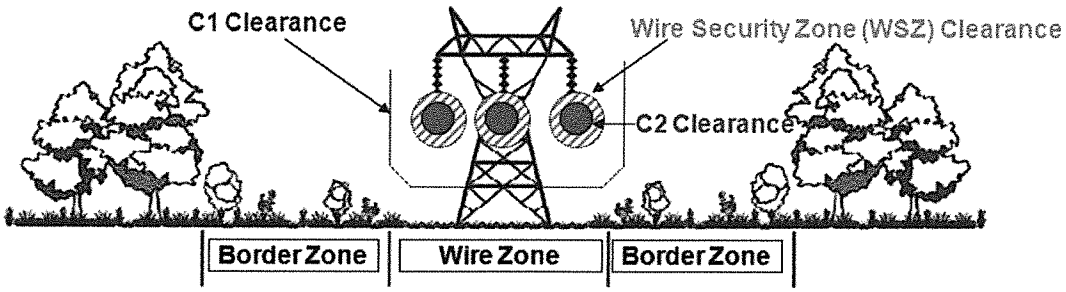


Figure 1. Wire Security Zone (WSZ)
and Wire Zone / Border Zone (WZ/BZ)[9]

[8] Wire Security Zone (WSZ) - For the purposes of safety and reliability, PPL Electric Utilities maintains a third clearance distance called the Wire Security Zone.

[9] Drawing not to scale

TABLE C

ROW Clearing Widths and Conductor to Vegetation Clearances (R1.2.2, M1.2)

Line Voltage	Clearing Width[10]	Clearance 2[11] (C2)	Wire Security Zone[12] (WSZ)	Clearance 1[13] / [14] (C1) Under/Around
230 kV	150 feet	5.2-feet	10 feet	25 feet/ 16 feet
500 kV	200 feet	8.9 feet	17 feet	32 feet/ 23 feet

6.1 Clearance 1 (C1) Defined (R1.2.1)

FAC-003-1 defines C1 appropriate clearance distances to be achieved at the time of transmission vegetation work as determined and documented by the TO.

PPL EU defines C1 as the applicable voltage WSZ + the 3 year anticipated apical / lateral growth.

The justification for C1 defined distances in Table C is as follows:

PPL EU bases its C1 distances on a worst case three-year growth cycle. Evaluation of vegetation species in the PPL EU territory led to the selection of an average five (5) feet per year worst case expected apical vegetation growth and average two (2) feet per year lateral growth on or around the ROW, respectively. This translates to the 15-foot differential between the WSZ and the C1 "Under distance" when conductor is operating at rated temperature and with associated sag and the 6-foot differential between the WSZ and the C1 "Around distance" displayed in Table C.

6.2 Clearance 2 (C2) Defined (R1.2.2)

FAC-003-1 defines C2 as the specific radial clearance to be maintained between vegetation and conductors under all rated electrical operation conditions, as established by the TO.

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[10] The above are desired clearing widths. Some lines may have agreements specifying different widths.

[11] Distance when conductor is operating at rated temperature and associated sag at the maximum transient over-voltage factors.

[12] Distance when conductor is operating at rated temperature and associated sag at the maximum transient over-voltage factors. PPL EU has calculated the transient overvoltage for 500kV lines on its system (as defined in Section 6.1.1 and 6.1.2).

[13] Apical (Under) distance provides 5 feet per year growth / 3 year cycle.

[14] Lateral (Around) distance provides 2 feet per year growth / 3 year cycle.

The justification for C2 defined distances in Table C is as follows:

The 500 kV and 230 kV C2 requirements are 8.9 feet and 5.2 feet, respectively. This PPL EU C2 requirement definition is based on IEEE Standard 516-2003.

For the 500 kV system, PPL EU's design basis for switching surge control is 2.2 pu. This is the switching surge over voltage factor for an IEEE/ANSI Standard C37.04 550 kV circuit breaker with closing resistors. Based on 2.2 pu. switching surge and 550 kV maximum sustained over voltage, PPL EU's calculation using IEEE 516-2003 Table 7 or 5 produces a calculated value of 2.69 meters (8.826 feet). By rounding up, the 500 kV C2 distance should be 8.9 feet as noted above.

For the 230 kV system, PPL EU has no line switching surge control and therefore the IEEE Table 5 should be used. For 230 kV systems Table 5 is based on a 242 kV maximum sustained voltage and 3.5 pu. switching surge. Table 5 lists the clearance requirement to be 1.57 meters (5.15 feet) for 230 kV. By rounding up, the PPL EU 230 kV line C2 distance should be 5.2 feet, as noted above.

Maximum sag is generally calculated based upon the rated characteristics of the line per the PPL EU plan and profile. To the extent a line is not being operated at rated levels, PPL EU may adjust the line's calculated maximum sag to reflect actual operating conditions. As such conditions change, maximum sag calculations will be adjusted as needed.

6.3 PPL's Wire Security Zone

In addition to FAC-003-1 C1 and C2, PPL EU maintains a third clearance distance called the Wire Security Zone (WSZ), Figure 1.

The WSZ warning approach is intended to permit PPL EU VM personnel to systematically and efficiently handle vegetation before it encroaches on the minimum required C2 distances. Note again that the WSZ distances in PPL EU specification (LA-79827) provided to vegetation management contractors are purposely greater than the minimum distances for C2 (per the "FAC-003-1 Standard).

500 kV Example: Nominal max-sag design ground clearance for a 500 kV span is 33 feet. The WSZ for 500 kV lines is 17 feet so non-

compatible[15] vegetation over 16 feet in height in the area of maximum wire sag may be within the WSZ distance. The non-compatible vegetation must be removed or trimmed to provide a minimal apical clearance of 32 feet.

230 kV Example: Nominal max-sag design ground clearance for 230 kV lines is 26 feet. The WSZ for 230 kV is 10 feet so non-compatible vegetation over 16 feet in height in the area of maximum wire sag may be within the WSZ distance. The non-compatible vegetation must be removed or trimmed to provide a minimal apical clearance of 25 feet.

No corrective remediation actions required for encroachments of "under" WSZ when compatible[16] species or annual seasonal crops are in the WSZ, species acceptability has been confirmed through on-site review, vegetation growth has been maximized or vegetation is dead, and it is determined that the vegetation presents no threat that clearance 2 could be breached.

PPL EU may increase the above WSZ clearances or adopt operating limits, from time to time, where line conditions or characteristics prevent accurate modeling of maximum sag conditions. For example, a special clearance distance is applied to Bushkill Blooming Grove Line. A 16-foot WSZ applies to that line. When clearing work is conducted on this line, vegetation shall be either cleared to a distance of 31 feet for apical growth and/or 22 feet for lateral growth from the observed conductor position or removed if such distances are not obtainable.

6.3.1 Wire Security Zone Clearance – Ravine Clearing Guidelines

In order to provide some guidance with respect to mitigation efforts in and around valley and ravine areas, the following guidelines have been developed for use:

- Except as authorized by PPL EU, tree pruning is generally not an acceptable mitigation method to provide

[15] Non-compatible Vegetation – tall growing woody plant species or other species that exhibit growth characteristics that pose clearance concerns. Exceptions are Valley Crossings (6.3.1).

[16] Compatible Vegetation - Wire Zone (WZ) = native grasses, ferns, herbaceous plants and other compatible species as listed in PPL EU Specification LA-79827; Border Zone (BZ) = native grasses, ferns, herbaceous plants, shrubs, low growing woody plants and other compatible species as listed in PPL EU Specification LA-79827.

adequate clearances of trees located inside the defined ROW for any line.

- Trees that do not meet WSZ clearance requirements as set forth in this document must be removed.

6.3.2 Optimal Vegetation Management Cycles

PPL EU VM generally follows a three year VM cycle. In situations where it is not possible to attain C1 distances due to ROW restrictions, such as restricted widths or limited trimming rights, the vegetation management cycle will be adjusted to maintain WSZ distances on a case-by-case basis.

7.0 PPL EU Transmission Vegetation Management Personnel (R1.3)

7.1 Qualifications

The minimum qualifications for all personnel employed in PPL EU's VM section responsible for implementing PPL EU transmission VM policies and procedures (and assisting in their development) include:

- Foresters and Line Clearance Inspectors, who are directly involved in day-to-day vegetation management field activities, possess a minimum of a two-year Associates Degree in forestry or a related field. Additional desired qualifications include:
    - 3-5 years experience in utility vegetation or ROW management.
    - Knowledge of dendrology, tree physiology, and tree growth characteristics.
    - Knowledgeable in the proper herbicide use and application techniques. It is required that individuals must also possess a Pennsylvania Department of Agriculture Commercial Pesticide Applicator License).
    - Knowledgeable in the implementation of Integrated Vegetation Management ("IVM") practices such as Wire Zone-Border Zone and its application to the BES.
    - Practical knowledge of ANSI Z-133.1, ANSI A-300 and NERC Standard FAC-003-1.
    - Understanding of the electrical transmission system.

- Individuals may also be International Society of Arboriculture ("ISA") Certified Arborists and/or Utility Specialists.

7.2 Training

New employees to the PPL EU VM section receive orientation and training on processes, procedures, TVMP and specifications as they relate to transmission vegetation maintenance. Additional PPL EU VM staff training may be periodically scheduled to update staff on changes to the TVMP and associated specifications and procedures, as well as new equipment, herbicides, application methods/techniques or other significant changes in VM trends, practices, and processes in the Utility Vegetation Management ("UVM") industry.

7.3 Organizational Structure

PPL EU's Foresters and Sr. Analyst report directly to the Manager - Vegetation Management, who reports to the PPL EU Director of Project and Contract Management. The Director of Project and Contract Management reports to the PPL EU Vice President of Operations. Additionally, PPL EU employs Line Clearance Inspectors based in each of PPL EU's six Regions. The Line Clearance Inspectors are members of the Bargaining Unit and they report to the Foresters.

8.0 PPL EU Transmission Process for Identifying and Communication of an "Imminent Threat" Vegetation Concern (R1.5)

PPL EU utilizes Light Detection and Ranging (LiDAR) technology on an annual basis to determine compliance to clearance requirements. PPL EU may also rely upon other aerial inspections conducted by helicopter as well as ground-based inspections.

The following procedures set forth the steps that will be taken by PPL EU's personnel upon receipt of LiDAR patrol results from the LiDAR vendor.

8.1 LiDAR C2 "As Observed" Vegetation Encroachment [17]

The procedures for any encroachments that are observed by the LiDAR patrols to be within C2 distances on an as-observed basis (not adjusted for

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Source of procedure: EU-200-NERC-FAC-003-1, Supplemental Procedures, effective September 16, 2009.

maximum sag) follow the process flow chart in Appendix E-1 and as described below:

8.1.1 The LiDAR vendor will provide to PPL EU VM representatives copies of LiDAR data for various transmission line spans after the spans are surveyed. This data provides information regarding the identification of the transmission line by PPL EU name and number, distance between vegetation and conductor and type of vegetation concern, among other data points. Both VM and PPL EU Engineering Departments receive these notifications via e-mail from the LiDAR vendor.

8.1.2 For all "As Observed" C2 LiDAR reported encroachments, PPL EU personnel will, within one calendar day of receipt of the LiDAR data, conduct a field review to verify that a vegetation condition appears to exist on the transmission line span identified in the LiDAR report. Upon confirmation of a vegetation condition, VM will promptly notify the Power System Dispatcher ("PSD") by telephone (484-634-4049) of the location of the "As Observed" C2 encroachment. If no vegetation condition can be confirmed on the identified span, VM personnel will take steps seeking to identify the correct span, including making contact with the LiDAR vendor to request submission of a corrected report, as necessary.

8.1.3 VM and PSD staff will treat the field-verified "As Observed" C2 LiDAR encroachment data as an "Imminent Threat" per the TVMP and follow the procedures and schedule set forth in this TVMP to remediate the vegetation concern.

8.1.4 Information on the identified "As Observed" C2 LiDAR reported encroachments, performance of field verifications, required remediation work, and required audits of completed work must be timely recorded in the appropriate database designed to track such actions for the applicable LiDAR inspection.

8.2 LiDAR C2 "Maximum Sag" Vegetation Encroachment

The procedures for any encroachments that are within the "Maximum Sag" C2 distances only when conductors are adjusted for maximum sag follow the process flow chart in Appendix E-2 and as described below:

8.2.1 The LiDAR vendor will provide to PPL EU VM representatives copies of LiDAR data for various transmission line spans after the spans are surveyed. These reports provide information

regarding the identification of the transmission line by PPL EU name and number, distance between vegetation and conductor and type of vegetation concern, among other data points.

8.2.2 LiDAR reports relating to maximum sag adjusted conductor condition "Maximum Sag" C2 encroachments will contemporaneously be made available to relevant VM personnel and transmission engineering personnel. Upon identification of an annual agricultural crop[18] as the potential "Maximum Sag" C2 encroachment, VM personnel will notify PPL EU transmission engineering to commence the engineering review described in section 8.2.5 (generally the same day as receipt of the report from the LiDAR vendor).

8.2.3 Within one calendar day of PPL EU's receipt of LiDAR data on a "Maximum Sag" C2 encroachment, VM personnel will conduct a field review to confirm the existence of vegetation at the identified location. If the vegetation concern is an annual agricultural crop, VM personnel will attempt to estimate the height of the crop and provide this information to PPL EU transmission engineering personnel. If no vegetation condition can be confirmed on the identified span, VM personnel will take steps seeking to identify the correct span, including making contact with the LiDAR vendor, as necessary.

8.2.4 If the field-verified vegetation concern at issue is vegetation other than an annual crop, VM personnel will promptly notify the PSD by telephone of the location of the identified "Maximum Sag" C2 encroachment and will proceed to clear the vegetation within two (2) calendar days of the field review, unless governed by another procedure set forth in the following sections. PPL EU easement documents should be checked to verify if special exemptions have been granted to the holder of the easement. Any/all exceptions are noted in the legal easement documents for the location/property in question.

8.2.5 Upon receipt of any LiDAR data that identifies a "Maximum Sag" adjusted C2 encroachment based on vegetation that is an annual agricultural crop, VM personnel shall contact PPL EU transmission engineering personnel to request an engineering review. Transmission engineering personnel will, to the extent feasible, conduct an engineering review to test the assumptions employed by

[18] Annual (seasonal) agricultural crops are defined as crops that reach maturity in one growing season (Examples: corn, beans, hay, tobacco, various grain crops).

the LiDAR vendor by comparison to the PPL EU Plan and Profile for the transmission line in question. Transmission engineering personnel shall have up to three (3) calendar days from the date of receipt of the LiDAR report to conduct such analysis. The review may consider the accuracy of the distance from the structure, the span length, the height of the vegetation from the ground, and the thermal limitation or other operating restrictions on the line, among other factors.

8.2.5.1 The engineering review may yield a conclusion that:

- **A)** There is not a "Maximum Sag" C2 condition when appropriate maximum sag-adjusted parameters are applied:
- **B)** The LiDAR identified "Maximum Sag" adjusted C2 condition is likely accurate; or
- **C)** The review was inconclusive or could not be performed.

8.2.5.2 If the result is:

- **A** – A Supervising Engineer or Senior Engineer in the engineering department must review and sign off agreeing with the conclusion and all underlying documentation should be maintained for five (5) years. Transmission Engineering will provide this conclusion to appropriate VM personnel and to the PPL EU NERC Compliance Manager. In such cases, no remediation is required by VM for the identified annual agricultural crop that is not expected to become a C2 encroachment.
- **B** or **C,** transmission engineering personnel will advise VM personnel and the vegetation should be removed within the designated timeframe for clearing work. To the extent the three calendar day period is not needed, transmission engineering personnel will provide results more promptly to VM personnel.

8.2.5.3 In all cases (**A, B or C**), the results of the engineering review must be promptly transmitted by telephone to the requestor and by electronic mail to the appropriate VM

personnel (applicable Regional Forester or his/her designee) and to the PPL EU NERC Compliance Manager.

8.2.6 If the engineering review results in B or C, VM will promptly notify the PSD by telephone of the location of the identified C2 maximum sag encroachment and follow the procedures and schedule set forth in this TVMP. (See e.g. section 8.0 and appendices A, E-1, and E-2).

8.2.7 If the engineering review results in B or C, and VM staff determines that the work can be safely and promptly performed without a line outage, VM will notify PSD by telephone of (1) the potential Imminent Threat and (2) the time and location of the performance of such work needed to eliminate the potential imminent threat, and seek PSD concurrence. The clearing work shall be completed within two (2) days of receipt of the engineering results. VM will notify the PSD when the work is completed.

8.2.8 If, based on the field review, VM staff determines that the work ***cannot*** be safely performed without a line outage; VM will notify PSD by telephone of the potential Imminent Threat. The PSD shall make a determination of whether the encroachment is an Imminent Threat per the TVMP (section 7.3). VM will follow the procedures and schedule set forth in this TVMP to remediate the vegetation concern. (See e.g. section 8.0 and appendices A, E-1, and E-2).

8.2.9 The procedure and timetable for engineering review may be triggered for a non-annual crop upon request with the approval of the PPL EU General Manager - Transmission Operations or more senior official. If not triggered, the clearing work shall be completed within two (2) calendar days from the day of the field review and any engineering review shall be performed thereafter.

8.2.10 The notes set forth in Appendix A may be applied to C2 encroachments when the circumstances dictate. In addition, if additional time is needed to conduct the engineering review, a General Manager or more senior official of PPL EU may extend the three (3) calendar day period set forth in this TVMP by executing an extension approval upon request.

8.2.11 Information on the identified encroachments and performance of field verifications, required remediation work, and required audits of completed remediation work, must be timely recorded on the

appropriate database designed to track such actions for the applicable aerial inspection.

8.3 Compliance Review

All C2 encroachments identified by LiDAR ("As Observed and at "Maximum sag") are to be reported to PPL EU Compliance Manager on a Compliance Condition Report ("CCR") upon completion of the field verification.

8.4 Other Transmission Vegetation Inspections

(Refer to process flow chart in Appendix E-1 and E-2

8.4.1 Emergency Aerial Patrols

- Emergency patrols are performed at the request of the Transmission System Operator ("TSO") or the appointed Senior Engineer; Transmission/Substations ("SETS"), following any unexplained transmission circuit interruption.
- These patrols are flown as soon as possible and may encompass the entire circuit or selected portions as dictated by the event.
- Critical findings are reported by the AIC to the appointed SETS following the patrol. Vegetation conditions of concern are reported, disseminated, reviewed and remediated if necessary in the same manner as outlined above for the Routine patrols.
- For any potential encroachments observed by emergency helicopter patrols to be within the C2 distance on an as-observed basis or on a Maximum Sag basis, the procedures set forth in section 8.4.3 should be followed.

8.4.2 Ground Surveys

- Span by span ground surveys are conducted on regularly scheduled cycles by PPL EU VM personnel and as a part of auditing contractor work performed.
- All >200 kV lines are generally surveyed once every three years.
- For any encroachments that are observed via ground survey to be within C2 distances on an as-observed basis (not adjusted for maximum sag), or on a Maximum sag basis, follow the same procedures set forth in section 8.4.3.

8.4.3 Process for Identifying and Communicating an 'Imminent Threat' Vegetation Concern for Other Vegetation Inspections

VM personnel shall report C2 encroachments identified under all operating conditions to the PSD as an actual or potential imminent threat. All as-observed C2 conditions shall be treated as imminent threats. Any maximum sag-adjusted C2 condition that is reported to the PSD shall be assessed to determine if it constitutes an imminent threat or shall be treated as an imminent threat. Other conditions may be deemed imminent threats depending on the circumstances. Any condition that is likely to cause an outage at any moment should be identified as an imminent threat. Examples of such conditions include vegetation that is near to encroaching upon the C2 distance on an as-observed basis or that presents a near-term danger of falling into the transmission conductor. Upon identification and evaluation of a VM concern as an "imminent threat" to the transmission system (e.g., a transmission line outage), the PPL EU employee (e.g., VM or Distribution Operations personnel) is required to notify the PSD of the concern; providing the PSD with all pertinent details regarding line designation, location and extent of the concern.

Communicating and responding to a potential "Imminent Threat" must occur within the timeframes specified for each action as specified in this section and in Appendices E-1, E-2, E-3, and E-4, as applicable. A designated Senior Manager of PPL EU (an Officer or a Vice President or senior representative of PPL EU) may authorize a different timeframe based on professional judgment or an unexpected condition.

The responsibilities and steps in this process are as follows:

- The PPL EU employee identifying the concern alerts the PSD to the imminent threat as soon as possible on the same day the concern was identified.
- PSD analyzes the system and reviews the outage requirements. The PSD will also interface with PJM, as required.
- The PSD will alert the VM personnel as to the earliest time that an outage can be granted to safely remove the VM concern, (when an outage is deemed required).
- The VM personnel in the region make arrangements for tree trimming crew(s), as required.

- The PSD makes arrangements for a T&D crew to provide grounding for removal of the VM concern, as required, and identifies all switching required to create a safe work environment.
- Upon removal of the VM concern, the on-site PPL EU employee directing the work will notify the PSD that the work is complete.
- The PSD directs the facility return-to-service, if an outage was deemed required.

Additionally, for vegetation imminent threats, a daytime emergency callout must be initiated (even on weekends) for any clearing work required to remediate C2 encroachments.

9.0 PPL EU Reporting Requirements

9.1 Procedure for Bulk Power Outage Category Verification (R3.4)

PPL EU's NERC Compliance personnel shall report within 24 hours to the Regional Entity (RE) or RE designee, sustained transmission line outages determined by the TO to have been caused by vegetation to the extent such sustained transmission line outages are required to be reported. An internal PPL EU CCR is to be initiated for any sustained outage.

The following outline shall be used to determine the appropriate outage category to report, in the event of a vegetation related bulk power sustained outage. NERC has defined three (3) separate bulk power outage categories as:

- Category 1 – Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside the right of way.
- Category 2 – Fall-ins: Outages caused by vegetation falling into lines from inside the right of way.
- Category 3 – Fall-ins: Outages caused by vegetation falling into lines from outside the right of way.

9.2 Post Outage Investigation Procedure and Documentation (R3, R3.1)

An outage report must be completed for all vegetation-caused sustained outages. The report must include the following information:

9.2.1 **Required Report Information** (R3.3)

- PPL EU Transmission circuit/line name, PPL EU Line number, and voltage classification
- Date of event
- Time of event
- Duration of event
- Cause description
- Other pertinent comments – weather conditions, human error, etc.
- Noted TO countermeasures – e.g., steps taken by PPL EU to correct areas of past refusal, etc.

To provide the most accurate description of a vegetation-caused sustained outage, the following information, as applicable to the event, shall be collected as soon as possible following the event.

9.2.2 **Field Data** (R3.3)

- Photographs of the event – (all categories)
- Measure/determine the cleared ROW width – (all categories)
- Measure offending vegetation height – clinometers or appropriate device – (Category 1)
- Measure conductor height – clinometers or appropriate device – (Category 1)
- Measure distance of vegetation from affected conductor/s – (all categories)
- Noted species of tree/s involved – (all categories)
- Noted condition of tree/s involved – sound, rotted, if uprooted, whether roots were restricted in growth - (Category 2 & Category 3)
- Noted site conditions – slope, aspect, soil types – sand vs. clay, drainage concerns, human disturbance activity – (all categories)
- Noted weather conditions – wind, ice, rain – (all categories)

9.2.3 **Office Data: (To be collected for all outage categories)**

- Defined /documented ROW width
- Easement agreement

- Plan and profile of area
- Past VM activities within the affected area – date and scope
- Noted mitigation concerns
- Documented property owner refusals
- Names of PPL EU personnel involved with investigation

Once the appropriate information has been collected, a team led by the Manager – VM will be assembled to review the information and make a determination of the outage category to be reported. The assembled team will include the PPL EU VM-Manager, appropriate Regional Forester, and PSD representative as needed. Additionally other departments may be called upon for consultation, including but not limited to: Office of General Counsel (OGC), Real Estate, Right-of-Way, Transmission Design and Engineering.

Reporting of the event, in an Executive Summary format, to the RE (Reliability*First*) will be the responsibility of the PPL EU NERC Compliance Management Group. The report will contain the required information defined in FAC-003-1.

Reporting from the team will consist of a more detailed report which outlines all available known information used to determine the Outage Category and an explanation of how the determination was made. These reports are to be maintained by the PPL EU NERC Compliance Management Group.

10.0 Property Owner Communications

Prior to beginning scheduled transmission vegetation management, property owners are notified by letter regarding PPL EU's planned maintenance activities. Additionally, prior to beginning vegetation maintenance, the contractor that will be performing the vegetation maintenance makes contact with the property owners via personal contact, door card or phone call.

In addition, PPL EU maintains a Website to communicate vegetation management issues to customers/property owners as well as an e-mail address that customers/property owners can utilize to communicate directly with the PPL EU VM staff. PPL EU also maintains a toll-free Vegetation Management call center number for customer/property owners' convenience

- Website (http://www.pplweb.com/community+partners/our+environment/vegetation+management.htm)
- Email address (PPLVegetationManagement@pplweb.com)
- Toll-free phone number (1-877-528-2889)

11.0 Implementing Integrated Vegetation Management ("IVM")

IVM identifies an evolving set of ideas and concepts, incorporating industry recognized Best Management Practices, together with the latest research and advances in VM technology into sound VM principles and practices.

PPL EU uses IVM concepts (via WZ/BZ[19], Figure 1, and other IVM techniques) as a part of the TVMP strategy of VM. PPL EU strives to minimize environmental intrusion and any disruption to the desirable plant communities present on the ROW and thus perpetuates an herbicide reduction strategy through the following: regular monitoring, cyclical scheduling, prescriptive techniques, the use of highly selective treatments and utilizing the latest chemistry and application technology to target and affect complete control of the incompatible targeted tree species.

12.0 Customer Inquiry and Complaint Resolution

12.1 Customer Inquiries

PPL EU has a toll-free number for customers/landowners as well as a web-site that contains pertinent information regarding vegetation management activities and PPL EU VM staff contact information. Formal customer inquiries and landowner complaints concerning vegetation management are usually received through the call center and then forwarded to the appropriate forester for resolution. These inquiries are generally responded to within 24 business hours.

12.2 Property Owner Refusal Process (Clearance Mitigation Procedure) (R1.4; M1.4)

The following steps are to be followed when the required clearances (defined in Table C as "Clearance 1: Minimum Acceptable Clearance from

[19] WZ/BZ- Wire Zone/Border Zone

Vegetation to Conductor at Time of Maintenance") cannot be achieved at the time when vegetation maintenance work is performed on any transmission line which is 200 kV or higher as a result of a property owner refusal;

12.2.1 If a property owner refuses to allow PPL EU access to the property to perform needed VM work, the contractor will notify the responsible appropriate PPL EU Forester.

12.2.2 The PPL EU Forester will secure a copy of the appropriate ROW agreement to determine PPL EU's rights.

12.2.3 After the ROW agreement has been researched and PPL EU's rights have been determined, a follow-up contact will be made with the property owner. A copy of the ROW agreement will be presented and the PPL EU Forester will explain to the property owner, in detail, what needs to be done and why.

12.2.4 If the property owner still refuses to allow PPL EU to perform the necessary work, a letter will be sent from PPL Corporation's OGC to the property owner reiterating PPL EU rights and setting a date/time when the work will be performed.

12.2.5 If the property owner still offers resistance, further legal assistance/guidance will be requested within PPL EU and OGC.

13.0 Additional Information

13.1 List of Acronyms and Abbreviations

AIC	Aerial Inspection Contractor
ANSI	American National Standards Institute
BES	Bulk Electrical System
BMP	Best Management Practice
CARC	Line Clearance Maintenance Program: Completion Acceptance Report by Circuit (PPL EU)
CCR	Compliance Condition Report
EU	Electric Utilities
FERC	Federal Energy Regulatory Commission
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IVM	Integrated Vegetation Management
LiDAR	Light Detection and Ranging
NERC	North American Electric Reliability Corporation
OGC	Office of General Counsel

PSD	Power System Dispatcher
RE	Regional Entity (new name for RRO)
RF	ReliabilityFirst (the RE for PPL EU)
ROW	Rights-of-way
RRO	Regional Reliability Organization (name changed to RE)
SETS	Senior Engineer, Transmission/Substations
TCC	Transmission Control Center
TO	Transmission Owner
TSO	Transmission System Operator
TVMP	Transmission Vegetation Management Program
UVM	Utility Vegetation Management
VM	Vegetation Management
WSZ	Wire Security Zone
WZ/BZ	Wire Zone / Border Zone

13.2 References

ANSI. 2006. Safety Requirements for Arboricultural Operations. Z 133.1. American National Standards Institute, NY

ANSI. 2006. *The American National Standard for Tree Care Operations-Tree, Shrub and Utility Rights-of-Way)*, A 300 Part 7 - IVM. American National Standards Institute, NY

ANSI. 2008. *The American National Standard for Tree Care Operations-Tree, Shrub and Other Woody Plant Maintenance – Standard Practices (Integrated Vegetation Management – Standard Practices (Pruning))* A 300 Part 1. American National Standards Institute, NY

IEEE Standard 516-2003 IEEE *Guide for Maintenance Methods on Energized Power Lines*

Kempter, G.P. 2004. *Best Management Practices: Utility Pruning of Trees.* International society of Arboriculture, Champaign, IL.

NERC Standard FAC-003-1

APPENDIX

Appendix A: Emergency Work Remediation Time Table

When standard aerial inspections results are being addressed, the following periods apply:

500kV

Distance as reported by aerial inspection contractor	Time for VM to review actual conditions in field (within # of business days)	Distance as field checked by Forester	Time to completion of work (within # of business days following VM review)[2]
1 – 5.99 ft	0-1[1]	1-5.99 ft	0-2[1]
6-10.99 ft	0-1[1]	6-10.99 ft	0-2[1]
11-15.99 ft	2-5	11-15.99 ft	15
16-20.99 ft	15	16-20.99 ft	16-17.99 ft; 15 days 18-20.99 ft; VM decision based on under/around, ROW restrictions, time of year, expected tree growth, planned work schedule to maintain WSZ
21-25 ft	30	21-25 ft	VM decision based on under/around, ROW restrictions, time of year, expected tree growth, planned work schedule to maintain WSZ

Appendix A: Emergency Work Remediation Time Table

230kV

Distance as reported by aerial inspection contractor	Time for VM to review actual conditions in field (within # of days)	Distance as field checked by Forester	Time to completion of work (within # of business days following VM review)[2]
1-5.99 ft	0-1[1]	1-5 ft	0-2[1]
6-10.99 ft	2-5	6-10 ft	15
11-15.99 ft	15	11-15 ft	VM decision based on under/around, ROW restrictions, time of year, expected tree growth, planned work schedule to maintain WSZ
16-20 ft	30	16-20 ft	VM decision based on under/around, ROW restrictions, time of year, expected tree growth, planned work schedule to maintain WSZ

Appendix A: Emergency Work Remediation Time Table

When LiDAR survey results are being addressed, the following periods apply:

500 kV

Distance as reported by LiDAR contractor	Time for VM to review actual conditions in field (within # of working business days) (C2/WSZ)	Transmission Engineering review for max sag conditions (calendar days from date PPL receives LiDAR report)	Time to completion of work (within # of business days following field review)[2]	Time to completion of work for max sag engineering-verified conditions (within # of days following engineering review)[2]
1-8.9 ft	1	3	0-2[1]	2
8.91-17.0 ft	2-5	3	15[1]	N/A
11-17.0 ft	15	3	VM decision based on under/around, ROW restrictions, time of year, expected tree growth, planned work schedule to maintain WSZ	N/A

Appendix A: Emergency Work Remediation Time Table

230 kV

Distance as reported by LiDAR contractor	Time for VM to review actual conditions in field (within # of working business days) (C2/WSZ)	Transmission Engineering review for max sag conditions (calendar days from date PPL receives LiDAR report)	Time to completion of work (within # of business days following field review)[2]	Time to completion of work for max sag engineering-verified conditions (within # of days following engineering review)[2]
1-5.99 ft	1	3	0-2[1]	2
6-10.99 ft	2-5	3	15[1]	N/A
11-20 ft	15	3	VM decision based on under/around, ROW restrictions, time of year, expected tree growth, planned work schedule to maintain WSZ	N/A

[1] If observed distances are less than Clearance 2 minimum per IEEE Standard; a daytime Emergency will be initiated (even on weekends).

[2] Time extensions may be required for the following conditions which must be documented and filed as encountered.

A. Customer refusal to access property or trim/cut as required;
B. PPL Electric Utilities determines safe working conditions cannot be guaranteed (for example, operating conditions prohibit outages required to provide safe working conditions, during hunting season in affected area, unsafe weather conditions inability to apply proper protection devices for safe work conditions;
C. Storm related conditions have depleted needed resources to accomplish work;
D. A designated Senior Manager of PPL EU (an Officer or a Vice President or senior representative of PPL Electric) authorizes a different timeframe based on professional judgment or an unexpected condition.

Appendix B-1: PPL EU Transmission Survey Schedule - 500 kV

These are circuit (wire) miles as opposed to structure miles. Double circuit lines may show the miles 2X
500KV Lines are surveyed on a three year cycle and patrolled via helicopter yearly

Line No	Line Desc	Line Abbrev	Line kV	Miles	Previous Last Ground Survey	Last Ground Survey Date	Next Ground Survey Date	Last Previous Aerial Survey (Haverfield)	Last Aerial Survey (LIDAR)	Next Aerial Survey Date
401	ALBURTIS-BRANCHBURG 5016	ALBU-BRAN	500	19.32		2009	2012	May/June 2009	Sept 2009	2010
402	JUNIATA-ALBURTIS 5009	JUNI-ALBU	500	1		2009	2012	May/June 2009	Sept 2009	2010
403	SUSQUEHANNA-WESCOSVILLE 5043 (Lehi)	SUSQ-WESC (Wesc)	500	30		2009	2012	May/June 2009	Sept 2009	2010
404	WESCOSVILLE-ALBURTIS 5044	WESC-ALBU	500	11.26		2009	2012	May/June 2009	Sept 2009	2010
405	ALBURTIS-HOSENSACK 5027	ALBU-HOSE	500	4.75		2009	2012	May/June 2009	Sept 2009	2010
407	HOSENSACK-STEEL CITY	HOSE-STCI	500	22.09		2009	2012	May/June 2009	Sept 2009	2010
1	SUSQUEHANNA-WESCOSVILLE 5043 (Nbre)	SUSQ-WESC (NbrE)	500	39.75		2009	2012	May/June 2009	Sept 2009	2010
189	JUNIATA-SUNBURY 5046 (Susq)	JUNI-SUNB (Sunb)	500	13	2004	2007	2010	May/June 2009	Sept 2009	2010
190	SUNBURY-SUSQUEHANNA 2	SUNB-SUSQ 2	500	43.5	2004	2007	2010	May/June 2009	Sept 2009	2010
301	SUSQUEHANNA GEN 2 LEADS	SUSQ-GEN 2 LDS	500	0.26	2004	2007	2010	May/June 2009	Sept 2009	2010
376	SUSQUEHANNA-WESCOSVILLE 5043 (Susq)	SUSQ-WESC (Susq)	500	1.5	2004	2009	2012	May/June 2009	Sept 2009	2010
695	CONEMAUGH-JUNIATA 5005	CONE-JUNI	500	25	2004	2009	2012	May/June 2009	Sept 2009	2010
699	KEYSTONE-JUNIATA 5004	KEYS-JUNI	500	25	2004	2009	2012	May/June 2009	Sept 2009	2010
697	JUNIATA-SUNBURY 5046 (Hsbg)	JUNI-SUNB (Juni)	500	24	2004	2007	2010	May/June 2009	Sept 2009	2010
698	JUNIATA-THREE MILE ISLAND 5008	JUNI-TMI	500	44.5		2008	2011	May/June 2009	Sept 2009	2010
696	JUNIATA-ALBURTIS 5009	JUNI-ALBU	500	26		2009	2012	May/June 2009	Sept 2009	2010
563	TMI-PEACH BOTTOM 5007	TMI-PEBO 500	500	11	2004	2007	2010	May/June 2009	Sept 2009	2010

Appendix B-1: PPL EU Transmission Survey Schedule – 230 kV

These are circuit (wire) miles as opposed to structure miles. Double circuit lines may show the miles 2X:
230KV lines are surveyed on a three year cycle and patrolled via helicopter yearly

