

## Appendix E-4

### Governmental Agencies, Municipalities and Other Public Entities Contacted

PPL Electric consulted or met with various agencies, municipalities, elected officials and their staff, and other public entities to gather information for the route planning process. PPL Electric and its representatives met with other agencies and organizations following identification of the three Alternative Routes, and again after selection of the Preferred Route to obtain additional input and data regarding the project and resources in the project study area, address concerns, and gain valuable input toward understanding potential impacts of the project. Additional information was also requested from and consultation was held with federal, state, and local agencies regarding threatened and endangered species, cultural resources, and other environmental, land use, and permitting requirements and considerations. Consultation letters are also included as an attachment to this appendix.

The agencies and groups consulted include the following:

#### **Federal Agencies**

National Park Service  
Delaware Water Gap National Recreation Area  
HQ River Rd off Route 209  
Bushkill, PA 18324-9999

National Park Service  
Northeast Regional Office  
200 Chestnut Street, 3<sup>rd</sup> Floor  
Philadelphia, PA 19106

National Park Service  
Appalachian Trail Park Office  
P.O. Box 50  
Harpers Ferry, WV 25425

U.S. Army Corps of Engineers  
Philadelphia District  
Regulatory Branch  
100 Penn Square East  
Philadelphia, PA 19107

U.S. Army Corps of Engineers  
Baltimore District– CENAB-OP-R  
Regulatory Branch  
P.O. Box 1715  
Baltimore, Maryland 21203–1715

U.S. Fish and Wildlife Service  
Pennsylvania Field Office  
315 South Allen Street, Suite 322  
State College, PA 16801-4850

#### **State Agencies**

Pennsylvania Department of  
Environmental Protection  
Northeast Regional Office  
2 Public Square  
Wilkes-Barre, PA 18711-0790

Pennsylvania Department of Conservation  
and Natural Resources  
Rachel Carson State Office Building  
PO Box 8767  
400 Market Street  
Harrisburg, PA 17105-8767

Pennsylvania Department of Conservation and  
Natural Resources  
Delaware and Lehigh Heritage Corridor  
Commission  
2750 Hugh Moore Park Road  
Easton, PA 18042

Pennsylvania Department of Conservation and  
Natural Resources, Bureau of Forestry  
Delaware State Forest, Forest District #19  
HC 1, Box 95A  
Swiftwater, PA 18370-9723

Pennsylvania Department of Transportation  
Central Permits Unit  
400 North Street Keystone Building,  
6th Floor  
Harrisburg, PA 17120

Pennsylvania Game Commission  
2001 Elmerton Avenue  
Harrisburg, PA 17110-9797

Pennsylvania Fish and Boat Commission  
1601 Elmerton Avenue  
PO Box 67000  
Harrisburg, PA 17106-7000

Pennsylvania Historical and Museum  
Commission  
State Historic Preservation Office  
300 North Street  
Harrisburg, PA 17120

### **Regional/Local Agencies**

Bushkill Township  
1114 Bushkill Center Road  
Nazareth, PA 18064

Columbia County Commissioners  
PO Box 380  
35 West Main Street  
Bloomsburg, PA 17815

Delaware River Basin Commission  
25 State Police Drive  
PO Box 7360  
West Trenton, NJ 08628-0360

Heidelberg Township  
6272 Route 309  
P.O. Box 218  
New Tripoli, PA 18066

Lehigh County Commissioners  
17 S. Seventh Street  
Allentown, PA 18101

Lehigh County Executive Office  
17 S. Seventh Street  
Allentown, PA 18101

Lehman Township Board of Supervisors  
RR 4, Box 4000  
Bushkill, PA 18324

Lackawanna County  
Board of Commissioners  
Administration Building  
200 Adams Avenue, 6th Floor  
Scranton, PA 18503

Lackawanna County Conservation District  
1300 Old Plank Road  
Mayfield, PA 18443

Lackawanna County  
Planning and Economic Development  
The Scranton Electric Building  
507 Linden Street, 5th floor  
Scranton, PA 18503

Lehigh Township  
1069 Municipal Road  
Walnutport, PA 18088

Lehigh Valley Planning Commission  
961 Marcon Blvd., Suite 310  
Allentown, PA 18109

Luzerne Conservation District  
485 Smiths Pond Road  
Shavertown, PA 18708

Luzerne County Planning Commission  
Penn Place  
20 North Pennsylvania Avenue  
Wilkes-Barre, PA 18711

Lynn Township  
7911 Kings Highway  
P.O. Box 8  
New Tripoli, PA 18066

Monroe County Conservation District  
8050 Running Valley Road  
Stroudsburg, PA 18360

Monroe County Planning Commission  
Monroe County Administrative Building  
One Quaker Plaza, Room 106  
Stroudsburg, PA 18360

Moore Township  
2491 Community Drive  
Bath, PA 18014

Nescopeck Township  
P.O. Box 314  
429 Berwick-Hazleton Highway  
Nescopeck, PA 18635

Northampton County Council  
Northampton County Courthouse  
669 Washington Street  
Easton, PA 18042-7475

Pike County Chamber of Commerce  
209 East Harford Street  
Milford, PA 18337

Pike County Conservation District  
556 Route 402, Suite 1  
Hawley, PA 18428

Pike County Commissioners Office  
506 Broad Street  
Milford, PA 18337

Pike County Office of Community  
Planning  
556 Route 402, Suite 2  
Hawley, PA 18428

Pike County Planning Commission  
556 Route 402, Suite 2  
Hawley, PA 18428

Salem Township  
38 Bomboy Lane  
Berwick, PA 18603

Schuylkill County Planning & Zoning  
Commission  
County Courthouse  
401 North Second Street  
Pottsville, PA 17901

Shohola Township  
159 Twin Lakes Road  
Shohola, PA 18458

Slatington Borough  
125 S. Walnut Street  
Slatington, PA 18080

Walnutport Borough  
417 Lincoln Avenue  
Walnutport, PA 18088

Wayne County Conservation District  
648 Park Street  
Honesdale, PA 18431

Wayne County Planning Commission  
925 Court Street  
Honesdale, PA 18431

Washington Township (Lehigh County)  
P.O. Box 27  
Slatedale, PA 18079

**Elected Officials/Staff**

Phyllis Mundy  
120<sup>th</sup> District

**U.S. Senate**

Robert P. Casey, Jr.

Michael Peifer  
139<sup>th</sup> District

Arlen Specter

John J. Siptroth  
189<sup>th</sup> District

**U.S. House of Representatives**

Christopher P. Carney  
10<sup>th</sup> District

Ken Smith  
112<sup>th</sup> District

Charles W. Dent  
15<sup>th</sup> District

Edward G. Staback  
115<sup>th</sup> District

Paul E. Kanjorski  
11<sup>th</sup> District

James Wansacz  
114<sup>th</sup> District

**Pennsylvania State Senate**

Lisa Baker  
20<sup>th</sup> District

John T. Yudichak  
119<sup>th</sup> District

Patrick M. Browne  
16<sup>th</sup> District

**Other Organizations**

Berwick Industrial Development  
Association  
107 S. Market Street  
Berwick, PA 18603

Robert J. Mello  
22<sup>nd</sup> District

Blooming Grove Hunting and Fishing Club  
Bloomingdale Grove Road  
Hawley, PA 18428

Raphael J. Musto  
14<sup>th</sup> District

James J. Rhoades  
29<sup>th</sup> District

Columbia Alliance for Economic Growth  
238 Market Street  
Bloomsburg, PA 17815

**Pennsylvania House of Representatives**

Karen Boback  
117<sup>th</sup> District

Delaware Highlands Conservancy  
P.O. Box 218  
508 River Street  
Hawley, PA 18428-0218

Craig Dally  
138<sup>th</sup> District

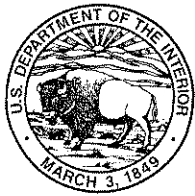
Hawk Mountain Sanctuary Association  
1700 Hawk Mountain Road  
Kempton, PA 19529

Julie Harhart  
183<sup>rd</sup> District

Saw Creek Estates Community Association  
1125 Saw Creek Estates  
Bushkill, PA 18324

The Nature Conservancy  
Pennsylvania Chapter  
2101 North Front Street  
Building #1, Suite 200  
Harrisburg, PA 17110

Upper Delaware Council  
211 Bridge Street  
P.O. Box 192  
Narrowsburg, NY 12764-0192



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Pennsylvania Field Office  
315 South Allen Street, Suite 322  
State College, Pennsylvania 16801-4850



October 16, 2008

Sue Davis  
The Louis Berger Group, Inc.  
75 2<sup>nd</sup> Avenue  
Suite 700  
Needham, MA 02494

RE: USFWS Project #2008-0677

Dear Ms. Davis:

This responds to your letter of August 13, 2008 and our various email and telephone correspondences since then regarding the proposed PPL Electric Utilities Susquehanna – Roseland 500 kV Transmission Line (Route B) project, located in Luzerne, Lackawanna, Wayne, Pike and Monroe Counties, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The transmission line is located within the range of **two** federally listed species, the endangered Indiana bat (*Myotis sodalis*) and threatened bog turtle (*Clemmys muhlenbergii*). Additionally, the transmission line is located within the range of the bald eagle (*Haliaeetus leucocephalus*), a federally protected species. Future development on the site should be evaluated with respect to these species based on the information provided below.

## Indiana Bat

Indiana bats hibernate in caves and mines during the winter months (November through March), and use a variety of upland, wetland and riparian habitats during the spring, summer and fall. Indiana bats usually roost in dead or living trees with exfoliating bark, or living or dead trees with crevices or cavities. Female Indiana bats form nursery colonies under the exfoliating bark of dead or living trees, such as shagbark hickory, in upland or riparian areas. However, a variety of tree species such as black birch, red and white oak, and sugar maple are also used.

Land-clearing, especially of forested areas, may adversely affect Indiana bats by killing, injuring or harassing roosting bats, and by removing or reducing the quality of foraging and roosting habitat. Due to the anticipated impacts of the project to forest habitat, a bat survey of the project

area should be conducted between May 15 and August 15 by a qualified, Fish and Wildlife Service-approved biologist (see enclosed list) using the enclosed *Indiana Bat Mist Netting Guidelines*. Survey results should be submitted to the Service for review and concurrence.

In addition, if any natural caves or abandoned mines occur within a project area, it is possible that Indiana bats or other bat species may be using them during hibernation or potentially as summer roost sites. If potential Indiana bat hibernacula (*i.e.*, caves or abandoned mines) occur within a project area, they should be surveyed by a qualified biologist. Prior to conducting any survey, however, the Pennsylvania Game Commission should be contacted to determine whether or not they have surveyed the cave/mine in the past. If adequate surveys have been conducted in the recent past, this may preclude the need to conduct additional surveys. Survey results should be submitted to the Service for review and concurrence.

### Bog Turtle

Bog turtles inhabit shallow, spring-fed fens, sphagnum bogs, swamps, marshy meadows, and pastures characterized by soft, muddy bottoms; clear, cool, slow-flowing water, often forming a network of rivulets; high humidity; and an open canopy. Bog turtles usually occur in small, discrete populations occupying suitable wetland habitat dispersed along a watershed. The occupied "intermediate successional stage" wetland habitat is usually a mosaic of micro-habitats ranging from dry pockets, to areas that are saturated with water, to areas that are periodically flooded. Some wetlands occupied by bog turtles are located in agricultural areas and are subject to grazing by livestock.

As you are aware, bog turtles are known to be present at the Arnott Fen in Monroe County. An existing transmission line currently runs through this wetland. This portion of your project proposes to take down the existing line crossing the fen and put a new line in its place, with both the existing wires and the new wires strung on the same set of structures using a helicopter. There will still only be one transmission line crossing Arnott Fen (within the same ROW as the current line). However, you also noted that it is possible, due to different structure sizes, the existing ROW will have to be widened up to approximately 50 feet. This possibility is still being evaluated by engineers.

Based on a review of the information supplied to this office, we have determined that construction of the proposed project is not likely to adversely affect the bog turtle. However, should structures need to be located in the wetland and/or the ROW needs to be widened, further consultation with this office will be necessary.

### Bald Eagle

Although no bald eagle nests are known to occur in the project area, the proposed project is located within the range of the bald eagle (*Haliaeetus leucocephalus*). Bald eagles typically occur in the vicinity of aquatic ecosystems; they frequent lakes, reservoirs, large rivers (*e.g.*, Delaware River, Juniata River, Susquehanna River), and wetland systems. Their nests are

usually built in large trees within two miles of these features. Because eagles are vulnerable to human disturbance, particularly during the nesting season, nests are often located in relatively remote forested areas.

The Service published a final rulemaking to remove the bald eagle from the federal *List of Endangered and Threatened Wildlife* on July 9, 2007 (*Federal Register*, Vol. 72, No. 130). This rule became effective on August 8, 2007. Although the bald eagle no longer receives protection under the Endangered Species Act, it continues to be protected under the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). Both acts protect bald eagles by prohibiting killing, selling or otherwise harming eagles, their nests or eggs. The Eagle Act also protects eagles from disturbance. 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.

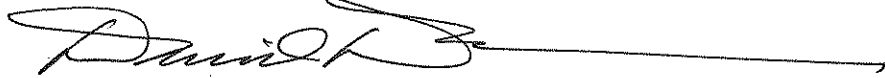
Because bald eagles are continuing to recover and expand their breeding range in Pennsylvania, new eagle nests may be found in previously undocumented locations. Should you become aware of an eagle nest in or near your project area, please refer to the Service's *National Bald Eagle Management Guidelines* for specific measures that should be taken to ensure bald eagles are not disturbed. The Service developed these *Guidelines* to advise landowners, land managers and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the Eagle Act may apply to their activities. The *Guidelines* include general recommendations for land management practices that will benefit bald eagles; however, the document is intended primarily as a tool to provide those who seek information and recommendations regarding how to avoid disturbing bald eagles. Adherence to the *Guidelines* will benefit individuals, agencies, organizations and companies by helping them avoid violations of the law. The *Guidelines* can be found at <http://www.fws.gov/migratorybirds/baldeagle.htm>. If you have any questions about the *Guidelines* or how they would apply to a particular project, please contact our office.

This response relates only to endangered or threatened species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Therefore, we suggest contacting a qualified consultant to evaluate your site for potential wetland impacts.

*To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.*

If you have any questions regarding these comments, please contact Pamela Shellenberger of my staff at 814-234-4090.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore  
Supervisor

Enclosures

**Federally Listed, Proposed, and Candidate Species in Pennsylvania**  
(revised April 28, 2008)

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u> <sup>1</sup>	<u>Distribution (Counties and/or Watersheds)</u>
<b>MAMMALS</b>			
Indiana bat	<i>Myotis sodalis</i>	E	<u>Hibernacula</u> : Armstrong, Beaver, Blair, Centre, Fayette, Huntingdon, Lawrence, Luzerne, Mifflin and Somerset Co. <u>Maternity sites</u> : Adams, Bedford, Berks, Blair, Greene, and York Counties. Potential winter habitat state-wide in caves or abandoned mines. Potential summer habitat state-wide in forests or wooded areas.
<b>BIRDS</b>			
Piping plover	<i>Charadrius melodus</i>	E	Designated critical habitat on Presque Isle (Erie Co.). Migratory. No nesting in PA since 1950s, but recent colonization attempts at Presque Isle
<b>REPTILES</b>			
Bog turtle	<i>Clemmys (Glyptemys) mühlenbergii</i>	T	Adams, Berks, Bucks, Chester, Cumberland, Delaware, Franklin, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York Co.  <i>Historically found in Crawford, Mercer and Philadelphia Co.</i>
Eastern massasauga rattlesnake	<i>Sistrurus catenatus catenatus</i>	C	Butler, Crawford, Mercer and Venango Co.  <i>Historically found in Allegheny and Lawrence Co.</i>
<b>MUSSELS</b>			
Clubshell	<i>Pleurobema clava</i>	E	French Creek and Allegheny River (and some tributaries) in Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co.; Shenango River (Mercer and Crawford Co.)  <i>Has not been found recently in 13 streams of historical occurrence in Butler, Beaver, Fayette, Greene, Indiana, Lawrence, and Westmoreland Co.</i>
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	E	Delaware River (Pike and Wayne Co.)  <i>Has not been found recently in streams of historical occurrence in the Delaware River watershed (Bucks, Carbon, Chester, Philadelphia Co.) or Susquehanna River watershed (Lancaster Co.)</i>
Northern riffleshell	<i>Epioblasma torulosa rangiana</i>	E	French Creek and Allegheny River (and some tributaries) in Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co.  <i>Has not been found recently in streams of historical occurrence, including: Shenango River (Lawrence Co.), Conewango Creek (Warren Co.)</i>

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u> <sup>1</sup>	<u>Distribution (Counties and/or Watersheds)</u>
<b>MUSSELS</b> (continued)			
Rayed bean	<i>Villosa fabalis</i>	C	French Creek and Allegheny River (Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, Warren Co.); Cussewago Creek (Crawford Co.).  <i>Has not been found recently in 5 streams of historical occurrence in Armstrong, Lawrence, Mercer and Warren Co.</i>
Sheepnose	<i>Plethobasus cyphus</i>	C	Allegheny River (Forest and Venango Co.).  <i>Has not been found recently in streams of historical occurrence, including: Allegheny River (Armstrong Co.), Beaver River (Lawrence Co.), Ohio River (Allegheny and Beaver Co.), and Monongahela River (Washington Co.)</i>
<b>FISH</b>			
Shortnose sturgeon <sup>2</sup>	<i>Acipenser brevirostrum</i>	E	Delaware River and other Atlantic coastal waters
<b>PLANTS</b>			
Northeastern bulrush	<i>Scirpus ancistrochaetus</i>	E	Adams, Bedford, Blair, Cambria, Carbon, Centre, Clinton, Columbia, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Lackawanna, Lehigh, Lycoming, Mifflin, Monroe, Perry, Snyder, Tioga, and Union Co.  <i>Historically found in Northampton Co.</i>
Small-whorled pogonia	<i>Isotria medeoloides</i>	T	Centre, Chester and Venango Co.  <i>Historically found in Berks, Greene, Monroe, Montgomery and Philadelphia Co.</i>

<sup>1</sup> E = Endangered; T = Threatened; P = Proposed for listing; C = Candidate

<sup>2</sup> Shortnose sturgeon is under the jurisdiction of the National Marine Fisheries Service

U.S. FISH AND WILDLIFE SERVICE  
Pennsylvania Field Office

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QUALIFIED INDIANA BAT SURVEYORS

The following list includes persons known by the U.S. Fish and Wildlife Service to have the skills and experience to conduct surveys for Indiana bats. Any individuals handling or conducting surveys for Indiana bats must first obtain a permit from the Pennsylvania Game Commission. All Indiana bat captures must be reported in writing to the Service and Commission within 72 hours. Indiana bat surveys should be overseen by a qualified surveyor, who should be present in the field at all times during the investigation. Mist-net surveys should be carried out in accordance with the Service's *Indiana Bat Mist Netting Guidelines*. If any Indiana bats are captured during mist-netting, a surveyor with bat telemetry experience should be prepared to place a transmitter on the bat(s) to identify roost trees and foraging habitat. Various sampling techniques, including mist-netting, Anabat detection, radio-telemetry, harp-trapping and hibernacula surveys, are used to detect and monitor bats. Some individuals on this list may not be qualified to conduct all types of sampling.

This information is not to be construed as an endorsement of individuals or firms by the Service or any of its employees. Persons not on this list, but who have documented experience in conducting scientific studies of, or successful searches for, Indiana bats may submit their qualifications to the Service for review. The submission must include documentation that the requestor has experience successfully locating and identifying Indiana bats in their hibernacula and their summer habitat. Additions to and deletions from this list are at the sole discretion of the Service. This list is subject to revision at any time without prior notice.

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Kevin Rhome  
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Daniel Boone National Forest  
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901 South National  
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james.kiser@stantec.com

Kristen Watrous  
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kristen.watrous@stantec.com

Tim Blackburn  
825 19<sup>th</sup> Street, 2<sup>nd</sup> Floor  
Altoona, PA 16601

# INDIANA BAT MIST NETTING GUIDELINES

## RATIONALE

A typical mist net survey is an attempt to determine presence or probable absence of the species, it does not provide sufficient data to determine population size or structure. Following these guidelines will standardize procedures for mist netting. It will help maximize the potential for capture of Indiana bats at a minimum acceptable level of effort. Although the capture of bats confirms their presence, failure to catch bats does not absolutely confirm their absence. Netting effort as extensive as outlined below usually is sufficient to capture Indiana bats. However, there have been instances in which additional effort was necessary to detect the presence of the species.

## NETTING SEASON

May 15 - August 15

These dates define acceptable limits for documenting the presence of summer population of Indiana bats, especially maternity colonies. Several captures, including adult females and young of the year, indicate that a nursery colony is active in the area. Outside these dates, even when Indiana bats are caught, data should be carefully interpreted: If only a single bat is captured, it may be a transient or migratory individual.

## EQUIPMENT

Mist nets - Use the finest, lowest visibility mesh commercially available:

1. In the past, this was 1 ply, 40 denier monofilament - denoted 40/1
2. Currently, monofilament is not available and the finest on the market is 2 ply, 50 denier nylon - denoted 50/2
3. Mesh of approximately  $1 \frac{1}{2}$  ( $1 \frac{1}{4}$  -  $1 \frac{3}{4}$ ) in (~38 mm)

Hardware - No specific hardware is required. There are many suitable systems of ropes and/or poles to hold the nets. See NET PLACEMENT below for minimum net heights, habitats, and other netting requirements that affect the choice of hardware. The system of Gardner, *et al.* (1989) has met the test of time.