Line No	Line Desc	Line Abbrev	Line kV	Miles	Previous Last Ground Survey	Last Ground Survey Date	Next Ground Survey Date	Last Previous Aerial Survey (Haverfield)	Last Aerial Survey (LIDAR)	Next Aerial Survey Date
12	FRACKVILLE-COLUMBIA (Cent)	FRAC-COLU	230	10.00	2004	2007	2010	May/June 2009	Sept 2009	2010
14	SUNBURY-ELDRED (Cent)	SUNB-ELDR (Eldr)	230	33.69		2008	2011	May/June 2009	Sept 2009	2010
18	ELDRED-FRACKVILLE	ELDR-FRAC	230	11.50		2008	2011	May/June 2009	Sept 2009	2010
331	HARWOOD-EAST PALMERTON (Lehi)	HARW-EPAL	230	5.29	2004	2007	2010	May/June 2009	Sept 2009	2010
338	MARTINS CREEK-MONROE (Pocono)	MACR-MONR	230	14.83		2008	2011	May/June 2009	Sept 2009	2010
339	SHAWNEE - KITTATINNY	SHAW-KITT	230	2.27		2008	2011	May/June 2009	Sept 2009	2010
369	FOXHILL-SHAWNEE	FOXH-SHAW	230	8.10	2004	2007	2010	May/June 2009	Sept 2009	2010
370	MONROE-FOXHILL TIE	MONR-FOXH TIE	230	0.12	2004	2007	2010	May/June 2009	Sept 2009	2010
379	SIEGFRIED-FRACKVILLE (Susq)	SIEG-FRAC	230	14.10	2004	2008	2011	May/June 2009	Sept 2009	2010
406	HOSENSACK-BUXMONT 3	HOSE-BUXM 3	230	15.67	2004	2008	2011	May/June 2009	Sept 2009	2010
408	HOSENSACK-WESCOSVILLE 3	HOSE-WESC 3	230	9.71	2004	2008	2011	May/June 2009	Sept 2009	2010
409	MARTINS CREEK-NORTHWOOD	MACR-NORT	230	11.35		2008	2011	May/June 2009	Sept 2009	2010
410	MARTINS CREEK-PORTLAND	MACR-PORT	230	4.49	2004	2007	2010	May/June 2009	Sept 2009	2010
411	MARTINS CREEK-QUARRY 2	MACR-QUAR 2	230	21.04		2008	2011	May/June 2009	Sept 2009	2010
412	MARTINS CREEK-SIEGFRIED 1	MACR-SIEG 1	230	23.54		2008	2011	May/June 2009	Sept 2009	2010
413	MARTINS CREEK-SIEGFRIED 2	MACR-SIEG 2	230	26.10		2008	2011	May/June 2009	Sept 2009	2010
414	QUARRY-NORTHWOOD	QUAR-NORT	230	10.93		2008	2011	May/June 2009	Sept 2009	2010
415	SIEGFRIED-EAST PALMERTON 3	SIEG-EPAL 3	230	8.48		2007	2010	May/June 2009	Sept 2009	2010
416	SIEGFRIED-FRACKVILLE (Lehi)	SIEG-FRAC	230	40.63	2004	2008	2011	May/June 2009	Sept 2009	2010
417	SIEGFRIED-HARWOOD (Lehi)	SIEG-HARW	230	9.40	2004	2007	2010	May/June 2009	Sept 2009	2010
420	MARTINS CREEK-MONROE (Lehigh)	MACR-MONR	230	16.68		2008	2011	May/June 2009	Sept 2009	2010
421	WHITPAIN-BUXMONT	WHIT-BUXM	230	16.98	2004	2008	2011	May/June 2009	Sept 2009	2010
439	STEEL CITY-QUARRY 1	STCI-QUAR 1	230	2.00		2008	2011	May/June 2009	Sept 2009	2010
441	STEEL CITY-QUARRY 2	STC1-QUAR 2	230	2.00		2008	2011	May/June 2009	Sept 2009	2010
798	MARTINS CREEK-GILBERT (P2016)	MACR-GILB	230	0.52	2004	2007	2010	May/June 2009	Sept 2009	2010
958	MARTINS CREEK - LOWER MT BETHEL ENERGY	MACR-LMBE	230	0.04	2004	2007	2010	May/June 2009	Sept 2009	2010
8	SIEGFRIED-HARWOOD (Nore)	SIEG-HARW	230	25.42		2007	2010	May/June 2009	Sept 2009	2010
9/331	HARWOOD-EAST PALMERTON (Cent)	HARW-EPAL	230	37.70		2007	2010	May/June 2009	Sept 2009	2010
10	SUSQUEHANNA-HARWOOD 1	SUSQ-HARW 1	230	12.89		2007	2010	May/June 2009	Sept 2009	2010
55	SUSQUEHANNA-HARWOOD 2	SUSQ-HARW 2	230	12.90		2007	2010	May/June 2009	Sept 2009	2010
11	SUSQUEHANNA-JENKINS	SUSQ-JENK	230	14.40		2008	2011	May/June 2009	Sept 2009	2010
13	SIEGFRIED-FRACKVILLE (Nore)	SIEG-FRAC	230	11.50		2008	2011	May/June 2009	Sept 2009	2010
120	JENKINS-STANTON	JENK-STAN	230	6.54		2009	2012	May/June 2009	Sept 2009	2010
121	LACKAWANNA-PECKVILLE 3	LACK-PECK 3	230	2.97		2008	2011	May/June 2009	Sept 2009	2010
122	MTN-LACK:MTN TO STN SUB	MOUN-LACK	230	25.72		2007	2010	May/June 2009	Sept 2009	2010
123	STANTON-LACKAWANNA	STAN-LACK	230	13.36		2009	2012	May/June 2009	Sept 2009	2010
124	STANTON-SUSQUEHANNA 1 (W-B)	STAN-SUSQ 1	230	31.77	2004	2007	2010	May/June 2009	Sept 2009	2010
125	STANTON-SUSQUEHANNA 2 (Cen)	STAN-SUSQ 2	230	14.06	2004	2007	2010	May/June 2009	Sept 2009	2010
127	BLMNG GROVE-PECKVILLE	BLGR-PECK	230	36.53	2004	2007	2010	May/June 2009	Sept 2009	2010
128	BUSHKILL-BLMNG GROVE	BUSH-BLGR	230	21.78		2008	2011	May/June 2009	Sept 2009	2010
288	STANTON-SUSQUEHANNA 1 (Haz)	STAN-SUSQ 1	230	0.27		2008	2011	May/June 2009	Sept 2009	2010
368	MTN-LACK:STN SUB TO LACK SUB	MOUN-LACK	230	13.36		2009	2012	May/June 2009	Sept 2009	2010
191	ELMSPT-LYCOMING 1	ELIM-LYCO 1	230	4.09	2004	2007	2010	May/June 2009	Sept 2009	2010
192	ELMSPT-LYCOMING 2	ELIM-LYCO 2	230	4.09	2004	2007	2010	May/June 2009	Sept 2009	2010
193	ELMSPT-LYCOMING 3	ELIM-LYCO 3	230	4.09	2004	2007	2010	May/June 2009	Sept 2009	2010
194	FRACKVILLE-COLUMBIA (Susq)	FRAC-COLU	230	13.84		2008	2011	May/June 2009	Sept 2009	2010
195	SUSQUEHANNA-GENERATOR 1	SUSQ-GEN 1	230	3.09		2008	2011	May/June 2009	Sept 2009	2010
196	MONTOUR-COLUMBIA	MONT-COLU	230	10.30		2008	2011	May/June 2009	Sept 2009	2010
197	MONTOUR-ELIMSPORT	MONT-ELIM	230	22.23	2004	2007	2010	May/June 2009	Sept 2009	2010
198	MONTOUR-SUSQUEHANNA T-10	MONT-SUSQ T10	230	28.66		2008	2011	May/June 2009	Sept 2009	2010
199	MONTOUR-SUNBURY	MONT-SUNB	230	22.93		2008	2011	May/June 2009	Sept 2009	2010
200	MONTOUR-SUSQUEHANNA	MONT-SUSQ	230	31.98		2008	2011	May/June 2009	Sept 2009	2010
201	STANTON-SUSQUEHANNA 2 (Sus)	STAN-SUSQ 2	230	7.06		2009	2012	May/June 2009	Sept 2009	2010
202	SUNBURY-ELIMSPORT	SUNB-ELIM	230	25.67	2004	2007	2010	May/June 2009	Sept 2009	2010
203	SUNBURY-ELDRED (Susq)	SUNB-ELDR (Sunb)	230	3.69		2009	2012	May/June 2009	Sept 2009	2010
204	SUNBURY-SUSQUEHANNA 1	SUNB-SUSQ 1	230	43.42	2004	2007	2010	May/June 2009	Sept 2009	2010
205	SUSQUEHANNA-TRANSFORMER 10 TAP	SUSQ-TRANS 10 TP	230	0.86	2004	2007	2010	May/June 2009	Sept 2009	2010
206	SUSQUEHANNA TRANSFORMER 20 TAP	SUSQ-TRANS 20 TP	230	1.29	2004	2007	2010	May/June 2009	Sept 2009	2010
207	SUSQUEHANNA-TRANSFORMER 21	SUSQ-TRANS 21	230	2.96	2004	2007	2010	May/June 2009	Sept 2009	2010
291	MOUNTAIN-SUSQUEHANNA T-10	MOUN-SUSQ T10	230	1.82	2004	2007	2010	May/June 2009	Sept 2009	2010
384	MONTOUR-CLINTON	MONT-CLIN	230	14.90	2004	2007	2010	May/June 2009	Sept 2009	2010
385	CLINTON-ELIMSPORT	CLIN-ELIM	230	7.37	2004	2007	2010	May/June 2009	Sept 2009	2010
700	BRUNNER ISLAND-MIDDLETOWN JUNCTION 1	BRIS-MIJU 1	230	0.74	2004	2007	2010	May/June 2009	Sept 2009	2010

Appendix C-1: PPL EU Sample Annual Transmission VM Plan

Package ID	Project ID	Contractor ID	Package Desc	Region	Forester	Line_Type	Line Number	Line Description	Line Miles	Start	Finish	Start Month	Cost	Company	Work Category
24	424	010	Harrisburg BES	Harrisburg	Braun	TB	704	HUMMELSTOWN-MIDDLETOWN JUNCTION 1	7.75	1/10/2011	3/17/2011	1	$ 29,173.55	Asplundh	BES
23	413	080	Leh-Cent BES	NorthEast	Gerber	TB	1	SUSQUEHANNA-WESCOSVILLE 5043 (Hare)	41.25	1/10/2011	10/28/2011	1	$ 584,390.00	Penn Line	BES
28	449	080	Northeast -Central BES	NorthEast	Hahn	TB	11	SUSQUEHANNA-JENKINS	28.52	1/10/2011	10/28/2011	1	$ 957,947.00	Penn Line	BES
23	407	080	Leh-Cent BES	Susquehanna	Gerber	TB	12	FRACKVILLE-COLUMBIA (Cent)	5.92	1/10/2011	6/30/2011	1	$ 215,464.00	Penn Line	BES
28	471	080	Susquehanna BES	Susquehanna	Bogle	TB	264	SUNBURY-SUSQUEHANNA 1	43.83	1/10/2011	9/30/2011	1	$ 231,221.00	Penn Line	BES
28	472	080	Susquehanna BES	Susquehanna	Bogle	TB	180	SUNBURY-SUSQUEHANNA 2	43.24	1/10/2011	10/28/2011	1	$ 671,562.00	Penn Line	BES
54	787	080	PL WZ-BZ High Priority	Central	Gerber	TB	18	ELDRED-FRACKVILLE	0.93	1/17/2011	2/11/2011	1	$ 28,042.00	Penn Line	BES
54	791	080	PL WZ-BZ High Priority	Central	Gerber	TB	13	SIEGFRIED-FRACKVILLE (Nare)	1.55	1/17/2011	2/16/2011	1	$ 43,929.00	Penn Line	BES
54	792	080	PL WZ-BZ High Priority	Central	Gerber	TB	379	SIEGFRIED-FRACKVILLE (Susq)	0.72	1/17/2011	2/16/2011	1	$ 18,328.00	Penn Line	BES
54	789	080	PL WZ-BZ High Priority	Central	Gerber	TB	14	SUNBURY-ELDRED (Cent)	0.30	1/17/2011	2/4/2011	1	$ 5,659.00	Penn Line	BES
24	421	010	Harrisburg BES	Harrisburg	Braun	TB	700	BRUNNER IS-MIDDLETOWN JCT 1 (Harr)	1.02	1/17/2011	2/5/2011	1	$ 8,729.89	Asplundh	BES
24	422	010	Harrisburg BES	Harrisburg	Braun	TB	701	BRUNNER IS-MIDDLETOWN JCT 2 (Harr)	1.02	1/17/2011	2/5/2011	1	$ 2,457.97	Asplundh	BES
52	731	010	ATE WZ-BZ High Priority	Harrisburg	Braun	TB	702	BRUNNER ISLAND-WEST SHORE	0.61	1/17/2011	2/16/2011	1	$ 9,102.35	Asplundh	BES
52	733	010	ATE WZ-BZ High Priority	Harrisburg	Braun	TB	703	CUMBERLAND-WEST SHORE	0.91	1/17/2011	2/12/2011	1	$ 1,267.71	Asplundh	BES
25	439	010	Lancaster BES	Lancaster	Braun	TB	572	SOUTH AKRON-SENKS	19.91	1/17/2011	3/12/2011	1	$ 227,383.48	Asplundh	BES
52	742	010	ATE WZ-BZ High Priority	Lancaster	Braun	TB	580	MANOR-OTTER CREEK	0.30	1/17/2011	2/12/2011	1	$ 8,561.47	Asplundh	BES
22	394	010	Lehigh BES	Lehigh	Gerber	TB	403	SUSQUEHANNA-WESCOSVILLE 5043 (Leh)	22.27	1/17/2011	4/2/2011	1	$ 127,794.18	Asplundh	BES
22	395	010	Lehigh BES	Lehigh	Gerber	TB	404	WESCOSVILLE-ALBURTIS 5044	11.23	1/17/2011	3/19/2011	1	$ 115,530.03	Asplundh	BES
27	451	010	Northeast BES	NorthEast	Hahn	TB	127	BLMNG GROVE-PECKVILLE	29.32	1/17/2011	4/23/2011	1	$ 467,410.09	Asplundh	BES
54	788	080	PL WZ-BZ High Priority	Susquehanna	Bogle	TB	189	MONTOUR-SUNBURY	0.55	1/17/2011	1/28/2011	1	$ 5,092.00	Penn Line	BES
54	895	080	PL WZ-BZ High Priority	Susquehanna	Bogle	TB	189	JUNIATA-SUNBURY 5048 (Susq)	13.05	1/17/2011	2/15/2011	1	$ 11,200.00	Penn Line	BES

SAMPLE

Appendix C-2: PPL EU Sample Annual Transmission Vegetation Maintenance Plan Status Report

Region		Miles	% Comp	Status / PPL QA Date		Start	Finish	Cost	Notes
Harrisburg									
HP	Asplundh								
☐ 704	HUMMELSTOWN-MIDDLETOWN JUNCTION 1	6.19		WS-CL	*Estimate*	1/10/2011	3/17/2011	$29,173.55	
		6.19	100.0%	2/18/2011	*Actual*	1/22/2011	2/12/2011	$46,932.93	
☐ 700	BRUNNER IS-MIDDLETOWN JCT 1 (Harr)	0.52		WS-CL	*Estimate*	1/17/2011	2/5/2011	$3,729.88	
		0.52	100.0%	1/24/2011	*Actual*	1/15/2011	1/21/2011	$6,310.73	
☐ 701	BRUNNER IS-MIDDLETOWN JCT 2 (Harr)	0.52		WS-CL	*Estimate*	1/17/2011	2/5/2011	$2,457.97	
		0.52	100.0%	1/24/2011	*Actual*	1/15/2011	1/21/2011	$4,663.96	
☑ 702	BRUNNER ISLAND-WEST SHORE	0.61		WS-CL	*Estimate*	1/17/2011	2/19/2011	$9,102.35	
		0.61	100.0%	2/4/2011	*Actual*	1/15/2011	1/29/2011	$8,694.11	
☑ 703	CUMBERLAND-WEST SHORE	0.91		WS-CL	*Estimate*	1/17/2011	2/12/2011	$1,287.71	
		0.91	100.0%	2/9/2011	*Actual*	1/15/2011	2/12/2011	$3,059.29	
☑ 695	CONEMAUGH-JUNIATA 5005	9.88		WS-WS	*Estimate*	2/14/2011	7/23/2011	$205,606.03	
		13.28	74.4%		*Actual*	2/5/2011		$127,036.79	
☐ 699	KEYSTONE-JUNIATA 5004	10.09		WS-WS	*Estimate*	2/14/2011	7/23/2011	$183,152.76	
		12.48	80.8%		*Actual*	2/5/2011		$116,369.50	
☑ 705	HUMMELSTOWN-STEELTON TAP	0.31		WS-CL	*Estimate*	2/28/2011	3/17/2011	$13,193.24	
		0.31	100.0%	3/7/2011	*Actual*	1/29/2011	3/5/2011	$5,304.31	
☑ 707	JUNIATA-CUMBERLAND 1	0.23		WS-CL	*Estimate*	3/14/2011	4/2/2011	$4,490.00	
		0.23	100.0%	3/24/2011	*Actual*	1/29/2011	3/16/2011	$3,584.32	
☑ 785	WEST SHORE-STEELTON	0.36		WS-CL	*Estimate*	3/21/2011	4/9/2011	$8,473.58	
		0.36	100.0%	4/1/2011	*Actual*	1/29/2011	3/31/2011	$2,871.68	
☑ 696	JUNIATA-ALBURTIS 5009	2.19		WS-WS	*Estimate*	3/28/2011	8/27/2011	$508,319.50	
		18.13	12.1%		*Actual*	4/9/2011		$46,273.44	
☑ 794	JUNIATA-DAUPHIN	0.20		WS-CL	*Estimate*	3/28/2011	4/2/2011	$29.37	
		0.20	100.0%	3/28/2011	*Actual*		3/28/2011	$38.54	
☑ 697	JUNIATA-SUNBURY 5046 (Hsbg)	0.00		WS-NTF	*Estimate*	5/9/2011	6/25/2011	$6,779.16	
		0.36	0.0%		*Actual*			$115.62	

Appendix D: Line Clearance Maintenance Program: Completion Acceptance Report by Circuit

LINE CLEARANCE MAINTENANCE PROGRAM

COMPLETION ACCEPTANCE REPORT BY CIRCUIT

ppl

Circuit Information (to be filled out by contractor)

☑ Trimming	☐ Spray	☑ Reclear	☑ Hazard Trees	☐ Other (Specify)	
Work Category:	BES	Region:023	Lehigh		Date: 3-7-11
Circuit #:	402	Circuit Name:	alburtis-juniata		

Mileage	Spray Acres	Reclear Acres	Hazard Trees	# of inspection sheets attached
0.7				

Contractor Information (to be filled out by contractor)

Company: Asplundh Tree Expert Co.

Completion Work Reviewed: *I have reviewed this line and agree that all work has been completed in full and that all work satisfies the specifications set forth by PPL Electric Utilities.*

Print Name:	Print Title:	Signature:	Inspection Date:
David e Irwin	General forman		3/7/2011

Exceptions (Customer concerns, minimum clearance - use names, meter numbers, grids, and/or addresses.)

PPL Information (to be filled out by PPL)

RECVD 3/11 **QA Status:** ☑ Pass ☐ Fail If QA status is "Fail", enter remediation date	Remediation Date:	Notes:

Print Name:	Print Title:	Signature:	Approval Date:
Gary Bunnell	Forester-Lehigh		3-14-11

Additional Comments

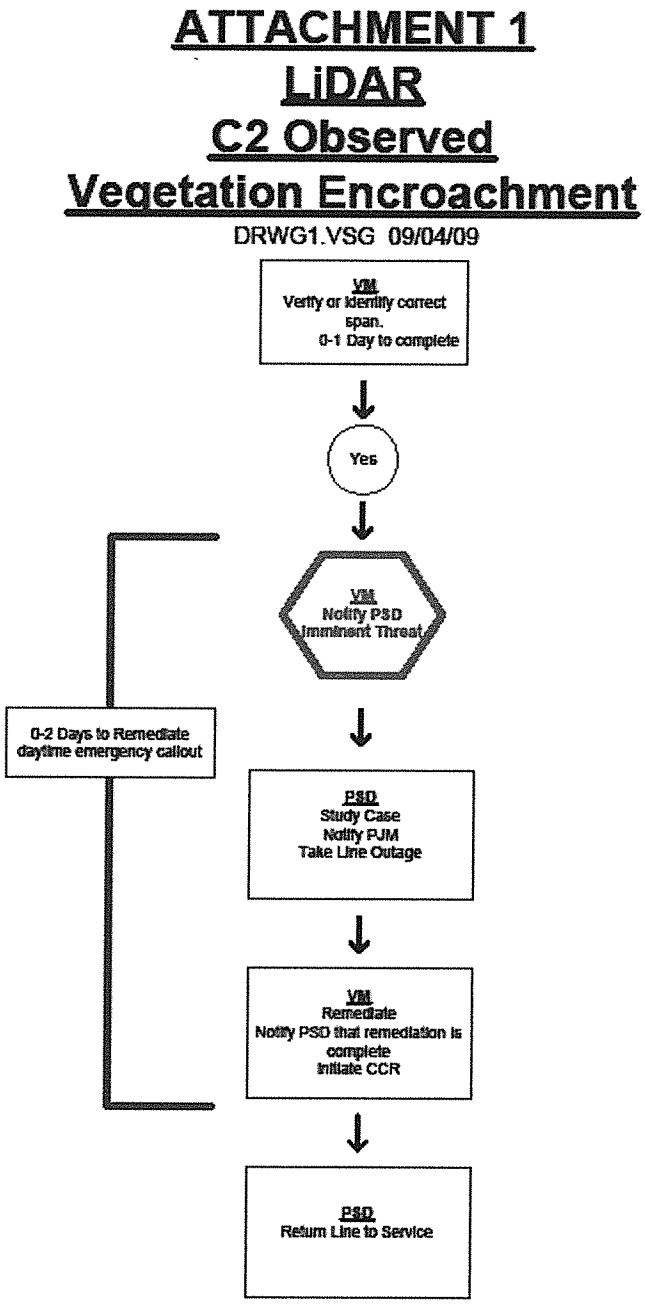
Sub 40 3962543755

Spans ST, RC, working e 6606543736 to 3962543755 25' each side of ck

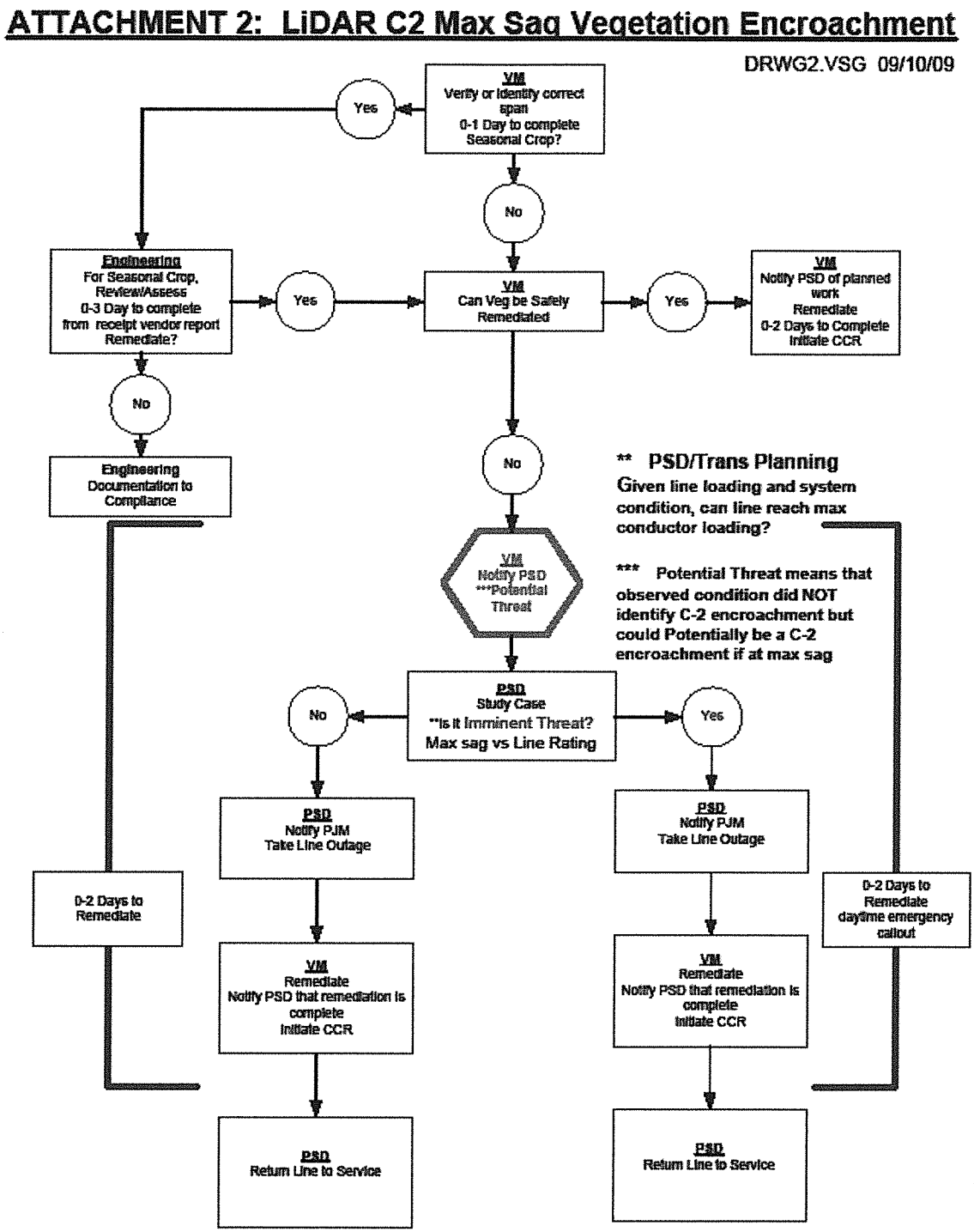
all work completed acceptable 3-14-11

frm upd 12/2010

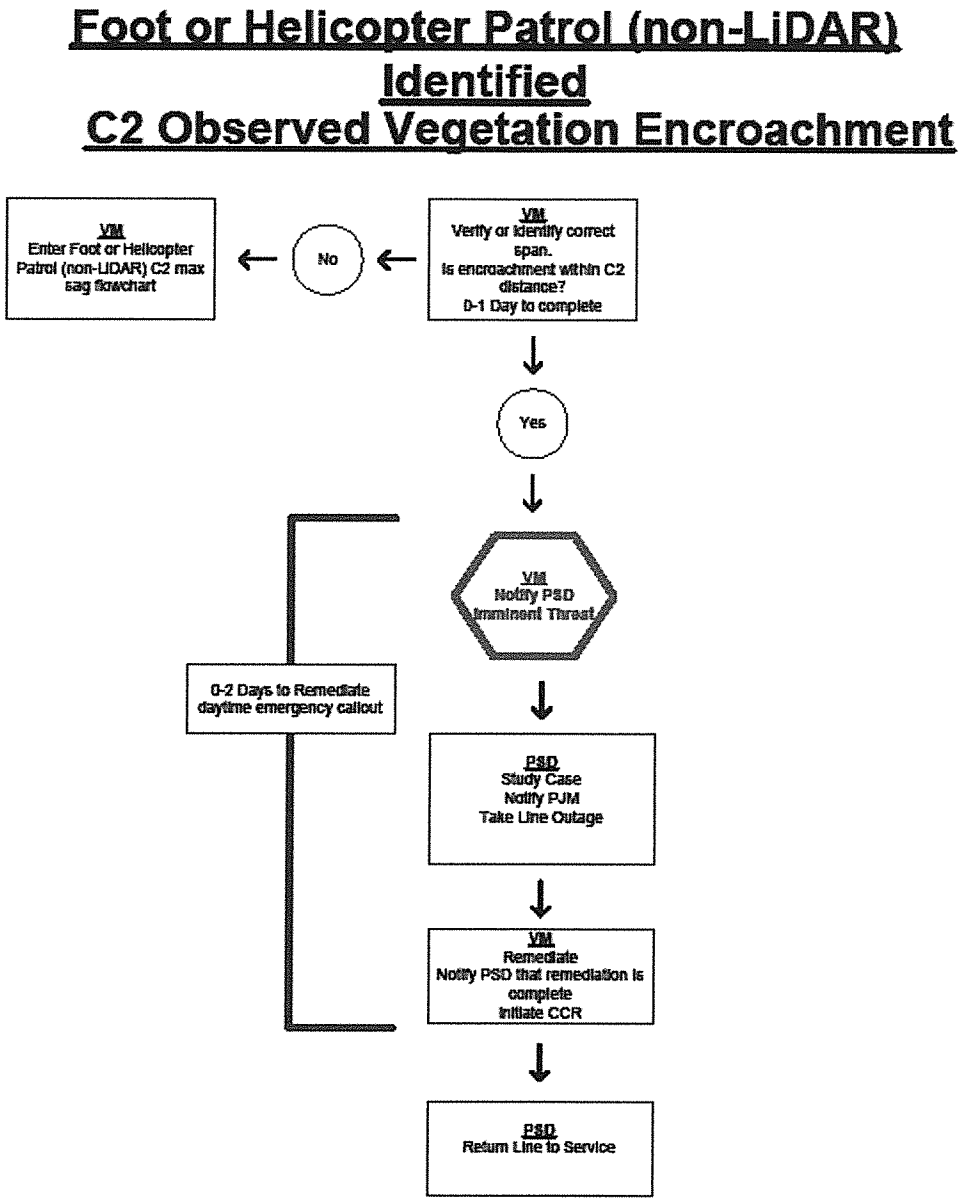
Appendix E-1: LiDAR C2 Observed Vegetation Encroachment



Appendix E- 2: LiDAR C2 Max Sag Vegetation Encroachment

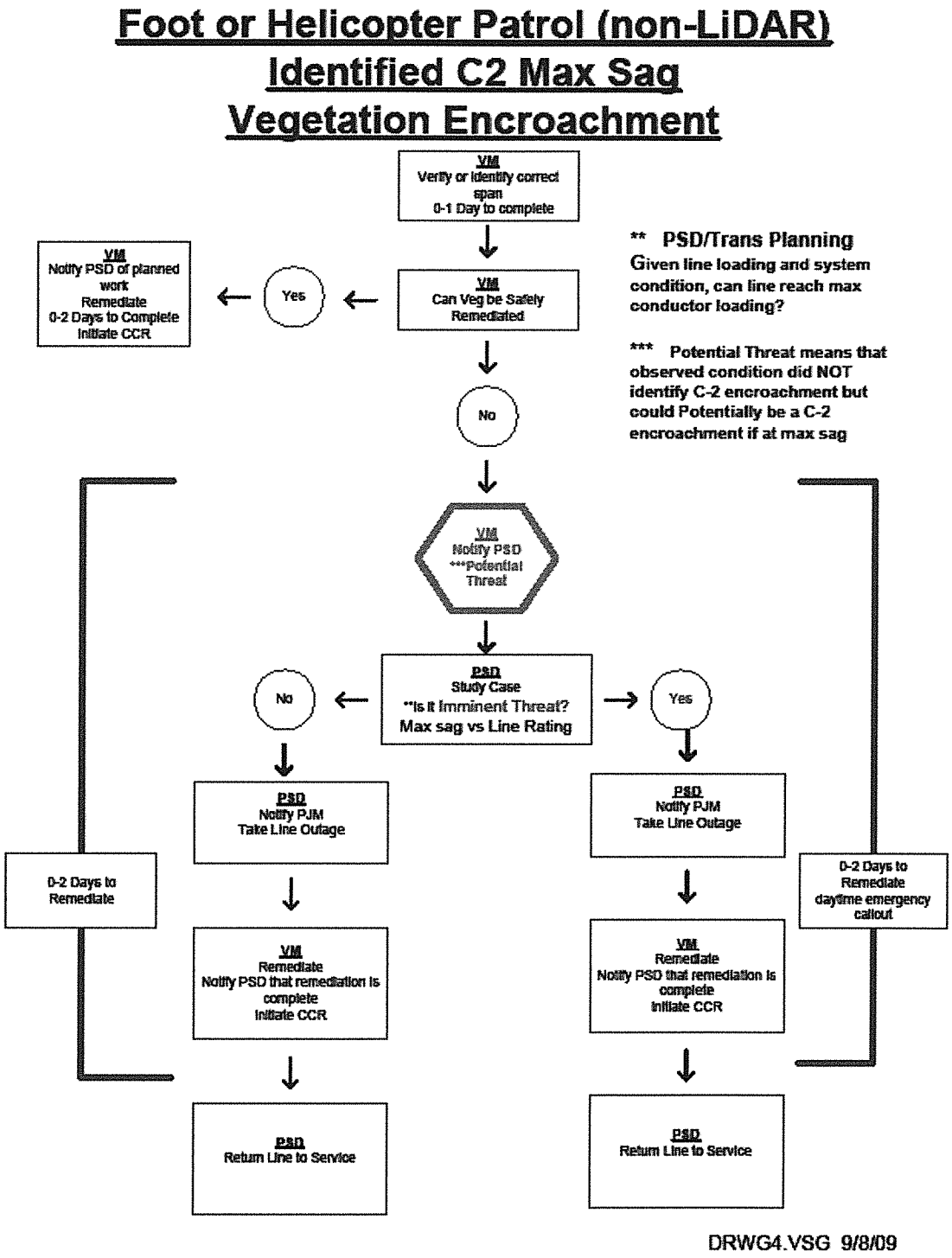


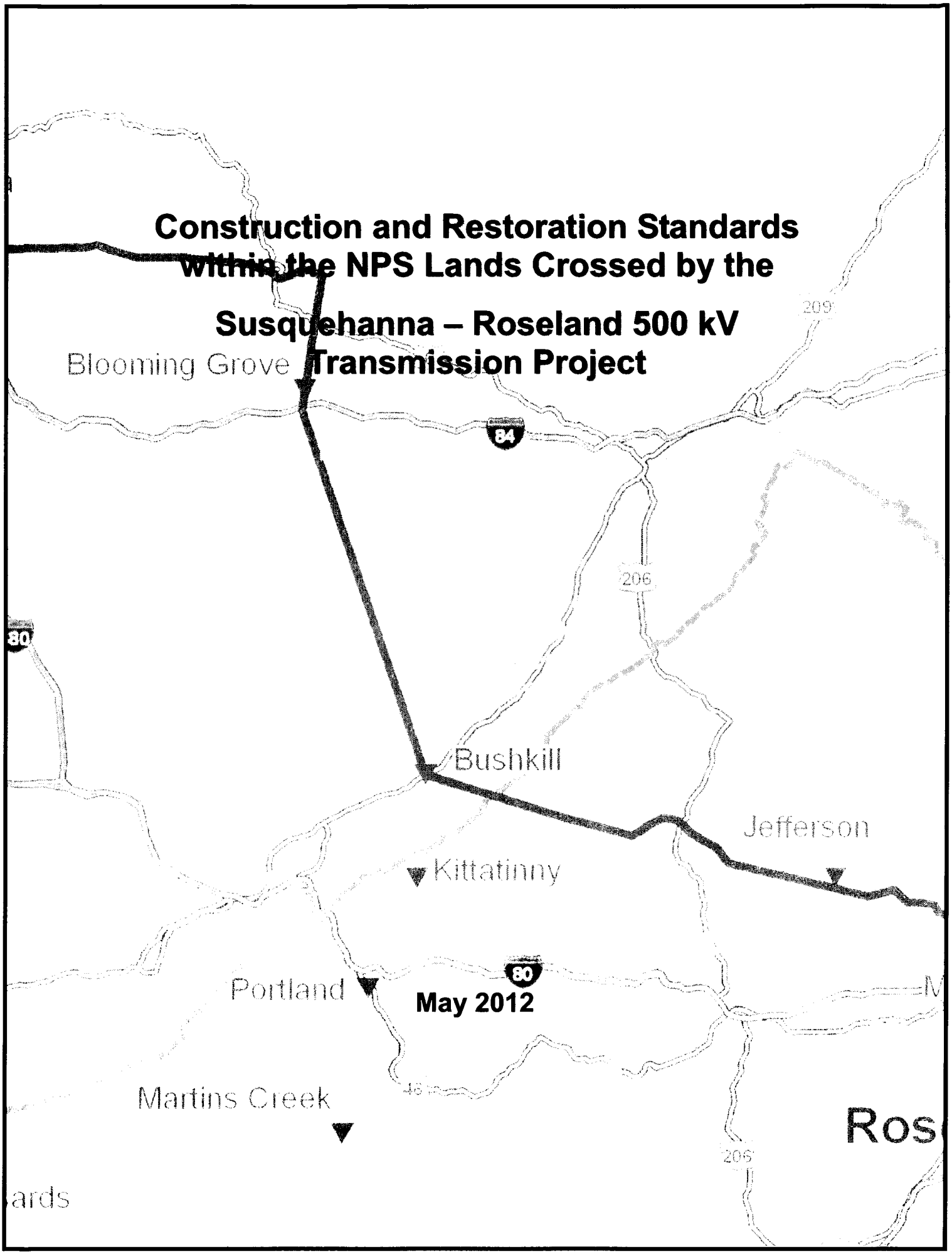
Appendix E- 3: Foot or Helicopter (non-LiDAR) Identified C2 Observed Vegetation Encroachment



DRWG3.VSG 8/31/09

Appendix E-4: Foot or Helicopter Patrol (non-LiDAR Identified C2 Max Sag Vegetation Encroachment





Construction and Restoration Standards within the NPS Lands Crossed by the Susquehanna – Roseland 500 kV Transmission Project

May 2012

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1.0 INTRODUCTION

PPL Electric Utilities Corporation (PPL EU) and Public Service Electric and Gas Company (PSE&G) (the "Companies") hereby submit these construction and restoration (CR) Standards for the National Park Service (NPS) Lands crossed by the Susquehanna – Roseland 500 kV Transmission Line (the "Project"). Those lands include 4.18 miles that contain the existing 230 kV transmission lines and rights-of-way, the approximately 5 acre area requested to be permitted by the NPS as additional right-of-way, as well as potential access roads that will be used to construct and operate the line (the "Job Site"). The Companies propose to rebuild this line to add a 500 kV circuit needed to avoid potential system overloads in the future. This Project has been authorized by the Regional Transmission System Operator, PJM, and approved by both the Pennsylvania Public Utility Commission (PUC) and the New Jersey Board of Public Utilities (BPU). The construction process involves removing the existing steel lattice structures and replacing them with taller, modern structures that will accommodate both the existing 230 kV circuit and the new 500 kV circuit on a single structure.

These CR Standards apply during the construction phase of the Project. They are consistent with the Proposed Project Plan and Standard Form 299 Information submitted to the NPS on November 21, 2008 and as later revised in the Companies' March 4, 2009 Standard Form 299 Information submittal. They are further supplemented to meet the standards for avoidance and minimization necessary for the non-impairment mandate that guides NPS decisions. Any action that potentially affects NPS resources requires environmentally responsible design standards that prescribe the methods to be used for construction within and in proximity to sensitive environmental resources and for the appropriate restoration.

1.1 GUIDING PRINCIPLES AND BEST MANAGEMENT PRACTICES

These CR Standards are part of a set of comprehensive mitigation plans (CMPs) prepared by the Companies. Other components of the CMPs include standards intended to address impacts of the Project on natural and cultural resources. Viewed as a whole, the CMPs provide best management practices (BMPs) to be applied during construction and restoration and to perpetuate ecological stewardship of the right-of-way (ROW). The CMPs will meet all applicable local, state and federal agency regulations and permit conditions. These CR Standards reference specific CMPs that contain additional details.

The selection of the existing, already impacted corridor for the new Susquehanna-Roseland project is a key feature of the Companies' commitment to avoid and minimize adverse impacts on the environment and other public values. These CR Standards dovetail with the choice of corridor to provide the greatest possible assurance that impacts will be avoided and minimized. The Companies' CMPs offer substantial compensatory mitigation for those impacts that cannot be avoided entirely.

1.2 RESPONSIBILITY AND COMPLIANCE

Personnel entering the Job Site will comply with all relevant portions of these CR Standards. They will have a demonstrated understanding and high regard for the environmental resources of the region and the resources identified on the construction site plans. Where appropriate, personnel shall have read and shall understand all the approved permits for the Project and the CR Standards for the Project. Personnel working on the Project include, but are not limited to, the following:

- The Companies' personnel who are responsible for assuring permit compliance and for supervision of contract personnel.
- General contractors and their approved subcontractors.
- Environmental compliance firms and their environmental compliance officers, inspectors, and other specialists retained with respect to compliance with the CR Standards, public safety measures, and all other environmental compliance standards and permits.
- Inspectors and other specialists as required by local, state or federal agencies to locate, capture and move or otherwise protect threatened and endangered species.
- Restoration firms to implement specific restoration requirements of the CR Standards.

The Companies will instruct personnel working on the Project to offer the greatest possible courtesy to and cooperation with NPS resource management and other personnel. The Companies will invite the NPS to offer briefings, training or other forms of information sharing to personnel working on the Project. The Companies, at all times before, during and after construction of the Project, will provide NPS with the contact information for Project managers at a level of seniority authorized to address any resource management, safety, compliance or other issue that may arise.

1.3 TRAINING AND SAFETY

The Companies take safety very seriously. A certified Safety Manager will be retained through all construction phases to address the safety of personnel and visitors. Workers will use mandatory personal protective equipment (PPE) including, but not limited to, hard hats, safety goggles, safety harnesses, gloves, hearing protection and protective footwear to safely complete the work.

Employees, contractors and subcontractors will be required to go through mandatory safety training before being allowed to enter the Job Site. The training session will detail the environmental resource issues of the region, these CR Standards, and the responsibilities of the Companies and all other personnel for delivering a safe and environmentally responsible Project. Additional details are included in the Health & Safety Plan.

2.0 DRAWINGS AND SITE INFORMATION

The following provides descriptive information regarding the existing conditions and modifications that will take place within the Job Site. Much of this information is shown graphically on the plan drawings and other documents that were previously provided in the Proposed Project Plan and Standard Form 299 Information in November 2008 and in subsequent meetings and submittals to the NPS.

2.1 INVESTIGATORY PLANNING

Survey work will occur to identify and mark various aspects of the Project including edge of ROW, roadways and structure locations with offsets. Survey crews use light duty vehicles to access the Project and then travel on foot to locate and stake the necessary points.

Geotechnical work is required to properly design the foundations and structures. This work is accomplished with small-tracked drilling machines that must access each anticipated structure location and bore a 3-inch to 4-inch diameter hole for analysis of soil and rock conditions. This work occasionally requires support from a water truck or water tank mounted on an all-terrain vehicle. Typically, clearing and road building is not required for geotechnical work.

2.2 PLAN DRAWINGS

Plan and profile drawings that depict the plan view for the transmission line and cross-sections for typical structure profiles were included with the Standard Form 299 Information and will be updated upon receipt of the Record of Decision and the permits and updated ROW agreements.