## NET PLACEMENT

Potential travel corridors such as streams or logging trails typically are the most effective places to net. Place the nets approximately perpendicular across the corridor. Nets should fill the corridor from side to side and from stream (or ground) level up to the overhanging canopy. A typical set is seven meters high consisting of three or more nets "stacked" on top one another and up to 20 m wide. (Different width nets may be purchased and used as the situation dictates.)

Occasionally it may be desirable to net where there is no good corridor. Take caution to get the nets up into the canopy. The typical equipment described in the section above may be inadequate for these situations, requiring innovation on the part of the observers.

## RECOMMENDED NET SITE SPACING:

Stream corridors - one net site per km of stream.

Non-corridor land tracts - two net sites per square km of forested habitat  
(= 1 net site for every 123 acres of forested habitat)

## MINIMUM LEVEL OF EFFORT

Netting at each site should consist of:

At least four net-nights (unless bats are caught sooner) (one net set up for one night = one net-night)

A minimum of two net locations at each site (at least 30m apart, especially in linear habitat such as a stream corridor)

A minimum of two nights of netting

Sample Period: begin at sunset; net for at least 5 hr

Each net should be checked approximately every 20 min

No disturbance near the nets, other than to check nets and remove bats

## WEATHER CONDITIONS

Severe weather adversely affects capture of bats. If Indiana bats are caught during weather extremes, it is probably because they are at the site and active despite inclement weather. On the other hand, if bats are not caught, it may be that there are bats at the site but they may be inactive due to the weather. Negative results combined with any of the following weather conditions throughout all or most of a sampling period are likely to require additional netting:

- Precipitation
- Temperatures below 10°C
- Strong winds (Use good judgement: moving nets are more likely to be detected by bats.)

## MOONLIGHT

There is some evidence that small myotine bats avoid brightly lit areas, perhaps as predator avoidance. It is typically best to set nets under the canopy where they are out of the moon light, particularly when the moon is ½-full or greater.

**COMMONWEALTH OF PENNSYLVANIA**  
Pennsylvania Game Commission, Bureau of Law Enforcement, Technical Services Division  
2001 Elmerton Avenue, Harrisburg, PA 17110-9797

**Procedure and format for permittee reports to the PA Game Commission when conducting bat capture surveys within the Commonwealth.**

The report is divided into five sections which include: (1) Cover page, (2) Site Survey Record, (3) Bat Measurement and Capture Data Forms, (4) Maps and (5) Photo Documentation.

**Section 1 - Cover**

A separate cover page should be provided for each project with the accompanying data of Sections 2 through 5 contained within. An example is provided.

**Section 2 - Bat Netting/Trapping Site Survey Record**

*(FORM P-70008-N/T)*

This is a **mandatory** two-page summary of site(s) surveyed and of captures. It should be completed for all sites surveyed, including those with no captures. If a capture technique other than mist netting or harp trapping is used, it should be described in remarks. Complete 1 for each site survey night (If site is trapped twice, 2 site survey records are required, etc.).

**This form may not be modified for reporting because it is used for data entry. If necessary, supplemental pages may be added to report unique data.**

**Section 3 - Bat Measurement and Capture Data Form**

*(FORM P-70008-M)*

This form is **mandatory** for:

1. *Myotis sodalis* captures
2. *Myotis leibii* captures
3. Bats you are banding and all band recaptures
4. All radio-tagged bats (describe transmitter in remarks)
5. Bat species not usually found in Pennsylvania\*.

\* Pennsylvania species: *Myotis lucifugus*, *Myotis septentrionalis*, *Myotis leibii*, *Myotis sodalis*, *Eptesicus fuscus*, *Pipistrellus subflavus*, *Lasiurus borealis*, *Lasiurus cinereus*, and *Lasiomycteris noctivagans*

**This form may not be modified for reporting because it is used for data entry.**

The surveyor also has the option to use this form for measuring and reporting all bats. All measurements should follow North American collector standards (Nagorsen, D. W. and R. L. Peterson. 1980. Measurements and Weights. Pp. 22-26 in Mammal Collectors' Manual. Royal Ontario Museum, Publications in Life Sciences). Banded bat information will be maintained in a database and future recaptures of your bands will be reported to you.

**Section 4 - Maps**

An example is provided. All survey sites will be reported on a map (preferably a 7.5' USGS Topographic Map) so that locations can be accurately located and coordinates verified.

**Section 5 - Photo Documentation**

An example is provided. It is strongly encouraged that photographs be taken of identification characteristics of all *M.sodalis*, *M.leibii*, and species not usually found in PA. The photos should be labeled with the site, date and capture number.

**Return reports to address on the heading of this page within 90 days of project completion.**

COMMONWEALTH OF PENNSYLVANIA  
Pennsylvania Game Commission  
Bureau of Law Enforcement, Technical Services Division  
2001 Elmerton Avenue, Harrisburg, PA 17110-9797

Section 1 - Cover

PERMITTEE BAT CAPTURE REPORT

Permit Number \_\_\_\_\_

Project Name: \_\_\_\_\_

Company/  
Organization/  
Permittee Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

E-Mail: \_\_\_\_\_

Project Supervisor Name: \_\_\_\_\_

Supervisor Contact: Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

E-Mail: \_\_\_\_\_

If this is contracted work, provide the name & address of the individual/organization work is being performed for:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BAT NETTING/TRAPPING SITE SURVEY RECORD

1. Survey Date: \_\_\_\_\_ 2. Company Name: \_\_\_\_\_

3. Reporter: \_\_\_\_\_ 4. Assistants: \_\_\_\_\_

5. Site Name and/or Number: \_\_\_\_\_

6. Site is (circle one):    hibernation site                  summer habitat

7a. If hibernation site circle one: limestone mine, coal mine, limestone cave, sandstone cave, RR tunnel,  
other structure, describe - \_\_\_\_\_

7b. If summer habitat, describe area being sampled (e.g. forested stream or forest clearing with stream):  
\_\_\_\_\_

8. County: \_\_\_\_\_ 9. 7.5' Quad.: \_\_\_\_\_

10. Was site GPS'd (required) ?    YES - NO

11. Geographic Coordinates (D-M-S): Latitude: \_\_\_\_\_°-\_\_\_\_\_'-\_\_\_\_\_"N, Longitude: \_\_\_\_\_°-\_\_\_\_\_'-\_\_\_\_\_"W  
Datum (circle one): NAD27 (Preferred), NAD83, WGS84, Other: \_\_\_\_\_

12. Ownership and Access: (Who owns site or controls access? Give name and address.) \_\_\_\_\_  
\_\_\_\_\_

13. Time (military) & Temperature: Start Time \_\_\_\_\_ h Stop Time \_\_\_\_\_ h Total Minutes: \_\_\_\_\_  
Start Temp. \_\_\_\_\_°C End Temp. \_\_\_\_\_°C

14. General Weather (circle one): Clear; Partly Cloudy; Mostly Cloudy; Cloudy; Drizzle; Intermittent Rain;  
Steady Rain; Thunderstorms; Snow; Other: \_\_\_\_\_

15. General Wind Conditions (circle one): Calm, Breezy (Leaves Rustling), Windy (trees swaying).

16. Capture Setup at Site:

Set #	Type	Count	Dimensions	Description	TOTAL AREA (m) sq. m
1	Nets	4	12m x 2.6m	Stacked over trail	124.8 sq. m

Total Capture Area: \_\_\_\_\_ sq. m

(Site Survey Record – Continued) Site Name/No.: \_\_\_\_\_ Date: \_\_\_\_\_

17. Describe habitat 150 m around site: (topography and vegetation including dominant tree species.)

18. Was reproductive status checked? YES / NO (if "NO" only enter numbers in **Total** columns)

**\*CAPTURE RESULTS**

Species	Number of Adult Females				No. Juv. Fem.	Total No. Fem.	Number of Adult Males		No. Juv. Male	Total No. Males	Species Totals
	NR	PG	L	PL			SCR	NR			
<i>Eptesicus fuscus</i>	2		1			3	2	1	1	4	7
<i>Myotis lucifugus</i>											
<i>Myotis septentrionalis</i>											
<i>Myotis leibii</i>											
<i>Myotis sodalis</i>											
<i>Eptesicus fuscus</i>											
<i>Pipistrellus subflavus</i>											
<i>Lasiurus borealis</i>											
<i>Lasiurus cinereus</i>											
<i>Lasionycteris noctivagans</i>											
Other – specify:											
Other – specify:											
Reproductive Status: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen. <b>*Complete Measurement and Capture Data Form for all:</b> (1) <i>Myotis sodalis</i> , (2) <i>Myotis leibii</i> , (3) bats you are banding or band recaptures, (4) radio-tagged bats and (5) bat species not usually found in PA.											Grand Total

19. **BAT DETECTORS & OTHER MONITORING DEVICES:** Tallies of bat passes / hour. One to 5 hours required for Indiana bat hibernacula surveys. Monitor one hour after 22:00 hrs when trapping/netting hibernacula and 5 hours when only monitoring with bat detectors, night vision or infrared device (when site can not be trapped/netted). Describe procedure & equipment used in remarks.

1 <sup>st</sup> hour	2 <sup>nd</sup> hour	3 <sup>rd</sup> hour	4 <sup>th</sup> hour	5 <sup>th</sup> hour
Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
End Time:	End Time:	End Time:	End Time:	End Time:
Tallies:	Tallies:	Tallies:	Tallies:	Tallies:

20. REMARKS:

**Bat Measurement and Capture Data Form**

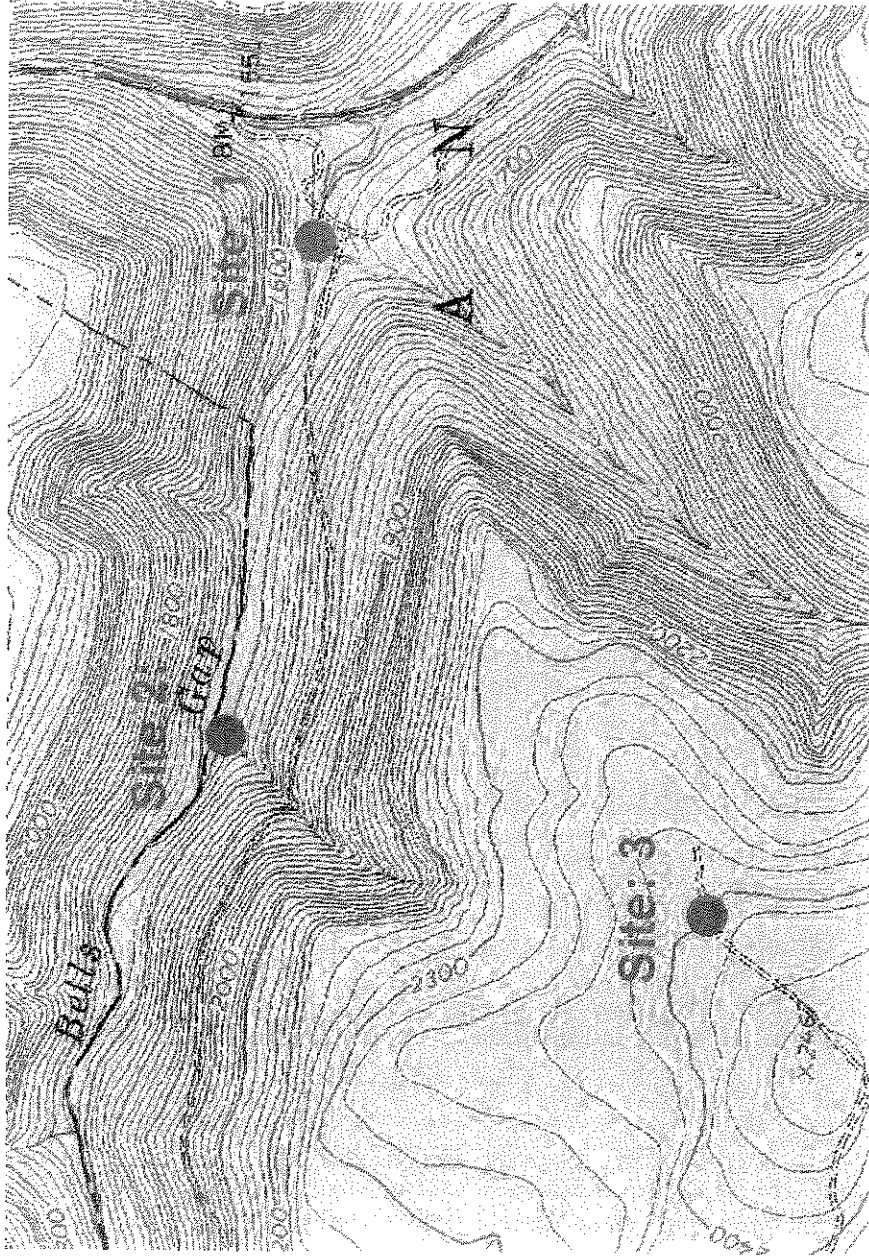
(Complete for all (1) *Myotis sodalis*, (2) *Myotis leibii*, (3) bats you are banding or band recaptures, (4) radio-tagged bats and (5) bat species not usually found in PA)

Site Name Or Number:	Date:	Set No. Captured In:	Name of Person Identifying the Bat:	*Capture Number:	Transmitter Attached? If so: Frequency (mHz)			
Height in meters captured above ground surface:	Repro. Condition	Wt. (g)	Band Information (if banded) (Band Males on bat's RIGHT fa., Females on bat's LEFT fa.)	Recapture Yes/No	Band Material	Band Color	Band Inscription	Band on Left/Right
Species	Sex	Age	Photo Taken Yes / No	Remarks:	Body Measurements (grams and millimeters)	Fore- arm	Tragus	Ear
Time of Capture	Yes / No	Photo Taken Yes / No	Remarks:	Repro. Condition: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen	Time of Capture	Yes / No	Photo Taken Yes / No	Remarks:
Site Name Or Number:	Date:	Set No. Captured In:	Name of Person Identifying the Bat:	*Capture Number:	Transmitter Attached? If so: Frequency (mHz)			
Height in meters captured above ground surface:	Repro. Condition	Wt. (g)	Band Information (if banded) (Band Males on bat's RIGHT fa., Females on bat's LEFT fa.)	Recapture Yes/No	Band Material	Band Color	Band Inscription	Band on Left/Right
Species	Sex	Age	Photo Taken Yes / No	Remarks:	Body Measurements (grams and millimeters)	Fore- arm	Tragus	Ear
Time of Capture	Yes / No	Photo Taken Yes / No	Remarks:	Repro. Condition: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen	Time of Capture	Yes / No	Photo Taken Yes / No	Remarks:
Site Name Or Number:	Date:	Set No. Captured In:	Name of Person Identifying the Bat:	*Capture Number:	Transmitter Attached? If so: Frequency (mHz)			
Height in meters captured above ground surface:	Repro. Condition	Wt. (g)	Band Information (if banded) (Band Males on bat's RIGHT fa., Females on bat's LEFT fa.)	Recapture Yes/No	Band Material	Band Color	Band Inscription	Band on Left/Right
Species	Sex	Age	Photo Taken Yes / No	Remarks:	Body Measurements (grams and millimeters)	Fore- arm	Tragus	Ear
Time of Capture	Yes / No	Photo Taken Yes / No	Remarks:	Repro. Condition: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen	Time of Capture	Yes / No	Photo Taken Yes / No	Remarks:

\*Capture Number = number in sequence by site.

Section 4 - Maps (example)

Blair Co., Blandburg Quadrangle, Bells Gap Area.  
Location of Sites 1, 2, and 3 for Project PA-24



Section 5 - Photos (example)

Male *Myotis sodalis* captured at Site 1

Capture date: 7/18/01

Capture Number: 06

Portrait



Keeled Calcar



From: Pamela\_Shellenberger@fws.gov [mailto:Pamela\_Shellenberger@fws.gov]  
Sent: Thursday, October 23, 2008 10:28 AM  
To: Davis, Sue  
Cc: Cindy\_Tibbott@fws.gov  
Subject: Re: USFWS Project #2008-0677

Sue,

This email is an addendum to our letter of October 16, 2008, regarding the Susquehanna - Roseland Transmission Line (Route B) project.

Since the transmission line will only be restrung via helicopter and no new disturbance will occur from the Susquehanna - Stanton substation (approximately the first 29 miles), no mist-net surveys will be required in this area.

Portals, caves and abandoned mines should be searched for within 500' of both sides of the ROW. We recommend that you check with the PA Game Commission (Cal Butchkowski 814-667-3685) to see if he has data on active bat portals in that area and the Bureau of Abandoned Mine Reclamation to see if they have data on abandoned mines in/adjacent to the project. This will help to narrow down your search efforts. No portal/cave/abandoned mine searches are required in the first 29 miles of the project (Susquehanna - Stanton substation).

Please CC: Cindy Tibbott on all future responses (specifically information on any tree disturbance at the Delaware River crossing) regarding this project as I will be out of the office from this afternoon through next week.

Thank you,

Pamela Shellenberger  
Fish and Wildlife Biologist  
Endangered Species Program  
U.S. Fish and Wildlife Service  
315 South Allen Street, Suite 322  
State College, PA 16801  
814-234-4090 x241  
814-234-0748 Fax

"Davis, Sue"  
<SDavis@louisberg  
er.com>

10/22/2008 03:47  
PM

<Pamela\_Shellenberger@fws.gov> To

cc

Subject  
USFWS Project #2008-0677

Pam,

To correct an assumption contained in your October 16, 2008 letter, within the Arnott Fen area, your letter states that, "your project proposes to take down the existing line crossing the fen and put a new line in its place, with both the existing wires and the new wires strung on the same set of structures using a helicopter". In this section, the existing set of structures will be taken down and a new set of structures will be built. This work will be done in various ways, but will include on the ground work, including possible access roads. All portions of the line which include building new transmission line structures (everywhere except the Susquehanna to Stanton section) will include on the ground construction. We intend to do Phase 1 bog turtle surveys for all wetlands within Monroe county that are within the ROW, construction staging areas, or access road locations.

Thanks,

Sue

-----  
Sue Davis  
Senior Environmental Scientist  
Energy Services Division  
The Louis Berger Group, Inc.  
Tel. 781-707-7445 Fax. 781-444-0099  
sdavis@louisberger.com

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Office of Conservation Science  
Rachel Carson State Office Building  
PO Box 8764  
Harrisburg PA 17105  
July 23 2008

David E. Schleicher  
Vice President – Transmission  
PPL Electric Utilities

Dear Mr. Schleicher,

The Pennsylvania Department of Conservation and Natural Resources (DCNR) appreciates the opportunity to present our preliminary concerns and recommendations regarding proposed routes for the Susquehanna to Roseland PPL Transmission Line project. We will be providing additional comments through our standard jurisdictional avenues such as PNDI reviews and state wild and scenic reviews, but feel it is important to provide PPL with input prior to making a route selection that will have significant impacts on numerous DCNR lands, waters, investments, and species and habitats of concern.

Because the proposed alternative routes A, B, and C all have potential impacts to DCNR properties and interests, we have asked each bureau within the agency to provide a summary of their concerns and recommendations, which are presented in the aggregate below. We do not at this point have a final recommendation on which of the three routes would be least detrimental but have provided our concerns about each route to better inform the decision-making process.

### **I. Proposed Route A – Issues and Recommendations**

#### **Issues:**

Route A requires new right-of-way (ROW) development as well as potential existing ROW widening, both of which introduce or exacerbate habitat fragmentation through extensive areas of private and public forestland. Route A may additionally impact sensitive ridge-top barrens communities. Our Bureau of Forestry is concerned that Route A would cut across an undisturbed section of Delaware State Forest on our Buckhorn Tract that would include numerous stream and wetland crossings, viewscape impacts, and elimination of hundreds of forested acres and the multiple benefits they provide. Both Route A and Route B would have impacts to the Lackawanna State Forest, including impacts to 2.2 miles of existing ROW by widening, a stream crossing at Harvey's Creek, impacts to an area of old growth forest, and two crossings to a planned section of Harvey's Creek trail. Additionally, Route A may negatively impact the Milford Experimental Forest, which was purchased in part through DCNR grants with Forest Legacy funding.

Our Ecological Services section is performing a PNDI review of the proposed routes and expressed concern that Route A could impact multiple plant, natural communities, geologic features, and more than a dozen moth and butterfly species of special concern known in the vicinity of the project. They will be requesting that Route A perform a survey for multiple species of special concern.

One of the strongest concerns comes from our Bureau of State Parks. DCNR recently received a donation of land to its park system known as the Varden Conservation Area that would be in the direct path of both Route A and Route B. Parks staff anticipate multiple impacts to this conservation area including forest fragmentation and direct impacts to visitor experiences and opportunities. Specifically, an expanded ROW increasing the width of PPL 155-1-Varden to 200 feet would impact the area's primary day use area and park access near Tannery Road. Transmission lines expanded along route A or B would disrupt park visitors seeking to enjoy outdoor environmental education programs, a pavilion, comfort station, ADA accessible trails and a footbridge providing access across Middle Creek to a pond and additional hiking opportunities.

#### **Recommendations:**

In general, it would be preferable to avoid creation of new ROWs altogether, or to bury transmission lines if new ROWs are required. DCNR requests that the Varden Conservation area be avoided altogether, and, barring avoidance, burying the line where it crosses Varden. If neither option is possible, minimization is requested. Keeping the ROW to its current width would be highly recommended. Should none of these options be feasible, DCNR would request PPL use ROW PPL 1925-1 which, while still located within the Varden tract, is closer to the boundary of the tract and would have less impact on the day use area and trail systems. *Any* expansion of existing ROW would cause significant forest fragmentation and should be avoided or minimized, and widening existing ROW should similarly be avoided or minimized.