2.3 ROADWAYS AND ACCESS ROADS

Six primary roadways will be used for all vehicle and equipment access: Creek Road, Community Drive and River Road in Pennsylvania and Millbrook, Old Mine, and Ridge Roads in New Jersey. These roadways will be used in their current condition and, if damaged, will be restored to their pre-construction condition by the Companies' contractors. If the NPS has plans to improve or modify beyond current conditions any of the roadways to be used for access, and such roadways require restoration due to damage from project-related use, the Companies will reasonably cooperate with the NPS in implementing those improvements or modifications.

Temporary access roads will also be required for project construction. To the extent practicable, the proposed Project access roads shall be located on existing gravel or paved roads. Disturbance outside of the access road rights-of-way will be avoided. New temporary access roads will be designed to the minimum standards necessary to enable equipment to safely reach a structure location.

2.4 STRUCTURE AND FOUNDATION LOCATIONS

The location, height and type of structures proposed along the ROW are shown on the plan drawings provided in the Standard Form 299 Information. A drawing depicting typical foundation characteristics was also provided. Access points for construction access roads as well as crane pad and pulling site locations were identified on the constructability drawings provided in the Standard Form 299 Information. As noted above, this information will be updated upon receipt of the Record of Decision and the permits and updated ROW agreements.

2.5 EXISTING UNDERGROUND UTILITIES

Prior to and during the construction phase of the Project, the construction contractor will be required to contact Pennsylvania One Call and New Jersey One Call to identify buried utilities, as required by state law.

3.0 CONSTRUCTION SEQUENCE

Project construction will occur in the following general phases: surveying, geotechnical boring and grading; vegetation clearing; staging; access road construction; crane pad construction; removal of existing structures; foundation installation; new structure erection; and finally, conductor stringing and energization. Construction stages may occur sequentially or simultaneously. Each phase is described in more detail in the following sections.

3.1 SURVEYING, GEOTECHNICAL BORING AND GRADING

The initial work involves the establishment of the ROW boundaries and the location of the access roads and structures by survey crews. This is followed by geotechnical borings being drilled to determine the subsurface conditions needed for final design. Necessary grading will be performed; however, no substantial changes in topography or grade will occur as a result of the construction and installation of new transmission lines. Minor deviations may occur along access roads or at stream crossings. All grades are anticipated to be restored to pre-construction conditions at the completion of the Project by the Companies' contractors (with the exception of access roads) using similar equipment that is described under Section 3.4, Access Road Construction. Access roads will be designed to minimize disturbance to the extent practicable while still allowing for the safe ingress and egress to the transmission line ROW.

3.2 VEGETATION CLEARING

3.2.1 Clearing Requirements

The proposed design within DEWA will require a cleared ROW of 150 to 200 feet (i.e., 75 to 100 feet of clearing on either side of the centerline). To achieve this clearance width, approximately 25 feet of additional vegetation clearing will be required on each side of the ROW in Pennsylvania where the ROW is currently cleared to only 100 feet (approximately 0.7 mile) in width. The practices to be used are consistent with PPL EU's Vegetation Management Standard titled *Specification for Initial Clearing and Control Maintenance of Vegetation On or Adjacent to Electric Line Right-of-Way through Use of Herbicides, Mechanical, and Hand-clearing Techniques* or the New Jersey Board of Public Utilities (BPU) Vegetation Management regulations, previously provided in the Standard Form 299 Information. The construction clearing practices include use of a buffer for wetlands and watercourses. A minimum 50-foot buffer will be used near intermittent streams and wetlands and a 100-foot buffer will be used near perennial streams; larger buffers will be maintained in certain areas as required by state regulations and permit conditions. The primary method of vegetation clearing to be employed within the NPS will be low-impact tree clearing. Additional details can be found in the Vegetation Management Plan and the Wetlands, Riparian Zones; Floodplain Resources Plan.

3.2.2 Low-Impact Tree Clearing

Low-impact tree clearing is the preferred method for clearing on the ROW. This method incorporates a variety of approaches, techniques and equipment to minimize site disturbance and to protect residual forests, wetlands, watercourses, soils and cultural resources, including stone walls, old cemeteries and old foundations that are commonly found in wooded areas in Pennsylvania and New Jersey. The following describes generally accepted practices of low-impact tree clearing:

- Preparing a harvesting plan detailing access, stream/wetland crossings and landing areas where all timber and limbs will be disposed of.
- Bidding and securing a professional harvesting contract that includes specifications for access, wetland/stream crossings, vegetation removal, cultural resource protection and residual site quality.
- Selecting tree-clearing contractors that are experienced in low-impact tree clearing and certified.
- Utilizing a professional forester to oversee the tree clearing operations, access development, wetland/watercourse crossings, wetland and archeological site protection and wood removal for contract compliance.
- Regulating days of operation due to suitable/unsuitable ground conditions.
- Using a variety of tree clearing equipment to minimize impacts including forwarders, feller bunchers (cut-to-length systems), cable and grapple skidders, high-flotation tires, portable bridges and temporary culverts. Equipment will be matched to specific sites and conditions.
- The skidding of severed trees (tips of trees are dragged along the ground behind a skidder) will be limited to areas of low erosion potential. A forwarder is the recommended equipment type in areas with sensitive soil conditions.
- Trees should be cut close to the ground, and stumps and root systems will be left in the ground to naturally decompose over time. These decaying root systems provide additional soil stability as well as hosting native organisms.
- Maximizing use of upland portions of the existing cleared ROW for landing areas and the use of existing access ways.
- Employing directional tree felling. Trees that are to be cleared will be directionally felled either by hand – a chainsaw and operator – or mechanically by the equipment described below, which typically includes a felling head (a type of rotary saw) attached to a boom. The boom extends out to the tree, the felling head severs the tree, and the boom and operator place the tree on the ground.

Skidders are large articulated tractors with either a grapple or cable winch at the rear of the machine. The winch allows the skidder to be parked away from sensitive areas and to winch trees back to the machine. They may have rubber tires or tracks. A forwarder is a tractor with a loading boom and bunk on the back of the machine to hold logs. A forwarder drives up to a pile of logs, loads the logs onto its bunk and drives back to the landing area. The logs are never skidded on the ground.

A feller buncher is a "cut-to-length" system consisting of a tractor with a specialized felling head on a boom that is capable of cutting a tree, directing its fall, removing the limbs and cutting the full size tree into logs. This system is more commonly used in smaller diameter conifer forests.

There are some variations to the equipment described above, including whether the equipment is mounted on tracks or rubber tires, but these devices are typically the equipment recommended for use in this type of clearing.

3.3 STAGING AREAS

Staging of all equipment and material for work will be primarily located on the existing ROW or at an off-site staging area(s) outside of NPS lands. The Companies do not intend to construct or use any staging areas on NPS lands outside of the ROW.

3.4 ACCESS ROAD CONSTRUCTION

Access roads include both existing access roads and new construction access roads, including spurs from existing access roads to structures where needed. Improvements to existing access roads will be necessary. New roads and improvements may include grading, placing geotextile fabric, installing and compacting gravel, and installing any necessary erosion control measures. The width of the access roads will typically be 20 feet. Location of access roads will be as shown on the site plans included with the Standard Form 299 Information submitted to the NPS on November 21, 2008 and as later revised in the Companies' March 4, 2009 Standard Form 299 Information submittal. Prior to the initiation of construction activities, the utilities' Environmental Inspector or Construction Supervisor will install signage identifying access roads restricted from vehicular traffic.

Road improvement or new construction road work typically requires the use of trailers to deliver the equipment, tri-axle trucks to haul in gravel, bulldozers or graders to evenly spread the material out, water trucks to control dust, an excavator to revamp areas that need stabilizing, and a roller to ensure the integrity and reliability of the access road. All equipment will be delivered to the particular proposed access road where it will be unloaded. This work typically takes between one and two days per 300 feet of road depending on topography and weather conditions.

When constructing the access road from existing roads, the Contractor shall not alter the existing drainage courses or drainage patterns of the existing roads. Stream beds, flowing or dry, shall not be used for construction roads or vehicle movement for any class vehicle. When roads are to be located adjacent to streams or wetlands, as shown on the approved regulatory agency plans, a silt fence or other approved control and a buffer or filter strip of sufficient width are to be left in place to prevent the silting of the stream until the area is sufficiently stabilized. The silt fence and a buffer or filter strip shall be installed and inspected in accordance with applicable permits.

When rutting occurs, the Contractor shall fill and repair all ruts as soon as conditions warrant. On areas where standing water collects due to construction related rutting, the Contractor shall make provisions to drain the water using appropriate sedimentation and erosion controls. Additional details can be found in the Erosion and Sediments; Spill Prevention & Response Plan.

All of the new temporary access roads will be removed and/or revegetated, unless specific roads are identified to remain as part of an environmental enhancement or mitigation project which shall be in accordance with the specifications.

3.5 CRANE PAD CONSTRUCTION

Crane pads are depicted on the constructability drawings provided in the Standard Form 299 Information. Crane pads will typically be 100 feet wide by 100 feet long and will be used to set up a crane to erect the structures. The construction of the crane pads will include grading, placing geotextile fabric, installing and compacting gravel, and installing any necessary erosion control measures. All crane pads will be removed and the area will be restored to pre-existing conditions, to the extent feasible.

This work typically requires the use of tri-axle trucks to haul in the material, a bulldozer to evenly spread the material out, an excavator to revamp areas that need stabilizing, and a roller to ensure the integrity and reliability of the crane pad. This work typically takes between one and two days per crane pad, depending on topography and weather conditions.

3.6 REMOVAL OF EXISTING FACILITIES

Equipment needed to remove existing facilities may include the following:

- Boom and bucket trucks to allow the controlled lowering and removing the conductor.
- A pulling machine for winding up the conductor or shears for chopping.
- Trucks with trailers to haul off the bundles of conductor as well as the bins containing the steel.
- Equipment to lower the steel towers.

- A machine that will chip the concrete foundations, where present, below grade.

All equipment will use public roadways and the previously identified access roads. Typically, the teardown and removal of lattice towers takes two weeks per mile, depending on specific location needs and weather.

Once the access roads and crane pads are in place, the Contractor will begin removal of the existing lattice towers. Typically, the conductor (wire) will be removed first by cutting the conductor using a hydraulic shear at a pre-determined location. If the conductor is reeled, it will be attached to a pulley system that will wind up the conductor in large, secured bundles.

Once the conductor is removed from the towers, the towers will be either dismantled or lowered onto the ground in a controlled manner. Once safely on the ground, the steel will be cut into smaller pieces and placed in dumpster-like bins that will then be hauled off to the appropriate recycling location. Lastly, concrete foundations, where present, will be chipped below grade and clean fill will be placed over the areas. These areas will then be seeded with a conservation seed mixture appropriate to the local conditions. This work will be performed in accordance with all applicable local, state, and federal laws and regulations.

3.7 FOUNDATION INSTALLATION

The new structure locations will be surveyed and properly marked using Geographical Positioning System (GPS) technology. Typically, the foundation depth will range between 15 and 40 feet with a diameter of 8 to 12 feet. Depending on specific soil and rock conditions, a combination of drilling and excavating will be used.

Drilling: For the drilling method, a rubber-tired or tracked machine is used to drive an auger into the earth and remove the soil. Specialized augers are available that are capable of drilling through rock if needed.

Excavating: For the excavating method, a rubber-tired or tracked machine is used employing a bucket and/or a hydraulic ram to remove the soil and/or rock.

Reinforcing steel and anchor bolts will then be installed in the excavated hole. Concrete will then be brought in with a standard concrete truck and placed into the excavated hole and allowed to cure.

All equipment will use public roadways and the previously identified access roads. Typically, it takes two to four days to excavate the hole and place the concrete for the foundation, depending on soil conditions and weather.

3.8 STRUCTURE ERECTION

Once the concrete has properly cured, the structures will be erected. The proposed structures on NPS lands are either a one- or a two-pole design. The height of the structures will range from 165 feet to 195 feet. Current design requires that there will be four (4) structures in Pennsylvania and eleven (11) structures in New Jersey located on NPS property. This compares to the existing eight (8) structures in Pennsylvania and thirteen (13) in New Jersey. Typically, the structures are brought on site in several pieces with a trailer and then assembled on the specific crane pad associated with the structure. Using a crane, the structure is placed on the foundation. Once in place, a series of bolts are tightened down to secure the structure to the foundation.

This work typically requires the use of a crane, a boom and bucket truck to help guide the structure onto the foundation, and an air compressor for the fastening of the bolts. All equipment will use public roadways and the previously identified access roads. Typically, this work requires one to two days per structure, depending on weather conditions.

3.9 CONDUCTOR STRINGING

A puller and rope reel will be located at one end of the transmission line section and the wire reels at the other end. Between the puller and the wire reel, rope will be installed into pulley blocks that are attached to the arms of the structures. This may be done on the ground by pulling the rope with a vehicle along the ROW from structure to structure, but it is becoming more common to use a helicopter to fly the rope from structure to structure to reduce the impact on vegetation and resources in ROW between structure locations. Once the rope is in place a "hard line" or steel wire-rope is pulled through the pulley blocks. The hard line is then used to pull the conductor into place. Once all the conductor is in place for a specific section, the conductor is then tensioned to the designed tension and attached to the insulators. The stringing operation on all areas of the project will be performed with appropriate safety oversight so that the public safety is maintained at all times on all private, public and NPS lands and resources, such as the Delaware River.

This work typically requires the use of boom and bucket trucks, a pulling machine that will wind up the conductor, and trucks with trailers to haul off spools of rope, and will include the use of a helicopter to string the rope into place. All equipment brought via ground transport will use public roadways and the previously identified access roads. Typically, the work takes one week to string each mile of line, depending on field conditions and weather conditions.

4.0 CONSTRUCTION CONTROL MEASURES

Control measures will be employed to minimize disturbance and potential impacts on natural and cultural resources associated with Project construction activities. The following sections detail the different types of control measures that will be utilized to extent practicable during Project activities. Additional details can be found in the Health & Safety Plan.

4.1 GENERAL HOUSEKEEPING

The following general housekeeping practices will be followed during construction and restoration activities:

- All products and materials shall be properly containerized, labeled and stored to minimize the risk of any unintentional release or impacts to the environment.
- All wastes and excess materials shall be properly stored and removed in a timely manner to avoid potential nuisance issues.
- All applicable federal and state regulations concerning the use, storage, transportation and disposal of all wastes and excess materials shall be followed.
- All operations will be confined to the ROW or designated construction areas, including but not limited to access roads, crane pads and pull sites.
- Care shall be exercised in placing and storage of construction tools, equipment, materials and supplies to avoid the potential risk of unintentional damage to the environment.
- All temporary structures and other facilities incidental to the new construction shall be removed and the Job Site shall be restored to pre-construction conditions, unless otherwise directed by the Companies.
- All access routes, storage yards, rights-of-way and properties associated with the Project shall be kept free of foreign material, debris and litter. The Job Site shall be left secure and orderly at the completion of each major phase of construction.

4.2 TRAFFIC CONTROL

The Companies require contractors to develop and implement specific traffic control plans in accordance with Federal, State and local laws and regulations to ensure public safety on public roads when related to movement of construction equipment, material delivery, foundation installation, structure erection and cable installation. Flagging and traffic signs identified in such plans will be used to notify drivers of short-term traffic slowing or stoppage as a result of Project activities. Construction vehicles, both gasoline and diesel-powered, which are to be operated on public

highways, shall comply with all applicable regulations. Additional details can be found in the Health & Safety Plan and the Communication Plan.

4.3 ENVIRONMENTALLY SENSITIVE AREA CONTROLS

The Companies recognize and respect that NPS lands contain environmentally sensitive areas that are known to the NPS and others that may still be discovered following completion of all studies on the Job Site. The NPS provided a letter to PPL EU on November 4, 2008, which outlines their considerations and recommendations for species, communities and their habitats within and near the Job Site. The Companies intend to comply with each of the NPS recommendations included in that letter, and many of the measures have already been implemented. The Companies have signed a confidentiality agreement with the NPS to help protect these resources and commit to ensuring that their identity and integrity remain intact. The specific known environmentally sensitive areas, as indicated in the November 4th letter, are as follows:

- Shoemakers Barren.
- Arnott Fen Wetland Complex.
- Hogback Ridge.
- Delaware River Riparian Area.
- VanCampens Brook Riparian Area.
- Kittatinny Mountain.

In addition, the NPS recommended the following general considerations for all project areas, including proposed access roads:

- The Companies have conducted field-based habitat assessments to identify potentially occurring special concern species, using NPS threatened and endangered (T&E) species list and other lists developed by consulting agencies, and documented special concern species accordingly.

- PPL EU and PSE&G have consulted and will continue to consult with the NPS, USFWS, and the Pennsylvania and New Jersey state agencies to avoid or mitigate potential adverse impacts on any species and habitats of concern. Habitat assessments and follow-up surveys will be conducted as needed, especially when impacts are not likely to be avoided. Master lists were used to target specific plant species at particular locations and habitats.

- The Companies have consulted with the NPS, USFWS, and the Pennsylvania and New Jersey state agencies regarding impacts to Indiana bats. No instances of Indiana bat were subsequently found on NPS lands along in the Project area.

In close coordination with the NPS, the Companies have conducted numerous habitat suitability evaluations and field studies to identify potential species of concern and

their habitats along and near the ROW, proposed access roads, and other areas in which any project work could occur. Species and habitats evaluated include:

- Bog turtles (*Glyptemys muhlenbergii*), as requested by U.S. Fish and Wildlife Service (USFWS), NPS, New Jersey Department of Environmental Protection (NJDEP), and Pennsylvania Fish and Boat Commission (PFBC)
- Wood turtles (*Glyptemys insculpta*), as requested by NPS and NJDEP
- Numerous plant species and habitat, as requested by per NPS, NJDEP, and Pennsylvania Department of Conservation and Natural Resources (DCNR)
- Timber rattlesnakes (*Crotalus horridus)*, as requested by NPS, NJDEP, and PFBC
- Raptors, including bald eagle (*Haliaeetus leucocephalus*), red-shouldered hawk (*Buteo lineatus*), northern goshawk (*Accipiter gentilis*), Cooper's hawk (*Accipiter cooperii*), barred owl (*Strix varia*), and long-eared owl (*Asio otus*) as requested by NPS and NJDEP
- Various bat species, including Indiana bat (*Myotis sodalis*), as requested by USFWS, NJDEP, and Pennsylvania Game Commission (PGC)
- Numerous invertebrate species, as requested by NPS and NJDEP
- Wetland and vernal habitat surveys, as requested or required by NPS, U.S. Army Corps of Engineers (USACE), NJDEP, and Pennsylvania Department of Environmental Protection (PADEP).

The T&E species and habitat information gathered during the studies has and will continue to be used to avoid or otherwise minimize any potential impact on any such species and habitat within DEWA during all project phases. Locations of any species and habitats of concern have been documented and will be appropriately noted on construction plans. These T&E species and locations will be protected in accordance with permit conditions and applicable federal and state regulations. The Companies have worked and will continue to work with the NPS and state and federal agencies throughout all phases of the project to protect these valuable resources. Additional details can be found in the Avian Resources; Protected Resources Plan.

4.4 EROSION AND SEDIMENTATION CONTROL PROCEDURES

In order to avoid, minimize or mitigate the potential for erosion and sedimentation impacts, both utilities employ a range of soil erosion and sediment control measures during the construction, operation, and maintenance of transmission lines. Typical control measures that may be utilized include the following:

- Environmentally sensitive areas such as wetlands, floodplains, streams, and watersheds are identified within the Job Site. This information is utilized to minimize the environmental impact to soils and other natural resources.
- Where feasible, road grades and alignments would follow the contour of the land with smooth, gradual curves within the limits of the ROW.

- During clearing operations, soil disturbance would be kept to a minimum with rock outcrops and tree stumps remaining in place.
- Access roads on steep slopes (15% or greater) should be avoided where possible or feasible to minimize the potential for soil erosion and slower revegetation.
- Access through large rock outcrop areas should be avoided by routing access roads around or by terminating access on one side of the rock outcrop area.
- Where streams are not crossed by access roads, vehicular traffic would be restricted a minimum of 50 feet from the stream bank to avoid disturbing these sensitive environmental areas.
- Access through a wetland would be avoided where possible by routing access roads to higher ground around the wetland or by terminating the access road on either side of the wetland.
- Access roads would be located where possible to avoid existing compatible tree species remaining on the right-of-way. When it is necessary to locate an access road through a cluster of trees, the route shall be selected that minimizes tree removal and damage.
- Prior to the initial vegetation clearing, filter fabric fences would be installed below all areas to be disturbed.
- Appropriate vegetation management techniques would be used as required, mandated by law, or as otherwise discussed in Section 3.2 and in Attachment F.
- Soil disturbance would be kept to a minimum and permanent restoration would be made promptly following grading. All seeded areas will be mulched. Slopes in all cuts and fills and scarred areas shall be hydroseeded as soon as practical with an appropriate seed mix in consultation with the NPS, to reduce erosion and restore vegetative cover. The installation of an erosion control blanket may be required at critical locations where high erosion potential exists and when time of year is not suitable for seeding.
- Potential erosion areas will be inspected weekly and promptly after storm events. Ruts will be smoothed out and gravel spread to stabilize the roadway and prevent erosion.

In addition, soil and erosion control plans, incorporating applicable elements discussed above, will be developed in cooperation with the NPS and with appropriate local approvals and as mandated in state permits and approvals from the PADEP, NJDEP, Monroe County Conservation District, and Warren County Soil Conservation District. Contractors will need to comply with the practices outlined above as well as the specific BMPs identified in each approved soil and erosion control plan as applicable. Additional details can be found in the Erosion and Sediments; Spill Prevention & Response Plan.

4.5 PROTECTION OF CULTURAL RESOURCES

Cultural resources (including archaeological, historic structures and historic view sheds) along the ROW, proposed access roads, or in other areas that could be affected by the project have been surveyed and identified. All identified archaeological sites to which adverse effects cannot be avoided have been evaluated for eligibility for inclusion in the National Register of Historic Places (NRHP). Adverse effects to unavoidable eligible sites will be mitigated according to plans developed in consultation with the respective State Historic Preservation Offices (PHMC/BHP and NJDEP HPO) and in consultation with the NPS/DEWA. Project-related ground disturbing activities, such as tower construction, modification of existing access roads, and creating of new access roads will seek to avoid previously recorded archaeological resources.

Impacts to historic architectural properties (buildings, structures, and historic districts) and any cultural landscapes will primarily be visual, created by installation of new towers where none exist, of higher towers where shorter towers now exist, and by clearing of forested land. The Companies will continue to consult with the PHMC and the NJDEP HPO throughout the planning, design and construction process and conduct any additional field work and surveys as necessary as part of the project permitting process to minimize potential impacts to historic architectural properties in accordance with the requirements of Section 106 of the National Historic Preservation Act. Additional details can be found in the Compensatory Mitigation Plan.

Locations of identified cultural resources will be identified on project plans, construction specifications and applicable mapping, and protected in the field as appropriate through avoidance (e.g. fencing or cordoning off areas) or other means (e.g., matting) in accordance with recommendations or requirements of the PHMC, HPO and the NPS. If items or areas of possible archaeological interest are encountered while performing work, the appropriate agency or on-site inspector will be promptly notified. Such agency or inspector will provide immediate guidance regarding the ongoing work activities.

4.6 DISPOSAL PROCEDURES

The construction contractor will remove all construction debris and dispose of it in accordance with local, state and federal regulations. Soil and rock removed during foundation excavation will be spread on the ROW in adjacent upland areas.

4.7 SPILL RESPONSE PROCEDURES

Absorbent spill response materials shall be readily available on-site in reasonable proximity to work sites along with personnel qualified to use them. Appropriate personnel shall be immediately notified of any hazardous material spills at any location of the Project or other water quality incidents in watershed or aquifer protection zones. The following practices will be employed to prevent and address any accidental spills on the Job Site:

- Designated staff will be trained in the handling of fuels and other hazardous materials.
- The Contractor will regularly inspect and maintain construction equipment in proper working order.
- Designated areas will be established for vehicle fueling, material storage, and overnight parking of equipment.
- Equipment will be fueled at least 300 feet from the nearest waterbody or wetland, or at least 150 feet from a riparian zone or floodplain.
- To the extent practicable, equipment will be parked overnight at least 300 feet from the nearest water body or wetland, or at least 150 feet from a riparian zone or floodplain.
- Storage of hazardous materials, lubricating oils or fuels will be located at least 300 feet from a wetland or water body, or at least 150 feet from a riparian zone or floodplain.
- The Contractor will maintain spill containment and clean-up supplies.
- Lubricating oils or fuels will be stored where fueling activities take place and within active construction areas.

Additional details can be found in the Erosion and Sediments; Spill Prevention & Response Plan and the Wetlands, Riparian Zones; Floodplain Resources Plan.

4.8 WATER CROSSING TECHNIQUES FOR CONSTRUCTION EQUIPMENT

Water crossing methods that may be used at small streams during construction include flume pipe with crushed rock ramp, temporary bridge, wooden construction mats, and stone fords. Specific construction techniques at each water crossing will be dependent upon site conditions at the time of construction and will be the

responsibility of the Construction Supervisor representing the Companies, with input from the Environmental Inspector.

All wetlands in the project corridor and potential access road locations were delineated along the existing transmission line ROW to a corridor width of approximately 200 feet. Wetland boundaries were flagged and soil borings (using hand augurs) were made at various data points as determined necessary to analyze soil conditions in accordance with the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*. All work was conducted in accordance with regulatory guidelines and commonly accepted best practices. The wetland teams used GPS equipment to document wetland boundary points. NPS was also consulted in the process and functional values of wetlands in the Project area were identified in accordance with NPS guidance.

The Companies have met with the PADEP, NJDEP, and the U.S. Army Corps of Engineers (USACE) to discuss water encroachments, aerial water crossings and related permits that will be necessary prior to construction. Regardless of the final permits required, wetland delineation results, erosion and sedimentation control plans, approvals from the Monroe County Conservation District (PA) and the Warren County Soil Conservation District (NJ), approval from the Delaware River Basin Commission, as well as best management practices, mitigation measures, and other conditions will be part of the permit conditions and incorporated into construction specifications and operation and maintenance manuals/requirements as applicable.

Additional details can be found in the Wetlands, Riparian Zones; Floodplain Resources Plan.

4.9 CONSTRUCTION WORK NEAR STREAMS, WETLANDS AND RIPARIAN ZONES

Construction near a stream channel will be timed and otherwise conducted pursuant to any applicable regulations. This does not preclude the ability to gain access over a stream providing a temporary bridge is provided and used for construction.

Vehicles will only be operated across a stream channel over a temporary bridge or other approved structure. Driving directly across a stream channel with machinery or vehicles is prohibited. At locations where a temporary access road must be built across a stream channel, the crossing will be constructed as closely perpendicular to the stream channel as possible and will generally span the channel using a prefabricated bridge design.

Prior to the construction of proposed temporary stream crossings, the Companies or their agent, shall conduct a physical assessment of the stream systems prior to construction to characterize the pool and riffle complexes. Authorized stream crossings should be made at the pool and not within the riffle point, while being respectful of the timing restrictions for trout and other species.

All disturbed sections of stream channels will be stabilized after construction and restored to their pre-construction conditions to the degree practical with respect to channel slope, elevation and discharge capacity. Natural streambed materials will be replaced, construction will be staged so that a minimal amount of soil will be exposed at any given time, and soil stabilization measures will be implemented as quickly as possible after clearing to minimize erosion. In addition, the following activities will be prohibited during construction and restoration activities:

- Mining of any stream channel.
- Stream channel modifications, except as included as part of a specific restoration/mitigation component.
- Direct stream channel fording.
- No logs or boulders that provide fish habitat shall be removed from the channel.
- No equipment will be operated outside of the construction limits in wetlands and riparian zones as shown on the approved plans.
- No brush or other construction debris will be disposed of within floodplains, stream corridors, wetlands and wetland transition areas.
- Construction equipment contact with non-storm induced flowing water is prohibited and shall be minimized through the use of timber mats, temporary coffer dams or culverts to divert flow around construction activities.
- Contractors shall take such measures as are necessary to ensure unrestricted passage and movement of fish and wildlife. No artificial structure or stream channel change that cause a permanent blockage to movement of fish, reptiles or amphibians shall be constructed.

In addition, low flow aquatic passage shall be maintained both during and after construction and designated concrete wash out stations will be used for all concrete disposals within DEWA. Soil and other types of stockpile areas, if any, will be located away from wetlands, transition areas, riparian zones, floodplains and State open waters. These stockpile areas will be protected with hay bale filter barriers and/or silt fencing at their down slope base.

Upon completion of construction, the following activities will occur:

- All temporarily disturbed stream channel sections will be restored to their pre-construction conditions to the extent practical through replication of channel bottom elevations, shape, width and meandering, as well as replanting of native vegetation.
- Temporarily disturbed areas will be restored to their pre-existing conditions, including replacement of vegetation removed during construction, by reseeding and replanting with the company approved seed mixtures and in

coordination with the NPS, Monroe County Conservation District and Warren County Soil Conservation District.

- Natural sediment transport patterns will be preserved by replicating the ratio of shallow areas to deep areas, anticipated flow rate and streambed material.
- Materials used for temporary stabilization will be removed after construction is completed and construction equipment access is no longer necessary.
- The existing tower footings will be excavated and removed to a depth of approximately one foot below the ground surface. Footing locations will be backfilled, graded to match existing elevations and seeded. All dismantled steel and associated hardware will be removed from the DEWA.
- Wood chips from existing trees on site may be spread within the ROW but shall not exceed three inches in depth on average and shall not be deeper than six inches in any one location. No wood chips may be left in wetlands and watercourses or their buffers.

4.10 CONSTRUCTION WORK WITHIN STREAMS, WETLANDS AND RIPARIAN ZONES

The Contractor will use BMPs to minimize disturbance to streams, wetlands and riparian zones during construction and restoration activities.

4.10.1 Construction Timing and Sequence

Whenever practical, construction activities that would impact water quality or stream resources of waters classified by New Jersey or Pennsylvania agencies as Trout Production or Trout Maintenance will be avoided during critical periods as follows:

- Trout production – September 15 through March 15
- Trout maintenance/trout stocked:
  - May 15 through June 15 (New Jersey)
  - March 1 through June 15 (Pennsylvania)

The Contractors will employ construction timing restrictions during critical periods where construction activities occurring within the designated Riparian Areas or Open Waters may affect wetlands, vernal pools and/or state or federally listed species.

The approved site plans show the locations and details for the use of timber mats (also known as marsh mats) which shall be used for all construction work within wetlands in accordance with federal and state permits to minimize the amount of disturbance to vegetation and compaction of soils within these areas. The area used for access to the construction location shall be minimized to the maximum extent practicable in accordance with approved access road site plans.

4.10.2 Construction Practices

The following general practices will be employed during construction within steams and wetland areas:

- The disturbance of existing roots and topsoil beneath timber mats, crane pads and access roads will be avoided to the maximum extent practicable. Existing surface water drainage patterns will be maintained through the use of temporary pipes and culverts to the maximum extent practicable.
- Wildlife passage shall be assured through the use of drift fence designs that lead to culverts to enable reptiles and amphibians to safely pass through the timber mats.
- Disturbance/removal of trees for access to the construction site shall be minimized to the maximum extent practicable, unless specifically designed as part of the mitigation process. Whenever trees must be removed, selective removal of trees less than four inches in diameter is preferred in lieu of removal of larger trees.
- Tree stumps will not be removed, encouraging the revegetation of the tree via sprouts unless these trees are within the ROW and would otherwise be required to be removed through the applicable federal and state regulations governing the reliability of the transmission line.
- Excavation and filling activities will be conducted in a manner to minimize turbidity and sedimentation. Placement of embankments (filling) will be conducted in such a manner as to contain sediment at the fill areas.
- The limits of disturbance have been indicated on the approved final design plans and represent the maximum area necessary for the construction of the new transmission line.
- Slopes will be protected as soon as reasonably achievable with vegetative cover, or as a temporary measure with fiber mats or straw mulch. A protective area of vegetative cover will be established as soon as reasonably achievable between embankments and wetland areas.

4.10.3 Erosion Control Measures Within the Riparian Zone and Wetlands

The following erosion and sedimentation control measures will be utilized within the riparian zone and wetlands:

- Minimize area of disturbance and soil exposure; preserve existing vegetation.

- Install silt fences and/or hay bales at up gradient boundary of wetlands and streams within no less than 25 feet of an access road or work areas in accordance with approved erosion and sedimentation control plans.
- Install silt fences in the riparian zone along streams that cross the ROW or access roads, placed in a manner that reduces concentrated stream flows.
- Manage and divert runoff from areas outside of ROW away from disturbed areas.
- Use temporary sediment traps for larger areas of disturbance.
- Establish and maintain sediment tracking controls at construction access/egress points.
- Use directional tracking and tillage as needed when working on steep slopes.
- Cover or otherwise provide temporary stabilization for soil stockpiles.
- Employ appropriate dewatering controls.
- Use sediment traps for construction dewatering, if required.
- Direct sediment trap discharge to undisturbed vegetated areas, avoiding steep slopes and concentrated flow, to prevent erosion of downstream areas.
- Employ energy dissipating measures (e.g., riprap at sediment trap outlet).
- Promptly correct and stabilize any areas disturbed by the dewatering discharge; adjust discharge approach to avoid additional erosion.
- Seed and/or mulch disturbed areas up gradient of streams and wetlands as soon as practicable to prevent soil erosion.
- Mulch may be used where additional disturbance is anticipated or when seasonal conditions necessitate delay of reseeding or replanting.
- Annual rye grass erosion control seed mix may be used for temporary revegetation prior to restoration replanting.

4.10.4 Other Construction Measures

The following additional construction measures may be employed where applicable and in accordance with approved permits and erosion and sedimentation control plans and in consultation with the NPS:

- Conduct pre-construction stream surveys at designated crossing locations to support later restoration efforts (see Section 5). Photographically document locations and identify pre-construction plant communities. GPS can be used to identify locations as well.

- Stockpile topsoil (outside of wetlands and riparian areas) for reuse during post-construction restoration.
- Use selected cut trees, root wads, rocks/boulders, and brush for potential use as in-stream habitat, bank stabilization, and/or to replace coarse woody debris in restored transitional floodplain forest, as allowed by permits governing activities in wetlands.
- Anchor or install jacks as needed to secure or raise elevation of timber mats to exceed the anticipated stream water elevation occurring during a one year storm event.
- Install temporary gravel anti-tracking pad at each end of the timber mat to minimize tracking and discharge of soil into the stream while crossing mats.
- Install filter fabric barriers along stream banks flanking timber mats.
- Limit access to riparian and wetland areas where disturbance is not required for construction.
- Use construction fencing or other physical barriers if practical; at a minimum, use visual posting/flagging of such areas.
- Clearly mark Open Water and Riparian Areas where special construction practices are required.
- Conduct visual monitoring of streams before, during and after construction.
- Complete at least two pre-construction observations (one during dry conditions and one during wet weather) for each stream crossing.
- Inspect each stream crossing in active construction or disturbed areas within a reasonable time period after each storm event. Use paired monitoring locations (one upstream of construction activities, and one downstream). A measurable storm event is defined as rainfall greater than 0.5 inch or sufficient to produce runoff in the construction zone if greater than 0.5 inch.

4.11 FUELING

No fuel storage or refueling of mobile equipment from fixed or mobile sources is permitted within 300 feet of a wetland or watercourse, or 150 feet of a riparian zone. All bulk fuel storage within the Job Site shall have 110% containment of largest container, double wall. All fuel trucks will be equipped with spill containment materials.

4.12 NOISE CONTROL

Mufflers and intake silencers will be utilized on all construction equipment, in accordance with federal and state requirements, as applicable.

4.13 DUST CONTROL

Fugitive emissions during project construction will consist primarily of dust during earth-moving activities and minor amounts of emissions from construction equipment combustion engines. However, potential impacts from these activities would be limited and short term. The Contractor will employ reasonable measures to minimize dust during construction. Measures include the following:

- Vehicles transporting fill, soil or other materials to and/or from the construction areas will be covered with canvas or similar material.
- Where appropriate, efforts will be taken to remove excess soils from construction vehicle wheels/tracks before entering paved roads.
- Unpaved access roads and construction areas may be wetted as needed to control fugitive dust emissions
- Construction equipment may be fitted with up-to-date emission controls to the degree practicable.
- Rock construction entrances will be used to control and minimize the potential spreading of soils onto public roads.

4.14 INVASIVE SPECIES CONTROL

Measures shall be taken to adequately control equipment operations and maintenance to prevent contamination (alien, plant/wildlife species or seeds, pathogens/toxic substances, etc.) of the ROW and adjacent areas and any water resources, including wetlands, watercourses and bodies of water on or adjacent to the ROW, and prevent accumulation of debris of all types and containers of liquid waste products. Washing of construction vehicles and equipment shall occur only within designated wash down areas and must be done in accordance with procedures for protection from invasive species. See the Vegetation Management Plan for additional details.

4.15 HOURS OF WORK

The Contractor will plan all work around all time-of-year restrictions associated with state or federally protected species. The Contractor will lay out work and receive approval by the Companies prior to beginning construction. Operation of machinery will be limited to work time frames as allowed by local laws and in coordination with the NPS.

5.0 RESTORATION MEASURES

All disturbed areas will be restored in accordance with approved erosion and sedimentation control plans and post-construction storm water management plans. This includes crane pad, pulling site and access road locations.

5.1 GENERAL RESTORATION ACTIVITIES

Restoration will include removing all temporary gravel and timber mat work pads, access roads, mat roads and bridges, regrading where necessary, seeding with native seed mix approved by the Companies and as specified in approved erosion and sedimentation control plans, and installing native shrub plantings where required.

Restoration activities will be conducted and their success monitored according to all applicable approved plans, permit requirements and regulations. Permanent restoration of the ROW and access roads, pulling areas and staging areas can begin as soon as the weather permits and all construction work is complete.

The Contractor shall conduct restoration activities as discussed in the following subsections.

5.1.1 General Restoration

- Restore all areas as close as practicable to their original state; match existing contours of adjacent areas and match existing landscaping.
- Provide pre- and post-construction documentation of the Project area, including but not limited to photographs and video, etc., clearly indicating the specific location. Documentation procedure is to be approved by the Companies and Program Manager.
- At all times limit the movement of crews and equipment to avoid unnecessary rutting of the ROW, marring the land and damaging crops, pasture and hay land.
- Implement "typical" or site-specific restoration design as designated for the location based on pre-construction surveys. Anticipate that a vast majority of locations will be addressed with a typical design and that a small percentage (<5%) of locations may require site-specific design.

5.1.2 Wetlands

- Sequencing of construction activity shall enable construction work that requires site access through the wetlands to be completed within six months to enable their restoration to occur as soon as possible. This will be accomplished through the removal of proposed timber mats and geotextile fabric, the regrading of the disturbance to loosen soil compaction, if needed, and the seeding of these areas with a wetland conservation seed mixture. These measures will be used along with

appropriate erosion control measures and monitoring to ensure successful reestablishment of wetlands vegetation and hydrology.

5.1.3 Vegetation/Seeding

- Contractor shall be responsible for all reseeding activities that may be needed due to disturbance.
- Where significant vehicle traffic has occurred, soils may be scarified prior to replanting, as appropriate for the planting mixtures proposed.
- Replant riparian zone to achieve conditions which approximate pre-construction conditions.
- Seed and/or mulch disturbed areas up gradient of streams and wetlands within 24 hours of disturbance to prevent soil erosion.
- Mulch may be used where additional disturbance is anticipated or when seasonal conditions necessitate delay of replanting.
- Use the Companies' upland, wetland or riparian seed mixes, as appropriate for final seeding.
- Allow for natural recruitment and introduction of native shrub and tree species as allowed for within the Companies' Right of Way Vegetation Management Plans.

5.1.4 Invasive Species

- Design restoration activities to prevent the establishment of invasive species and to eliminate existing invasive plants within the disturbance area to the fullest extent practicable.
- Implement invasive species control measures as needed until vegetation is well established.
- The Companies shall provide a photographic catalog of invasive and exotic species to the Contractor for reference in the field.

5.2 SEEDING SPECIFICATIONS

The Contractor shall submit all Certifications from suppliers that the seeding products provided meet the purpose of the technical specifications, such as, but not limited to, seed mix showing purity and germination of each seed type and total pounds of seed required per acre. Seeding shall be performed at all areas where roads are removed, in disturbed areas, and as directed by the Companies. The Contractor shall be responsible for seed germination. Seeding activities shall adhere to the following requirements/specifications:

- Furnish and install 3 inches of topsoil and seed and fertilizer as indicated on the plans. Seeding rates and mix shall be as shown on the plans. Topsoil and

seed shall be installed in all areas requiring restoration to include roadways, slopes and restored cut and fill areas.

- Seed shall be fresh, clean, new crop seed consistent with grasses native to the area and shall be approved by the Company prior to application.
- Seed shall meet the requirements of the New Jersey Department of Agriculture and the Penn State College of Agricultural Sciences Erosion Control and Conservation Plantings on Non-cropland, as applicable.
- Seed shall be labeled according to U.S. Department of Agriculture Federal Seed Act, and furnished in containers with tags showing variety of seed in mixture, purity, germination, weed content, name of seller, and date on which seed was tested.
- Seed shall be accompanied by certificate from the contractor that seed meets requirements of these technical specifications on the approved plans for the Project.

5.2.1 Seedbed Preparation

Where practical, the Contractor shall dispose of any rocks or other obstructions which might interfere with tilling and seeding operations. In areas where ground surface is compacted hard enough to prevent drill penetration, the Contractor shall thoroughly loosen and pulverize soil to a depth of at least three inches. The Contactor shall maintain tilled areas until seeded. After access roads are removed, topsoil will be placed over disturbed areas prior to seeding. Naturally occurring rock outcrops and rock fields should not be disturbed.

5.2.2 Seed Mixtures

These seed mixtures were selected as natives to the county/area and for their wildlife and aesthetic quality that they will provide.

The application areas for the permanent seed mixes shall be determined in the field by the engineer and the project restoration specialist. All disturbed areas shall be seeded within the following seed mixes at the rates recommended by the supplier.

New Jersey

Temporary Seed Mix: Apply annual ryegrass at a rate of 1 pound per 1,000 square feet.

Permanent Seed Mix: Native seed mixes were specifically formulated for the Project and the region by Ernst Conservation Seed Company of Meadville, PA and include the following mixtures:

Transmission ROW Seed Selections Mixes

- ERNST 01: Buena Vista Upland Seed Mix (Short)
- ERNST 02: Buena Vista Upland Seed Mix (Tall)
- ERNST 03 Steep Slope Scenic Mixture
- ERNST 04 Riparian Restoration Mixture
- ERNST 05 Facultative Wetlands Restoration Mixture
- ERNST 06 Obligate Wetlands Restoration Mixture

Woodland Temporary Access Road Restoration Seed Mixes

- ERNST 07 Herbaceous Upland Mix for Partial Shade
- ERNST 08 Herbaceous FACW Mix for Partial Shade
- ERNST 09 Herbaceous/Woody Upland Mix
- ERNST 10 Herbaceous/Woody FACW Mix Shade

Obtaining seed mixtures from Ernst as shown above shall be the preferred choice. However, if for unforeseen reasons they are unable to produce or reasonably provide the mixtures requested, another vendor must be approved by the Companies as being able to provide the seed mixtures of equal or better quality and species compositions as the original specifications prior to the application of the same in the field.

Pennsylvania

Temporary seed mix:

- Seeding shall be common rye grass applied at 45 pounds per acre.
- Hay or straw mulch to be applied at 3 tons per acres.

Permanent seed mix:

- Seeding shall be 15% Kentucky bluegrass, 35% Kentucky 31 fescue, 25% chewings fescue, 15% perennial rye grass, and 10% recleaned redtop at a rate of 5 pounds per 1,000 square feet.
- Hay or straw mulch to be applied at 3 tons per acre.
- For areas where property owners require a lawn mix, seeding shall be grass species as follows, with not less than 95% germination, not less than 85% pure seed and not more than 0.5% weed seed:
    - Full sun: Kentucky bluegrass, a minimum of three cultivators
    - Sun and partial shade: 15% Kentucky bluegrass, 30% chewings red fescue, 10% perennial ryegrass, 10% redtop.

Wetlands:

- Seeding shall be FAGW wetland meadow mix by Ernst Conservation Seeds (ERNMX-122) or equal applied at a rate of 15 pounds per acre.
- Hay or straw mulch to be applied at 3 tons per acres.

5.2.3 Seeding Within Wetlands or Other Sensitive Areas

If the disturbed area is located within a wetland, the area will be seeded with one of the native wetland seed mixes shown in Section 5.2.2 to stabilize the ground and prevent erosion until natural vegetation is re-established. If the disturbed area is located within erosion hazard areas, or along steep slopes the area will be restored and stabilized by seeding with the native seed mix for steep slopes and seeding with annual ryegrass for upland/transition areas. However, the grading and contouring of the landscape may also be required to diffuse or divert concentrated flow using terraces, diversion trenches or erosion control mats or blankets until the site has reached a stable condition such that it does not leave an eroding condition created by the Project.

5.3 ACCESS ROADS

Access roads will be constructed at approximately 20 feet wide, and then brought in to 15 feet wide following construction, lightly tilled with topsoil, and seeded with an appropriate conservation seed mix. The gravel will be left to allow for future access for routine or emergency maintenance on the transmission line. The equipment needed and durations for this work will be the same as for access road and crane pad construction. The Companies will ensure that the access roads will be protected from illegal or unauthorized uses by fencing, gates, bollards or other measures, following consultation with the NPS.

5.4 TOPOGRAPHY AND GRADING

No substantial changes in topography or grade will occur as a result of the construction and installation of new transmission lines. Minor deviations may occur along access roads or at stream crossings. All grades will be restored to pre-construction conditions at the completion of the project by the utilities' contractors with the exception of access roads using similar equipment that is described under Section 3.4, Access Road Construction. In areas where rock has been removed, grades and contours will be established to blend in with the surrounding topography.

5.5 STREAMS/HYDROLOGIC FEATURES

No permanent changes will occur to hydrologic features located within the transmission line ROW. Temporary changes may occur due to rutting by vehicles or tree removal, installation and removal of construction crossing structures, or other construction-related activities. These areas will be restored to pre-construction conditions. Use of site-specific water crossing techniques, careful vegetation clearing, best management practices, conditions of local, state and federal permits, and consultation with the NPS will minimize or alleviate impacts to hydrologic features so that specific remedies will not be necessary. Culverts and other control measures and designs will be constructed in the areas of access roads as necessary to allow water to be directed or redirected to its natural course. Specific practices, to the extent allowed by permits, include the following:

- Restore in-stream habitat to approximate pre-construction conditions.
- Regrade stream bed to mimic pre-construction grades (as needed).
- Remove temporary crossing structures and/or fill materials.
- Install boulders and large woody debris to replace physical features removed to accommodate equipment crossing.
- Restore stream bank to approximate pre-construction conditions.
- Remove temporary fill materials on and adjacent to banks
- Regrade bank to approximate pre-construction conditions except where significant bank erosion was evident in pre-construction conditions.
- Regrade to stable slope to correct pre-construction bank erosion.
- Restore riparian zone to approximate pre-construction conditions.
- Remove any temporary fill materials on and adjacent to banks.
- Regrade disturbed areas as necessary to restore grades to approximate pre-construction conditions.

5.6 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

The clearing for the 500 kV transmission line is intended to provide a ROW with a typical cleared width of 150 to 200 feet, which will be generally centered on the new pole structures. Clearing of vegetation in the area of the access road widening and at construction pad, pull site and equipment laydown locations may involve the removal of stumps and grubbing. Typical vegetation clearing will not involve stump removal and grubbing. All of the areas where stump removal and grubbing will occur are within the NPDES permits from NJDEP and Monroe County Conservation District (which has been delegated NPDES permit and storm water approval authority from the Pennsylvania DEP) and limit of disturbance boundaries as specified in the approved soil and erosion plans from Monroe and Warren counties. The NPDES boundary includes all areas where clearing and grading will occur. The limit of disturbance boundary includes all areas where grading and disturbance is anticipated. The limit of disturbance and NPDES boundary are identified on the plans to generally follow the right-of-way, except for the access roads outside of the ROW. Actual earth disturbance throughout the project area may be less than shown as the contractor may, at their discretion, further minimize the size of the crane pads and roadway widening to the least amount possible while still allowing them to safely construct the transmission line.

Following construction, the temporary access roads will be removed and restored using clean fill soils and revegetated with permanent seeding as indicated in the post-construction storm water management (PCSM) plan set. The final restoration details are provided in the PCSM plan sets for both Monroe and Warren counties. The post

construction net impervious area will be equal to or reduced from the pre-construction values.

The anticipated limits of disturbance and an estimate of the surface disturbance at each structure location pull site, lay-down area, and any associated access road improvements are included in the disturbed area estimates for this project.

6.0 APPALACHIAN NATIONAL SCENIC TRAIL

The existing transmission lines pass over the Appalachian National Scenic Trail (Trail) near the eastern side of DEWA in New Jersey. The Companies recognize that visitors may use the Trail at any time. As a result, continuous access along the Trail will be maintained outside of those brief instances referred to below for maintaining user safety.

During construction, all reasonable efforts will be made to minimize the impact on the Trail. At the completion of construction, any impacts or disturbance to the Trail will be restored to its pre-construction condition. Crane pad construction at one location on the Trail will use geotextile fabric and digitally record the exact condition of the Trail.

Appropriate safety measures will be implemented during removal of the existing transmission line and installation of the new transmission line and structures on and across NPS properties, including the Trail. Examples of proposed crossing safety and public access procedures to be incorporated into plans submitted to the NPS prior to construction are as follows:

- Appropriate barriers, safety fencing and/or signs will be installed at or along the NPS/Trail property crossings prior to the initiation of construction activities.
- Personnel will be stationed at or within a specified distance from the Trail during any and all construction activities (including clearing, grading, removal and installation of structures, wire stringing and restoration activities). Stationed personnel will serve to inform hikers of construction and to regulate pedestrian traffic along the Trail to avoid conflicts with construction work.
- Removal and replacement of the existing transmission line and the installation of the new transmission line will be performed as expeditiously as possible.
- Construction materials and construction equipment in the vicinity of the Trail will be appropriately secured prior to cessation of work at the end of each workday. Construction equipment will not be placed on or near the Trail footpath in such a way that would obscure the route or markings along the footpath.
- The Companies will work with the NPS to determine if a temporary relocation of the Trail would be preferable.

Additional details can be found in the Communication Plan and the Health & Safety Plan.

PSEG

ppl
PPL Electric Utilities

Plan for Compensatory Mitigation

Susquehanna - Roseland 500kV Transmission Line

Crossing the

Appalachian National Scenic Trail

Delaware Water Gap National Recreation Area

Middle Delaware National Scenic and Recreational River

May 25, 2012

Introduction

The Companies recognize that, even after full implementation of all possible measures to avoid and minimize impacts, the proposed Project will cause some adverse impacts on resources under NPS jurisdiction. Accordingly, the Companies are proposing compensatory mitigation pursuant to a methodology and on a scale that recognize the great public value of the national parklands and associated resources adjacent to the Companies' transmission corridor. The methodology proposed by the Companies uses a multi-step analysis to translate the potential resource impacts of the Project, most of which are intangible (e.g., changed views) into an estimate of the acres of land that, if conveyed to the NPS, would compensate for the impacts, and the cost of acquiring those lands.

The intent of the proposed methodology is to more than offset every potential unavoidable impact of the proposed Project by providing secure funding to be used to acquire high value conservation lands within the two-state geographic area centered on the NPS Units affected by the Project, and to support resource stewardship by the NPS within or directly benefiting the NPS Units.

The Companies have tested the proposed compensation methodology under a range of assumptions about the selling prices of private lands in the DEWA region with high natural resource values. The Companies have focused on parcels previously identified by the region's land management agencies and conservation groups as important potential additions to the DEWA-area parks and refuges--lands with natural values that would be of great value to the public.

The Companies have identified lands potentially for sale, most already on the market in some fashion, that offer clear potential to benefit the public. If acquired for the public's benefit, these parcels could preserve natural viewsheds from future development, enhance NPS-managed areas, tie together now-isolated parcels of state or federal conservation areas, provide wildlife corridors, expand public hunting and fishing, secure key protected species habitat, or allow for restoration of previously developed areas.

The methodology proposed by the Companies would result in compensatory mitigation on the order of $30-$40 million. It is important to note that the Companies' approach is defined by impacts, and the natural values of mitigation lands, not by the cost of acquiring those lands. If the NPS determines that the potential impacts of the Project are different than what the Companies have calculated them to be, the amount of compensatory mitigation will change to reflect the NPS analysis.

The Companies have framed this proposal around those matters principally under the jurisdiction of the NPS. The Companies recognize, however, that the environmental review process being administered by the NPS will integrate consideration of resources, impacts and mitigation requirements under the primary jurisdiction of other agencies, primarily the U.S. Fish and Wildlife Service. The Companies believe that this plan for compensatory mitigation can readily be adapted to include appropriate, additive compensatory mitigation for unavoidable

impacts on resources under the primary jurisdiction of agencies other than the NPS—without changing the proposed methodology related to NPS resources or the levels of funding that would result from application of the methodology to impacts on resources under the primary jurisdiction of the NPS.

This description of the Companies' proposed compensatory mitigation methodology is intended to be consistent with, and incorporates by reference, the information submitted in the Companies' comments on the Draft EIS for the Project, and the March 8, 2012 letter submitted by the Companies' legal counsel to the National Park Service's Associate Director for Natural Resource Stewardship and Science.

Description of Quantification Methodology

Precautionary Assumptions

The compensatory mitigation quantification described in this document considers all NPS-recognized categories of potential resource impacts within a seven-mile zone on either side of the transmission line corridor where it crosses NPS lands. The methodology recognizes that the intensity of unavoidable impacts—measured by both the resources potentially affected, and the intensity of the actual impact on the affected resources--is likely as a general matter to be greater closer to the corridor than farther away. The approach applies to resources on more than 38,000 acres of NPS lands, an area equal to more than half of DEWA's total acreage, even though the transmission corridor itself comprises fewer than 100 acres inside the federal park lands, and the incremental right-of-way requested by the Companies is under five (5) acres. The approach is very conservative in the sense that it resolves uncertainties in favor of benefiting NPS resources.

The precautionary approach being proposed by the Companies is highly beneficial to the resource values of the NPS Units because the zone covered by the analysis is so wide and because it assumes that all NPS-recognized categories of potentially impacted resources are present on all acres in the zone. The result is a very conservative quantitative estimate of the resources potentially affected by the Project, measured in acres, and a correspondingly conservative or protective estimate of the acreage of high resource value lands needed to compensate for the potential impact. This "worst-case" approach assures that the Companies' mitigation commitment will, at a minimum, be scaled to fully compensate for the unavoidable long-term impacts of the proposed Project.

Defining the Size of Area in Which Impacts May Occur

The Companies' quantification methodology assumes that the zone where resource impacts may occur is contiguous with the viewsheds potentially affected by the project. This assumption takes into full account the emphasis placed by the NPS and public on the potential incremental visibility of the Project's features. The approach assumes that the viewshed area extends seven miles from the center-line of the proposed project, essentially a 14 mile-wide zone across the NPS Units.

The Companies have used GIS to characterize the overall viewshed area. The use of GIS has been validated for viewshed analysis as demonstrated by Maloy (2001), Chhetri (2003) and Tassinari (2006). Through the use of ARC/GIS, the Companies have been able to formulate a methodology or model that provides a reasonable estimate of the area in which impacts may occur. This model is an example of a cost-surface analysis, which "allows the simple 'flat' geographic space to be supplanted by a set of complex cost surfaces incorporating many relevant properties of the terrain."[1] (Van Leusen, 2002). This approach is very conservative and more inclusive of potential impact areas compared to line-of-sight models, which use terrain and other natural features specifically to exclude particular properties not "visible" to the computer. In other words, the Companies' model considers all acres inside the zone of potential impact, but assigns different values or weights to different areas inside the overall zone.

The following table (Table 1) describes five distance ranges from the proposed transmission line that were used to calculate the gross land areas potentially affected within each of the three NPS Units. The gross land areas are then weighted by a distance decay function to calculate the net affected land areas within each range. The distance decay function reflects the fact that not as many acres in the zone farthest away from the line are potentially affected by the Project as the number of acres potentially affected in the zone closest to the line. Distance decay refers to the decrease or loss of similarity between two observations as the distance between them increases. The distance ranges and the distance decay function are based on Fisher (1994), who estimated that visibility based on distance decay for a viewshed under ideal conditions would diminish by 50% (0.5) at approximately 3 km (1.86 miles). Tassinari (2006) also considered the maximum distance of perception significance for a viewshed to be between 3 km and 10 km (1.86 to 6.2 miles). The distance decay function relationship for this analysis is shown within Table 1 below:

Table 1		
DESCRIPTION	**DISTANCE RANGE**	**DISTANCE DECAY FUNCTION**
Immediate foreground	**0 feet to ½ mile**	**1.00**
Foreground	**½ - 1 mile**	**0.66**
Middleground	**1-2 miles**	**0.33**
Background	**2-3.5 miles**	**0.10**
Near Horizon	**3.5-7 miles**	**0.05**

The Distance Ranges from Table 1 were applied to the three NPS Units as detailed below. For purposes of the Companies' analysis, impacts were limited to those caused by the Project within the boundaries of the NPS Units.

[1] Other complex modeling of viewsheds are also possible using ARC/GIS and raster and TIN based digital terrain data, but these have been shown to be no more valid than the Companies' methodology described here. The other methodologies also have considerable variability and practical limitations due to the significant amount of data being analyzed.

1. **Delaware Water Gap National Recreation Area** (DEWA): For this NPS Unit, the model calculated the area within the five Distance Ranges in relation to the transmission line through the Unit.

2. **Middle Delaware Scenic & Recreational River** (MDSNR): For this NPS Unit, the model calculated the area within the five Distance Ranges for the upstream and downstream area of the river at the point where the transmission line crosses the river plus one hundred feet from the top of the bank on both sides of the river.

3. **Appalachian National Scenic Trail** (ANST): For this NPS Unit, the model calculated the area within the five Distance Ranges at the location where the transmission line crosses the ANST for the ROW plus three hundred feet on each side of the ROW confined within the DEWA.

The areas of impact analysis under this methodology, in acres, are shown in Table 2 below. A total of 38,121 acres are affected within the three NPS units.

Table 2	Distance	Acres
Delaware Water Gap National Recreation Area	0-0.5 miles	2,918
	0.5-1 miles	2,592
	1-2 miles	5,429
	2-3.5 miles	8,149
	3.5-7 miles	16,749
	Area Subtotal	**35,837**
Middle Delaware Scenic & Recreational River	0-0.5 miles	114
	0.5-1 miles	147
	1-2 miles	359
	2-3.5 miles	465
	3.5-7 miles	882
	Area Subtotal	**1,967**
Appalachian National Scenic Trail Within DEWA	0-0.5 miles	74
	0.5-1 miles	45
	1-2 miles	91
	2-3.5 miles	136
	3.5-7 miles	72
	Area Subtotal	**418**
	Area Total	**38,221**

Again, the zone of analysis, the area in which impacts are assumed to be possible, is 14 miles wide, and extends the length of the Companies' corridor inside the NPS Units. The Companies evaluated each of the NPS Units independently. The Companies' methodology

counts areas where multiple NPS Units overlap individually, as if they were separate locations, meaning that the Companies' total acreage tally includes acres that are counted more than once.

Table 2 shows that approximately 38,221 acres of land under NPS jurisdiction are proximate to the transmission line and the resources within those acres potentially could experience impacts from the Project. This is not an estimate of the direct or physical impacts of the Project. Instead, the area within the zone of analysis is an estimate of the acreage containing resources under NPS jurisdiction that could experience impacts from the Project. The use of weighting factors assigned to the different geographic zones (i.e., the distance decay function) recognizes that, within the external boundaries of the zone potentially impacted by the Project, more locations closer to the line will have impacts than locations farther away.

Estimating the Intensity of Impacts within Affected Area

Just as the number of locations in which impacts are possible will change with distance from the Project, so too will the intensity of the impacts that occur in those locations. The Companies' proposal includes a method for calculating the variation in impact intensity.

The Companies' method for calculating the intensity of impacts on the acres potentially affected by the Project relies on the information contained in Chapter 3 of the Draft Environmental Impact Statement (DEIS) regarding the categories of resources potentially affected by the Project. The DEIS retained 18 resource categories for detailed analysis. These are listed in Table 3 below.

The Companies' approach assumes, based on the information in the DEIS, that for 10 of the 18 categories of potentially impacted resources, actual impacts will be entirely avoided or reduced to a level of insignificance through implementation of direct environmentally responsible construction and restoration methods and other measures.

However, for eight (8) categories of resources, the Companies assume that there may be some level of impact from the Project. The eight categories involve visual resources (including visitor experience, cultural landscapes and historic features) and wildlife movement concerns, including protected species. This subset of the potential total number of resource categories—eight out of 18 (44%)--represents the suite (or proportion) of resources identified in the DEIS as potentially affected by the proposed Project as to which compensatory mitigation may be necessary.

Table 3 DEIS NPS AFFECTED ENVIRONMENT TOPICS RETAINED FOR DETAILED ANALYSIS (Page XVI)	Visual or Wildlife Movement Concerns (Y/N)	Y=1; N=0
Geologic Resources	N	0
Floodplains	N	0

Wetlands	N	**0**
Vegetation	N	**0**
Landscape Connectivity, Wildlife Habitat & Wildlife	Y	**1**
Special-Status Species	Y	**1**
Rare and Unique Communities	Y	**1**
Archeological Resources	N	**0**
Historic Structures	Y	**1**
Cultural Landscapes	Y	**1**
Socioeconomics	N	**0**
Infrastructure, Access & Circulation	N	**0**
Visual Resources	Y	**1**
Soundscapes	N	**0**
Visitor Use and Experience	Y	**1**
Wild and Scenic Rivers	Y	**1**
Park Operations	N	**0**
Health and Human Safety	N	**0**
1. TOTAL APPLICABLE TO ANALYSIS		**8**
2. TOTAL DEIS AFFECTED ENVIRONMENT TOPICS		**18**
Line 1 divided by line 2		**0.44**

Under the Companies' proposed approach, the eight resource categories for which it is assumed that impacts may not be totally avoided or minimized to insignificance are combined and used as a unitary weighting factor within the mitigation compensation formula. The formula does not seek to predict which among the eight resources will be present at any point in time on any specific acre within the 14 mile-wide zone of analysis. The formula assigns a weighted value to resources, and the value declines with distance from the centerline of the Project. The value for the acreage closest to the Project is 0.44, which number is the proportion of the total set of potentially affected resources as to which impacts may not be totally avoided or minimized to insignificance (i.e., eight out of 18 categories). The initial 0.44 net value is then multiplied by the distance decay function shown in Table 1. These calculations create Intensity Level Factors from **Major** (0.44) to **Negligible** (0.022) shown in Table 4.

Table 4	**Distance Decay**	**Intensity level**
Distance	**Function**	**Factors (ILF)**
0.5	1	0.44
1	0.66	0.293
2	0.33	0.147
3.5	0.1	0.044
7	0.05	0.022

The Companies' methodology provides a formula for calculating a reasonable, albeit very conservative, estimate of the "size" of the Project's potential impact on resources under NPS jurisdiction, quantified in acres. The acreage estimate is primarily a reflection of the overall viewshed area adjacent to the Project, adjusted for proximity and intensity of impact.

Estimating the Cost of Compensatory Mitigation

The dollar value of the land area calculated to represent the unavoidable impact of the Project on NPS resources can be estimated. The Companies have assumed for the purpose of this analysis that the average cost to acquire an acre of land in the DEWA area with resource values generally equivalent to the acres inside the NPS Units is $9,500 per acre. This specific figure is an adjusted average drawn from broad sample of transactions, and is biased upward to avoid under-estimation of possible costs. Many thousands of acres of high value land in the DEWA area could be placed in conservation status under agreements with considerably lower price terms.

The Companies derived an estimate of the cost of compensating for the potential impacts of the project by multiplying the size of the impact area by the various intensity level factors and by the per-acre cost estimate (area x intensity x cost). Table 5 shows the total cost estimate for compensation as $36,494,241.

Table 5 Affected Resource Analysis - ***Impacts Tiered By Distance and Affected Resource***

Delaware Water Gap National Recreation Area				
Miles from Line	**Acres**		**Per Acre**	**$Value/ILF**
0.5	2,918		$ 9,500.00	$12,320,487
1	2,592		$ 9,500.00	$7,222,093
2	5,429		$ 9,500.00	$7,564,198
3.5	8,149		$ 9,500.00	$3,440,799
7	16,749		$ 9,500.00	$3,535,864
Area Subtotal	**35,837**		**SUBTOTAL**	**$34,083,440**
Middle Delaware Scenic and Recreational River				
0.5	114		$ 9,500.00	$482,178
1	147		$ 9,500.00	$408,943
2	359		$ 9,500.00	$499,914
3.5	465		$ 9,500.00	$196,253
7	882		$ 9,500.00	$186,253
Area Subtotal	**1,967**		**SUBTOTAL**	**$1,773,541**
Appalachian National Scenic Trail				
Within DEWA				
0.5	74		$ 9,500.00	$312,444
1	45		$ 9,500.00	$125,400
2	91		$ 9,500.00	$126,793
3.5	136		$ 9,500.00	$57,422
7	72		$ 9,500.00	$15,200
Area Subtotal	**418**		**SUBTOTAL**	**$637,260**
Area Totals	**38,221**		**TOTAL**	**$ 36,494,241**

The proposed compensation amount derived from the Companies' quantification methodology is intended to more than offset the potential diminution of resources resulting from the proposed Project's impacts that cannot otherwise by avoided or minimized to insignificance. This estimate was based on a methodology that was created and validated by a GIS analysis process specifically designed for the Project, but supported by various technical references Through this analysis the Companies provide a reasonable and repeatable methodology to quantify the intangible impacts on a resource, such a viewshed. The approach recognizes that distance is a major factor in determining impacts. This analysis brings together an analytical and qualitative method of assessment and expands the discussion on how to address multiple resources issue simultaneously through appropriate compensation formulas and resource assessment methods.

Description of Implementation Methodology

The Companies will provide funds to compensate for the unavoidable impacts of the Project on resources under the Department of the Interior's jurisdiction. The Companies propose to establish and endow the Middle Delaware Mitigation Fund (the "Fund"). The Fund would be administered by The Conservation Fund, a not-for-profit organization headquartered in Arlington, Virginia, with demonstrated expertise in land and resource transactions, conservation and successful collaboration with the Department of the Interior (the "Administrator"). Monies contributed to the Fund by the Companies (the "Endowment") would be used by the Administrator for the purposes of preserving, restoring and enhancing Delaware Water Gap National Recreation Area, Cherry Valley National Wildlife Refuge, the Middle Delaware Wild & Scenic River segment, and the Appalachian National Scenic Trail within the Delaware River basin, including reasonable costs associated with administration of the Fund.

The Administrator would commit Endowment funds solely to projects or activities benefiting resources under the Department of the Interior's jurisdiction. Such projects or activities would be eligible for Endowment funding only if reviewed and recommended by the Secretary of the Interior, acting directly or through a designee, following appropriate consultation with representatives of the Commonwealth of Pennsylvania and State of New Jersey, and Delaware River basin-oriented conservation organizations and recreational interests.

The Companies would convey funds to the Endowment following issuance by the NPS of all permits and approvals required by the NPS to be issued to the Companies for all activities associated with construction, operation and maintenance of the Project, including but not limited to those permits and approvals requested by the Project Sponsors on November 21, 2008 in the S-R Project SF-299 in accordance with the schedule below, provided that the terms and conditions of such permits and approvals must be reasonable, consistent with the purpose and need for the Project, including the need to have the Project in service by June 2015, and otherwise acceptable to the Companies. The Companies will convey funds to the Endowment on the following schedule:

1. Fifty (50) percent of the Endowment upon commencement of any construction-related ground- or vegetation-disturbing activities by the Companies within the boundaries of Delaware Water Gap National Recreation Area or the Appalachian National Scenic Trail; and

2. Fifty (50) percent upon completion of construction of the Project within the boundaries of Delaware Water Gap National Recreation Area or the Appalachian National Scenic Trail and placement of the Project into service.

As used in this proposal, the term *construction-related ground or vegetation-disturbing activities* means activities by the Companies or their contractors undertaken to prepare lands or fixtures for construction of the Project, including tower foundations, or to construct the Project, but not including routine right-of-way maintenance or geotechnical sampling. The term *resources under the Department of the Interior's jurisdiction* means lands, waters, animals, plants, cultural and historical sites and objects, and other natural or human-made resources under

the jurisdiction of the NPS or USFWS, including aesthetic values and the quality of the experience of visitors to Delaware Water Gap National Recreation Area, Cherry Valley National Wildlife Refuge, the Middle Delaware Wild & Scenic River segment, and the segment of the Appalachian National Scenic Trail within or immediately adjacent to the Delaware Water Gap National Recreation Area.

PSEG

PPL Electric Utilities

Plan for Communications

Susquehanna - Roseland 500kV Transmission Line

Crossing the

Appalachian National Scenic Trail

Delaware Water Gap National Recreation Area

Middle Delaware National Scenic and Recreational River

May 25, 2012

Communications

The Companies have prepared the following plan to specify communications activities related to the construction phase of the Project (defined as access, removal, installation and restoration) in the NPS Units. This plan is intended to define a media strategy and notification plan to ensure that local residents, businesses and officials, as well as visitors and other key audience groups, are aware of the details they need to know about construction activities. Of necessity, this draft of the plan omits certain details that will need to be developed jointly with the NPS.

Triggers for communications activities:
Construction activities will include: tree clearing for access roads, demolition of existing transmission line, construction of access roads, installation of foundations for poles, installation of poles, stringing of conductors on new poles, restoration and other similar matters. These activities will be the trigger for various communications activities to keep appropriate audiences informed.

Audiences

- Local residents
- Local businesses
- Motorists
- Local officials
- Key state officials
- Key federal officials
- Environmental permitting agencies
- Sporting clubs
- NPS unit visitors
- News media
- Other audiences to be identified in conjunction with NPS

Overview of Information to Be Provided
The following provides a brief summary of the topics that likely will be included in the communications:

- **Construction Schedule** – Information on where and when activities will occur, including items such as:

  - Mobilization – When construction crews and equipment will arrive at the site.
  - Expected Duration – Length of time the work is expected to last.
  - Demobilization – When construction crews and equipment are expected to leave a particular section of the line.

- **Construction Activities** – Information about work that will take place, including items such as:

- Types of equipment and materials on site – Equipment at the site may include pick-up trucks to transport construction personnel, tree clearing equipment, bulldozers, excavators, drill rigs, concrete trucks, trailers, cranes to install the poles, and bucket trucks. Materials may include steel rebar, concrete for pole foundations, steel poles, insulators, wire, and other various hardware.
- Nature of planned work - Including activities such as grading, vegetation clearing, foundation excavation and placement, structure erection, and line installation.
- Number and type of personnel – Mostly applicant employees and contractors but could include third-party oversight personnel (such as environmental regulators) or other non-applicant personnel on occasion.

- **Mitigation Efforts** – A description of how applicants will prevent or minimize impact on people and properties along the transmission line route. Examples of these types of mitigation efforts may include:

    - Traffic re-routes and road closures.
    - Site safety and security plans – The project will have a full-time staff dedicated to safety on the job sites.
    - Access roads – Used to bring equipment and personnel to work areas. Applicants will provide information on where these roads will be located and what, if any, impacts they will have on local residents and businesses and other audiences.
    - Repair policy – The goal will be minimize impacts on property. However, if there are any impacts (for example, to lawns or roadways) Applicants will restore those features to their prior condition whenever possible.

- **Line Features** - This information will focus on describing the physical elements of the project.

- The scope and purpose of the project.
- Information on the new transmission equipment to be installed including pole locations and descriptions.
- Other information on project features as appropriate.

Overview of tactics

The following communication methods will be used, in consultation with the National Park Service, to inform the public of project plans and timelines:

- Mailings – Examples of possible topics addressed in mailings:
  - Periodic updates to residents and businesses.
  - Information about construction scheduling and activities, mitigation efforts and features of the transmission line.
  - Information on who to call with questions or comments.

- News media
  - News releases or media contacts as needed to local media, prior to major work starting on particular parts of the transmission line route.

- Advertisements
  - Advertisements, if needed, sent to local media outlets.

- Project web site updates (www.pplreliablepower.com/Susquehanna-Roseland and http://www.pseg.com/family/pseandg/powerline/index.jsp)
  - Comprehensive information on construction schedules, line description, mitigation plans and other information.
  - A copy of this plan.
  - E-mail feedback link and toll-free phone number for comments and questions.

- E-mail
  - Periodic e-mails to those who wish to be informed in this manner.

- Toll-free phone number for community inquiries
  - Monitored by the project team with timely follow-up on all inquiries.

- Field personnel will be in contact with residents and businesses directly impacted by the project to inform them about planned work and to seek their input. Specifics will vary based on circumstances, but some potential activities may include:
  - Providing a letter summarizing planned work (to be provided upon request from local citizens or visitors.)

- Door-hangers as needed for nearby properties providing notice of planned work.
- Answering questions from the public.
- Adapting planned work to conform to property owners' requests when practical.

- All applicant employees and contractors working in the field on the Susquehanna-Roseland transmission line will be identified through vehicle ID plates, employee ID (via hard-hat labeling as associated with the project), and each crew will have a verification letter provided by the company.

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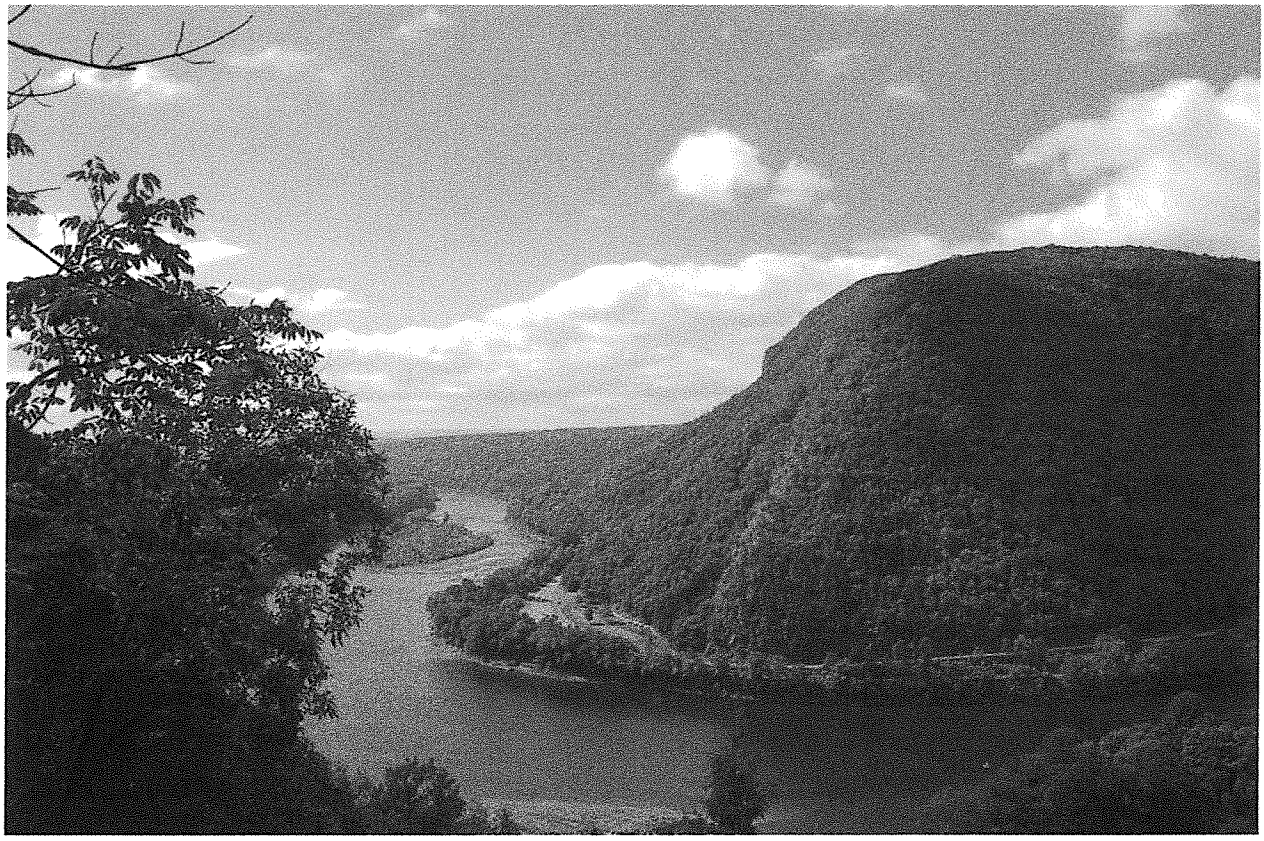
Plan for Vegetation Management

Susquehanna - Roseland 500kV Transmission Line



Crossing the

Appalachian National Scenic Trail

Delaware Water Gap National Recreation Area

Middle Delaware National Scenic and Recreational River

June 1, 2012

Vegetation Management

Key Features: The Companies submitted "PPL Electric Utilities Transmission Vegetation Management Program" and "PSEG Transmission Rights of Way Vegetation Management" as Exhibits 5 and 6 to our comments on the DEIS. The Companies also addressed certain aspects of vegetation management in the C&R Standards. In addition to those commitments, and to respond to concerns expressed in the DEIS, the Companies will implement the following vegetation management measures:

Transmission Corridor --The Companies will adopt a uniform approach to vegetation management within the NPS Units. The Companies are prepared to discuss with the NPS changes in the width of those segments of their rights of way and easements inside the NPS Units that currently exceed 200' in width.

Notification and Coordination -- The Companies will provide the NPS with notice of plans to conduct routine vegetation management activities in the transmission corridor through the NPS Units at least 90 days prior to the commencement of any such activities, and will solicit the views of the NPS regarding methods, timing, access plans, public notification and other relevant matters. The Companies will cooperate with efforts by the NPS to monitor and document vegetation management activities and impacts. The Companies will coordinate with the NPS to integrate their vegetation management practices with efforts by the NPS to control invasive species and promote conservation of NPS resources, including but not limited to wildlife, avian species, invertebrates and other living resources. The Companies will coordinate with the NPS to integrate landscaping and other aesthetic practices into vegetation management activities.

The Companies recommend the NPS take a role in promoting certain functional values within and adjacent to the right-of-way by encouraging the growth of desirable species and eradicating undesirable species. The Companies are prepared to support the NPS' involvement in this effort through the Compensatory Mitigation Plan. The companies will perform inspections as outlined below to ensure compliance with each company's TVMP. Consistent with these plans, the Companies reserve the right to take appropriate actions as needed to comply with NERC standards, other applicable laws and regulations and other agreements and commitments made by the Companies.

Ongoing Vegetation Management Maintenance Plan

Annual Survey

The Companies will perform annual inspection surveys through the use of one or all of the following methods; standard helicopter patrol, LiDAR equipped helicopter patrol, and ground patrol.

Remediation

Encroachments identified through the annual surveys will be remediated immediately following NPS notification. Remediation may include one or all of the following activities.