Given the number of plant species, communities and geological resources, and moth and butterfly species known to occur in the vicinity of proposed Route A, Ecological Services will request a survey for several of these species, especially for those species and their potential habitat that are onsite.

## **II. Proposed Route B – Issues and Recommendations**

#### **Issues:**

Because of the significant overlap of proposed Routes A and B, many of the issues and recommendations listed for Route A above also apply to route B. The primary difference to DCNR is that Route B does not include creation of new ROW, so habitat fragmentation concerns are not as great as with Route A. However, widening existing ROW as outlined in Route B, still exacerbates fragmentation impacts and, in some cases, viewshed, trail, and river-crossing impacts. Both would accelerate loss of forested habitat and impacts to species and communities of concern.

Route B includes all potential impacts to the Varden Conservation Tract as noted above under Route A. Route B poses additional impacts to the Delaware State Forest, including

impacts to: 14.2 miles of state forestland; Blooming Grove hiking trail, where the trail crosses the current ROW three times; a known Bald eagle nest in the vicinity of the White Deer Lake tract; a known rattlesnake basking/den site in the vicinity of High Knob; 6 river crossings, including Gates Meadow Run, East Spring Run, Big Bushkill, Unnamed tributary to Beaver Run Lake, Saw Creek, and Red Rock Run; two crossings of Thunder Swamp Hiking Trail, two crossings of the Edgemere-Pecks Pond Snowmobile Trail system; and the viewscape from High Knob, a popular hiker and biker destination.

DCNR's Ecological Services section notes multiple plant species of concern in the vicinity of Route B, as well as numerous natural communities, geological features, and more than a dozen species of moth and butterfly. They will be requesting that Route B perform a survey for multiple species of special concern. Like Route A, Route B crosses both the Delaware and Lackawanna State Forests.

**Recommendations:**

DCNR would propose the same set of recommendations for Route B as Route A above concerning impacts to the Varden Conservation Area, preferring avoidance, then minimization through burying transmission lines or aligning with the existing ROW closest to the park boundary and not expanding the ROW width.

Similarly, significant impacts to the Delaware State Forest through Route B including numerous stream crossings and trail crossings should be avoided where possible, minimized through no expansion to current ROW widths, buried transmission lines where possible and routing to avoid sensitive species, communities, and viewsheds.

Ecological Services will be requesting surveys for several of the species of special concern known to be in the vicinity of proposed Route B, especially for those species and their potential habitat that are onsite. Overall, DCNR staff prefer Route B to Route A because it does not create new ROWs that would accelerate forest habitat loss, forest fragmentation and other natural resource impacts in undisturbed landscapes. Widening of existing ROW would still cause habitat loss, fragmentation and other impacts.

**III. Proposed Route C – Issues and Recommendations.**

**Issues.**

DCNR has concerns about proposed Route C because it introduces a new ROW along the southern flank of Blue Mountain/Kittatinny Ridge and in some areas will create significant new habitat fragmentation. Much of proposed Route C will lie within Pennsylvania Audubon's Blue Ridge-Kittatinny Ridge Project area, a globally significant migration flyway in spring and fall for thousands of hawks and eagles and millions of songbirds. This region is designated by Audubon as the state's largest Important Bird Area. DCNR has invested \$910,000 and staff time in conserving land along the Kittatinny Ridge/Blue Ridge project area. Route C will also cross the Appalachian Trail and in Lehigh County lies close enough to the trail to have a potential negative visual impact. Route C also impacts several areas with sensitive ridge-top barrens communities.

In Northampton County, Route C will impact land in the Kittatinny Ridge Conservation Corridor and the Lehigh Valley Greenway Conservation Landscape Initiative, both high priority landscapes for DCNR representing millions of dollars in investment grants and staff and partner effort. This land may be under protection from ordinances recently enacted under House Bill 1281. In addition, Route C construction could impact the viewshed looking north to Blue Mountain, and will impact the headwaters of Sober's Run – a proposed candidate for Exceptional Value stream listing.

Ecological Services staff have determined through their PNDI review that there are numerous plant species of concern in the vicinity of proposed Route C, as well as a number of plant communities, geologic features and moth and butterfly species of concern. They will be requesting that Route C perform a survey for multiple species of special concern.

**Recommendations:**

Ecological Services will request a survey for several of the known species and features that occur in the vicinity of proposed Route C, especially those species and their potential habitat that are onsite. DCNR recommends that forest fragmentation be addressed through avoidance or mitigation, and that degradation to the viewshed also be mitigated.

DCNR will be sending additional comments regarding this project and appreciates the opportunity to provide input at this stage regarding the selection of proposed routes. For questions, please contact Greg Podniesinski in the DCNR Office of Conservation Science.

Sincerely,



Greg Podniesinski  
Pennsylvania Natural Heritage Program Manager  
DCNR-Office of Conservation Science



COMMONWEALTH OF PENNSYLVANIA  
**PENNSYLVANIA GAME COMMISSION**  
2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

July 11, 2008

Ms. Sue Davis  
Louis Berger Group, Inc.  
75 2<sup>nd</sup> Avenue, Suite 700  
Needham, Massachusetts 02494

In re: PNDI Database Search  
Susquehanna – Roseland 500 kV Transmission Line Project  
Numerous Counties in Eastern Pennsylvania

Dear Ms. Davis:

This is in response to your letter dated June 30, 2008, regarding the potential impacts of your project on special concern species of birds or mammals and State Game Lands.

Our office review has determined that your project may potentially cause adverse impacts to special concern species of birds or mammals recognized by the Pennsylvania Game Commission (PGC) and it will impact State Game Lands.

Proposed transmission line routes "A" and "B" may potentially adversely affect bats of several species if the line is routed across State Game Land Nos. 260 and 300. Proposed transmission line route "B" may adversely impact bald eagles (*Haliaeetus leucocephalus*) that have a nest located along the proposed route south of White Deer Lake in the Delaware State Forest. Proposed transmission line route "C" may potentially adversely affect bats of several species if the line is routed across State Game Land Nos. 326 and 257; in addition, bald eagles, ospreys (*Pandion haliaetus*), and peregrine falcons (*Falco peregrinus*) may be adversely affected along route "C" north of Martins Creek in Northampton County near the New Jersey state line.

Proposed transmission line route "A" will impact State Game Land Nos. 260, 300, 116 and 209. Proposed transmission line route "B" will impact State Game Land Nos. 260, 300, and 183. Proposed transmission line route "C" will impact State Game Land Nos. 326, 257, 217 and 168. Please contact Mr. Peter Sussenbach, Land Management Supervisor, at (570) 675-1143 to discuss locating the line on State Game Land Nos. 260, 300, 116, 209 or 183. Please contact Mr. Bruce Metz, Land Management Supervisor, at (610) 926-3136 to discuss locating the line on State Game Land Nos. 326, 257, 217 and 168. It is recommended that you coordinate with Game Commission Staff early in your project planning process in order to facilitate locating your proposed line on State Game Lands.

ADMINISTRATIVE BUREAUS:

PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCURMENT: 717-787-6594  
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286  
WILDLIFE PROTECTION: 717-787-5740 WILDLIFE HABITAT MANAGEMENT: 717-787-6818 REAL ESTATE: 717-787-6568  
AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076

[WWW.PGC.STATE.PA.US](http://WWW.PGC.STATE.PA.US)

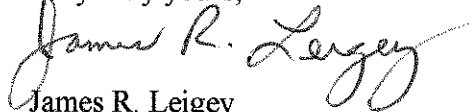
AN EQUAL OPPORTUNITY EMPLOYER

The PGC will need to evaluate the potential impacts to both species of special concern and State Game Lands after the exact route for the PPL line has been determined. It is recommended that the preferred transmission line route be located to minimize forested fragmentation, to utilize existing transmission line right-of-ways, and to avoid wetland impacts to the greatest extent possible.

Please be advised that the potential impacts to special concern species and State Game Lands are subject to change because new locations of special concern species and new additions to the State Game Lands are occurring on a regular basis.

If you have any questions, please contact me at (717) 787-4250.

Very truly yours,

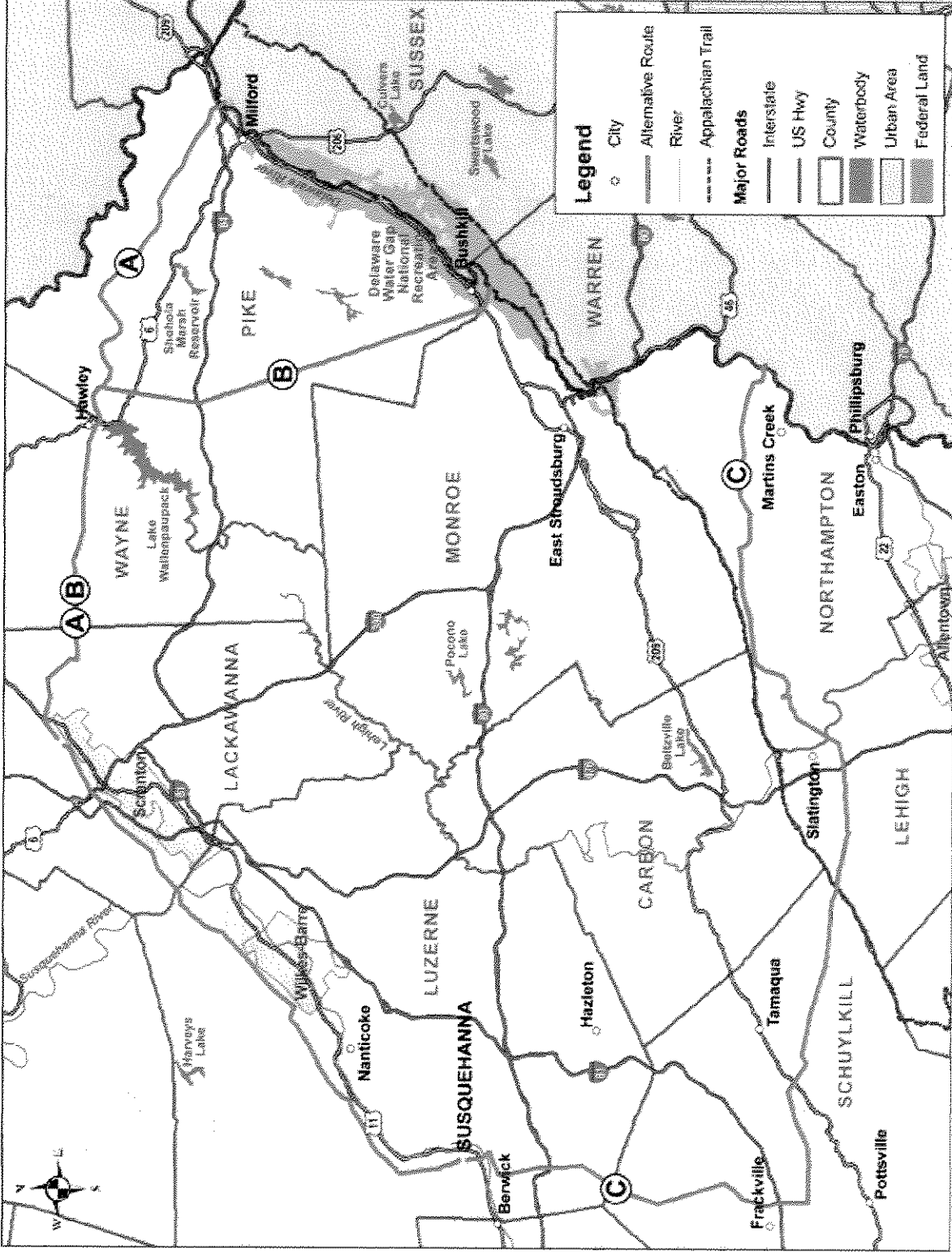


James R. Leigey

Wildlife Impact Review Coordinator  
Division of Environmental  
Planning and Habitat Protection  
Bureau of Wildlife Habitat Management

Attachment

Cc: File  
Metz  
Schweitzer  
Shirk  
Sussenbach



---

**From:** Bowen, Rebecca H [mailto:c-rbowen@state.pa.us]  
**Sent:** Thursday, July 24, 2008 11:42 AM  
**To:** Davis, Sue  
**Subject:** Susquehanna Roseland PNDI Response

Dear Sue,

Attached please find three survey request letters for the different alignments for the Susquehanna Roseland 500kV proposed transmission line. If you have any questions, please don't hesitate to ask. I will be out of the office until August 1, but I will be returning my emails after I return to the office. Thank you,

Rebecca H. Bowen  
Environmental Review Specialist  
Ecological Services Section  
DCNR/BOF/PNDI  
717-772-0258  
c-rbowen@state.pa.us



July 18, 2008

Sue Davis
The Louis Berger Group, Inc.
Fax: 781-444-0099 (hard copy will NOT follow)

Pennsylvania Natural Diversity Inventory Review, PNDI Number 19730
Susquehanna-Roseland 500 kV Transmission Line- Alignment A
Luzerne, Lackawanna, and Wayne Counties

Dear Ms. Davis,

This responds to your request about a Pennsylvania Natural Diversity Inventory (PNDI) ER Tool "Potential Impact" or species of special concern impact review. We screened this project for potential impacts to species and resources of special concern under Department of Conservation and Natural Resources' responsibility, which includes plants, natural communities, terrestrial invertebrates and geologic features only.

[ ] NO PROJECT IMPACT ANTICIPATED
PNDI records indicate special concern species or resources are located in the vicinity of the project. However, based on the information submitted to us concerning the nature of the project, the immediate location, and our detailed resource information, we determined that no impact is likely. No further coordination with DCNR is needed for this project.

[X] POTENTIAL PROJECT IMPACT
Based on our PNDI map review we determined potential impacts to species and/or resources of special concern. Therefore, further coordination with this office is necessary to avoid potential impacts to the above listed resources.

- [ ] Please provide the following information so that a more accurate determination can be made:
[X] A survey for the following should be conducted at the appropriate time of year by a qualified botanist:
\*\*\* see attached list titled "Table 1: Species of Special Concern"

If the land type(s) does not exist on site, a survey will not be necessary. If the land cover listed above is not on site, please submit a report to our office informing us that the habitat is not onsite and describe the current land cover and species found on the site.
If the habitat is present, please have the botanist fill out the field survey form:
http://www.naturalheritage.state.pa.us/internetFieldSurveyForm.pdf The botanist may contact us prior to the survey for additional information.
All PA listed species should be searched for during the site visit and occurrences reported to our office. Survey results should be submitted to our office for review and comment. Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site. If you need a list of qualified surveyors, contact our office.

COMMENTS: Please note the habitats and flowering times of species on the attached list and have a qualified botanist survey during an appropriate time of year. On the attached pages we have also included information about communities, moth/butterfly species, and other plant species. Please note that we are not requesting a survey for these species and communities in Table 2 &3, however, we are asking for your volunteer implementation of the following recommendations in order to contribute to the conservation and recovery of these species and communities. In order to protect the communities and other plant and moth/butterfly species we ask that during replanting no invasive species are planted. For information about invasive species please visit to following website, (http://www.dcnr.state.pa.us/forestry/invasivetutorial/index.htm). To conserve the moth/butterfly species we ask that the host plants of the species be planted in the project area during replanting. Please feel free to contact our office for more information on how to conserve these communities and other plant and moth/butterfly species.

This response represents the most up-to-date summary of the PNDI data files and is good for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

To complete your review of state and federally-listed species of special concern (those NOT under DCNR's responsibility), please be sure the U.S. Fish and Wildlife Service, the PA Game Commission and the Fish and Boat Commission have been contacted regarding this project either directly or by performing a search with the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Rebecca H. Bowen, Environmental Review Specialist
DCNR/BOF/PNDI, PO Box 8552, Harrisburg, PA 17105 ~ Ph: 717-772-0258 ~ F: 717-772-0271 ~ c-rbowen@state.pa.us
Stewardship Partnership Service

**Table 1: Species of Special Concern:**

Please survey for the following species during an appropriate time of year.							
Scientific Name	Common Name	Current Status	Proposed Status	Wetlands Indicator	Habitat	Flowering Time	Notes
<i>Amelanchier humilis</i>	Serviceberry	TU	PE	FACU	dry, open, high ground and bluffs	flowers April - mid May, fruits June - early July	
<i>Elatine americana</i>	Long-stemmed Water-wort	PX	PE	OBL	muddy tidal shores and swamps	fl. July - Aug	
<i>Lupinus perennis</i>	Lupine	PR	PR	n/a	stream banks, open fields, woods edges, and roadsides in sandy, acidic soils	flowers April - July	
<i>Opuntia humifusa</i>	Prickly-pear Cactus	PR	PR	n/a	dry, shaley cliffs and barrens	flowers July	
<i>Oryzopsis pungens</i>	Slender Mountain-ricegrass	PE	PE	n/a	dry, sandy thickets and barrens	Flowers May	
<i>Bidens discordea</i>	Small Beggar-ticks	N	PR	FACW	swamps, vernal pools, and swampy ground	flowers June-July	
<i>Panicum xanthophysum</i>	Slender Panic-grass	PE	PE	n/a	dry rocky slopes or sandy, open woods, mostly in the mountain		
<i>Potentilla tridentata</i>	Three-toothed Cinquefoil	PE	PE	n/a	dry, exposed, rocky balds and mountain tops	fl. June-July	
<i>Prunus pumila var. depressa</i>	Prostrate sand cherry		PE	n/a	alluvial islands and sandy or gravelly shores	fl. Apr-May, frt. Aug	
<i>Prunus pumila var. susquehanae</i>	Appalachian sand cherry		PT	n/a	dry, exposed rock outcrops and mountain tops	fl. Apr-May, frt. Aug	Known in Lackawanna State Forest
<i>Ribes triste</i>	Red Currant	PT	PT	OBL	wet, rocky woods, swamps & cliffs	flowers June-July	
<i>Sedum rosea</i>	Roseroot Stonecrop	PE	PE	FACU-	moist cliffs & ledges	fl. Late may	
<i>Andromeda polifolia</i>	Bog-Rosemary	PR	PR	OBL	bogs and peaty wetlands	Flowers in May	
<i>Carex paupercula</i>	Bog Sedge	PT	PR	OBL	sphagnum bogs and boggy woods		
<i>carex sprengelii</i>	Sedge	N	PR	FACU	moist limestone outcrops and grassy banks		

**Table 2: Species of a lesser Conservation Concern:**

*A survey is not specifically requested for the following species and communities, however, if found during survey of above species, please make a note in Survey Report.*

Scientific Name	Common Name	Current Status	Proposed Status	Wetlands Indicator	Habitat	Flowering Time	Notes
<i>Elymus trachycaulus</i>	Slender Wheatgrass	N	TU	FACU	open woods, barrens and banks	June-July	* onsite in Lackawanna State Forest

**Communities and Geologic Features of Special Concern**

Northern appalachian acidic rocky summit community, Northern Appalachian shale barrens, Talus cave community and Ridetop dwarf-tree forest( known on site). More information can be found in Terrestrial & Palustrine Plant Communities of PA (<http://www.dnrc.state.pa.us/urct/filebook.aspx>)

**Table 3: Butterfly & Moth Species of Special Concern**

Please note, this is given for your own information and a survey is not requested. Voluntary implementation of the following recommendations will contribute to the conservation and recovery of these species. Please try to minimize impact to habitat and to us some of the host plants given when replanted after work is completed.

Scientific Name	Common Name	Global Rank	State Rank	Habitat	Larval Host Plants	Notes
<i>Hemileuca maia</i>	Barrens Buckmoth	G5	S1S2	dry , well-drained, sandy soils where the foodplants are various species of oaks	black oak, other oaks, willow, aspen, Spiraeas and even birches	** onsite
<i>Hesperia leonardus</i>	Leonard's Skipper	PS, G4	S3S4	Open grassy areas including native prairies, fields, barrens, and meadows.	little bluestem (Andropogon scoparius), blue grama (Bouteloua gracilis), and bent grass (Agrostis).	** onsite in Lackawanna state forest
<i>Lycia rachelae</i>	Twilight Moth	G4	S1	Pitch pine -Scrub oak barrens and others	include apples, birches, choke cherries, elms, poplars, willows, and others	** onsite
<i>Metaxaglaea semitaria</i>	Footpath Sallow Moth	G5	S2	not much information is known about this species	unknown	** onsite
<i>Psectraglaea carnosa</i>	Pink Sallow	G3	S1	sandy pine or oak barrens	low growing Ericaceae, Rosaceae, Vaccinium and small oaks.	** onsite
<i>Xylotype capax</i>	Broad Sallow Moth			pitch pine-scrub oak woodland , an early-successional community dominated by pitch pine (Pinus rigida) and scrub oak (Quercus ilicifolia)	Larval host plants of the barrens xylotype include blueberry (Vaccinium sp.), cherry (Prunus sp.), crabapple (Malus sp.) and red oak (Quercus rubra)	
<i>Chaetaglaea cerata</i>	A Sallow Moth	G3G4	G2G3	not much information is known about this species		** onsite
<i>Epiglaea apiata</i>	Pointed Sallow	G5	S3S4	not much information is known about this species		** onsite in the Delaware State Forest
<i>Erynnis persius</i>	Persius Duskywing	G5	S1S2	open area including mountain grasslands,marshes, sand plains, seeps, and streambanks	Lupine, golden banner, Lotus and other legumes	** onsite
<i>Glena cognataria</i>	Blueberry Gray	G4	S1	heathlands including bogs and pine barrens; key habitat as extensive Lowbush Blueberry (Vaccinium angustifolium and V. Pallidum		** onsite



Bureau of Forestry

July 18, 2008

Sue Davis
The Louis Berger Group, Inc.
Fax: 781-444-0099 (hard copy will NOT follow)

Pennsylvania Natural Diversity Inventory Review, PNDI Number 19730
Susquehanna-Roseland 500 kV Transmission Line- Alignment B
Luzerne, Lackawanna, and Wayne Counties

Dear Ms. Davis,

This responds to your request about a Pennsylvania Natural Diversity Inventory (PNDI) ER Tool "Potential Impact" or species of special concern impact review. We screened this project for potential impacts to species and resources of special concern under Department of Conservation and Natural Resources' responsibility, which includes plants, natural communities, terrestrial invertebrates and geologic features only.