- Removal of all woody vegetation from the wire zone
- Removal of all non-compatible vegetation from the border zone*
- Removal of off-corridor danger trees
- Trimming of off-corridor trees which are encroaching upon ROW easement
- Application of appropriate herbicides in accordance with ROW agreements

*Border Zone Compatible Vegetation Species

Small Trees
Flowering Dogwood
Redbud
Hawthorn
Serviceberry
Dwarf Willow
Winterberry Holly

Large Shrubs
Alder
Witch-hazel
Spicebush
Common Chokecherry
Elderberry
Rhododendron
Viburnum
Dogwood
Sumac species
Chokeberry

Small Shrubs
Mountain Laurel
American Yew
Sweet Fern
Trumpet Honeysuckle
Blueberries
Viburnums
Meadowsweet (Spirea)
Wintergreen
Trail Arbutus
Blackberry (Allegheny)
Raspberry
Hazelnut
Scrub Oak species

All native grasses, ferns, herbaceous plants

NPS Land Use Opportunities and Improvements

Vegetation management activities performed by the Companies in support of this project create areas that will present opportunities for further habitat enhancement. Capitalizing on these opportunities by NPS could result in benefits to the public, the natural resources, the NPS and the Companies. Historically, maintenance of the ROW by the Companies has been focused on the careful balance of the minimization of impacts on existing environmental conditions and providing safe and reliable operations of the transmission line.

It is important to note that the Companies have an obligation to ensure strict compliance with NERC/FERC reliability requirements. Compliance with these requirements is the key driver for

annual LiDAR surveys and routine maintenance activities. These are the sole responsibility of the Companies. It is also important to note that the Companies are not the owners of the property and as such are limited to conducting activities clearly tied to the operations and maintenance of the transmission line.

Some property owners take advantage of the cleared, open areas to plant and maintain desirable species that ultimately result in benefits to all. By planting and maintaining these areas, the owners are benefiting by having the area established and maintained to their liking. Often maintaining compatible species within the right-of-way also results in multiple benefits to adjacent natural resources and wildlife. These areas result in nesting and foraging areas that are often lacking in areas of mature forest. Additionally, the proper use and maintenance of these areas ultimately minimizes the need for the Companies to routinely perform vegetation management activities in these areas, again benefiting all.

Beyond the benefits noted above for typical owners of private property, DEWA as the government agency responsible for these public lands would have additional opportunities and benefits, especially opportunities to further enhance visitors' experience. Currently, except for the existing transmission line, existing brush areas and transitions zones are very limited in this area of DEWA. Overall, these types of areas continue to diminish. Establishing and maintaining enhanced areas within the wire zone and border zone, and even outside and adjacent to the ROW could truly result in overall benefits to everyone.

The Companies encourage the NPS to consider taking advantage of these areas to improve visitor's experience, to improve wildlife habitat, to demonstrate and educate others on the potential opportunities and benefits of these areas. With the proper planting or control of native shrubs and small trees in or adjacent to the ROW border zone, critical habitat for avian species will be created. These areas will also provide habitat and foraging areas for many other mammalian and reptilian species in the DEWA. With the proper planting or control of native grasses and flowering plants within the ROW wire zone, critical habitat will also be created for many of the above species, as well as many invertebrates, including butterflies and bees. These areas will also provide additional nesting habitat and foraging areas. An added benefit of the proper use and ongoing maintenance of these lands by NPS would be to further control the spread of invasive plant species.

The Companies would support the NPS with these efforts, by providing guidance and review of the development of associated design, construction and maintenance plans. Additionally, associated project compensatory mitigation funding could be used to further support NPS in the construction and ongoing maintenance of the enhanced environments.

Definitions

Border Zone – The area of a right of way that extends form the wire zone to the limits of the defined width right of way.
FERC – Federal Energy Regulatory Commission
LIDAR – Light Detection and Ranging
NPS – National Park Service
ROW – Right of Way
NERC – North America Electric Reliability Corporation
TVMP – Transmission Vegetation Management Plan
Wire Security Zone – Distance in addition to max-sag design that vegetation clearances are maintained in order to account for the dynamic nature of vegetation.
Wire Zone – The area from centerline to 10' past the outer most conductors.

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Plan for Health and Safety; Emergency Response

Susquehanna - Roseland 500kV Transmission Line
for the
Susquehanna - Roseland 500kV Transmission Line

Crossing the
Appalachian National Scenic Trail
Delaware Water Gap National Recreation Area
Middle Delaware National Scenic and Recreational River

June 1, 2012

The Companies will work with their contractors so that safety and emergency plans are prepared and submitted to the NPS prior to construction activities. As discussed more fully elsewhere in the Plans being submitted to NPS, the anticipated scope of work will include geotechnical borings, tree clearing for access roads, demolition and removal of the existing transmission line, construction of access roads, installation of foundations for new poles, installation of poles, stringing of conductors on new poles, and other related work. The plans will address, as applicable, the following items:

- Wearing of Personal Protective Equipment
- Operation and Inspections of Construction Equipment
- General Construction, Excavation and Restoration Standards
- Emergency Action Plans
- Medical and First Aid
- Handling of Compressed Gases
- Fire Protection
- Handling of Power Tools
- Tower Erection Standards
- Fall Protection
- Standards for Wire Stringing Activities
- Restricted Access to Work Areas

Examples of proposed crossing safety and public access procedures to be incorporated into plans submitted to the NPS prior to construction are as follows:

- Appropriate barriers, safety fencing, and/or signs will be installed at or along the NPS/Trail property crossings prior to the initiation of construction activities.
- Personnel will be stationed at or within a specified distance from work areas and the Trail during any and all construction

activities (including clearing, grading, removal and installation of structures, wire stringing, and restoration activities). Stationed personnel will serve to inform hikers and other visitors of construction and to regulate pedestrian traffic in those areas to avoid conflicts with construction work.

- Removal and replacement of the existing transmission line and the installation of the new transmission line will be performed as expeditiously as possible.
- Construction materials and construction equipment in the vicinity of the Trail and other areas of potential access by visitors will be appropriately secured prior to cessation of work at the end of each workday.
- The Companies will work with the NPS to determine if a temporary relocation of the Trail would be preferable.

The Companies will work with their contractors so that the activities inside the NPS Units are designed and implemented consistent with the requirements of OSHA and any other applicable federal, state, and local laws and regulations, including, as applicable, NPS Director's Orders #50B (Occupational Safety and Health) and #50C (Public Risk Management). The Companies will also work with their contractors to identify potential risks to the health and safety of NPS personnel, its agents and visitors to the NPS Units, and implement prior to construction plans to address the identified risks, including restricted access to construction areas and road closures as applicable. Construction activities will be coordinated with NPS law enforcement and public safety personnel consistent with the plans.

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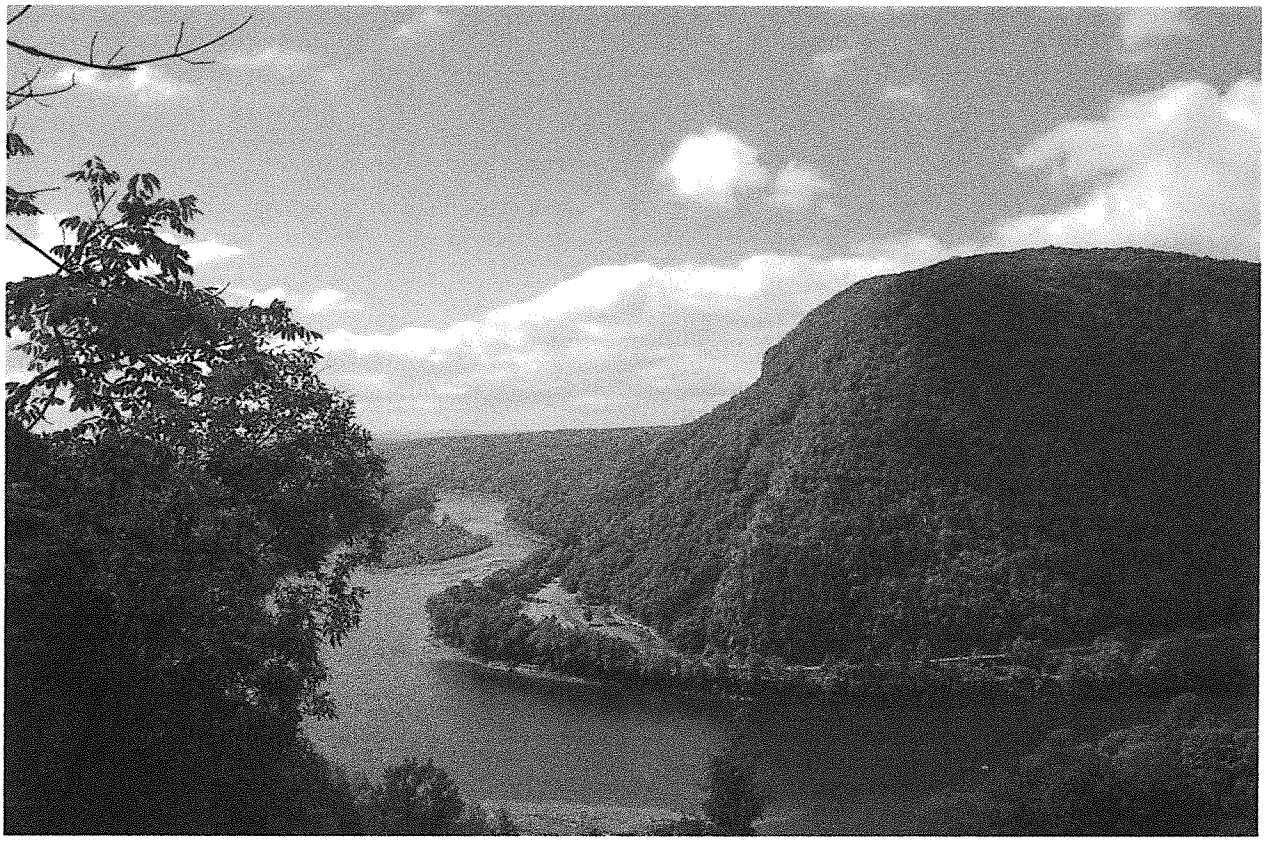
Plan for Protection of Wetlands and Riparian Resources For the

Susquehanna - Roseland 500kV Transmission Line



Crossing the

Appalachian National Scenic Trail

Delaware Water Gap National Recreation Area

Middle Delaware National Scenic and Recreational River

June 4, 2012

Wetlands and Riparian Resources Plan

The Companies have prepared this Plan to specify the means and methods related to the construction phase of the Project in proximity to sensitive water resources within the NPS Units. This plan establishes the use of best management practices to avoid and minimize the impacts of Project construction on wetlands, riparian and other water resources. The plan also delineates the appropriate buffers to these resources. The details of this plan will be based on approved procedures authorized by the reviewing agencies including US Army Corp of Engineers, NJ and PA Dept Environmental Protection, and the associated Soil Conservation Districts.

Mitigation for Permanent Impacts to Wetlands

The permanent impacts to wetlands from the project within the park units are minimal. Two proposed towers in New Jersey, (tower 40/2 and tower 40/3) are each proposed to permanently fill approximately 154 SF of wetlands for a sum total of 308 SF. A 2:1 replacement ratio (616 SF) is proposed in the NPS units at a location to be determined by the NPS.

The following goals have been established for this plan:

- Goal 1: Avoid, reduce and minimize impacts to wetlands and riparian zones, during the planning, design and construction phase of the Project.

- Goal 2: Reduce and minimize all impacts of the Project on the NPS Units, and specifically to wetland and riparian zones, which may need to be temporarily disturbed during construction. The fore mentioned areas will be restored and monitored throughout the Project in conjunction with the functional value of these systems following construction.

- Goal 3: Provide the appropriate mitigation of all wetland types and riparian zone impacts.

- Goal 4: Integrate and coordinate wetlands and riparian protection efforts with other Project related efforts, such as those intended to protect threatened and endangered species.

Most of the Companies' measures to avoid and minimize impacts on water, wetlands and riparian resources are described in the C&R Standards. Following completion of construction related disturbances; access roads and lay down areas will be restored, with the possible exception of some upland access roads that will be top soiled and seeded but the underlying base will remain for maintenance access to the ROW. The proposed practices will be in accordance with State and Federal permits.

Avoidance and Minimization of Wetland Impacts -- The Companies will implement the following practices to avoid and minimize impacts to wetlands:

- Staging, tower, and pulling and splicing locations will be located to avoid wetlands inside the NPS Units, with the exception of the two towers identified above near Van Campen's Brook.
- Access roads will avoid wetlands wherever possible, and will include buffer zones in areas adjacent to wetlands. Activities in the buffer zones will be managed to restrict vegetation clearing to the minimum necessary for access in accordance with the approved and permitted construction documents.
- Construction vehicles operating in or near wetland areas will be of a design intended to minimize soil compaction (e.g., low-profile, wide-track vehicles) whenever marsh matting is not feasible or otherwise employed.
- Marsh mats will be used to cross wetland areas and limit wetland soil compaction, unless use of mats is undesirable for environmental reasons.
- Construction activities will be timed for periods when the soil and water profiles are more likely to be frozen and vegetation is dormant, and construction sequencing will be organized to limit the period during which construction activities occur inside the NPS Units.
- To avoid impacts from known invasive and/or exotic plant species, all wheeled and tracked mounted construction equipment will be cleaned prior to entering and/or exiting the NPS area.
- Wetland areas disturbed by Project construction activities will be restored, and monitored to assure the success of restoration actions. Permanent impacts to wetlands will be compensated as prescribed by NPS Director's Order 77-1 and other applicable law.

Avoidance and Minimization of Riparian Zone Impacts: The Companies will implement the following practices to avoid and minimize impacts to riparian zones

- Streams crossing the right-of-way will be protected by silt fencing or other similar BMP that prevents sediments from entering surface waters.
- Access roads will be located and engineered to reduce concentrated flows.
- Streams will be visually monitored for siltation before, during, and after all storm events, and after construction.
- Disturbed areas located up-gradient of streams will be seeded or mulched, in accordance with the appropriate Soil Erosion and Sediment Control Plans.
- In the event that any stream bank areas are disturbed, they will be stabilized by plantings that are resistance to effects of rapid and high flows conditions and replanted with wetland herbaceous seed mixture.

- Riparian zones impacted by Project activities will be monitored to assure success of restoration efforts.

Avoidance and Minimization of Floodplain Impacts: The Companies will implement the following practices to avoid and minimize impacts to floodplains:

- Project features will be located outside floodplains where possible.
- Areas within the floodplain that are impacted by Project construction will be restored to eliminate accelerated runoff caused by soil compaction, poor vegetation cover, or the unnatural conveyance of water by roads, ditches, or trails.

Minimization of Temporary Impacts to Wetlands: The Companies will implement the following practices to reduce and minimize and then restore the temporary impacts to wetlands, riparian zones and floodplains:

- All wetland crossings will be matted with marsh mats.
- Prior to the placement of marsh mats, all removal of woody vegetation within wetlands and riparian zones will be accomplished by hand cutting the woody material near the ground surface with a chain saw or by using a mower or similar equipment which avoids significant soil disturbance. This method of clearing will leave the vegetative root mat and associated topsoil horizon intact.
- Following construction, marsh mats will be removed. Once the temporary construction materials are removed, the native vegetative material (i.e. seeds, propagules and root mats) will coppice or re-sprout. This anticipated regrowth of native material will provide supplemental stabilization in addition to the anticipated seeding and planting within these areas.
- All disturbed wetland areas will be restored to their original geometry and restoration measures will be implemented. If soil displacement is noted, the area will be re-graded to original topography.
- All geotextile and silt fencing within wetlands and riparian zones will be removed and the access road corridor will be returned to pre-disturbance topographic configuration and geometry to the extent practicable. Stockpiled topsoil material will be placed, regraded, and stabilized with the appropriate seed mix.
- If necessary, restoration within the ROW will include site/seedbed preparation by disking, seeding with native herbaceous mixes and mulching. Hydro-mulching may be used in rocky areas where disk treatment is not feasible.
- All disturbed wetland areas and riparian zones will be permanently seeded and stabilized with seed mixtures in accordance with the restoration prescription specified in C&R Standards.

Monitoring Procedures for Restoration Planting

Monitoring will be performed in accordance with applicable federal and state regulations.

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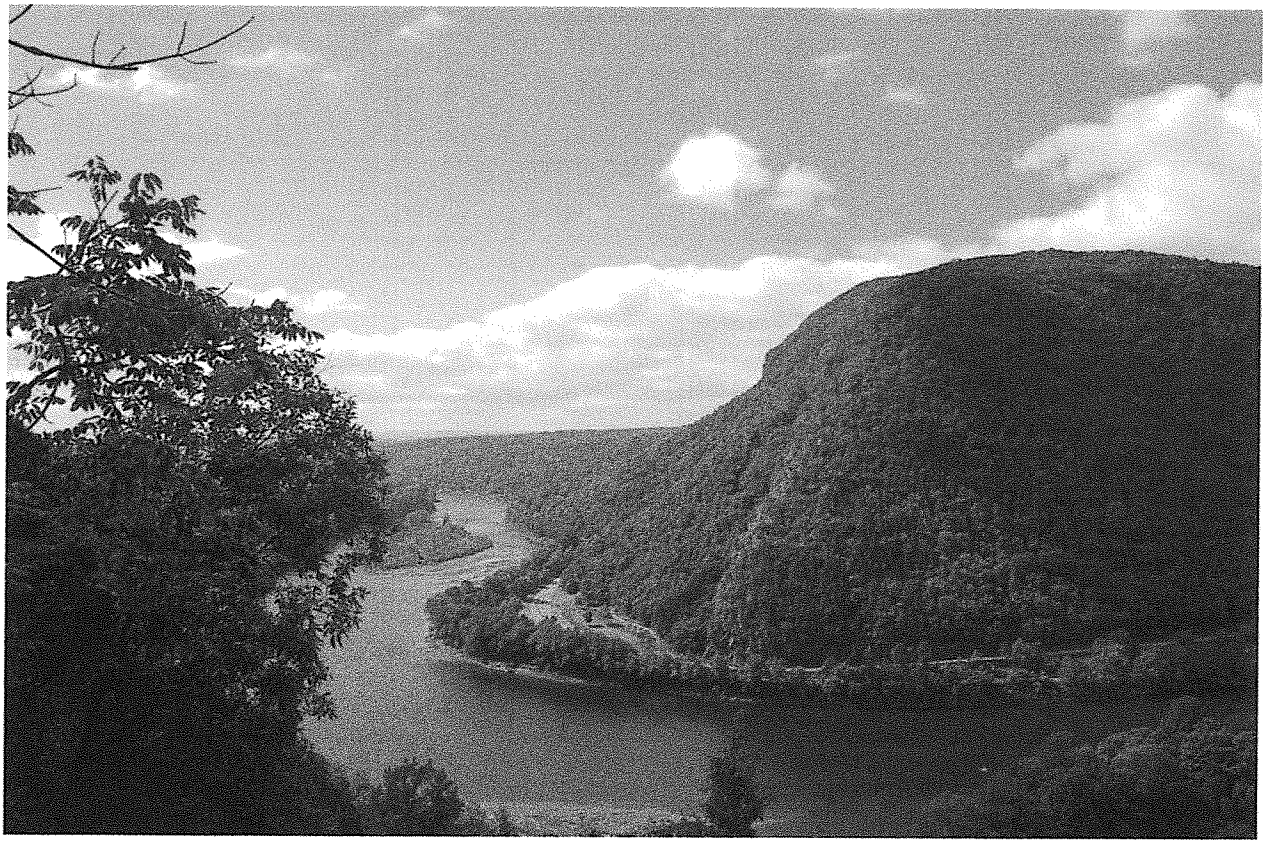
Plan for Soil Erosion and Sediment Control, Spill Prevention and Response

Susquehanna - Roseland 500kV Transmission Line



Crossing the

Appalachian National Scenic Trail

Delaware Water Gap National Recreation Area

Middle Delaware National Scenic and Recreational River

June 4, 2012

Soil Erosion and Sediment Control, and Spill Prevention and Response Plan

The Companies have prepared this Plan to specify the procedural requirements and the means and methods related to the construction phase of the Project to avoid and minimize soil erosion and sedimentation and to prevent spills. In addition to the use of Best Management Practices (BMPs), the Companies will comply with all requirements of the County and State authorized Soil Erosion and Sedimentation Control plan (E&SC) developed for the Project and as mandated in state permits and approvals from the PADEP, NJDEP, Monroe County Conservation District, and Warren County Soil Conservation District.

Soil Erosion and Sediment Control Plan

The Companies' work conducted inside the NPS Units will include the following practices and measures to avoid, minimize or mitigate adverse impacts associated with erosion and sedimentation.

The following goals have been established for this plan

- Goal 1: Avoid and minimize adverse impacts of the Project on soil erosion and sedimentation during the planning and design phase of the Project.

- Goal 2: Avoid and minimize adverse impacts of the Project on the NPS Units, including on steep slopes and upstream of sensitive aquatic resources.

- Goal 3: Restore, stabilize, and monitor the reestablishment of soil coverage and steep slopes adversely impacted by the Project.

- Goal 4: Integrate and coordinate soil erosion and sedimentation control efforts with other Project related efforts, such as those intended to protect threatened and endangered species.

Project Team Contact Information

Prior to the beginning of construction, information will be compiled that contains the names, contact information and respective responsibilities of those Project team members that will be implementing and/or coordinating the erosion and sedimentation control (E&SC) activities.

Management Practices

The Companies intend to implement the following practices:

- E&SC plans will be developed and implemented as mandated in state permits.
- The Companies will use appropriate erosion control measures in riparian or steep slopes areas in accordance with the approved E&SC plans.
- The Companies will strive to avoid or minimize construction activities in areas with steep slopes.
- The Companies will limit vegetation removal in steep slope areas.
- The Companies will use appropriate measures to diffuse stormwater flow in sloped areas in accordance with the approved E&SC plans.
- The Companies will construct access roads in a manner that protects wetland areas and reduces the amount of potential stormwater runoff.
- Project BMPs and areas will be inspected weekly or immediately after storm events in accordance with State permits. Appropriate corrective actions will be taken to immediately restore the BMPs or to provide an alternative method of treatment.

Management Procedures

Additional management procedures to be used on the S-R Project include:

- An on-site representative will have full authority to "stop work" in order to correct, modify or improve a BMP. This person will be experienced and qualified with the maintenance and operation of erosion control facilities.

- Environmentally sensitive areas within the Project area, including wetlands, will be properly identified and marked prior to beginning construction.

- Appropriate perimeter erosion control BMPs will be installed prior to beginning construction.

- Dewatering of excavations will be conducted in a manner that is in accordance with approved permits and plans.

- All grading activities will be in accordance with approved permits and plans.

- Stabilization and restoration activities will be conducted and their success monitored according to all applicable approved plans, permit requirements and regulations. Permanent restoration of the ROW and access roads, pulling areas and staging areas can begin as soon as the weather permits and all construction work is complete.

Inspections during Construction

Routine inspections of relevant Project areas will be conducted and documented. Inspections will be performed at least once every seven (7) calendar days. Inspection will identify areas contributing to the stormwater discharge, evaluate proper implementation of the ES&C plans, and determine if additional measures are needed.

Non-routine inspections will be performed in accordance with the approved state permits and requirements. At a minimum, these will include inspections following any storm event.

These inspections will be performed by a person experienced in erosion and sediment control and stormwater quality management.

Based on the results of the inspection, necessary corrections shall be implemented immediately to restore the BMPs or to provide an alternative method of treatment. Identified corrective measures will be implemented in accordance with State permits and requirements.

Each inspection and corrective action will be documented and available for review.

Maintenance During and After Construction

During construction, erosion and sediment control measures will be maintained in accordance with approved E&SC plans.

After construction, control measures will be implemented in accordance with approved Post Construction Stormwater Management plans. The need and frequency of maintenance activities will be based on the results of routine inspections performed throughout the duration of the Project. BMPs that are no longer necessary will be removed.

Spill Prevention and Response Plan (SPRP)

The Companies work conducted inside the NPS Units will include the following practices and measures to avoid releases of hazardous materials and minimize any potential impacts.

Primary Goal

- The Companies will minimize the use and storage of hazardous materials in the NPS Units.
- The Companies will prepare and have available onsite all required spill prevention and environmental emergency response plans.

Spill Response Contact Information

- Prior to the beginning of construction, information will be compiled that contains the names, contact information and respective responsibilities of those Project team members that will be implementing and/or coordinating the spill prevention and response activities.

- The Companies will institute communication and training protocols to facilitate the prevention, response, containment, and cleanup of spills during construction activities, including procedures for briefing NPS officials and responding to NPS directives or policies

- Appropriate personnel will be immediately notified of any hazardous material spills at any location of the Project or other water quality incidents in watershed or aquifer protection zones.

Material Safety data Sheets

- The Material Safety Data Sheet (MSDS) will be available for the materials used on site. These are designed to provide both workers and emergency personnel with the proper procedures for handling or working with a particular substance.

Spill Containment Requirements and Supplies

- The Contractor will maintain spill containment and clean-up supplies. Spill kits will be available onsite or adjacent to the site for any materials used onsite.
- Onsite personnel will be qualified on the proper use of the spill kits.
- All spills will be immediately addressed, contained and cleaned up.
- Secondary containment will be utilized in accordance with applicable state and federal rules and regulations.
- Spill prevention and containment measures will be used as defined in state required spill prevention and environmental emergency response plans.
- When equipment is serviced, the equipment tender will carry appropriate spill containment kits and the operator will be properly trained.

Refueling and Equipment Storage

- Designated areas will be established for vehicle fueling, material storage, and overnight parking of equipment.
- The Contractor will regularly inspect and maintain construction equipment in proper working order.
- To the extent practicable, equipment will be fueled at least 100 feet from the nearest waterbody, wetland, or riparian zone.
- To the extent practicable, equipment parked overnight will be monitored and at least 100 feet from the nearest water body, wetland, or riparian zone.

Wastes

- All wastes, including spill wastes, shall be properly containerized, stored and disposed of offsite in accordance with applicable federal and state regulations.
- Onsite waste collection areas will be minimized in both quantity and duration.
- There will be no onsite burning of any waste or debris.
- Concrete truck washout will not be permitted.
- Sanitary sewage will be properly staged, collected and disposed offsite.

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Susquehanna - Roseland 500kV Transmission Line

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June 6, 2012

1.0 INTRODUCTION

This Avian Protection Plan (APP) covers the portion of the transmission line that runs through National Park Service land (hereafter referred to as the Project area). It describes methods that the Companies will employ to avoid, minimize, or mitigate potential direct and indirect impacts of the Project on avian resources. This APP was developed in accordance with APLIC *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006) and with the *Avian Protection Plan Guidelines* (APP Guidelines), a joint guidance document prepared by the Avian Power Line Interaction Committee (APLIC) and the U.S. Fish and Wildlife Service (USFWS) (APLIC and USFWS, 2005). The APP Guidelines, along with related guidance documents[1], are considered the most current and comprehensive guidance tools to avoid and minimize any potential operational and avian risks that may result from avian interactions with overhead electric utility lines and towers.

The Project will not result in permanent increased impacts to avian resources from existing conditions. The design of the new transmission line is expected to reduce the potential risk of impacts. In addition, following Project implementation, restoration and vegetation management can be used to increase the avian habitat value of the Project area.

2.0 AVIAN PROTECTION PLAN

The specific objectives of this APP are:

- To document the avian resources that currently occur on and in the vicinity of the Project area;
- To identify potential avian-related risks and benefits related to the Project; and
- To define the specific measures to:
  - comply with all relevant federal and state regulations;
  - comply with all relevant NPS requirements and agreements;
  - avoid and minimize the potential risk of avian interactions, injury and mortality associated with construction and operation of the Project; and
- To enhance avian habitat within the transmission line ROW consistent with the Project purpose, safety requirements, and NPS requirements and management goals.

[1] Related documents include *Suggested Practices for Raptor Protection on Power Lines* (Miller et al. 1975), *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006), and *Mitigating Bird Collisions with Power Lines: the State of the Art in 1994* (APLIC, 1994).

2.1 Regulatory Framework

Most birds are protected under one or more state or federal regulations. The following federal and state regulations are directly applicable to the issues of avian injury and mortality from electrocution or collision with electrical facilities and nest management on transmission structures.

2.1.1 Federal Regulations

Conservation of birds is required by three federal statutes: The Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA), the Endangered Species Act (16 U.S.C. 1531-1544; ESA); and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; BGEPA). All three of these Acts are administered by the USFWS.

Migratory Bird Treaty Act

The MBTA is the overriding federal regulation that has guided the development of bird protection guidelines, including the APP Guidelines. The MBTA implements four treaties that prohibit taking (i.e., harming or killing), possession, transportation, and importation of all migratory, native birds (plus their eggs and active nests) occurring in the wild in the United States except for the House Sparrow (*Passer domesticus*), the European Starling (*Sturnus vulgaris*), the Rock Pigeon (*Columba livia*), any recently listed unprotected species in the Federal Register, and non-migratory upland game birds, except when specifically authorized by the USFWS. Other than the exceptions noted above, all bird species that occur in the Project area are protected under the MBTA.

Endangered Species Act

The ESA protects federally-listed endangered and threatened species and their documented habitats. Section 9 of the ESA prohibits the "take" of any listed species. Take is defined under the ESA as "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed species, or attempt to engage in such conduct". Under the ESA, significant habitat modification can result in a taking.

Bald and Golden Eagle Protection Act

The BGEPA affords specific legal protection to Bald Eagles (*Haliaeetus leucocephalus*) and Golden Eagles (*Aquila chrysaetos*). Under this Act, it is a violation to "...take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof...." This Act defines take as pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting, and disturbing.

2.1.2 State Regulations

New Jersey Endangered and Nongame Species Conservation Act

The New Jersey Endangered and Nongame Species Conservation Act (N.J.S.A 23:2A-1 – 15) prohibits take, possession, transport, export, process, and sale of state-listed threatened or endangered species. The New Jersey Department of Environmental Protection (NJDEP) Division of Fish and Wildlife administers and enforces this Act. Several state-listed species are known to occur in the vicinity of Project lands as listed in Table 1.

Pennsylvania Endangered Species Regulations

In Pennsylvania, the Game and Wildlife Code (34 Pa.C.S.A. § 2167; 34 Pa.C.S.A. § 2924; 34 Pa.C.S.A. § 925; 32 P.S. §§ 5301 – 14) prohibits possession, transport, import, export, take, or attempt, aid, abet or conspire to take, any wild bird or wild animal, or any part thereof, or the eggs of any wild bird, which are endangered or threatened species. The Pennsylvania Game Commission administers and enforces this code. Endangered or threatened species of fish, amphibians and reptiles and invertebrates are similarly protected under 58 Pa Code § 75.1, which is enforced by the Pennsylvania Fish and Boat Commission, while endangered or threatened plants are similarly protected under 17 Pa Code § 45.1, which is enforced by the Pennsylvania Department of Conservation and Natural Resources.

2.2 Compliance with APP Guidelines

This APP was developed in accordance with the APP Guidelines (APLIC and USFWS, 2005) and includes sections for each of the 12 elements described in the Guidelines, plus additional sections that define the regulatory framework for the APP and describe avian-power-line interaction issues. The APP is organized as follows:

1. *Corporate Policy – An APP shall contain statement of company policy confirming the company's commitment to work cooperatively towards the protection migratory birds.*

   As part of their ongoing commitment to the protection of natural resources, the Companies are committed to considering, adopting and/or implementing the avian protection measures described herein during construction and operation of the Project. The overall company goal is to avoid or minimize the potential for avian injury. This is reflected in the design of the proposed Project

2. *Training – All appropriate utility personnel including managers, supervisors, line crews, engineering, dispatch, and design personnel should be properly trained in avian issues.*

The training program will provide the Companies employees and contractors involved in construction with guidance on expectations and accountability with respect to implementation of the APP and consist of the following elements:

- The Companies' corporate policy and commitment related to this APP;
- Summary of avian issues associated with the electric utility projects in general, and Project-specific avian risk;
- Discussion of federal and state regulations that protect birds, legal implications, and the need for compliance;
- Protocols of plan implementation including nest management, avian reporting procedures, identifying and assessing issues.

3. *Permit Compliance – The APP identifies the process under which each company obtains and complies with all necessary permits related to avian issues. Particular attention should be given to specific activities that can require permits including, but not limited to nest relocation, temporary possession, depredation, salvage/disposal and scientific collection.*

For any Project-related injury or mortality which impacts a listed or otherwise protected species, the Companies will immediately report the incident to the regulating authority (NPS, USFWS, Pennsylvania Game Commission and/or NJDEP, depending on the species involved), as required by federal and state law. It is currently not anticipated that the Project activities will require any Permits as the Companies are taking all possible efforts to avoid avian impacts. However, during the course of the project should it be determined that permits for nest relocation, temporary possession, depredation, salvage/disposal and scientific collection are required, the Companies will work with appropriate agencies to ensure proper application and implementation

4. *Construction Design Standards – Avian interactions with facilities can cause outages or system reliability issues. To improve system reliability, avian interactions should be considered in the design and installation of new facilities, as well as the operation of existing facilities. For those reasons, inclusion of accepted construction standards for both new and retrofit techniques also should be included in the APP. Companies can rely upon existing construction configures recommended by APLIC (see Suggested Practices for Raptor Protection on Power Lines: State of the Art in 1996 and Mitigating Bird Collisions with Power Lines: State of the Art in 1994, or the most current editions of these documents, or may choose to instead develop their own internal construction standards that meet or exceed these guidelines. These standards should be used in areas where new construction should be avian-safe, as well as where existing infrastructure should be retrofitted to provide avian safety.*

Adherence to APLIC Standards - According to APLIC (2006),"transmission structures that are considered safe for raptors and other large birds are those that provide at least 60 inches of horizontal separation and 48 inches of vertical separation to accommodate the wrist-to-wrist wingspan and height of an eagle". Areas that contain concentrations of tall birds (e.g., wading birds including herons and egrets) may require vertical separation of 60 inches to be considered "bird safe."

As shown in Figure 1 the proposed horizontal separation for the entire Project (between the proposed 230kV line and 500kV line) is greater than 30 feet. In addition, the proposed phase to phase vertical separation is greater than 30 feet, which exceeds the maximum wing span of an adult female bald eagle of 5 feet (APLIC, 2006). Therefore, the APLIC bird safe standards have been met and the risk of electrocution does not exist.

Specific Construction Design and Siting Standards that demonstrate compliance with the APP standards include:

Federal Aviation Administration (FAA) Marking Standards - In accordance with aviation safety requirements, FAA regulations will require lighting. Where FAA lighting is required in DEWA, the companies will use an innovative Audio Visual Warning System (AVWS). This is an FAA-approved, on-demand lighting system that limits light run times to actual encroachment threats thus eliminating the need for constant (i.e., steady state) light. The AVWS system will minimize potential light-related impacts on birds.

Avian Safe Standards for Tower Structures and Transmission Wires - The Companies will employ avian safe standards for the entire Project, which will avoid bird electrocution and minimize collision risk especially within the avian risk areas defined in this APP. Specifically, the following design methods will be employed:

- As discussed above the APLIC-recommended eagle-safe standards for tower structures and wires along the entire ROW have been met.

- The Companies have proposed the use of an optical ground wire (OPGW) for the Project. This wire is larger in profile than a typical shield wire because it combines the ground wire, static wire, and a fiber optic cable into the shield wire casing. The optical ground wire will have a diameter of ¾ inches, which is 30-50% larger than typical shield wires.
- The Companies will use tri-bundled conductor for the 500 kV and single conductor for the 230 kV lines, which will be more visible to birds than a Non-bundled configuration. As discussed prior, the Project will consist of three vertically (30 foot) spaced phases of bundled conductors. Each bundled conductor will contain three wires configured in a triangular pattern spaced 18 inches apart. The visibility of this design will minimize the potential for avian collisions with the conductors. Individual conductor wire within a bundle are the same phase and therefore do not pose an electrocution hazard for birds

- Bird Flight Diverters (BFD) have been evaluated and considered by the Project team as a type of avian marker device for the shield wire. However, the installation of these devices is not proposed at this time. The Companies maintain thousands of miles of electrical transmission lines and several thousand miles of electrical distribution lines. There has not been any significant indication over the

years to suggest that the company wide electrical system is specifically responsible for bird deaths due to collisions.

- Because OPGW is a very sophisticated and expensive wire configuration, BFD's will not be used if it is determined by the Companies engineering team during this evaluation period that they would create increased ice loading, or would void the manufacturer's warranty for the OPGW.

- BFD's will not be used on the 230kV or 500kV conductor wires. The research conducted by Hurst, 2004 on BFD's found that above 115kV corona discharge could increase audible noise, radio interference and degradation of materials such as organic insulation of the conductors.

5. *Nest Management – The APP may include procedures for nest management on utility structures. These procedures should be explained to company employees during training to ensure uniform treatment of avian issues among personnel.*

The Companies do not encourage birds to nest on its structures; however, utility poles and transmission towers have been documented to provide nesting opportunities for many bird species. Raptors, particularly Osprey and Red-tailed Hawk often construct nest sites on transmission towers, especially in areas where other nesting habitat is limited. Many nests on transmission towers pose little risk to the nesting birds or to the functionality of the line. However, nests constructed on the top of transformers or other flat locations in close proximity to energized conductors and hardware may pose a risk to the birds that release streamers, interfere with access or maintenance of the tower, or cause power outages. In these cases, further action such as relocation or removal of the nest may be warranted, pending approval from regulating authorities.

Nests of most birds (exceptions are Bald Eagles and federally- or state-listed threatened or endangered species) can be removed during the non-breeding season when there is no risk to adults, eggs, or young birds. State and federal laws protect active bird nests with eggs or young from removal during the breeding season without first obtaining authorization from USFWS and NJDEP.

Currently, there are no nests located on any of the structures within the NPS lands. Additionally, the design for the structures will further reduce the likelihood of future nesting on these structures.

It is also the Companies intent to complete Project construction activities during the late fall to early winter months. This will help further minimize the potential of the project to impact active nests for a majority of the protected avian species. Additionally, personnel will be instructed to immediately report any sightings of eagles and other large raptors in the project area during construction activities so that potential nesting activities can be further investigated.

As part of the training program, as described above, personnel will be trained to identify active and inactive nests, and will notify appropriate parties.

6. *Avian Reporting System – Although reporting of avian mortalities may be required as a condition of Federal or State permits, a utility may choose to voluntarily monitor relevant avian interactions, including mortality, through the development of an internal reporting system. An APP should consider providing for the development of such a reporting system which can help a company pinpoint areas of concern by tracking both the specific locations where mortalities may be occurring as well as the extent of such mortalities.*

While not anticipated, any construction related injury or mortality which impacts a listed or otherwise protected species will be immediately reported to the appropriate regulatory authority.

Based on the eighty (80) year history of the existing line there has been no evidence that the existing line has contributed to injury or mortality of avian resources. In addition, since the design of the new line is "bird safe" the Companies believe that monitoring for avian resources impacts is not necessary.

7. *Risk Assessment Methodology - A utility can have the greatest impact on reducing avian mortality by focusing its efforts in a cost-effective manner on the areas that pose the greatest risk to migratory birds.*

The proposed transmission line design will make it more visible than the existing transmission circuit. The existing conductors consist of single wires in a horizontal pattern with two static wires above them. The proposed conductors will consist of vertically configured circuits with tri-bundled conductors on the 500kV circuit and single conductor for the 230 kV circuit. These wires will be more visible then the existing conductors. The static wires will be replaced with fiber optic cables which are a larger diameter then the existing static wires making them more visible. As previously discussed the transmission line does not pose an electrocution hazard to avian resources.