NO PROJECT IMPACT ANTICIPATED
PNDI records indicate special concern species or resources are located in the vicinity of the project. However, based on the information submitted to us concerning the nature of the project, the immediate location, and our detailed resource information, we determined that no impact is likely. No further coordination with DCNR is needed for this project.
POTENTIAL PROJECT IMPACT
Based on our PNDI map review we determined potential impacts to species and/or resources of special concern. Therefore, further coordination with this office is necessary to avoid potential impacts to the above listed resources.
Please provide the following information so that a more accurate determination can be made:
A survey for the following should be conducted at the appropriate time of year by a qualified botanist:
\*\*\* see attached list titled "Table 1: Species of Special Concern"
If the land type(s) does not exist on site, a survey will not be necessary. If the land cover listed above is not on site, please submit a report to our office informing us that the habitat is not onsite and describe the current land cover and species found on the site.
If the habitat is present, please have the botanist fill out the field survey form:
http://www.naturalheritage.state.pa.us/InternetFieldSurveyForm.pdf The botanist may contact us prior to the survey for additional information. All PA listed species should be searched for during the site visit and occurrences reported to our office. Survey results should be submitted to our office for review and comment. Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site. If you need a list of qualified surveyors, contact our office.

COMMENTS: : Please note the habitats and flowering times of species on the attached list and have a qualified botanist survey during an appropriate time of year. On the attached pages we have also included information about communities, moth/butterfly species, and other plant species. Please note that we are not requesting a survey for these species and communities in Table 2 &3, however, we are asking for your volunteer implementation of the following recommendations in order to contribute to the conservation and recovery of these species and communities. In order to protect the communities and other plant and moth/butterfly species we ask that during replanting no invasive species are planted. For information about invasive species please visit to following website, (http://www.dcnr.state.pa.us/forestry/invasivetutorial/index.htm). To conserve the moth/butterfly species we ask that the host plants of the species be planted in the project area during replanting. Please feel free to contact our office for more information on how to conserve these communities and other plant and moth/butterfly species.

This response represents the most up-to-date summary of the PNDI data files and is good for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

To complete your review of state and federally-listed species of special concern (those NOT under DCNR's responsibility), please be sure the U.S. Fish and Wildlife Service, the PA Game Commission and the Fish and Boat Commission have been contacted regarding this project either directly or by performing a search with the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Rebecca H. Bowen, Environmental Review Specialist
DCNR/BOF/PNDI, PO Box 8552, Harrisburg, PA 17105 ~ Ph: 717-772-0258 ~ F: 717-772-0271 ~ c-rbowen@state.pa.us

Stewardship Partnership Service

**Table 1: Species of Special Concern:**

Please survey for the following species during an appropriate time of year.

Scientific Name	Common Name	Current Status	Proposed Status	Wetlands Indicator	Habitat	Flowering Time	Notes
<i>Amelanchier humilis</i>	Serviceberry	TU	PE	FACU	dry, open, high ground and bluffs	flowers April - mid May, fruits June - early July	
<i>Arceuthobium pusillum</i>	Dwarf Mistletoe	PT	PT	n/a	sphagnum bogs where host <i>Picea mariana</i> is found	June-July	known in Delaware State Forest
<i>Lupinus perennis</i>	Lupine	PR	PR	n/a	stream banks, open fields, woods edges, and roadsides in sandy, acidic soils	flowers April - July	
<i>Opuntia humifusa</i>	Prickly-pear Cactus	PR	PR	n/a	dry, shaley cliffs and barrens	flowers July	
<i>Oryzopsis pungens</i>	Slender Mountain-ricegrass	PE	PE	n/a	dry, sandy thickets and barrens	Flowers May	
<i>Bidens discoides</i>	Small Beggar-ticks	N	PR	FACW	swamps, vernal pools, and swampy ground	flowers June-July	known in Delaware State Forest
<i>Panicum xanthophyllum</i>	Slender Panic-grass	PE	PE	n/a	dry rocky slopes or sandy, open woods, mostly in the mountain		
<i>Potentilla tridentata</i>	Three-toothed Cinquefoil	PE	PE	n/a	dry, exposed, rocky balds and mountain tops	fl. June-July	
<i>Prunus pumila</i> var. <i>depressa</i>	Prostrate sand cherry		PE	n/a	alluvial islands and sandy or gravelly shores	fl. Apr-May, frt. Aug	
<i>Prunus pumila</i> var. <i>susquehanae</i>	Appalachian sand cherry		PT	n/a	dry, exposed rock outcrops and mountain tops	fl. Apr-May, frt. Aug	* onsite in Lackawanna State Forest
<i>Ribes triste</i>	Red Currant	PT	PT	OBL	wet, rocky woods, swamps & cliffs	flowers June-July	
<i>Sedum rosea</i>	Roseroot Stonecrop	PE	PE	FACU-	moist cliffs & ledges	fl. Late may	
<i>Andromeda polifolia</i>	Bog-Rosemary	PR	PR	OBL	bogs and peaty wetlands	Flowers in May	

**Table 1: Species of Special Concern: (continued)**

<i>Carex paupercula</i>	Bog Sedge	PT	PR	OBL	sphagnum bogs and boggy woods		
<i>Carex disperma</i>	Soft-leaved sedge	PR	PR	FACW+	bogs and wet acidic woods		
<i>Carex lasiocarpa</i>	Many-fruited sedge, Slender sedge	PR	PR	OBL	sphagnum bogs calcareous wet meadows		Known in Delaware State Forest
<i>Carex tetanica</i>	Wood's sedge	PT	PT	FACW	calcareous wet meadows and swales		
<i>Carex typhina</i>	Cat-tail sedge	PE	PT	FACW+	calcareous bottomlands, swamps, and wet woods		
<i>Carex limosa</i>	Mud Sedge	TU	PT	OBL	sphagnum bogs mats and hummocks		
<i>Carex sprengelii</i>	Sedge	N	PR	FACU	moist limestone outcrops and grassy banks		
<i>Dryopteris cintoniana</i>	Clinton's wood fern	N	PT	FACW+	swampy woods, especially red maple swamps		
<i>Epiobium strictum</i>	Downy willow herb	PE	PR	OBL	calcareous marshes, meadows and thickets		
<i>Juncus brachycephalus</i>	Small-headed rush	PT	PT	OBL	muddy or sandy calcareous shoresk clayey seeps and springy or gobby fields	fl/ft. Summer	
<i>Leucothoe racemosa</i>	swamp dog-hobble	TU	PT	FACW	wet woods and thickets	flowers late May -early June	Known in Delaware State Forest
<i>Lobelia dortmanna</i>	Water lobelia	PT	PT	OBL	glacial ponds and lakes	flowers July-aug	Known in Delaware State Forest
<i>lobelia kalrnii</i>	brook lobelia	PE	PE	OBL	calcareous swamps, moist pastures and fens	flowers Aug-early Oct.	Known in Delaware State Forest
<i>Parnassia glauca</i>	Carolina Grass-of-Parnassus	PE	PE	OBL	boggy meadows or seeps, on calcareous soils	flowers August-September	
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	PE	PE	FACW	calcareous swamps	flowers June-Aug	
<i>Utricularia intermedia</i>	Flat-leaved bladderwort	PT	PT	OBL	lakes and wet edges of exposed floating bog mats	Flowers July - Aug.	Known in Delaware State Forest
<i>Poa paludigena</i>	Bog Bluegrass	PT	PR	FACW	Boggy woods and swamps	late may - June	

**Table 2: Species of a lesser Conservation Concern:**

*A survey is not specifically requested for the following species and communities, however, if found during survey of above species, please make a note in Survey Report.*

Scientific Name	Common Name	Current Status	Proposed Status	Wetlands Indicator	Habitat	Flowering Time	Notes
<i>Elymus trachycaulus</i>	Slender Wheatgrass	N	TU	FACU	open woods, barrens and banks	June-July	* onsite in Lackawanna State Forest
<i>Symphotrichum ericoides</i>	White Heath Aster	TU	TU	FACU	calcareous cliffs and outcrops	late summer and fall blooming	** possibly on site

**Communities and Geologic Features of Special Concern**

Northern appalachian acidic rocky summit community, Shrub fen, Talus cave community and Ridetop dwarf-tree forest( known on site). More information can be found in Terrestrial & Palustrine Plant Communities of PA (<http://www.dnrc.state.pa.us/urcif/filebook.aspx>)

**Table 3: Butterfly & Moth Species of Special Concern**

Please note, this is given for your own information and a survey is not requested. Voluntary implementation of the following recommendations will contribute to the conservation and recovery of these species. Please try to minimize impact to habitat and to us some of the host plants given when replanted after work is completed.

Scientific Name	Common Name	Global Rank	State Rank	Habitat	Larval Host Plants	Notes
<i>Hemileuca mala</i>	Barrens Buckmoth	G5	S1S2	dry , well-drained, sandy soils where the foodplants are various species of oaks	black oak, other oaks, willow, aspen, Spiraea and even birches	** onsite
<i>Hesperia leonardus</i>	Leonard's Skipper	PS, G4	S3S4	Open grassy areas including native prairies, fields, barrens, and meadows.	Various perennial grasses including little bluestem (Andropogon scoparius), blue grama (Bouteloua gracilis), and bent grass (Agrostis).	** onsite in Lackawanna state forest
<i>Lycia rachelae</i>	Twilight Moth	G4	S1	Pitch pine -Scrub oak barrens and others	include apples, birches, choke cherries, elms, poplars, willows, and others	** onsite
<i>Metaxaglaea semitaria</i>	Footpath Sallow Moth	G5	S2	not much information is known about this species	unknown	** onsite
<i>Psectraglaea carnosae</i>	Pink Sallow	G3	S1	sandy pine or oak barrens	low growing Ericaceae, Rosaceae, Vaccinium and small oaks.	** onsite
<i>Xylotype capax</i>	Broad Sallow Moth			pitch pine-scrub oak woodland , an early-successional community dominated by pitch pine (Pinus rigida) and scrub oak (Quercus ilicifolia)	Larval host plants of the barrens xylotype include blueberry (Vaccinium sp.), cherry (Prunus sp.), crabapple (Malus sp.) and red oak (Quercus rubra)	
<i>Chaetagleaa tremula</i>	Trembling Sallow or Barrens Chaetagleaa	G5	S1	unknown	Caterpillar reported on oaks and blueberries.	** onsite
<i>Glenea cognataria</i>	Blueberry Gray	G4	S1	heathlands including bogs and pine barrens; key habitat as extensive Lowbush Blueberry (Vaccinium angustifolium and V. Pallidum		** onsite



July 18, 2008

Sue Davis
The Louis Berger Group, Inc.
Fax: 781-444-0099 (hard copy will NOT follow)

Pennsylvania Natural Diversity Inventory Review, PNDI Number 19730
Susquehanna-Roseland 500 kV Transmission Line- Alignment C
Luzerne, Schuylkill, Lehigh and Northampton Counties

Dear Ms. Davis,

This responds to your request about a Pennsylvania Natural Diversity Inventory (PNDI) ER Tool "Potential Impact" or species of special concern impact review. We screened this project for potential impacts to species and resources of special concern under Department of Conservation and Natural Resources' responsibility, which includes plants, natural communities, terrestrial invertebrates and geologic features only.