8. *Mortality Reduction Measures - After completing a risk assessment, a company can focus its efforts on areas of concern, ensure that the activities taken by the utility are not out of proportion to the risks encountered by migratory birds, and then determine whether an avian mortality reduction plan needs to be implemented in certain areas.*

In addition to the design measures that reduce the risk of collision and eliminate electrocution, the Companies have committed to implement construction best management practices to minimize environmental impacts on avian habitat during construction by the following measures;

- Adherence to wetlands and flood hazard regulations;
- Soil erosion and sediment control;

- Contractor training;
- Wetland and stream mitigation/restoration;
- Targeted mitigation / management opportunities.

The Companies will coordinate Avian Timing Restrictions with the NPS. The anticipated construction schedule of late fall 2013 to early winter 2014 will avoid and minimize potential impacts to avian resources. In addition, the Companies will work with appropriate state and federal agencies to employ avoidance measures adjacent to active nest sites whenever possible. Should Bald Eagles nest within 1,000 feet of the Project area the companies will restrict activities during the nesting season (December 15 – August 31), or obtain the proper permit;

9. *Avian Enhancement Options – In addition to taking steps to reduce mortality to avian species, an APP may also include opportunities to a utility to enhance avian populations or habitat including nesting platforms, managing habitats to benefit migratory birds, or working cooperatively with agencies or organizations in such efforts.*

In addition to the mortality reduction actions and construction design standards the Companies will implement additional avian enhancements to increase habitat quality for birds and promote bird use where consistent with Project purpose and safety requirements. These enhancements are not scheduled to be implemented until the construction of the Project is almost complete. Therefore the precise locations of these enhancements and their extent continues to be refined and will also take advantage of the extensive knowledge to be gained from the physical work to occur on the ROW during construction and from the equipment and methods to be used.

Consistent with the Companies' Transmission Vegetation Management Plan the following avian enhancement measures may be undertaken:

- Planting, maintaining, or improving warm season grass communities;
- Maintaining or restoring existing ROW vegetation conditions;
- Controlling invasive plant species;
- Creating snag trees in border zones;

10. *Quality Control – An APP also may include a mechanism to review existing practices, ensuring quality control. For instance, a utility may conduct an independent assessment of its avian reporting system to ensure effectiveness, or invest in research on the effectiveness of different techniques and technologies used to prevent collisions, electrocutions and problem nests.*

Through the Companies normal participation in industry groups and committees new technologies will continue to be evaluated for effectiveness and potential application on this transmission line project.

11. *Public Awareness – An APP should include a method to educate the public about the avian electrocution issue, the company's avian protection program, as well as its success in avian protection.*

Both Companies have extensive public outreach programs including a substantial website. The Companies will include information about the APP on their projects' website, and will continue to utilize current mechanisms for communicating with the public about the Project

12. *Key Resources – an APP should identify key resources to address avian protection issues including, for example, a list of experts who may be called upon to aid in resolving avian issues. These should include consultants, Federal and State resource agencies, universities, or conservation groups.*

The Companies will coordinate with state and federal agencies in their efforts to successfully implement this APP. In addition, other organizations and individuals will be consulted as needed for expertise in local and regional bird populations, bird behavior, habitat enhancement concepts and design, and bird protection devices.

3.0 Compliance with the Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

For purposes of these guidelines, "disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

The existing transmission lines within the DEWA are in the flight path of known communal roosts for wintering Bald Eagles and associated foraging areas (Ambler 1996).

Nonetheless, collisions are not likely and have not been documented in the Project area. It is expected that there is a low likelihood of a bald eagle collision occurring and the design of the wires and other project design elements are not expected to result in impacts. It is expected that the project will be in conformance with the Bald and Golden Eagle Protection Act.

The following describes how the Project will comply with recommendations to avoid disturbance of foraging and communal roosting areas and activities beneficial to eagles.

Recommendations for Avoiding Disturbance at Foraging Areas and Communal Roost Sites

> *1. Minimize potentially disruptive activities and development in the eagles' direct flight path between their nest and roost sites and important foraging areas.*

To the maximum extent possible, all activities will be conducted to avoid activities within the important flight path, the Delaware River Corridor. Construction is proposed between late fall 2013 and winter 2014. Tower construction will be conducted along the edges of the river corridor and no activities are scheduled to occur across the river until the conductors are installed. This installation will occur in winter 2014. It is anticipated that the majority of the eagles wintering in the vicinity will have started to move away from the roost area and have returned to nesting habitat. Therefore, impacts to the use of the communal roosting and foraging habitat will be minimized.

> *2. Locate long-term and permanent water-dependent facilities, such as boat ramps and marinas, away from important eagle foraging areas.*

This project does not involve these activities.

> *3. Avoid recreational and commercial boating and fishing near critical eagle foraging areas during peak feeding times (usually early to mid-morning and late afternoon), except where eagles have demonstrated tolerance to such activity.*

This project does not involve these activities.

> *4. Do not use explosives within ½ mile (or within 1 mile in open areas) of communal roosts when eagles are congregating, without prior coordination with the U.S. Fish and Wildlife Service and your state wildlife agency.*

There are no plans to perform blasting within the National Park.

> *5. Locate aircraft corridors no closer than 1,000 feet vertical or horizontal distance from communal roost sites.*

The project does not involve aircraft corridors. .

Additional Recommendations to Benefit Bald Eagles

1. Protect and preserve potential roost and nest sites by retaining mature trees and old growth stands, particularly within ½ mile from water.

The majority of the existing ROW is scrub/shrub/herbaceous habitat. The area where the ROW needs to be expanded from 100 ft to 150 ft. is currently forested. The project will comply with NPS and USFW requirement to protect known winter roosting areas for the clearing of this additional ROW.

2. Where nests are blown from trees during storms or are otherwise destroyed by the elements, continue to protect the site in the absence of the nest for up to three (3) complete breeding seasons. Many eagles will rebuild the nest and reoccupy the site.

Since there are no nests in the immediate vicinity of the ROW, this recommendation does not apply.

3. To avoid collisions, site wind turbines, communication towers, and high voltage transmission power lines away from nests, foraging areas, and communal roost sites.

The proposed project is the upgrade of an existing transmission line which has been in place since the late 1920's. The existing line crosses eagle foraging and communal roosting areas. The proposed conductors will be bundled, which is anticipated to increase conductor visibility and reduce potentials for bird impacts. The proposed bundled conductors will be more visible then the existing conductors. The existing conductors consist of single wires in a horizontal pattern with two thin static wires above them. The proposed conductors will consist of vertically configured wires, a single conductor for the 230 kV circuit and tri-bundled conductors for the 500 kV circuit. These wires will be more visible then the existing conductors. The static wires will be replaced with fiber optic cables, which are a larger diameter then the existing static wires making them more visible thereby reducing potential collisions with the conductors.

4. Employ industry-accepted best management practices to prevent birds from colliding with or being electrocuted by utility lines, towers, and poles. If possible, bury utility lines in important eagle areas.

The Companies will employ avian safe standards for the entire Project, which will avoid bird electrocution and minimize collision risk especially within the avian risk areas defined in this APP. Specifically, the following design methods will be employed:

- As discussed above the APLIC-recommended eagle-safe standards for tower structures and wires along the entire ROW have been met.

- The Companies have proposed the use of an optical ground wire (OPGW) for the Project. This wire is larger in profile than a typical shield wire because it combines the ground wire, static wire, and a fiber optic cable into the shield wire

casing. The optical ground wire will have a diameter of ¾ inches, which is 30-50% larger than typical shield wires.

- The Companies will use tri-bundled conductor for the 500 kV and single conductor for the 230 kV lines, which will be more visible to birds than a Non-bundled configuration. As discussed prior, the Project will consist of three vertically (30 foot) spaced phases of bundled conductors. Each bundled conductor will contain three wires configured in a triangular pattern spaced 18 inches apart. The visibility of this design will minimize the potential for avian collisions with the conductors. Individual conductor wire within a bundle are the same phase and therefore do not pose an electrocution hazard for birds

- Bird Flight Diverters (BFD) have been evaluated and considered by the Project team as a type of avian marker device for the shield wire. However, the installation of these devices is not proposed at this time. The Companies maintain thousands of miles of electrical transmission lines and several thousand miles of electrical distribution lines. There has not been any significant indication over the years to suggest that the company wide electrical system is specifically responsible for bird deaths due to collisions.

    - Because OPGW is a very sophisticated and expensive wire configuration, BFD's will not be used if it is determined by the Companies engineering team during this evaluation period that they would create increased ice loading, or would void the manufacturer's warranty for the OPGW.

    - BFD's will not be used on the 230kV or 500kV conductor wires. The research conducted by Hurst, 2004 on BFD's found that above 115kV corona discharge could increase audible noise, radio interference and degradation of materials such as organic insulation of the conductors.

5. Where bald eagles are likely to nest in human-made structures (e.g., cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the eagles, equip the structures with either (1) devices engineered to discourage bald eagles from building nests, or (2) nesting platforms that will safely accommodate bald eagle nests without interfering with structure performance.

The Companies do not encourage birds to nest on its structures; however, utility poles and transmission towers have been documented to provide nesting opportunities for many bird species. Raptors, particularly Osprey and Red-tailed Hawk often construct nest sites on transmission towers, especially in areas where other nesting habitat is limited. Many nests on transmission towers pose little risk to the nesting birds or to the functionality of the line. However, nests constructed on the top of transformers or other flat locations in close proximity to energized conductors and hardware may pose a risk to the birds that release streamers, interfere with access or maintenance of the tower, or cause power outages. In these cases, further action such as relocation or removal of the nest may be warranted, pending approval from regulating authorities.

6. Immediately cover carcasses of euthanized animals at landfills to protect eagles from being poisoned.

This recommendation does not apply to the project.

7. Do not intentionally feed bald eagles. Artificially feeding bald eagles can disrupt their essential behavioral patterns and put them at increased risk from power lines, collision with windows and cars, and other mortality factors.

This recommendation does not apply to the project.

8. Use pesticides, herbicides, fertilizers, and other chemicals only in accordance with Federal and state laws.

The Companies will comply with all Federal and State laws when utilizing pesticides, herbicides, fertilizers, and other chemicals on the ROW.

9. Monitor and minimize dispersal of contaminants associated with hazardous waste sites (legal or illegal), permitted releases, and runoff from agricultural areas, especially within watersheds where eagles have shown poor reproduction or where bioaccumulating contaminants have been documented. These factors present a risk of contamination to eagles and their food sources.

The Companies do not anticipate any discharges of hazardous materials from project related activities. However, a project specific spill prevention plan has been developed in the event of an unforeseen spill.

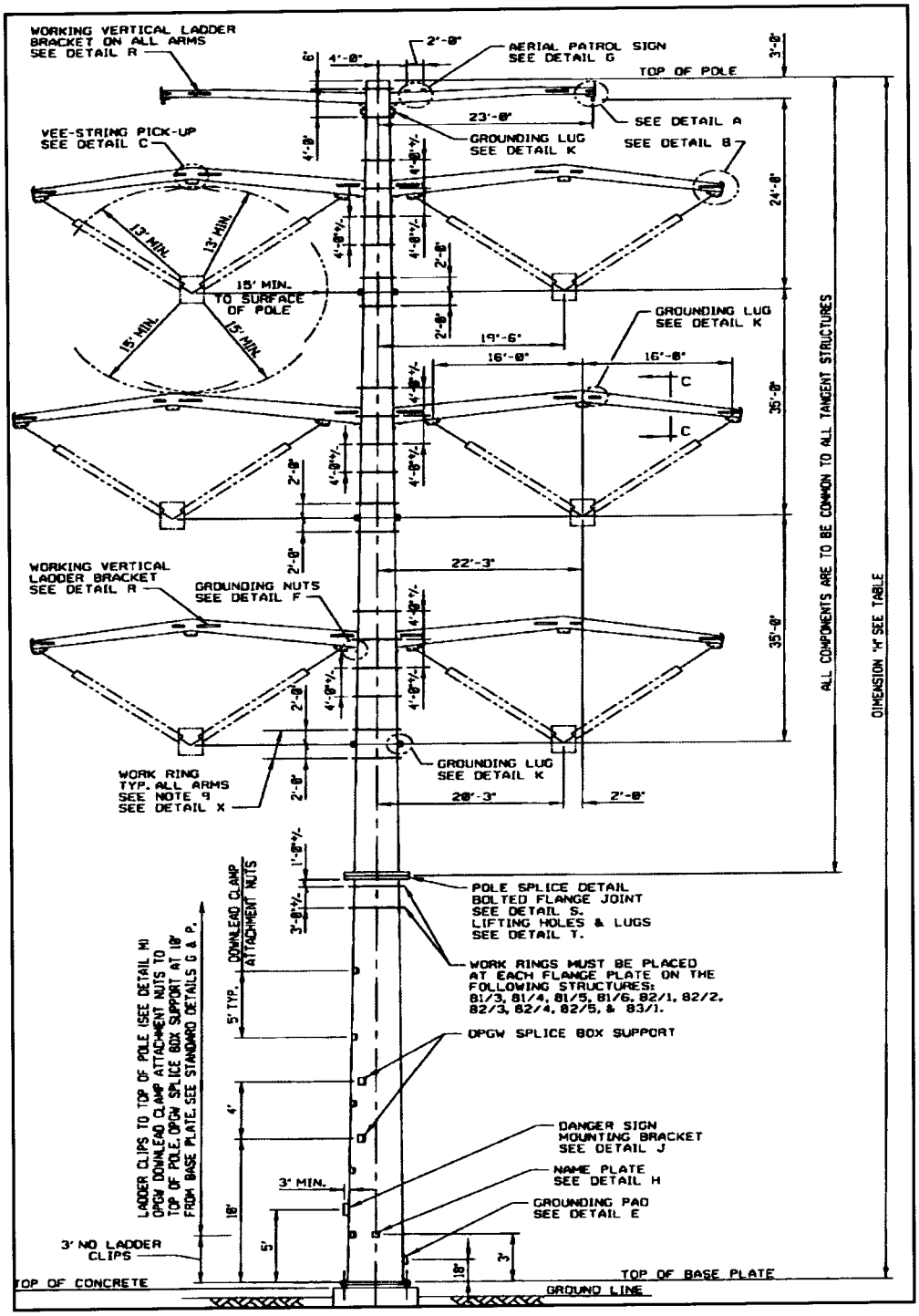

Figure 1: Typical Transmission Structure Design Showing Horizontal and Vertical Separations

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PSE&G

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PPL Electric Utilities

Special Species Mitigation Plan

Susquehanna - Roseland 500kV Transmission Line

Crossing the

Appalachian National Scenic Trail

Delaware Water Gap National Recreation Area

Middle Delaware National Scenic and Recreational River

June 7, 2012

I. INTRODUCTION

This Special Species Mitigation Plan (the Plan) covers the portion of the transmission line that runs through National Park Service land (hereafter referred to as the Project area). It describes methods that PPL Electric Utilities and PSE&G (the Companies) will employ to avoid, minimize, or mitigate potential direct and indirect impacts on the special species and their habitats during construction and restoration of the Project.

Transmission line rights-of-way have been documented as important habitats for wildlife species (Lee and Norden, 1996; New Jersey Audubon, 2009), and the Project area is no exception. The extensive field studies conducted in the Project area have documented several wildlife and one plant species that are of conservation concern: the Bog Turtle (Glyptemys muhlenbergii); the Wood Turtle (Glyptemys insculpta); the Timber Rattlesnake (Crotalus horridus); and the Climbing Fern (Lygodium palmatum). These are the four special species that are the subject of this Plan. Additional details can be found in the numerous other mitigation plans that have been prepared for the Project, most notably the Construction and Restoration Standards.

The Companies have taken great effort to avoid and minimize impacts to the right-of-way communities during the design and planning phases of the Project. Ecological data continues to be shared with and reviewed by State and Federal regulatory agencies and incorporated into the species specific plans to further avoid, minimize or mitigate potential Project impacts. These efforts included delineation and survey of all wetlands and several years of environmental field surveys and assessments. Proposed structures and access roads have been designed and located to avoid sensitive areas to the greatest extent possible. Where impacts cannot be avoided, they have been minimized. All Project activities will be conducted in accordance with all appropriate permits, agency approved plans and conditions. Seasonal time of year restrictions or site monitoring by qualified environmental scientists will play an essential role during construction to further ensure that Project activities avoid and minimize potential impacts.

Implementation of this Plan will:

- Protect and manage the Special Species and their habitats within the Project area.
- Avoid, minimize or mitigate unavoidable impacts caused during project construction.
- Provide opportunities to enhance Special Species habitats.

II. DATA SYNTHESIS

Identification of Critical Habitats

The rare species investigation of the Project area involved a review of NJ and PA Natural Heritage Program (NHP) databases, consultation with appropriate federal and state agencies, analysis of aerial photography, and field evaluations of suitable habitat for a particular rare species.

Species Specific Field Surveys

Wetland delineations required that the Project area be walked. This also provided opportunities for biologists to evaluate associated on-site habitats potentially suitable for locally documented rare species. The evaluation confirmed whether wetlands or waters were present, the type of vegetative cover or land use, and any local geological features indicative of rare ecological communities (e.g. rocky outcrop, vernal pool, broomsedge / bluestem meadow, emergent wetland, stream corridor, riparian zone, forested wetland, upland forest, calcareous geology). Numerous follow-up field assessments were conducted at various segments of the Project area to gather additional data on potential rare plant or wildlife species. Surveys were conducted for Indiana bat, bog turtle, wood turtle, timber rattlesnake, and rare plants.

Summary of Wildlife Species Ecology

The primary species confirmed in the Project area include:

- the bog turtle identified in Pennsylvania,
- the timber rattlesnake identified in New Jersey ,
- the wood turtle in New Jersey, and
- the climbing fern in New Jersey.

Indiana bats were not identified within the Project area and therefore are not discussed further.
Due to the sensitivity of these species, specific locations are not discussed in the plan. Numerous reports documenting the surveys have been prepared and submitted to respective Federal and State agencies for their review and further consultations. A list of these reports is included in the Reference section at the end of this Plan.

Bog Turtle

The bog turtle is classified as an endangered species in Pennsylvania and New Jersey. In addition, its northern population (occurring in Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York and Pennsylvania) has been listed as a federally threatened species. The species is highly susceptible to habitat loss, degradation and fragmentation, and illegal taking by collectors.

The bog turtle is one of North America's smallest turtles, with an average adult carapace length of less than 100 millimeters. The best diagnostic feature to identify the species is its lightly sculpted

carapace and bright orange, often hourglass shaped marking on each side of its head. The carapace is generally dark brown to ebony in coloration, while the plastron varies in coloration.

Bog turtles are strongly associated with emergent wetlands. Bog turtles commonly use the open emergent areas for foraging and basking. Breeding occurs in mid to late spring and eggs are typically laid in mid-summer. Nests sites usually have a sunny exposure and eggs are often loosely buried or left in the open, on top of tussock sedge or other vegetative hummocks above the water line. Hatchlings typically emerge in late summer, although some may overwinter within the nest for hibernation, bog turtles may crawl into soft peat, use old muskrat or other small mammal burrows, or nest around the roots of woody vegetation (Klemens, 2001).

Unlike other turtle species, a bog turtle's range is small, with the turtles rarely leaving the marsh for upland foraging. Most bog turtle habitats are less than 2 acres in size (NJDEP, 2008). As such, micro-habitat conditions in the wetland are critical to maintaining appropriate habitat conditions. Suitable bog turtle habitat is recognized by three criteria; hydrology, soils and vegetation (although not all suitable habitats will contain bog turtle). Sustained hydrology is extremely important in maintaining the soil and vegetative characteristics preferred by this species. In general, appropriate wetland hydrology consists of shallow, spring-fed seepages with water or soil saturation present year-round. Suitable soils generally consist of organic mucks or muck-like soils. The characteristic mucky soils are often easily compressed and, in areas grazed by livestock, bog turtles are often found within pockets of standing water in old hoof-prints. Suitable vegetative communities for bog turtle are generally characterized by an open wetland meadow that may be interspersed with shrub/scrub areas and a forested wetland perimeter. Common emergent wetland species include sedges, grasses, and rushes such as tussock sedge, woolgrass, soft rush and rice cut grass. Associated herbaceous species include skunk cabbage, arrowhead, sweet flag and cattail. Shrubby vegetation includes alder, shrubby cinquefoil and red maple saplings. In disturbed areas, purple loosestrife, reed canary grass and multiflora rose are also common (USFWS, 2001; NJDEP, 1995).

Documented bog turtle habitat has been confirmed in Pennsylvania. Extensive Phase 1 habitat assessments were conducted along both the Pennsylvania and New Jersey portion of the Project area. No additional habitats were identified in the Project area in Pennsylvania. Although several suitable habitats were identified in the Project area in New Jersey, no additional bog turtle populations were identified. All bog turtle Phase 2 surveys were conducted in accordance with USFWS approved protocols.

Timber Rattlesnake

The timber rattlesnake is a New Jersey endangered species and a Species of Special Concern in Pennsylvania. The current geographic range of the timber rattlesnake encompasses 30 states from New Hampshire to Minnesota in the north, from extreme southeastern Nebraska and eastern Iowa to Texas in the mid-west, across the south to northern Florida, and along the eastern coastal plain (Brown, 1993). The species is most abundant in the Appalachian Mountains from northeastern Alabama to Pennsylvania. In northern New Jersey, timber rattlesnakes are found along the entire length of the Kittatinny Ridge from the Delaware Water Gap to High.

In the northeastern United States, this species generally prefers remote mountainous terrain characterized by steep ledges and rock slides, timbered areas with rocky outcroppings, dry ridges, and deciduous or coniferous forests, usually in areas with southern exposures (Brown, 1993). Though typically an upland species in northern New Jersey, the timber rattlesnake will utilize both upland and wetland habitats, with use of wetlands depending on the type of wetland habitat present, the percentage of wetland comprising total summer habitat areas, and the location of wetland habitats relative to the den site (NJDEP, 2008). Timber rattlesnakes hibernate during the late fall, winter, and early spring. For hibernation, northern New Jersey populations of timber rattlesnakes use communal den sites located in rock outcroppings and talus slope areas associated with major ridges (NJDEP, 2008). They emerge from their communal dens during mild weather in mid-spring. Often, snakes will remain close to their dens for days or weeks after emergence in order to take advantage of basking opportunities available on warm spring days. The snakes then begin to return to their summer foraging areas which are typically adjacent forested habitats located within a 2-mile radius of the den (NJDEP, 2008).

Timber rattlesnakes are venomous snakes that rely on cryptic coloration in order to ambush their prey, which consists of small mammals including mice, voles, chipmunks, and cottontail rabbits. Foraging activity is generally undertaken only by males and non-gravid females, as gravid females typically do not eat in the months prior to giving birth. Foraging continues until the breeding season begins in summer. At this time, sexually mature males follow scent trails and pursue receptive females over long distances and continue to do so until early fall (Beans and Niles, 2003). After successful mating, females will not give birth until the next year, at which time six to ten live young are typically born in late summer. Migration back to the winter dens begins as the weather cools in the early autumn. Adults and young snakes alike then follow scent trails back to their dens (Beans and Niles, 2003), which may be shared with numerous other individual snakes from several different species.

Den emergence and summer gestation surveys conducted in the Project area only confirmed the presence of adults and juvenile timber rattlesnakes, a shed timber rattlesnake skin, and the presence of preferred habitats suitable for den sites, basking areas, foraging, and gestation in the NJ portion of the Project area. As requested by the NPS, additional surveys were conducted to verify the presence or absence of gestation/nesting habitat within the Project area. These surveys identified additional rattlesnakes and one gestation/nesting area within the NJ portion of the Project area.

Wood Turtle

The wood turtle is not a listed or candidate endangered or threatened species in Pennsylvania. However, within New Jersey, the wood turtle is a State-threatened species. It occurs primarily in the northern two-thirds of the state. Wood turtles require both aquatic and terrestrial habitat. In general, wood turtles use streams and rivers for breeding and hibernating. Breeding occurs underwater, often in slow meandering streams with sandy bottoms and shoals in either the spring (April and May) or fall (September-October). During hibernation, wood turtles are primarily found on the bottom or in the banks of waterways. Suitable aquatic habitat for the wood turtle is considered to be streams or rivers featuring flowing water of varying depths, undercut banks, exposed roots, muskrat burrows, fish populations, and evidence of good water quality (e.g., trout-associated waters).

In New Jersey, wood turtles are primarily terrestrial from mid-May to October (Farrell and Zappalorti, 1979; Zappalorti et al., 1984). Apart from breeding and hibernating, wood turtles make use of wetlands and uplands adjacent to their aquatic habitat. Wood turtles are an extremely mobile species that have been documented to move at least 1.8 km (1 mi) along a stream corridor and exhibit familiarity with wetland habitats 2 km (1.2 mi) from an initial capture point (NJDEP, 2008). Favored adjacent upland/wetland habitats are characterized by mosaics of forest, field, shrubs, and agricultural lands, though wood turtles also occur in more monotypic areas. Thickets of alder, greenbrier, or multiflora rose adjacent to aquatic habitats are favored basking areas (NJDEP, 2008).

A presence/absence survey was initiated in the Project area in NJ in 2010. Twenty-seven (27) wood turtles were identified along an approximately one-mile segment in the New Jersey portion of the Project. To determine what areas are utilized by the turtles, and particularly to identify where the turtles nest and hibernate, external transmitters were placed on adult male and female wood turtles. These extensive surveys confirmed wood turtle habitat occurring within and adjacent to the Project area, including winter hibernation, summer foraging, mating and nesting,

Climbing Fern

Climbing fern (Lygodium palmatum) is considered a rare plant in Pennsylvania and State endangered (S2-imperiled) in New Jersey. Climbing fern was recently identified in the NJ portion of the Project area. This plant was found growing beneath an existing structure. Because normal demolition practices could result in disturbance to this plant the Companies will work with the NPS and other appropriate agencies to develop avoidance and mitigation plans.

III. BEST MANAGEMENT PRACTICES

Potential impacts from the Project are associated with construction activities that are needed to remove the existing lattice transmission structures and to construct the new transmission structures. These impacts may involve limited clearing of vegetation, soil excavations or fills, placement of rock or gravel, drilling, the use of construction vehicles, the placement of concrete footings, and the use of temporary matting or timbers to facilitate wetland and stream crossings. Access to the project site and maneuvering within the ROW also necessitates the construction or improvement of access roads and the establishment of laydown areas in order to stage the equipment and materials needed to remove and reconstruct the lines. Where practicable, the Project has been designed to avoid impacts to sensitive areas.

Mitigation plans have been covered in the Construction and Restoration Standards. In general, these plans include use of time of year construction to avoid active periods for sensitive species, use of on-site qualified biologists to monitor and protect sensitive species during their active periods, and the use of appropriate barriers to restrict sensitive species access to construction areas.

With the implementation of these measures, the Project is not expected to threaten the continued existence of any rare species. In addition, opportunities may exist that could substantially improve a broad array of critical habitats identified in the Park.

Time of Year Recommendations
Whenever possible and in consultation with appropriate agencies, construction activities will adhere to times recommended by the regulatory agencies to prevent disturbances during sensitive seasons for species. In general all work is anticipated to be conducted during the late fall and winter months, which will minimize impacts to most special species.

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Qualified Wildlife Biologists
If project construction occurs during times when special species are active, the Companies will employ qualified wildlife biologists to conduct surveys and implement specific construction measures to avoid and minimize impacts.

Exclusion Fences and Safe Passage Pathways
If project construction occurs during times when special species are active, silt fencing and safe passage pathways will be used, if appropriate, to prevent special species from entering construction sites and to provide safe pathways for crossing of construction areas.

Contractor Training
Contractors will be trained on the identification of special species and appropriate protocols to be taken should they be encountered.

Adherence to Wetlands and Flood Hazard Regulations
The Project and all mitigation measures will be developed in accordance with applicable State and Federal laws, including existing protections for wetlands, waters, transition areas, riparian buffers, endangered and threatened wildlife, etc. All construction and environmental work will be conducted under the applicable permits including Freshwater Wetlands Permits, Flood Hazard Area Permits, Scientific Collecting Permits, and others, as necessary. Additional details are covered in the Companies Wetlands and Riparian Resources Plan.

Soil Erosion and Sediment Control
Certain elements such as soil erosion and sediment control measures are based on well-established standards developed over decades via the oversight of multiple regulatory agencies and typically administered by local Soil Conservation Districts. Correct implementation of these measures has been shown to reduce or prevent adverse affects due to erosion or sedimentation that might otherwise occur in areas adjacent to construction. See the Companies Soil Erosion and Sediment Control, Spill Prevention and Response Plan for additional details.

IV. TARGETED AVOIDANCE, MINIMIZATION AND MITIGATION MEASURES

Bog Turtle

Initially, one of the Project's access road in PA crossed confirmed Bog Turtle habitat. To identify opportunities to avoid the potential impacts to the bog turtle in that area, federal and state agencies were consulted. An alternate access road (the southern access road) was identified that avoided this area of concern.

Following the southern access road requires crossing a forested incised tributary that flows from one wetland to another. Although bog turtles can use this forested tributary as a travel corridor, efforts will be made to avoid direct impacts by implementing all work associated with this access road and associated project activities in this area between November 1 and March 31, when bog turtles are assumed to be hibernating. If this time-of-year restriction cannot be implemented, the Companies will conduct a bog turtle survey in accordance with the following conditions:

- Prior to performing any construction work in wetlands, streams, or uplands within 300 feet of bog turtle habitats, all areas of expected disturbance will be surveyed by a qualified wildlife biologist for the presence of bog turtles.
- Prior to the survey, herbaceous vegetation will be cut to a height of 4 to 6 inches using a hand-held trimmer/weed-cutter, and then carefully raked away from the area to be searched. A qualified wildlife biologist will be present when this vegetation cutting and raking occurs.
- Immediately following the survey, silt-fencing will be placed between the wetland and the proposed construction zone while the bog turtle surveyor is present to ensure that the fencing is properly installed in the correct location. The silt-fencing will be removed immediately following construction.
- If any bog turtles are located during these surveys, the USFWS and Pennsylvania Fish and Boat Commission (PFBC) will be contacted immediately, and construction will not proceed until further consultation occurs. Survey results will be submitted to the USFWS and PFBC.
- To reduce impacts to the species and its habitat, no trees will be felled into wetlands.
- All contractors working within these areas will be trained on the identification and protection of bog turtles.
- A protocol will be established to direct contractors on the appropriate actions to be taken if turtles are encountered.
- The Companies' Vegetation Management Plan will further enhance bog turtle habitat within the Project area by keeping woody vegetation from encroaching on their habitat.

Timber Rattlesnake

It is expected that one access road and proposed structure in NJ will be in confirmed timber rattlesnake habitat. Efforts will be made to avoid direct impacts by implementing all work associated with this access road structure between the late fall and winter months, when snakes are hibernating. If this time-of-year restriction cannot be implemented, the Companies will perform the following activities:

- Prior to performing work each day, a sweep will be conducted to identify the presence of rattlesnakes within the construction area. If any are found, a qualified wildlife biologist will relocate them to a suitable area.
- When working in known rattlesnake den areas during times when snakes are active, a qualified wildlife biologist will be on site to prevent negative interactions and to relocate snakes that may wander into the Project's construction area per appropriate regulatory protocols.
- Fencing will not be used in areas of known rattlesnake dens (applicable access roads will be identified by the qualified wildlife biologist prior to construction). The Companies will ensure all contractors are trained to properly identify timber rattlesnakes and will travel no greater than 20 mph along access roads while monitoring the roads for coiled and crossing snakes. Construction vehicles must safely avoid coiled snakes and wait for crossing snakes to travel

across the road (keeping a distance at least 15 meters) or until the qualified wildlife biologist can safely move the snake from harms way.

- Accidentally injured (or potentially injured) rattlesnakes will be safely collected and released to the licensed venomous snake rehabilitator per the qualified wildlife biologist venomous snake protocol for construction monitors. Snakes run over by vehicles may continue to move but have internal injuries. These snakes will be collected for medical care. Accidentally killed rattlesnakes will be safely collected and released to the qualified wildlife biologist immediately.
- Identified dens will not be destroyed or altered.
- The Companies will adhere to the appropriate protocol pertaining to gravid and post-partum timber rattlesnakes. Active gestation/birthing areas (areas where gravid or post-partum females and/or neonates are found) will be protected from construction-related disturbances and females (and young) will not be moved. A minimum 15 meter-radius buffer around the gestation/birthing area (rock outcrop) will be maintained and a qualified wildlife biologist will monitor the gestation site and surrounding area frequently during construction to ensure no females or young are injured. Traveling gravid females (i.e., gravid females en route across the ROW during construction activities) in areas where no gestation areas have been identified will be moved to suitable habitat within the nearest wood line (in the direction of travel) adjacent to the ROW per the appropriate protocol. Traveling post-partum females (late August – October 31) will not be moved; construction activities will avoid disturbing such females to permit their natural path of travel.
- Seasonal timing restrictions (generally mid April to late-October) on cutting activities within known den site areas will be used to insure a low potential for direct impacts to above-ground individuals.
- If timing restrictions cannot be implemented prior to construction in the vicinity of a known or potential den site, silt fence barriers will be installed along the limits of the construction area. No equipment staging, vehicle access, or other activities will be permitted outside of the approved construction limits. Silt fence construction should be done following an inspection of the entire proposed construction area by a qualified wildlife biologist to ensure no timber rattlesnakes or other herptile species are inadvertently disturbed by installing the fencing. The area inside the fence should then be surveyed to verify the absence of herptiles. Any species identified within the fenced construction area should be relocated by the biologist to suitable habitat outside of the disturbance area. The monitor will notify the appropriate personnel upon arrival at the site and upon completion of the inspection. Initial monitoring may be extended to be conducted daily during construction activities if there is deemed a high probability of impact to a den or to individual rattlesnakes. If daily monitoring is not required, a qualified wildlife biologist will be available "on-call" to resolve any additional issues during the construction process, such as if a rattlesnake is encountered by a worker on the site. Upon completion of construction activities, a qualified wildlife biologist will inspect the site to ensure no timber rattlesnakes or other herptile species, are inadvertently disturbed during removal of the fencing.

Wood Turtle

There is a risk that wood turtles and/or their habitats may be impacted during the use of construction equipment, or careless entry into wetland habitats and stream corridors. Efforts will be made to avoid direct impacts by performing all work between the late fall and winter months, when wood turtles are hibernating. If this time-of-year restriction cannot be implemented, the Companies will perform the following activities:

- Prior to performing work each day, a sweep will be conducted to identify the presence of wood turtles within the construction area. If any are found, a qualified wildlife biologist will relocate them to a suitable area.
- A qualified wildlife biologist will be on site to prevent negative interactions and to relocate wood turtles that may wander into the Project's construction area per appropriate regulatory protocols.
- No temporary disturbances will take place within wetlands, wetland transition areas, and riparian areas until the areas have been surveyed for turtles.
- Silt fencing will be installed by non-mechanical means. No equipment staging, vehicle access, or other activities will be permitted outside of the approved (silt-fenced) construction limits. All silt fencing will be maintained year-round during the construction phase. Inspection and maintenance logs will be kept and provided to the appropriate personnel upon request.
- Contractors will be trained to identify wood turtles and take appropriate actions
- Additional protection of wood turtle habitat will be accomplished under the Soil Erosion and Sediment Control, Spill Prevention and Response and Vegetation Management Plans.

Climbing Fern

Climbing fern (Lygodium palmatum) is considered a rare plant in Pennsylvania and State endangered (S2-imperiled) in New Jersey. Climbing fern was recently identified in the NJ portion of the Project area. This plant was found growing beneath an existing structure. Because normal demolition practices could result in disturbance to this plant the Companies will work with the NPS and other appropriate agencies to develop avoidance and mitigation plans.

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CONMPANY REPORTS:

NEW JERSEY:

Plants

1. *"Plant Species of Special Concern Report Addendum for PPL Electric Utilities",* Susquehanna-
Roseland 500 kV Transmission Line, Delaware Water Gap National Recreation Area, Lehman
Township, Pike County, PA; Middle Smithfield Township, Monroe County, PA; Hardwick Township, Warren County, NJ, Nov, 4, 2009.

Wetlands

2. *"Vernal Habitat Survey Results for PSEG Roseland-Bushkill Transmission Line Right-Of-Way*
Proposed Access Roads", Delaware Water Gap National Recreational Area, Warren County, New Jersey".

Reptiles

3. *"Bog Turtle (Glyptemys muhlenbergii) Phase I Survey, PSE&G Susquehanna-Roseland Transmission Line Right-of-Way, Delaware Water Gap National Recreation Area, December 23, 2009*, Warren County, New Jersey. Prepared for: Public Service Electric and Gas Company (PSE&G), 80 Park Plaza, Newark, New Jersey 07102-4194. Submitted by: EcolSciences, Inc

4. *"Bog Turtle (Glyptemys muhlenbergii) Phase I Survey, PSE&G Susquehanna-Roseland Transmission Line Right-of-Way, Delaware Water Gap National Recreation Area, Warren County, New Jersey. September 10, 2010".*Prepared for: Public Service Electric and Gas Company (PSE&G), 80 Park Plaza, Newark, New Jersey 07102-4194. Submitted by: EcolSciences, Inc. December 23, 2008" "Bog turtle (*Glyptemys muhlenbergii*) Phase 2 Survey, PSE&G Roseland-Bushkill Transmission Line Right-of-Way, Delaware Water Gap National Recreation Area, Warren County, New Jersey. Prepared for: Public Service Electric and Gas Company (PSE&G), 80 Park Plaza, Newark, New Jersey 07102-4194. Submitted by: EcolSciences, Inc. September 10, 2010"

5. *"Bog turtle (Glyptemys muhlenbergii) Phase 2 Survey, PSE&G Roseland-Bushkill Transmission Line Right-of-Way, Delaware Water Gap National Recreation Area, Warren County, New Jersey*", Prepared for Public Service Electric and Gas Company (PSE&G), 80 Park Plaza Newark, New Jersey 07102-4194. Submitted by: EcolSciences, Inc.

6. *"DEWA Wood Turtle Survey Results (Preliminary Report: September 10, 2010).* Prepared for:
Public Service Electric and Gas Company (PSE&G), 80 Park Plaza, Newark, New Jersey 07102-4194. Submitted by: EcolSciences, Inc.".

7. *"Summary of the Timber Rattlesnake Surveys within the Delaware Water Gap National Recreation Area (DEWA), 2010 Field Season. September 14, 2010* Prepared for: Public Service Electric and Gas Company (PSE&G), 80 Park Plaza, Newark, New Jersey 07102-4194. Submitted by: EcolSciences, Inc."

8. "Timber Rattlesnake Study for PSEG Roseland-Bushkill Transmission Line Right-of-Way within the Delaware Water Gap National Recreation Area, Warren County, New Jersey, and Monroe and Pike Counties, Pennsylvania "

Avian:

12. *"Raptor Survey Study Results for Proposed PSE&G Access Roads in the Delaware Water Gap*
National Recreation Area, Township Of Hardwick, Warren County, New Jersey. September 14, 2010 Prepared for: Public Service Electric and Gas Company (PSE&G), 80 Park Plaza, Newark, New Jersey 07102-4194. Prepared by: EcolSciences, Inc., 75 Fleetwood Drive, Suite 250, Rockaway, New Jersey 07866. February 2, 2010."

PENNSYLVANIA:

Plants

15. *"Plant Species of Special Concern Report Addendum for PPL Electric Utilities, Susquehanna-Roseland 500 kV Transmission Line", Nov, 4, 2009 Delaware* Water Gap National Recreation Area, Lehman Township, Pike County, PA; Middle Smithfield Township, Monroe County, PA; Hardwick Township, Warren County, NJ.

16. *"Plant Species of Special Concern Supplemental Report for PPL Electric Utilities Susquehanna to Roseland 500 kV Transmission Line Delaware Water Gap National Recreation Area, Lehman Township, Pike County, PA, and Hardwick Township, Warren County, NJ," dated September 10, 2010.* This report includes the results of rare plant surveys in Shoemaker Barrens conducted in August 2010.

Wetlands

17. *Wetland Surveys*, February 2010,

Mammals

18. *"Report on Indiana Bat (Myotis sodalis) and Small-Footed Bat (Myotis leibii) Sampling at 136 Net Sites and 5 Mine Portals on PPL Electric Utilities' May-August, 2009.* Proposed Susquehanna to Roseland 500 kV Transmission Line Project for the Pennsylvania Game Commission"

Reptiles

19. *"Bog Turtle (Glyptemys muhlenbergii) Habitat Suitability assessment (Phase I Survey) for PPL Electric Utilities*" proposed PPL Susquehanna-Roseland 500 kV Transmission Line Project"

20. *"Timber Rattlesnake Construction Monitoring, Geotechnical Testing, PPL Structure 1/3, DEWA', December 12, 2009*, Lehman Township, Pike County, PA"

21. *"Timber Rattlesnake Study for PSEG Roseland-Bushkill Transmission Line Right-of-Way within the Delaware Water Gap National Recreation Area, December 12, 2009* Warren County, New Jersey, and Monroe and Pike Counties, Pennsylvania "

Avian:

22. *"Bald Eagle (Haliaetus leucocephalus) Survey Report for Susquehanna – Roseland 500 kV Transmission Line Delaware Water Gap National Recreation Area, December 11, 2009,* Lehman Township, Pike County, PA, Middle Smithfield Township, Monroe County, PA, Hardwick Township, Warren County, NJ"

Gregory J. Smith
PPL Electric Utilities
Two North Ninth Street, GENN5
Allentown, PA 18101-1179

June 18, 2012

Mr. John J. Donahue
Superintendent
National Park Service
Delaware Water Gap National Recreation Area
HQ River Road off Route 209
Bushkill, PA 18324

Ms. Pamela Underhill
Superintendent
Appalachian National Scenic Trail
PO Box 50 252 McDowell Street
Harper's Ferry, WV 25425

RE: Updated FAA Aviation Safety Information

Dear John and Pam:

The Companies have taken action to address the concerns you raised in your April 17, 2012 letter regarding the installation of conventional aviation safety devices (e.g., lights and marker balls) on structures within the NPS lands you administer. In response to your concerns, the Companies determined that the use of an Audio Visual Warning System (AVWS), in lieu of conventional lighting and marker balls, could meet aviation safety concerns while reducing the potential for adverse impacts to an insignificant level. The use of an AVWS system requires specific approval by the FAA. The Companies recently sought the approval of the FAA to use an AVWS system for the four towers and two spans at issue. We are pleased to inform you that the FAA has provided No Hazard Determinations for these structures and spans conditioned on our use of an AVWS. Attached please find the No Hazard Determinations from the FAA, dated June 11 and June 12, 2012, for span 38-3 to 39-1 (Delaware River crossing) and span 41-3 to 41-4 (Sand Pond crossing) and the four structures supporting these spans.

As a result of the FAA approval of the use of an AVWS, neither marker balls nor always-on lights will be necessary at these locations. The AVWS will activate lights and send an audio message by radio to the pilot when an aircraft is within 2 nautical miles of the locations and heading toward the locations at an altitude lower than 1000 feet above the transmission line. The lights will be turned off during all other times. Based on the minimal amount of air traffic expected at this altitude in this area, the Companies believe that the lights will be triggered to turn on an extremely low percentage of the time and, when triggered, they will be on for approximately 60 seconds. While the AVWS does require radar units, solar panels and batteries (to power the lights and radar units) to be installed on at least two of the four structures,

these additional pieces of equipment are relatively small compared to the transmission poles, and can be positioned so as to have a negligible impact on the appearance of the structures.

It is the Companies' understanding that the addition of an AVWS at the Delaware River crossing of the S-R Project will meet federal aviation safety rules, which benefits NPS and other federal aircraft operations (e.g., fire management, wildlife surveys, law enforcement) while not otherwise changing the NPS preferred alternative or causing more than a small incremental impact on resources within the NPS units crossed by the S-R Project. We would be happy to assist you with completion of any analysis you may wish to develop. Please contact me at your convenience if the use of the AVWS does not address the concerns raised in your April 17th letter.

Sincerely,

Gregory J. Smith

cc: Andrew Tittler
DEWA EIS Planning Team
Morgan Elmer
John Lain
Tom Jensen
Geraldine Smith
Rob Pollock
Amanda Stein
Pat McMackin
Ron Reybitz
Clint Riley
Pamela Shellenberger
Wendy Walsh

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2012-AEA-2747-OE
Prior Study No.
2012-AEA-28-OE

Issued Date: 06/11/2012

David Carr
PSE&G
100 Eagle Rock Avenue
Suite 125
East Hanover, NJ 07936

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Lighting Study Span 41/3 (B17-17) to 41/4 (B17-18)
Location:	Hardwick, NJ
Latitude:	41-03-44.08N NAD 83
Longitude:	74-57-07.43W
Heights:	1075 feet site elevation (SE) 298 feet above ground level (AGL) 1373 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white-medium catenary - Chapters 4,10(Catenary),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part I)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Your request for consideration to utilize an Audio Visual Warning System to operate the White-medium catenary is approved provided that the equipment meets established technical standards.

This determination expires on 12/11/2013 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-4546. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AEA-2747-OE.

Signature Control No: 165567693-166594336 (DNE)
Robert Alexander
Specialist

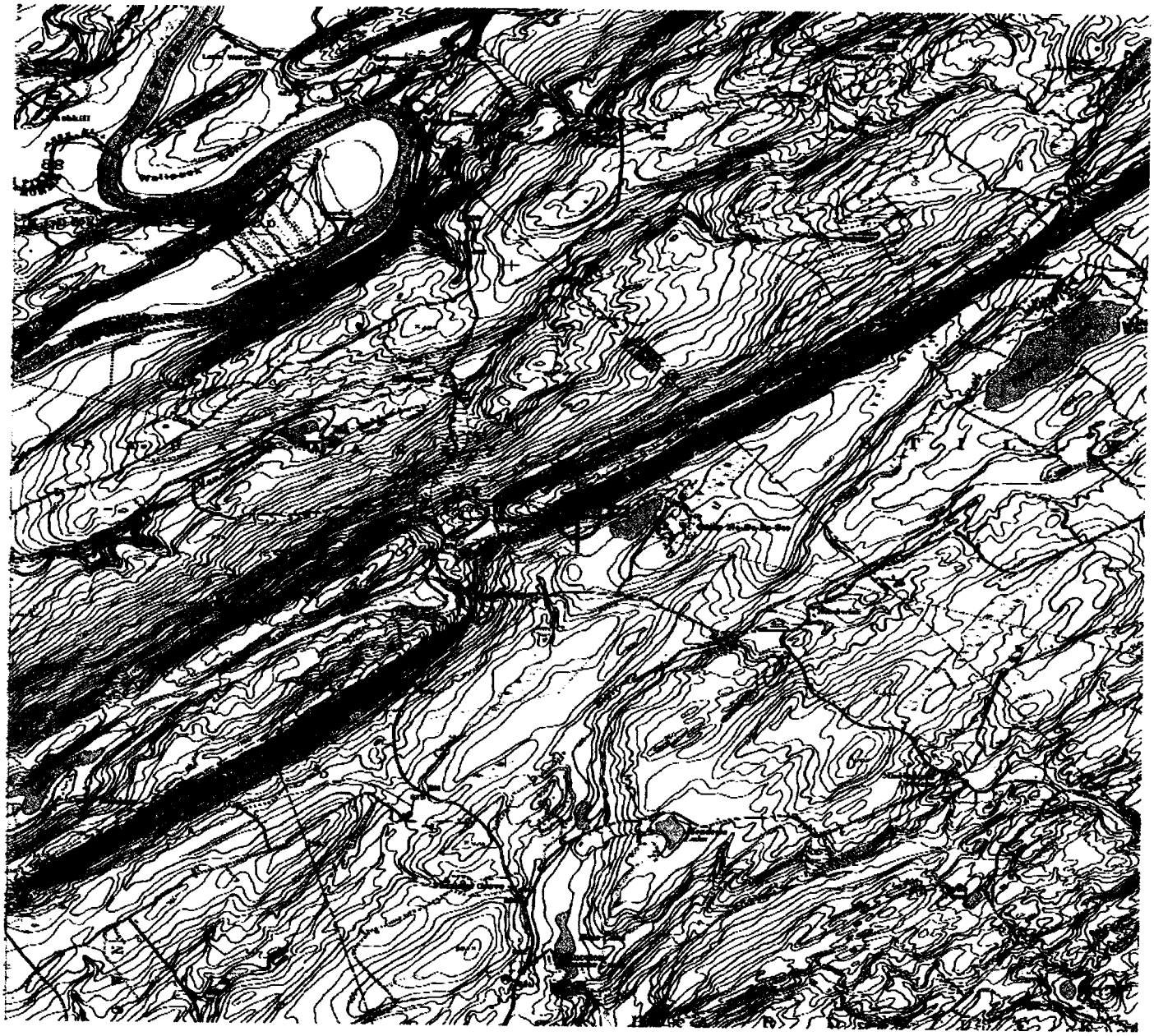
Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2012-AEA-2747-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
1307.5	1342.5	MHz	2	W

TOPO Map for ASN 2012-AEA-2747-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2012-AEA-2745-OE

Issued Date: 06/12/2012

David Carr
PSE&G
100 Eagle Rock Avenue
Suite 125
East Hanover, NJ 07936

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Tower 41/3 (B17-17)
Location:	Hardwick, NJ
Latitude:	41-03-46.57N NAD 83
Longitude:	74-57-17.72W
Heights:	1441 feet site elevation (SE)
	204 feet above ground level (AGL)
	1645 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white-medium catenary - Chapters 4,10(Catenary),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part I)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Your request for consideration to utilize an Audio Visual Warning System to operate the White-medium catenary is approved provided that the equipment meets established technical standards.

This determination expires on 12/12/2013 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-4546. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AEA-2745-OE.

Signature Control No: 165567498-166626366 (DNE)
Robert Alexander
Specialist

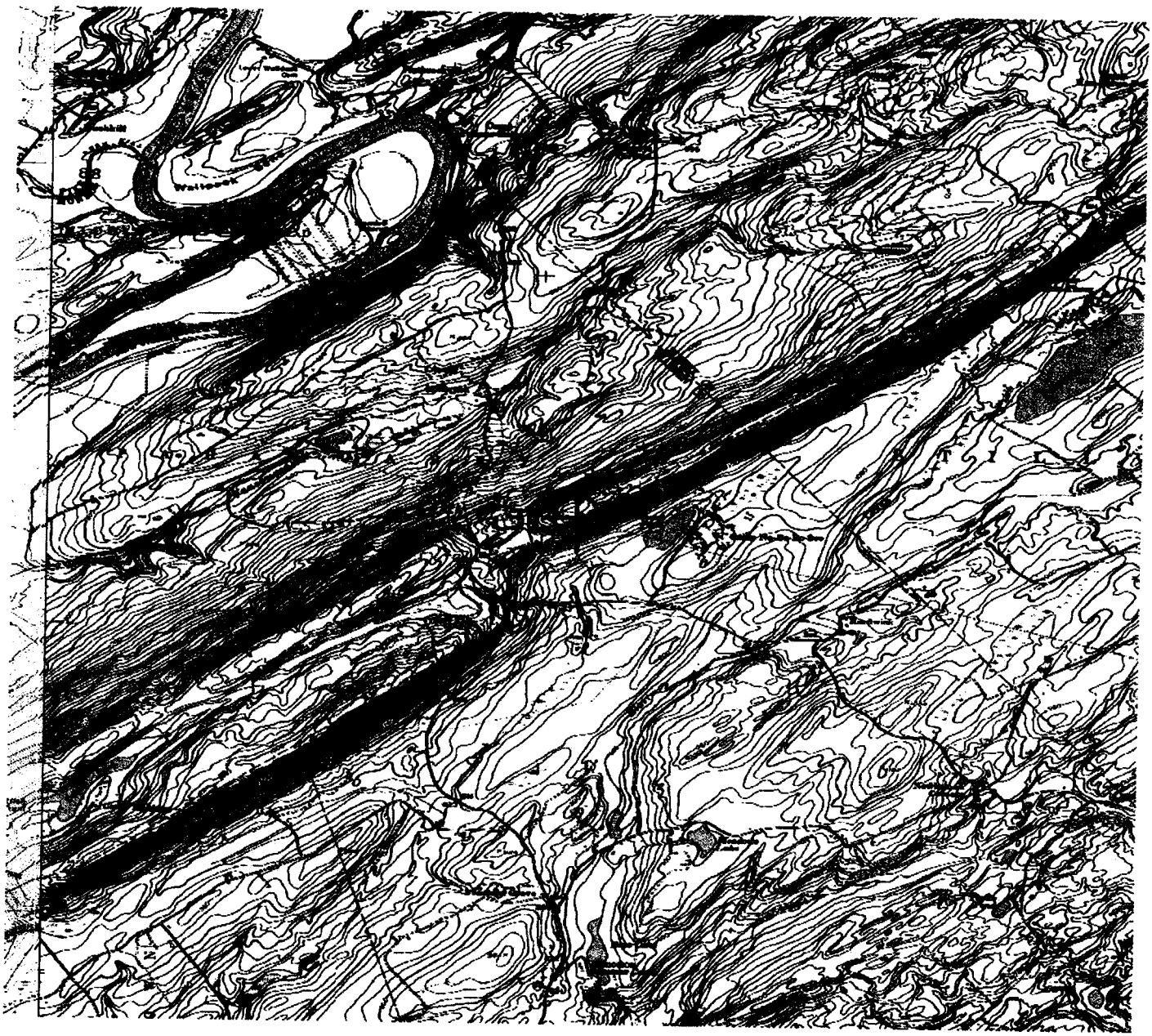
Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2012-AEA-2745-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
1307.5	1342.5	MHz	2	W

TOPO Map for ASN 2012-AEA-2745-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2012-AEA-2744-OE

Issued Date: 06/11/2012

Jay A. Keeler
PPL Electric Utilities
2 North 9th Street
Allentown, PA 18101

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Tower 38/3 (B17-6)
Location:	Middle Smithfield, PA
Latitude:	41-04-28.66N NAD 83
Longitude:	75-00-17.26W
Heights:	648 feet site elevation (SE)
	219 feet above ground level (AGL)
	867 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white-medium catenary - Chapters 4,10(Catenary),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part I)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Your request for consideration to utilize an Audio Visual Warning System to operate the White-medium catenary is approved provided that the equipment meets established technical standards.

This determination expires on 12/11/2013 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-4546. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AEA-2744-OE.

Signature Control No: 165567494-166590979 (DNE)
Robert Alexander
Specialist

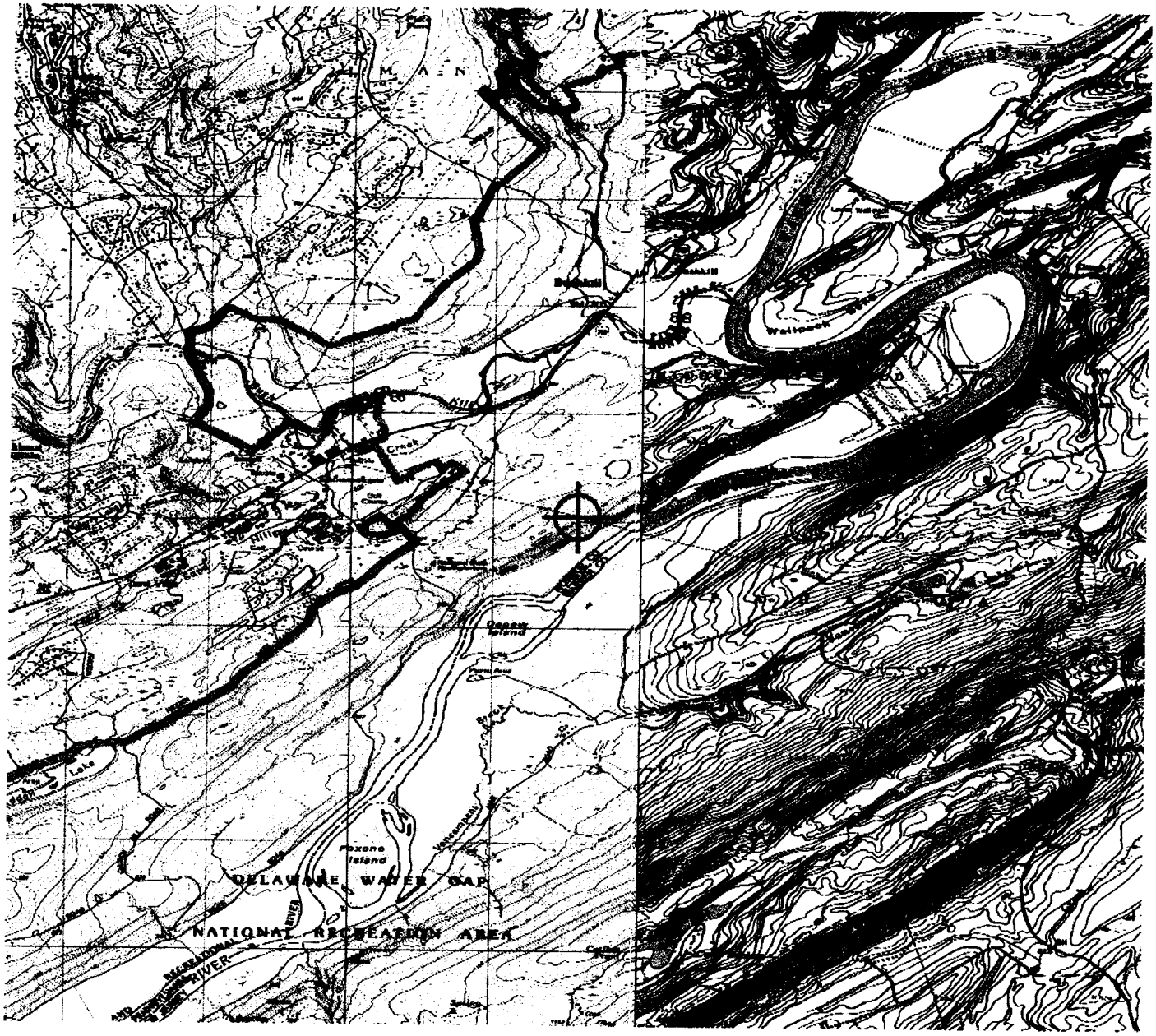
Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2012-AEA-2744-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
1307.5	1342.5	MHz	2	W

TOPO Map for ASN 2012-AEA-2744-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2012-AEA-2749-OE
Prior Study No.
2012-AEA-27-OE

Issued Date: 06/11/2012

Jay A. Keeler
PPL Electric Utilities
2 North 9th Street
Allentown, PA 18101

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Lighting Study Span 38/3 (B-17-6) to 39/1 (B17-7)
Location:	Middle Smithfield, PA
Latitude:	41-04-25.47N NAD 83
Longitude:	75-00-03.62W
Heights:	312 feet site elevation (SE) 286 feet above ground level (AGL) 598 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white-medium catenary - Chapters 4,10(Catenary),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

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Your request for consideration to utilize an Audio Visual Warning System to operate the White-medium catenary is approved provided that the equipment meets established technical standards.

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(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

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A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-4546. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AEA-2749-OE.

Signature Control No: 165567910-166591542 (DNE)
Robert Alexander
Specialist

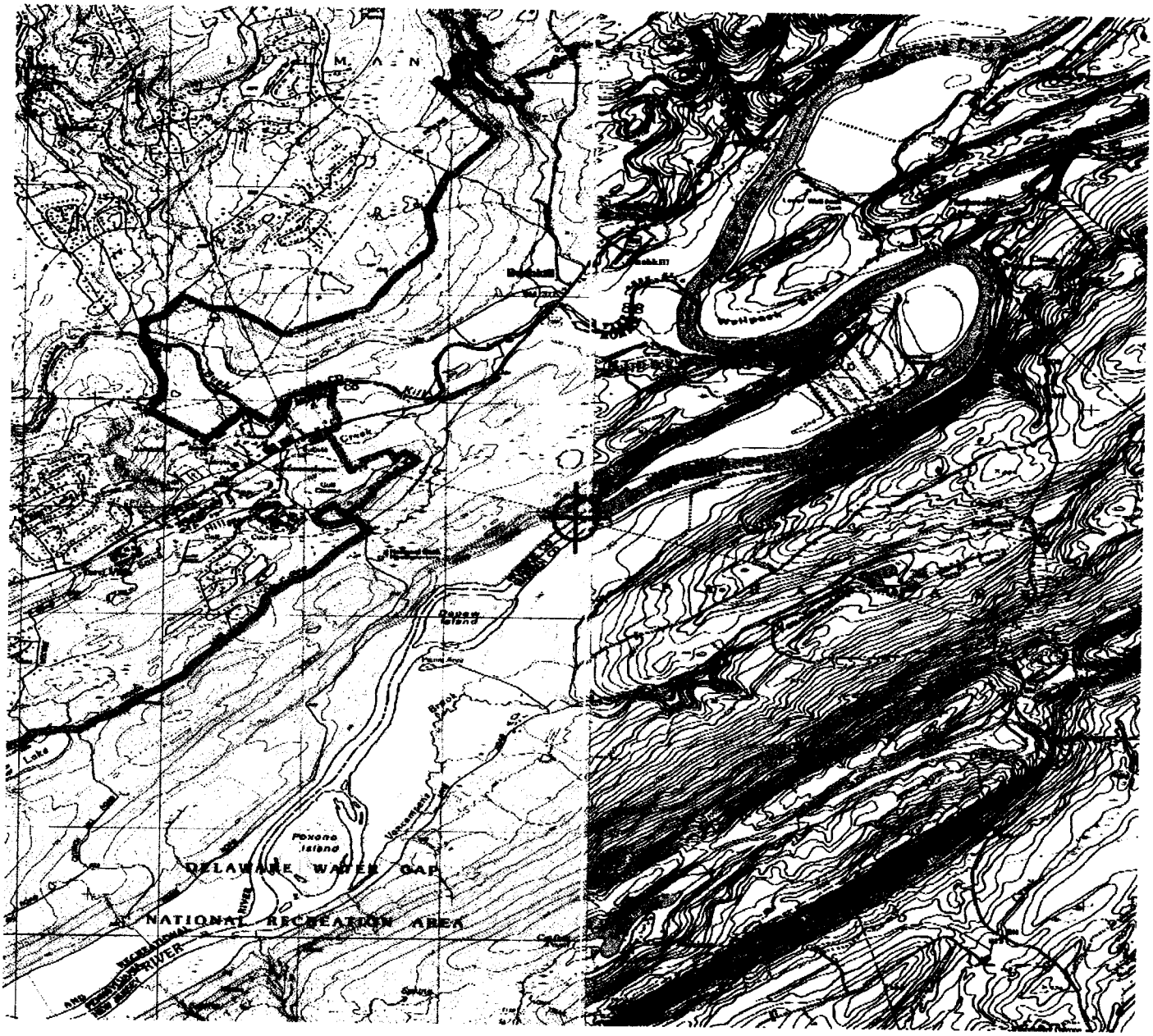
Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2012-AEA-2749-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
1307.5	1342.5	MHz	2	W

TOPO Map for ASN 2012-AEA-2749-OE



Gregory J. Smith

PPL Electric Utilities
Two North Ninth Street, GENPL3
Allentown, PA 18101-1179

June 25, 2012

Mr. John J. Donahue
Superintendent
National Park Service
Delaware Water Gap National Recreation Area
HQ River Road off Route 209
Bushkill, PA 18324

Ms. Pamela Underhill
Superintendent
Appalachian National Scenic Trail
PO Box 50 252 McDowell Street
Harper's Ferry, WV 25425

Dear John and Pam:

I want to provide you with the most current information on the design of the structures that PPL and PSE&G expect to install for the Susquehanna-Roseland Project where it crosses the NPS units you administer. Let me assure you that we remain committed to use the basic designs encompassed within the applications we previously submitted to you. Our current designs are entirely consistent with the descriptions and visual simulations used in the DEIS and related materials employed throughout the public comment process.

These designs confirm our intention to use monopole structures. We will not use lattice structures inside the NPS units. The final designs more precisely characterize the shape or profile of the monopole structures, and, most important, reflect our efforts to reduce the visual impacts of the structures. Our choice of these designs allow us to reduce the number of poles required to carry the lines at certain locations, using two-pole instead of three-pole structures where the loadings are greatest and single pole structures at about half of the locations.

All of the structures will be made of "weathering" steel which results in a brown, non-reflective finish. The structures in New Jersey will be slightly different from those used in Pennsylvania. The basic shape and profile will be essentially identical, except for two features: the towers used in New Jersey will have some additional small attachments to accommodate PSE&G's operational requirements to allow their personnel to climb the structures when necessary for periodic maintenance or repair. The cross-arms of Pennsylvania structures are entirely horizontal; the cross-arms of the New Jersey structures show a slight arc. We have prepared and attached photo simulations for your information.

- Simulation 1 shows the single pole structure that will be used in Pennsylvania.

- Simulation 2 shows the single pole structure that will be used in New Jersey.
- Simulation 3 shows the two-pole structure that will be used in Pennsylvania.
- Simulation 4 shows the two-pole structure that will be used in New Jersey.

We have also attached Truescape simulations of single pole and two-pole structures at four planned locations in Pennsylvania and New Jersey.

As we have previously discussed, the precise characteristics of certain structures may be influenced by the soil characteristics encountered at particular sites. Those details cannot be resolved until the sites are sampled through borings, a step that awaits completion of this phase of the decision-making process by the NPS.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Gregory J. Smith

.

cc: Steve Black
Andrew Tittler
DEWA EIS Planning Team
Kevin Noon
Morgan Elmer
John Lain
Tom Jensen
Geraldine Smith
Rob Pollock
Amanda Stein
Pat McMackin
Ron Reybitz
Paul Wirth

Gregory J. Smith
PPL Electric Utilities
Two North Ninth Street, GENN5
Allentown, PA 18101-1179

July 9, 2012

Mr. John J. Donahue
Superintendent
National Park Service
Delaware Water Gap National Recreation Area
HQ River Road off Route 209
Bushkill, PA 18324

Ms. Pamela Underhill
Superintendent
Appalachian National Scenic Trail
PO Box 50 252 McDowell Street
Harper's Ferry, WV 25425

RE: Tom Jensen Email Dated July 6, 2012

Dear John and Pam:

The attached documents were emailed to you and others by Tom Jensen on July 6, 2012. Please contact me if you have any questions.

Sincerely,

Gregory J. Smith

cc: Andrew Tittler
DEWA EIS Planning Team
Morgan Elmer
John Lain
Tom Jensen
Geraldine Smith
Rob Pollock
Amanda Stein
Pat McMackin
Ron Reybitz
Bert Frost
Beth Johnson
Ruchi Sadhir
David Carr
Albert Cretella
Paul Wirth

Information Regarding Federal Aviation Administration Flight Safety Requirements and Aircraft Operations Potentially Relevant to Frequency of Operation of the Audio Visual Warning System Proposed for Use on the Susquehanna-Roseland Transmission Line within the Boundaries of the Delaware Water Gap National Recreation Area

PPL Electric Utilities Corp. and Public Service Electric and Gas Co. (collectively, the Companies) have been coordinating with the National Park Service (NPS) and the Federal Aviation Administration (FAA) regarding measures to ensure that the Susquehanna-Roseland Transmission Line Project (S-R Project) is constructed and operated in conformance with FAA standards for aviation safety. The FAA initially proposed that the Companies install conventional aviation safety devices (e.g., constant-on lights and marker balls) on certain of the S-R Project towers and conductor spans within the Delaware Water Gap National Recreation Area (DEWA).

The NPS raised concerns with the FAA and the Companies regarding the potential incremental visual impacts of those safety devices, if added to the S-R Project features. In response to those concerns, the Companies determined that the use of an Audio Visual Warning System (AVWS), in lieu of conventional lighting and marker balls, could meet aviation safety concerns while reducing the potential for incremental adverse visual impacts to an insignificant level. An AVWS is an all-weather, day-and-night, low-voltage, radar-based obstacle-avoidance system that temporarily illuminates tower-mounted obstruction lights and temporarily sends out an audio warning to pilots on the locally monitored radio frequency(s) when the system's radar detects an aircraft traveling at low elevation, and on a trajectory that creates a risk of potential collision with selected obstructions, e.g., towers and conductor spans. It does not require additional equipment in an aircraft.

The Companies sought and obtained approval from the FAA for the use of an AVWS for the four towers and two spans at issue within the DEWA. (The Companies have previously provided copies of the four FAA approval letters to the NPS.) In particular, the FAA issued Determinations of No Hazard for span 38/3 to 39/1 (Delaware River crossing) and span 41/3 to 41/4 (Sand Pond crossing) and the four towers supporting these spans upon installation of AVWS. The purpose of this document is to provide the NPS with information regarding the AVWS and the potential frequency of its use within the DEWA.

AVWS Specifications

The AVWS will activate medium-intensity white strobe lights (FAA light type L-865) and send an audio warning by radio to the pilot when an aircraft is (1) within two nautical miles of the four towers and two spans of concern and (2) heading toward the locations at an altitude lower than approximately 1000 feet above the transmission line. When the AVWS is triggered, the lights will be on for approximately 60 seconds. The lights will be off during all other times. The AVWS requires radar units on two of the four towers and solar panels and batteries (to power the lights and radar units) to be installed on the four towers. These additional pieces of

equipment are relatively small compared to the transmission poles and can be positioned so as to have a negligible impact on the appearance of the structures.

Information on a leading AVWS product, Obstacle Collision Avoidance System (OCAS), is attached. *Attachments A and B*. Also attached is an FAA Memorandum that approves OCAS as a suitable method for meeting FAA standards on the marking and lighting of obstructions. *Attachment C*. The Companies are distributing a Request for Proposal to the manufacturer of the OCAS and other potential AVWS providers for installation of AVWS equipment consistent with the FAA's Determinations of No Hazard applicable to the S-R Project inside DEWA.

Flight Information

In order to help determine the likelihood and frequency of activation for the AVWS within the DEWA, the Companies' consultant, Federal Airways & Airspace (FA&A), gathered the following information regarding aircraft operational rules and activities in the vicinity of the DEWA. The AVWS will be triggered by approaching aircraft operating lower than 1000 feet above the AVWS-protected towers and spans. The towers range in elevation from 500' to 1650' above mean sea level (AMSL). Accordingly, the AVWS could be triggered by flights operating between approximately ground level and 1000' above the tallest tower.

Airways over DEWA. The FAA has established three airways over the DEWA, the lowest of which requires a minimum altitude of 3,500' AMSL. These airways are used by flights operating under Instrument Flight Rules (IFR) and by some flights operating under Visual Flight Rules (VFR). Each airway has a designated Minimum Obstacle Clearance Altitude (MOCA). Airway Q480 has a minimum altitude of 18,000' AMSL. Airway V162 has a minimum altitude of 3500' AMSL and Airway V226 has a minimum altitude of 4000' AMSL. Flights operating within these FAA designated airways would not trigger the AVWS.

VFR Flights. In addition to flights operating within the FAA designated airways, a smaller number of aircraft will operate over DEWA under VFR requirements. Research has not found any comprehensive survey of VFR operations over DEWA. Anecdotal information indicates air tour operations, gliders, helicopters and ultralight aircraft follow VFR requirements and they do operate over DEWA during certain times of year, and times of day. Most of this local recreational flight activity occurs during the day, rather than at night and the majority of this flight activity is concentrated south of the proposed S-R Project location.

The majority of VFR flights over the DEWA occur during the day rather than at night due, in part, to the higher collision risk at night for VFR operated flights. *See* National Transportation Safety Board (NTSB), *Safety Alert SA-013 - Controlled Flight Into Terrain in Visual Conditions* (January 2008) (recognizing that "darkness may render visual avoidance of high terrain nearly impossible and that the absence of ground lights may result in loss of horizon

reference."). In addition, many VFR flights over the DEWA are for the purpose of sightseeing, which is unlikely to occur at night. If the AVWS is triggered during the day by VFR flights, the visual warning (60 seconds of light) will likely not be noticeable in the DEWA from ground level because of the ambient lighting of the sky. For those VFR flights that do occur at night, the NTSB recommends a cruising altitude of 2,000' above ground level in mountainous areas. *Id.* If VFR operations do occur at night, the AVWS would only be triggered by those pilots that fail to follow the NTSB recommendation.

Minimum Safe Altitude. A Minimum Safe Altitude (MSA) – an altitude which allows adequate vertical clearance from nearby terrain and manmade obstacles and allows for proper navigational functions – has been established for that portion of the DEWA containing the S-R Project. *Attachment D.* Under the applicable MSA, no IFR operated flights should be within 1000' of the AVWS and the AVWS should not be triggered.

For VFR operated flights, based upon the FAA Sectional Chart (New York South, 85th Edition, May 2012), the maximum obstruction altitude in the sector containing the S-R Project in DEWA is 2,200' AMSL. *Attachment E.* VFR aircraft at night invariably fly at least 1,000 ft. above this elevation to avoid any collisions with terrain or other unmarked obstacles in the area. In order to maintain safe flight operations, all VFR night traffic over the transmission line crossing of the DEWA would be expected to be flown at or above 3,200' AMSL, thus, well above 2800' AMSL (which is the 1000 foot trigger level of the AVWS system). Therefore, VFR night flights over this area of the DEWA would almost never trigger the AVWS.

Conclusion

Research did not reveal any data describing the frequency of flights in the airspace protected by the proposed AVWS for the S-R Project. However, FAA rules and standards for both IFR and VFR flights in the area limit aircraft operations to airspace above that protected by the AVWS so the AVWS should rarely be triggered. Low altitude flight in the DEWA area is likely to occur in the daytime and infrequently at night. Accordingly, the AVWS system is much more likely to be triggered, if ever, during daytime than in darkness. The AVWS system will be triggered only by aircraft operating below the set minimum altitudes, and on trajectories that could produce a collision. The AVWS system will not be triggered by each low-elevation flight, but only those on certain courses toward the obstruction. When triggered, the visual and radio warnings will last approximately 60 seconds. These factors, taken together, lead to the conclusion that the visual impact of the AVWS in DEWA can reasonably be expected to be infrequent, brief, and limited generally to daytime.

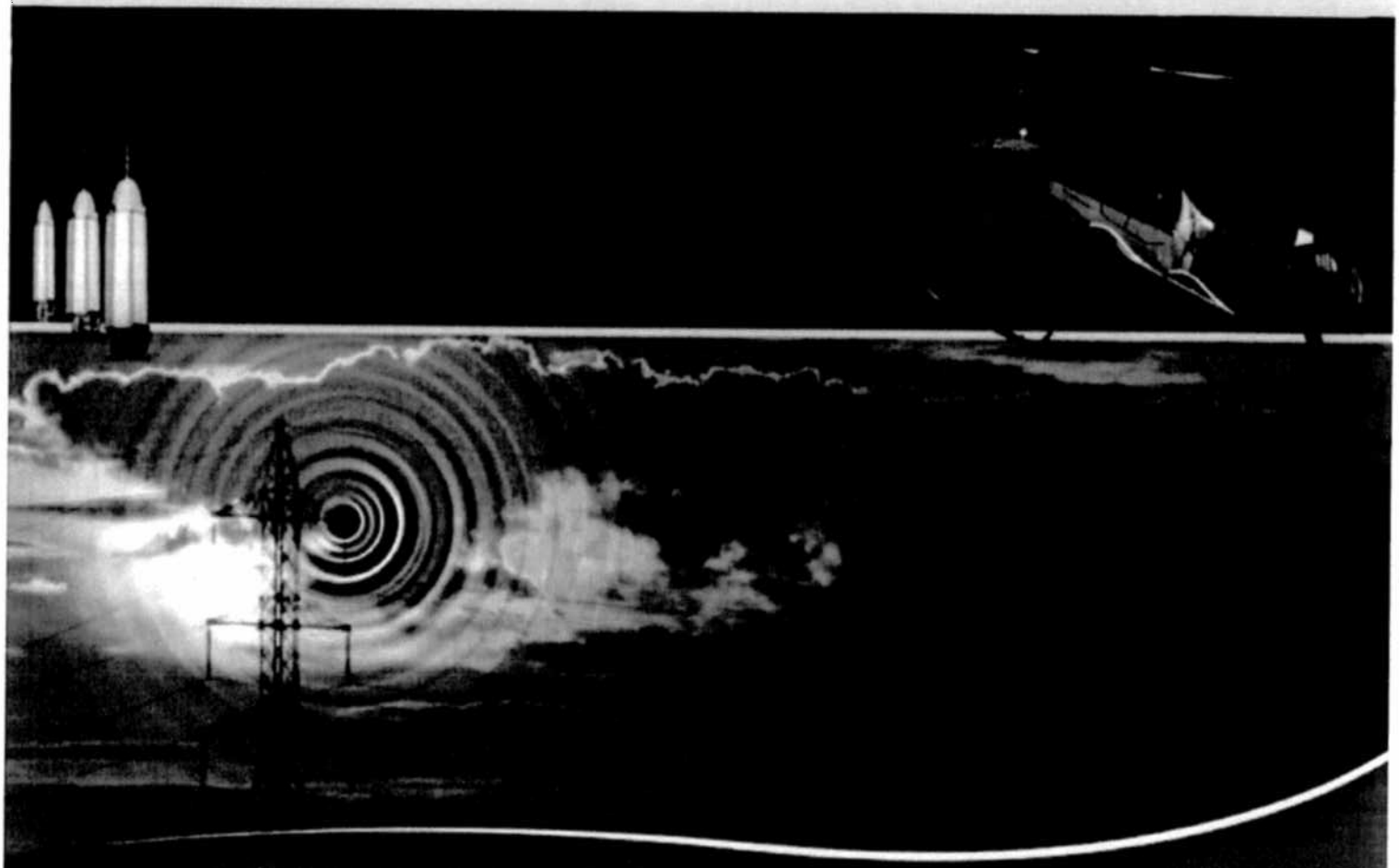
Mitigation

The AVWS avoids and minimizes the potential visual impacts of aviation safety devices that would typically be prescribed by federal rules for the S-R Project towers and conductors located inside DEWA. Constant-on lights and marker balls are visible at all times, while the AVWS will limit lighting to short increments of time, and avoid marker balls entirely. The AVWS will be monitored remotely and this monitoring will include recording each instance when the system is triggered. The AVWS will generate precise empirical information on the time of day, date, and duration of any instance in which the warning lights are activated. The AVWS will provide information that the NPS can use to assess the actual impacts of the system on the visual resources under the jurisdiction of the NPS. The Companies will provide the AVWS operational data to the NPS on a frequency set by the NPS. The Companies have proposed a broad program to compensate for the unavoidable adverse impacts of the S-R Project, including all types of visual impacts. The Companies will, and hereby commit to provide compensatory mitigation for the adverse visual impacts of the AVWS, though the actual amount of compensation for the potential impacts of the AVWS should be set within the context of on-going discussions between the Companies and the NPS on the total amount of compensatory mitigation required for the S-R Project.

Attachment A
(2 pages)

Obstacle Collision Avoidance System

OCAS®



The OCAS® Solution

- Significantly Reduces Risk to Property Owners by Exceeding Current FAA AC 70/7460-1K Recommendations
- Provides Both Audible and Visual Warning of Obstructions to Aviators
- Requires No Specialized Aviation Equipment on Board Aircraft
- Eliminates Need for Marker Balls
- Reduces Strobe Light Requirements by 66% Over Legacy Systems
- Powered by 120v Secondary Service or Optional Solar Panel Configuration
- Solar Power Option Reduces Infrastructure Cost for Remote Installations
- 24/7/365 System Monitoring and NOTAM Notification Service
- Remote Configuration, Diagnostics, Troubleshooting, Maintenance and Versioning Control
- Dramatically Increases Life Expectancy of Lighting Systems Due to Reduced Run Times
- Eliminates Light Pollution Associated with Legacy System Obstruction Marking
- Improves Environmental Outcomes for Neighbors, Society and Migratory Birds

OCAS®, Inc. is setting a new standard for obstruction marking safety by delivering the first ever obstacle marking solution capable of delivering both visual and audible warnings to flight crews encroaching upon airspace surrounding transmission structures and line crossings which warrant marking. The OCAS Transmission solution is an innovative new approach coupling ground based monitoring with multi-tier warning capabilities dedicated to the protection of utility assets. The OCAS solution will drastically improve the transmission asset owner's risk position by increasing safety for the general aviation community while also decreasing public annoyance due to light pollution. In some jurisdiction, OCAS may qualify as an innovative technology investment providing an improved rate of return on shareholder investment.

703-752-6212 www.ocasinc.com info@ocasinc.com

Obstacle Collision Avoidance System

OCAS®

OCAS Power Line Avoidance

Obstacle Collision Avoidance System
The New Standard in Obstacle Marking Safety

What OCAS® Does

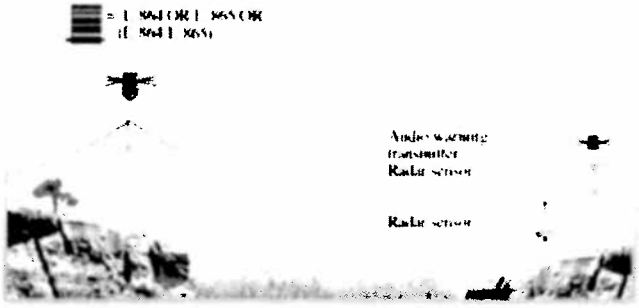
At the heart of the OCAS Solution is a low-power consumption, Continuous Wave / Frequency Modulated Continuous Wave radar which scans for aircraft in the proximity of the protected asset. By tracking an approaching aircraft's heading, speed, and elevation, the radar detects whether the aircraft is following a course which may bring it into dangerous proximity of the transmission line crossing. Thirty (30) seconds prior to any calculated time of impact with a protected crossing or structure, the OCAS radar unit communicates via UHF radio link to tower-mounted strobe lights, to initiate the visual alert immediately. If a pilot has not sufficiently altered his course Twenty (20) seconds prior to calculated impact, the OCAS Solution broadcasts an alarm via a VHF radio in the general aviation band, signaling an audio warning over the in-aircraft radio warning the pilot of the obstacles presence.

OCAS® Radar Technical Specifications

OCAS Radar Unit:	
Height:	10.5ft (with VHF antenna affixed)
Diameter:	0.5ft
Weight:	265lbs
Number Radar Panels:	8 (each with 4 receiver/transmitter)
Power Input 12V DC (Through AC/DC converter)	12V DC (through AC/DC converter) Both AC and solar power input options includes backup lead-acid batteries to maintain power in the event of power supply loss, damage to power source, or damage to OCAS cabling
Maximum Power Output	25W Max
Radar Power Output (Peak)	2W
VHF Power Output (Peak)	1.44W
360° scan time	2.2sec
Scanning Capabilities:	
View:	360° Horizontal +/- 40° accuracy Vertical +/- 7° Horizontal +/- 1° vertical 5000m .+/- 50m
Range:	5000m +/- 50m
Speed:	11-625mp +/- 6.5mph
Antenna Gain:	17dB
Radar Type:	L-band
Radar Frequency:	1307.5 – 1342.5 MHz
VHF Band:	118-136 MHz
UHF Band:	450-470 MHz
Connectivity:	GSM / GPRS modem
Wireless LAN modem:	for rapid field upgrades
Lighting:	
Medium Intensity L-865 white strobe lights	
Power Input	230V DC Power (through DC/DC converter)
Power Output	10-16V DC / 1.4A
Specially designed hardware allows for rapid illumination	

OCAS® Control Center (OCC)

- Provides Real-time, Continuous Monitoring via GSM/GPRS Modem Connection (worldwide)
- Provides Live, Instant Alerts to Technicians via SMS Text or eMail
- Automated Uploads, Log Downloads & Status Checks
- Real Time Reporting Ensures NOTAM Compliance is Maintained in the Event of System Degradation or Extended Power Outage



703-752-6212 www.ocasinc.com info@ocasinc.com

Attachment B
(7 pages)

OCAS® Transmission & Distribution Obstacle Collision Avoidance System

OCAS®

The New Standard in Obstruction Marking Safety

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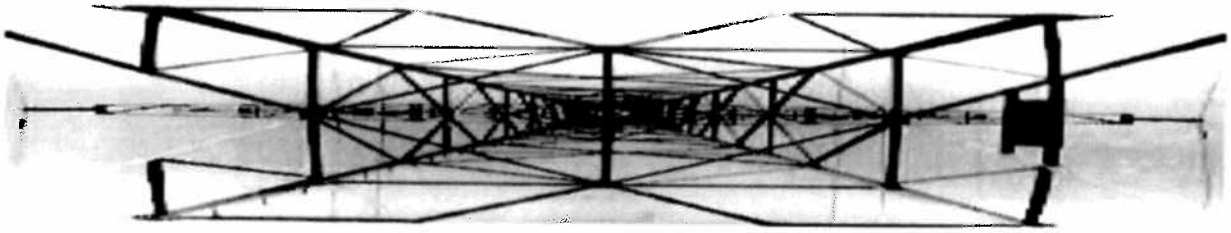
OCAS® Transmission & Distribution Obstacle Collision Avoidance System

Transmission and distribution system asset owners and operators face a future of increased energy demands and supply requirements which continue to stress the limits of an aging infrastructure. The Energy Information Administration (EIA) forecasts US capacity requirements will increase by 258,000 mega-watts by 2030 and according to the Edison Electric Institute (EEI) 12,500 miles of new transmission lines will be constructed by 2014.

Regulatory policy and societal expectations for improved environmental outcomes from these infrastructure investments will require asset owners to consider innovative technologies and construction practices to manage the multiple and competing externalities associated with these complex system implementation requirements.



The near future provides asset owners and operators an unprecedented opportunity to set new standards for transmission system reliability and asset protection while reducing the environmental impact of the infrastructure at the same time minimizing the impact of future O&M charges.

OCAS®, Inc. is setting new standards in obstruction marking safety with an active recognition system capable of delivering both visual and audible warnings to flight crews encroaching upon protected airspace surrounding transmission structures and line crossings which warrant marking. The Obstacle Collision Avoidance System from OCAS is an innovative new approach coupling active recognition and multi-tier warning capability dedicated to the protection of ground based flight obstacles such as electric transmission lines, telecommunications towers and windmills.

Utilizing ground based radar surveillance as part of this active recognition system allows the OCAS solution to limit obstruction light run times to actual encroachment threats thus eliminating the constant barrage of light pollution associated with legacy obstruction marking applications which traditionally run their lighting systems on a continuous basis to maintain compliance with aviation administration safety recommendations.

Because run times are significantly reduced with the OCAS solution the life expectancy of each light is dramatically improved. Typically bulbs are replaced every 12 to 24 months on legacy marking applications. With OCAS, bulb replacement requirements caused by runtime burn-out will typically exceed 10+ years.

The OCAS application is further differentiated from other obstruction marking systems, requiring no additional equipment in the approaching aircraft to provide the audible alarm. Installation of the system is compatible with transmission design and construction practices and will not compromise or complicate the transmission equipment sighting process.

Further, the OCAS solution runtime and energy consumption requirements allow the system to be powered by solar technology thus eliminating the need to build costly secondary

distribution service to a remote transmission tower site. And, OCAS offers asset owners and operators the opportunity to significantly reduce O&M expenses with an extended service and warranty contract to lock in future costs to a single annual charge.

From an environmental perspective, the basic operational characteristics allow the visual and audible warning systems to remain passive until an aircraft is detected, leaving the skies free from light pollution. This unique capability has earned the OCAS solution the distinction of being the only approved and endorsed obstacle lighting and marking system by the International Dark-Sky Association.

Use of the OCAS solution will drastically improve the asset owner's position with local property owners, environmentalists and regulators throughout the route sighting and approval process by decreasing public annoyance issues with the line, improving the habitat for wildlife while significantly increasing safety for the general aviation community. In some jurisdiction, OCAS may qualify as an innovative technology investment providing an improved rate of return on shareholder investment.

THE ISSUES

Flight Safety Issues

From January 2008 through June 2008, statistics kept by OCAS, indicate the United States and Canada combined have averaged 3 'reported' accidents per month caused by aircraft colliding with existing ground based assets such as power lines and telecom towers. Over 50% of these accidents resulted in at least one fatality.

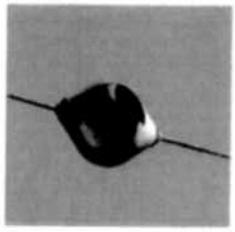
These numbers can be expected to grow over the next 20 years as new facilities such as transmission lines, telecommunication towers and windmill parks continue to expand to meet the publics growing need for electricity and voice/data systems coupled with the projected growth in both fixed wing and rotorcraft operations to meet the increasing demands society places on aviation for general transportation, construction, law enforcement, life safety transportation and leisure activities.

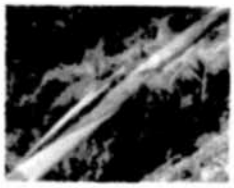
In order to protect both the safety of the aviation community and the operational integrity of our energy transmission and wireless communication networks, the FAA provides recommendations and guidelines via the FAA Advisory Circular 70/7460-1K Obstruction Marking and Lighting which describe the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, and windmills etc.

For decades, the solution to marking obstructions has been to paint structures, deploy marker balls and add more and more high and more intensity lighting.

The results in many cases have proven ineffective:

- No operational or functional tests have ever been performed on marker balls or painted towers and they have not proven their effectiveness on flight safety.
- Wire and Obstruction accidents are currently the FAA's number one problem for Rotorcraft safety with over 40% of reported incidents ending in a fatality.*





- Less than 20% of all obstacle collision accidents are even captured in the NTSB or FAA's database* bringing into focus the extensive amount of unreported damage being done to the nations ground based infrastructure(s).
- Further, projections indicate over 75% of all obstacle and wire accidents could have been avoided with adequate warning systems*

* *National Transportation Safety Board/California assembly bill 1017/University of Maryland study 2004*

Operational and Maintenance Issues

Operating and maintaining traditional obstruction marking systems in complete compliance with FAA AC70/7460-1K can be very costly. Paint and marker balls become faded over time requiring refurbishment. Of greater concern, 24/7/365 operation of obstruction lighting requires frequent maintenance and costly repairs due to continuous runtime requirements not to mention the need to inspect performance on a daily basis:

- The average cost to implement and maintain a typical legacy system for obstruction marking site can exceed $40K annually based on a 20 year life cycle cost analysis.
- Most legacy sites do not conform to FAA guidelines for daily monitoring of system performance resulting in greater liability when accidents do occur.
- When an incident occurs, the average settlement cost per accident is $3.2M per death.
- Current solutions provide no real quantifiable operational advantage.

Community Issues

Both federal and state aviation authorities may require ground based assets meeting specified characteristics be appropriately equipped with obstacle warning devices or systems to assist aviators in the safe operation of their aircraft. Recreational and commercial aviators and ground based asset owners must safely co-exist and assets owners have an obligation to ensure the safety of the community at large in addition to protecting the integrity of their valuable infrastructure from damage.

In addition to aviation safety, light pollution and general public annoyance caused by high intensity lighting of obstacles is becoming a significant issue in many communities as the number of windmills, telecommunications and transmission towers increases. High intensity obstacle lighting is a large contributor to light pollution in rural and suburban areas throughout North America. In fact, 99% of the population in the United States (excluding AK and HI) live in areas where the night sky is above the threshold of polluted status.

Further complicating the continued use of legacy obstacle marking applications is their environmental impact on migratory birds. U.S. Fish and Wildlife Service estimates range between five and fifty million birds are killed each year after being attracted by the lights of ground based assets and colliding with the tower's infrastructure during night migration. At least 231 species have been affected, with neo-tropical migrants making up a large proportion of all species killed.

The OCAS Solution

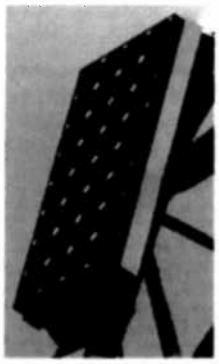
The OCAS system is comprised of innovative low-power (2 watt) surveillance radar, visual warning lights and audio warning VHF radio transmitter. The system comes furnished with either a self-contained solar or external powered control unit with various battery back-up options depending on the customer's power requirements.

Core Technologies

- **Radar:** Sensors based on state-of-the-art radar technology used for detecting the aircraft. The system includes:
  - Smart antenna arrays with software-controlled ray formation and guidance, accomplished without moving parts and with a very low ray emission with respect to range capabilities.
  - Software-controlled signal formation and configurable search options
  - State-of-the-art remotely configurable software for detecting and tracking aircraft
- **Communications:** In addition to the VHF audio warning to the aircraft, the OCAS solution offers a robust communications platform consisting of:
  - UHF Cluster Link Radio for remote and simultaneous control of all strobe lights within the protected area after aircraft detection
  - Low Cost GPRS/GSM technology for 24/7 remote monitoring of system performance from the OCAS Operational Control Center (OCC). GPRS also facilitates remote configuration of the system and firmware upgrades further 'future proofing' the initial investment.
- **Power/Energy System:** With extremely low energy consumption in all modules, the product can be powered by solar panels alone, keeping installation costs low even in areas that have no other electricity supply.

Radar & VHF Radio

Control Unit



Solar Power Option

Lighting

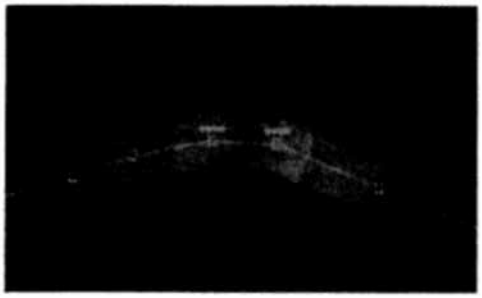
Ease of Installation

The OCAS field unit is prepared for easy installation in remote locations. A solar energy system allows stand alone operations, enabling OCAS field units to be placed practically anywhere.

OCAS Solution Operational Overview

RADAR COVERAGE:
Each OCAS system is field designed to protect the owners ground based assets based on the site conditions of each specific installation. Once deployed the radar technology detects approaching aircraft and determines ground speed plus 3D trajectory and determines whether the aircraft will adequately clear the obstruction. A configurable set of rules is applied by the software in the field to define whether the aircraft must be warned and which warning device (visual only or both visual and audible). The software calculates and stores in memory size of object, speed, heading, altitude and other operating conditions in order to predict time-to-impact with obstacle(s) and activate the warnings within the FAA recommended time frames.

INTIAL WARNING
– **HIGH INTENSITY LIGHTS:** The configurable detection threshold provides an initial visual warning to crew by activating the high-intensity strobe lights. This means that for the majority of the time the high intensity lights remain off thus preserving the dark skies environment while still adhering to strict safety standards.



SECOND WARNING
– **AUDIO BROADCAST:** If the initial visual warning does not cause the pilot to alter the flight path, a programmable VHF radio continuously broadcasts an additional obstruction warning directly to the cockpit of the aircraft. The VHF warning range is adjusted based on local requirements and terrain.

With both the visual and audio warning features, the system provides 24/7/365 operation and is unencumbered by adverse visual conditions.

Operational Control Center (OCC) Support: Through the GPRS 2-way connectivity which comes standard with each system, clients are provided 24/7/365 monitoring and support of their OCAS solution. When required, clients can be provided with date-logged, explicit radar track records of aircraft movement including speed, heading and altitude.

OCC Support will also provide notification in the event of a system issue/outage to client and the FAA in the form of a Notice to Airman (NOTAM). The OCC will assist in troubleshooting and keeping the FAA informed of any status changes. This remote operated maintenance reduces operational cost and increases reliability.

Certification:
Testing and validation of this system has been done in close cooperation with the FAA and Canadian CAA and meets all the requirements of FAA AC 70/7460-1K Obstruction Marking and Lighting in addition to CAA CAR 621.19.

ADDRESSING THE ISSUES

Flight Safety Issues: The addition of an audio warning capability provides a significant improvement over legacy systems in the ability to sufficiently warn the pilot allow them to quickly recognize and avoid an obstacle in any type of weather and visibility conditions both day and night. The two tiered warning method along with the 24/7/365 monitoring and support from the OCAS OCC notably decreases the risk level and liability for owners of ground based obstacles.

Operations and Maintenance: The OCAS solution is a stand alone system which is easily adaptable to the environment and unique configurations of each obstacle it is charged with protecting. Through the use of solar power and robust communications, the solution is essentially autonomous in its operations. With the low power radar solution combined with the passive light solution, the actual power consumption is very low, requires minimum maintenance and substantially increases the life expectancy of each light. In addition, the remote monitoring capabilities allow for fewer on site inspections while still being assured of operational effectiveness in addition to bringing the owner into full compliance with all FAA obstruction marking recommendations. In total, the OCAS system provides a very cost effective solution for both installation and life cycle operation and maintenance.

Community Issues: The advanced capabilities of the OCAS system undoubtedly promote increased safety in any area where they are installed. The passive lighting solution is also ideal for promoting a dark skies environment while maintaining the required safety standards.

OCAS®

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Attachment C
(2 Pages)

Federal Aviation Administration

Memorandum

Date: JUN 15 2009

To: Obstruction Evaluation Services Personnel

From: Kevin Haggerty
Manager, Obstruction Evaluation Services

Subject: Changes to Federal Aviation Administration (FAA) Advisory Circular (AC) 70/7460-1K, Obstruction Marking and Lighting

We are preparing changes to FAA AC 70/7460-1K, Obstruction Marking and Lighting. The changes will incorporate Audio Visual Warning Systems (AVWS) as an acceptable form of marking and lighting that will meet established technical standards to identify an obstruction to air navigation.

AVWS is an all-weather, day and night, low-voltage, Radar-based obstacle avoidance system that utilizes current obstruction lighting products and does not require additional equipment in an aircraft.

AVWS activates obstruction lighting and audio signals to alert pilots of potential collisions with obstacles such as power lines, wind turbines, bridges, and towers. The obstruction lights and audio warnings are inactive when there is no air traffic in the area of the obstruction.

The FAA has analyzed and reviewed the Obstruction Collision Avoidance System (OCAS™) and has determined that OCAS™ provides an equivalent level of safety and is a suitable alternative to the marking and lighting requirements of obstacles as recommended in FAA AC 70/7460-1K.

OCAS™ is the first AVWS to be installed, tested, and approved in the National Airspace System (NAS).

The OES will accept, analyze, and approve an AVWS as an alternative to conventional lighting systems on a case-by-case basis.

OES personnel shall:

1. Review each FAA Form 7460-1, Notice of Proposed Construction or Alteration, for requests to use an AVWS.

2. If an AVWS is indicated, select "AVWS" as the requested Marking and Lighting.
3. Ensure that Technical Operations and Spectrum Engineering are selected to provide comment on the aeronautical study.
4. Business rules will be incorporated into the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) System based on AVWS as the Requested Marking/Lighting to override current auto screens and ensure proper coordination. If AVWS is not selected as the Requested Marking/Lighting, ensure that the case is manually unlocked for review from AF and FM.
5. Before the issuance of the Determination, ensure that comments from Technical Operations and Spectrum Engineering are reviewed and specifically acknowledge that the AVWS was reviewed, approved, or conditionally approved (e.g., No Audio).
6. Adjudicate all AVWS concerns and indicate in the Additional Information section that AVWS is approved for the specific study with or without conditions or limitations prior to the issuance of a Determination of No Hazard to Air Navigation.
7. If AVWS is approved with conditions or limitations or if AVWS is not approved: provide your supervisor with the Aeronautical Study Number and wait for approval to issue the Determination of No Hazard to Air Navigation.
8. Ensure that the 7460-2, Notice of Actual Construction or Alteration, indicates that AVWS is installed.

The OES will incorporate an AVWS section to the external OE/AAA Web site to inform the public about AVWS and its benefits in the NAS.

Please direct any questions or comments to the Manager, OES.

Attachment D
(3 pages)

Minimum Safety Altitude (MSA) is an altitude below which it is dangerous to fly due to the presence of terrain and/or obstacles. There is a MSA that extends over the Delaware River portion of the Susquehanna-Roseland transmission line.

STW MSA – A 25 Nautical Mile (NM) radius plus a 4 NM buffer is applied to the STW VOR/DME. That circle is divided into three sections by the established bearings. The towers 38/3 and 41/3 and spans 38/3 and 41/3 are located inside the 3500' AMSL segment. Therefore, aircraft cannot operate at any altitude below 3500' above mean sea level (AMSL). A 1000' Required Obstacle Clearance (ROC) is applied to the MSA.

EWN MSA – A 25 NM radius plus a 4 NM buffer is applied to the EWV VOR. The towers 38/3 and 41/3 and spans 38/3 and 41/3 are located inside the 3100' AMSL segment. Therefore, aircraft cannot operate at any altitude below 3100' AMSL. A 1000' ROC is applied to the MSA.

The Delaware River portion of the Susquehanna-Roseland transmission line is located within the Stroudsburg-Pocono Airport (N53) VOR-A Holding Pattern. A holding pattern is designed to delay an aircraft already in flight while keeping it within a specified airspace. The holding pattern is an oval shape based on an established holding fix. The holding patterns were figured at 200 knots indicated airspace which permits a size 4 holding pattern at that altitude. The designated altitude an aircraft should fly when carrying out the N53 holding patterns is 3000' AMSL. Below is an image illustrating the MSA and Holding Patterns.

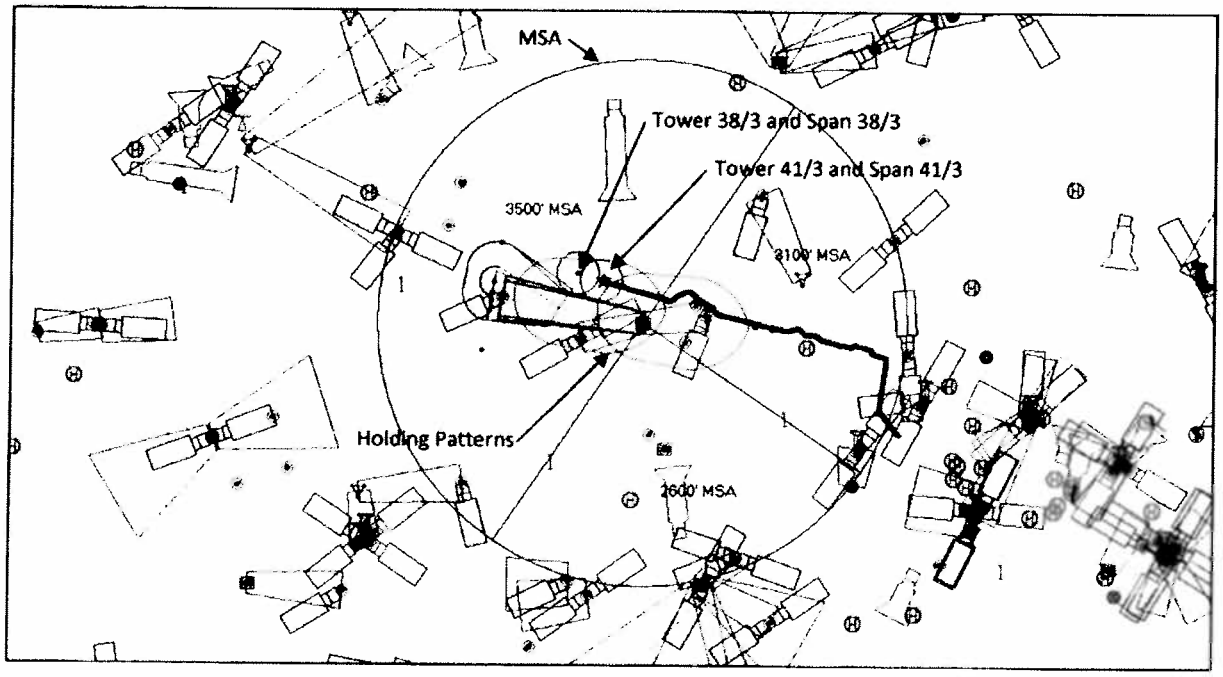


Figure 1 – 25 NM Minimum Safety Altitude and N53 Holding Patterns

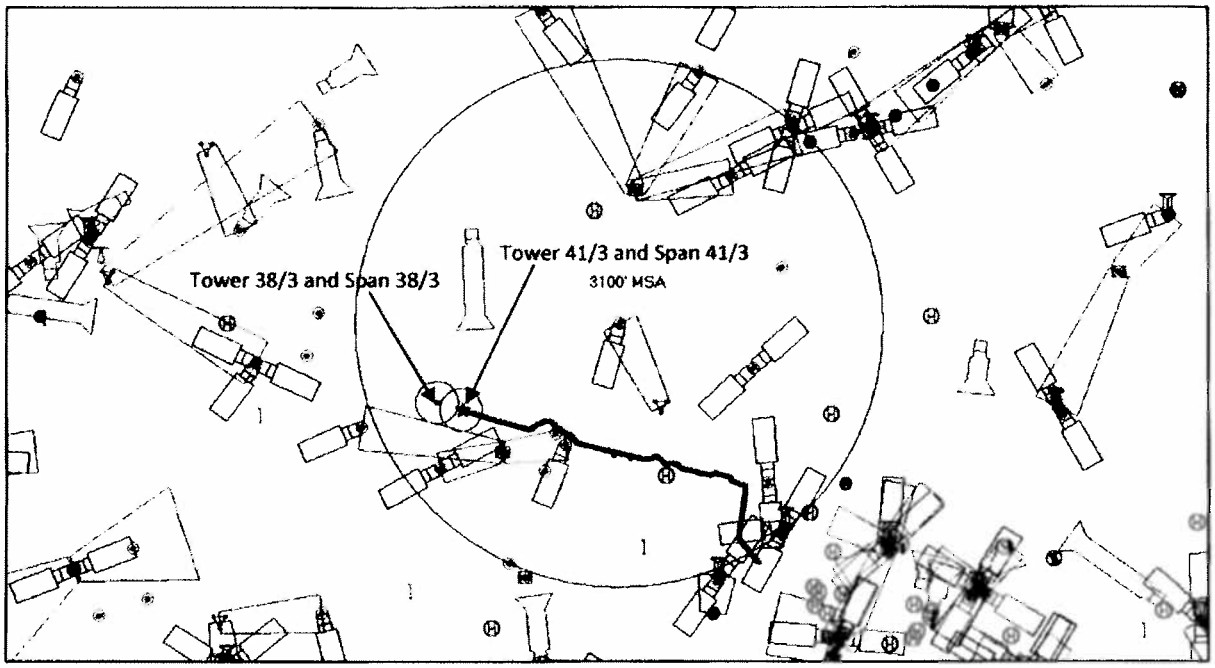


Figure 2 – EWN Minimum Safety Altitude

Minimum Vectoring Altitude (MVA) is the lowest altitude to which a radar controller may issue aircraft altitude clearances during vectoring/direct routing. There are several MVA Charts that extend over the Delaware River portion of the Susquehanna-Roseland transmission line. The most limiting MVA Chart is the ABE MVA. The towers 38/3 and 41/3 and spans 38/3 and 41/3 are located inside the 2900' AMSL sector. A 1000' ROC is applied to the MVA.

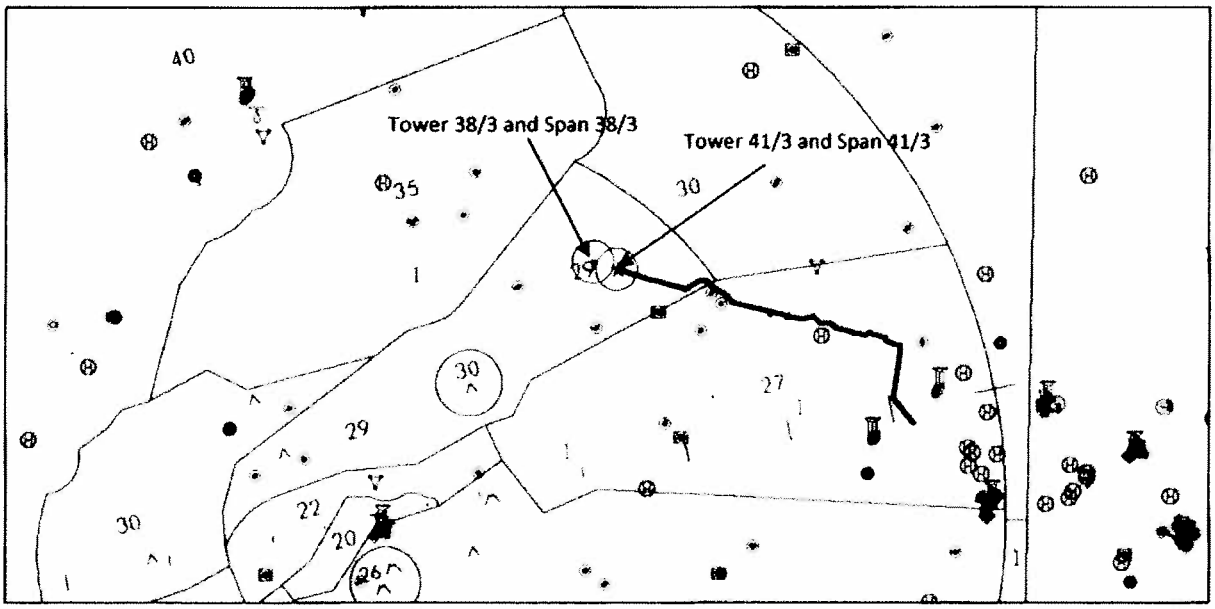


Figure 3 – ABE Minimum Vectoring Altitude Chart

Three airways have been established by the FAA over the DEWA, the lowest of which requires a minimum altitude of 3500' above mean sea level (AMSL). These airways are used by flights using instrument flight rules (IFR), and by some flights operating under Visual Flight Rules (VFR). Each Airway has a designated Minimum Obstacle Clearance Altitude (MOCA). Airway Q480 has a minimum altitude of 18000' AMSL. Airways V162 and V226 are Low Altitude Airways. Airway V162 has a minimum altitude of 3500' AMSL and Airway V226 has a minimum altitude of 4000' AMSL. Due to the minimum altitude requirements, flights operating within these airways would not trigger the AVWS.

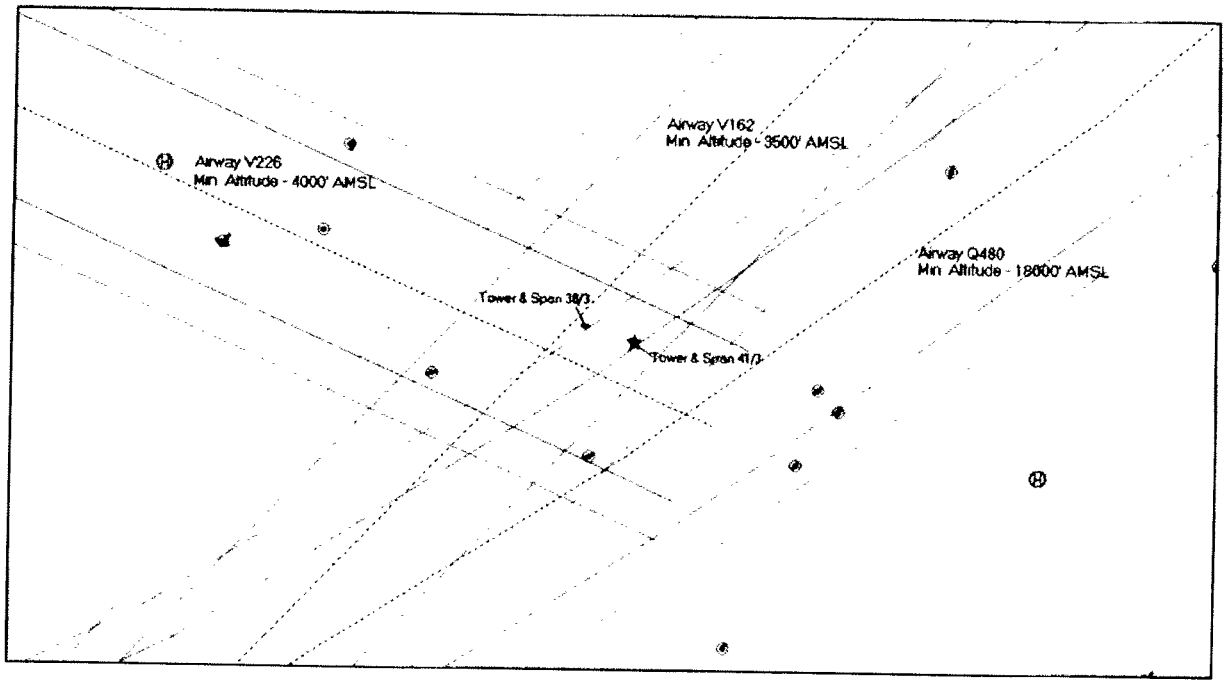
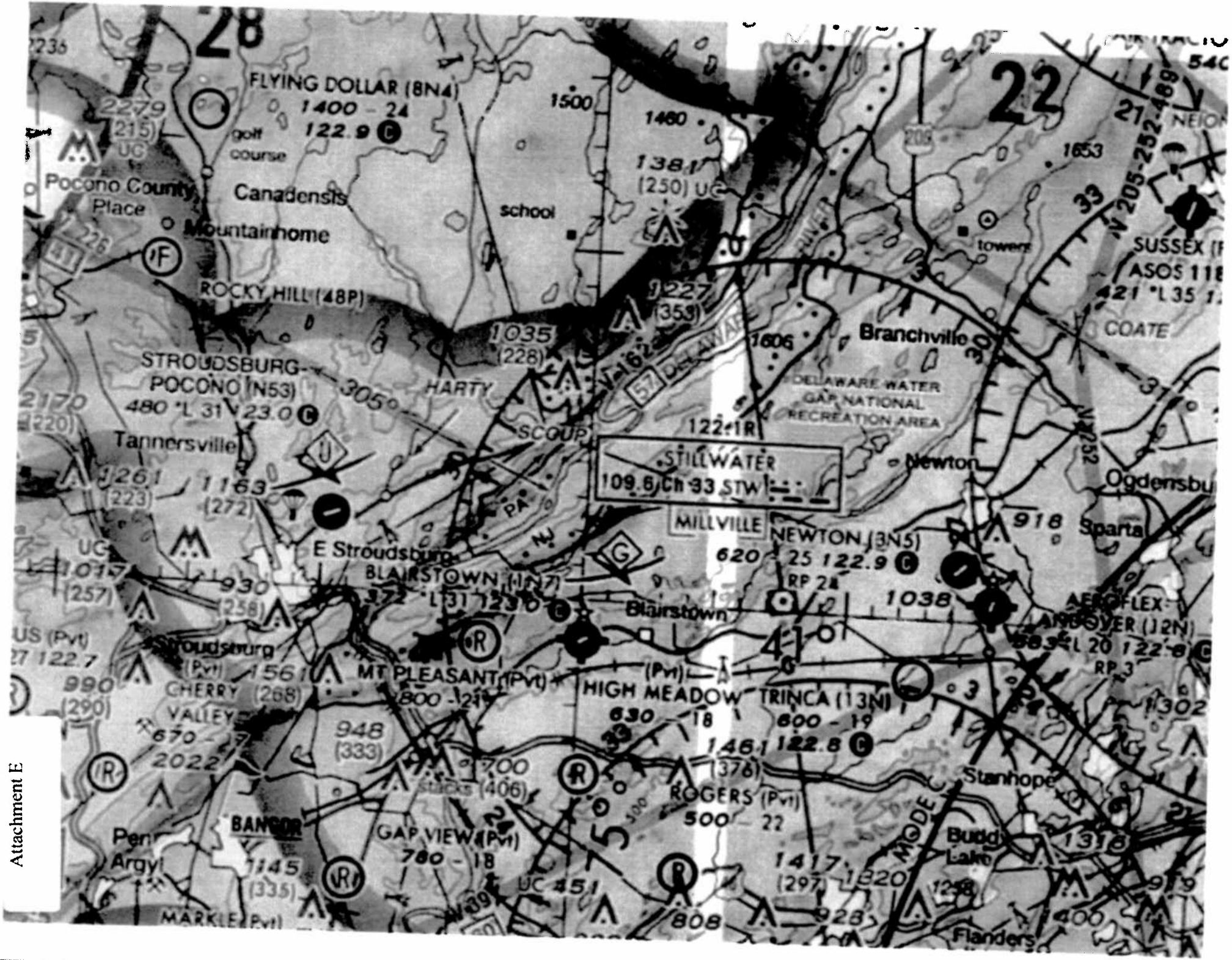


Figure 4 – Airways extending over DEWA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Pocono County Place
Canadensis
Mountainhome
school
ROCKY HILL (48P)
STROUDSBURG-POCONO (N53)
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MILLVILLE
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DELAWARE WATER GAP NATIONAL RECREATION AREA
Newton
Sparta
E Stroudsburg
BLAIRSTOWN (1N7)
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Stroudsburg
MT PLEASANT (Pvt)
HIGH MEADOW (Pvt)
TRINCA (13N)
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AEROFLEX-ANDOVER (12N)
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1258
1451
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NEIGH
MODE
Attachment E

Smith, Gregory J

From: Tom Jensen [TCJensen@hollandhart.com]
Sent: Friday, July 06, 2012 4:07 PM
To: Andrew Tittler
Cc: Bert Frost Ph.D.; Beth Johnson; John Donahue; Pamela Underhill; Ruchi Sadhir; Kelly Johnson; John Lain; Smith, Gregory J; Pollock, Robert; Reybitz, Ronald J; Geraldine Smith; David Carr; Albert Cretella; Wirth, Paul G
Subject: Fwd: NPS AVWS Paper
Attachments: ATT00001.htm; ATT00002.htm

Andrew,

I am forwarding for your consideration a document that describes what we are able to ascertain now about the probable operation of the AVWS system that the Companies intend to use at two locations in DEWA in order to meet FAA aviation safety requirements. The document is in Word format. There are several attachments in PDF format. We will send hard copies to you and the others CC'd here on Monday.

I hope you find the attached information useful for your purposes.

Additionally, allow me to offer three thoughts on how the DEIS might be edited to incorporate information about the AVWS:

First, Ch. 1, page 13--table 1 Federal Laws---this part of the DEIS could be edited to include an entry citing the FAA regulations and advisory regarding hazard determination.

Second, Ch. 4, Environmental Consequences, beginning at p. 559. The NPS's visual impact modeling assumed that the towers used in each alternative would be two hundred feet tall. The towers themselves are just below the height that triggers the FAA standards for structure marking, namely, more than 200 feet above ground level. Each alternative route through the NPS Units crosses topography with highly variable elevation, creating the potential that towers or conductors would actually be higher than 200 feet above the ground near the towers because the ground surface slopes downward away from the towers. Thus, the potential requirement for S-R Project structures to be marked to comply with FAA standards is common to each alternative, and could be discussed in the part of Chapter 4 that presents potential consequences Common to All Action Alternatives based upon the NPS assumptions.

Appendix F-16, Visual resources---It would be appropriate to add a bullet stating that the Companies should use an AVWS system in lieu of always-on lights and marker balls typically required by the FAA to mark potential hazards to aviation, and that as the system produces quantitative data the Applicants would be able to provide compensation for the actual impacts.

Tom

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975 F Street, NW, Suite 900
Washington, DC 20004
(202) 654-6928 - office
(703) 304-5211 - cell

tcjensen@hollandhart.com

Begin forwarded message:

From: "Kelly Johnson" <KAJohnson@hollandhart.com>
To: "Tom Jensen" <TCJensen@hollandhart.com>
Subject: NPS AVWS Paper

4 page memo with attachments