NO PROJECT IMPACT ANTICIPATED

PNDI records indicate special concern species or resources are located in the vicinity of the project. However, based on the information submitted to us concerning the nature of the project, the immediate location, and our detailed resource information, we determined that no impact is likely. No further coordination with DCNR is needed for this project.

POTENTIAL PROJECT IMPACT

Based on our PNDI map review we determined potential impacts to species and/or resources of special concern. Therefore, further coordination with this office is necessary to avoid potential impacts to the above listed resources.

- Please provide the following information so that a more accurate determination can be made:
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To complete your review of state and federally-listed species of special concern (those NOT under DCNR's responsibility), please be sure the U.S. Fish and Wildlife Service, the PA Game Commission and the Fish and Boat Commission have been contacted regarding this project either directly or by performing a search with the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Rebecca H. Bowen, Environmental Review Specialist
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Stewardship Partnership Service

**Table 1: Species of Special Concern:**

Please survey for the following species during an appropriate time of year.

Scientific Name	Common Name	Current Status	Proposed Status	Wetlands Indicator	Habitat	Flowering Time	Notes
<i>Amaranthus cannabinus</i>	Waterhemp ragweed	PR	PR	OBL	uppermost zone of freshwater intertidal marsh	fl. July - Sept.	
<i>Carex buxamii</i>	Brown Sedge	TU	PR	OBL	calcareous swamps, swales and meadows		
<i>Carex collinsii</i>	Collin's sedge	PE	PT	OBL	sphagnum bogs and swampy woods		** onsite
<i>Eleocharis intermedia</i>	Matted spike-rush	PT	PT	FACW+	marshes, wet meadows, and stream banks, on calcareous substrates	fl/ft. Mid-late Summer	
<i>Paronychia fastigiata</i> var <i>nuttallii</i>	Whitlow-wort or Forked Chickweed	TU	PE	n/a	open woods and edges in dry, rocky, or sandy soils	flowers July - September	
<i>Carex haydenii</i>	Cloud sedge	TU	PT	OBL	swamps and wet meadows		
<i>Carex eburnea</i>	Ebony sedge	PE	PE	FACU	limestone ledges		
<i>Cyperus schweintzii</i>	Schweinitz flatsedge	PR	PR	FACU	dry or moist sand flats or dunes	flower/fruit mid summer-early fall	
<i>Platanthera ciliaris</i>	Yellow fringed-orchid	TU	PT	FACW	bogs, moist meadows and woods	flowers July-aug	** onsite
<i>Polygala nuttallii</i>	Nuttall's Milkwort	N	TU	FAC	open woods, peaty thickets and sphagnum bogs	flowers July-Oct	
<i>Potamogeton pulcher</i>	Spotted pondweed	PE	PE	OBL	shallow acidic water, swamps and peaty or muddy shores		
<i>Ranunculus aquatilis</i> var. <i>diffusus</i>	White water Crow foot	N	PR	OBL	lakes, ponds, rivers, and streams	flowers May - July	
<i>Poa languida</i>	Drooping Bluegrass	TU	PT	n/a	moist woods and fen	late may - early June	
<i>Dicentra eximia</i>	Wild Bleeding-hearts	PE	PE	n/a	rich woods and cliffs	fl. June-July	
<i>Scirpus ancistrochaetus</i>	Northeastern bulrush	PE & FE	PT	OBL	intermittently wet or inundated depressions	fruits in July	
<i>Leucothoe racemosa</i>	swamp dog-hobble	TU	PT	FACW	wet woods and thickets	flowers late May -early June	
<i>Salix serissima</i>	Autumn Willow	PT	PT	OBL	fens and wet meadows on calcareous soils	flowers after leaves emerge	

**Table 2: Species of a lesser Conservation Concern:**

*A survey is not specifically requested for the following species and communities, however, if found during survey of above species, please make a note in Survey Report.*

Scientific Name	Common Name	Current Status	Proposed Status	Wetlands Indicator	Habitat	Flowering Time	Notes
<i>Bartonia paniculata</i>	Screw-stem	N	TU	OBL	bogs and peaty lake margins	flowers August-September	** onsite

**Communities and Geologic Features of Special Concern**

Ephemeral/flooding natural pool  
 and Ridetop dwarf-tree forest( known on site) More information can be found in  
 Terrestrial & Palustrine Plant Communities of PA (<http://www.dnrcr.state.pa.us/urcr/filebook.aspx>)

**Table 3: Butterfly & Moth Species of Special Concern**

Please note, this is given for your own information and a survey is not requested. Voluntary implementation of the following recommendations will contribute to the conservation and recovery of these species. Please try to minimize impact to habitat and to us some of the host plants given when replanted after work is completed.

Scientific Name	Common Name	Global Rank	State Rank	Habitat	Larval Host Plants	Notes
<i>Enodia anthedon</i>	Northern Pearly eye	G5	S3S4	Damp deciduous woods, usually near marshes or waterways; mixed or grassy woodlands.	Various grasses including white grass ( <i>Leersia virginica</i> ), bearded shortgrass ( <i>Brachyelytrum erectum</i> ), plumegrass ( <i>Erianthus</i> ), broadleaf uniola ( <i>Uniola latifolia</i> ), and bottlebrush ( <i>Hystrix patula</i> ).	
<i>Euphydryas phaeton</i>	Baltimore Checkerspot	G4	S2S4	Wet meadows, bogs, and marshes in the northeast part of the range	Plants where eggs are laid and that caterpillars eat before hibernating are turtlehead ( <i>Chelone glabra</i> ), hairy beardtongue ( <i>Penstemon hirsutus</i> ), English plantain ( <i>Plantago lanceolata</i> ), and false foxglove ( <i>Aureolaria</i> ). After overwintering, caterpillars may continue to use these plants, but may also wander and feed on unrelated plants including arrowwood ( <i>Viburnum recognitum</i> ), common lousewort ( <i>Pedicularis canadensis</i> ), Japanese honeysuckle ( <i>Lonicera japonica</i> ), and white ash ( <i>Fraxinus americana</i> )	
<i>Poanes massasoit</i>	Mulberry Wing	G4	S3	Freshwater marshes or bogs	Upright sedge ( <i>Carex stricta</i> ), and possibly others	
<i>Polites mystic</i>	Long Dash	G5	S3	Open, moist areas including meadows, marshes, streambanks, wood edges, and prairie swales	Bluegrasses ( <i>Poa</i> species)	
<i>Speyeria aphrodite</i>	Aphrodite Fritillary	G5	S3S4	Moist prairies, high mountain meadows, openings in barrens, brushland, dry fields, open oak woods, bogs	Various violet species including northern downy violet ( <i>Viola fimbriatula</i> ) and lance-leaved violet ( <i>V. lanceolata</i> )	

COMMONWEALTH OF PENNSYLVANIA  
**FISH AND BOAT COMMISSION**  
 NATURAL DIVERSITY SECTION  
**SPECIES IMPACT REVIEW (SIR) REQUEST FORM**

A. This form provides the site information necessary to perform a computer database search for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the Wildlife Code.

B. Use only **one form** for each proposed project or location. Complete the information below and **mail** form to:

Natural Diversity Section  
 Division of Environmental Services  
 PA Fish and Boat Commission  
 450 Robinson Lane  
 Bellefonte, PA 16823  
 Fax: (814) 359-5175

C. This form, a cover letter including a project narrative, and accompanying maps should be sent to the above address for environmental reviews that **only** concern **reptiles, amphibians, fishes and aquatic invertebrates**. Reviews for other natural resources must be submitted to other appropriate agencies.

D. The absence of recorded information from our databases and files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A review is valid for one year.

E. **Please send us only one (1) copy of your request** – either by fax or by mail – not both. Mail is preferred to improve legibility of maps. Facsimile submission will not improve our response turn-around time.

F. **Allow 30 days for completion of the review from the date of PFBC receipt**. Large projects and workload may extend this review timeframe.

G. **In any future correspondence with us following your receipt of the SIR response, please refer to the assigned SIR number at the top left of our cover letter.**

H. **FORMS THAT ARE NOT COMPLETED IN FULL WILL NOT BE REVIEWED.**

**PLEASE PRINT OR TYPE:** If available, provide the potential conflict **PNDI Search Number:** \_\_\_\_\_

PFBC response should be sent to:

Company/Agency: \_\_\_\_\_ The Louis Berger Group, Inc. \_\_\_\_\_ Form Preparer: Sue Davis \_\_\_\_\_

Address: 75 Second Aveune, Suite 700, Needham, MA 02494 \_\_\_\_\_

Phone (8:00 AM to 4:00 PM): 781-707-7445 \_\_\_\_\_

Project Description: New 500kv Transmission Line. Please see letter for more detailed project description. \_\_\_\_\_

Indicate if the project is: Transportation  or Non-transportation  (check one)

Will the proposed project encroach directly or indirectly (e.g., runoff) upon wetlands or waterways? Circle one for each:

Wetlands: YES Waterways: YES

County: Numerous. See attached map. Township/Municipality: Numerous. See attached map. \_\_\_\_\_

Name of the United States Geological Survey (U.S.G.S.) 7.5 Minute Quadrangle Map where project is located:

Numerous. See attached map and list. Project size (in acres): Varies. \_\_\_\_\_

Attach an 8.5" by 11" photocopy (**DO NOT REDUCE**) of the section of the U.S.G.S. Quadrangle Map which identifies the project location. On this map, indicate the location of the project center (if linear, depict both ends) and outline the approximate boundaries of the project area. NOT APPLICABLE DUE TO LARGE LINEAR NATURE OF PROJECT.

Specify latitude/longitude of the project center. **Latitude:** \_\_\_\_\_ ° / \_\_\_\_\_ ' / \_\_\_\_\_ " N

Indicate latitude/longitude in degrees-minutes-seconds format only. **Longitude:** \_\_\_\_\_ ° / \_\_\_\_\_ ' / \_\_\_\_\_ " W

Three steps are needed to convert from decimal degrees to degrees-minutes-seconds: (1) Degrees will be the whole number. (2) To get minutes, multiply the decimal degree portion by 60. (3) Multiply the decimal minute portion by 60 to get seconds.

Example: (Latitude) 40.93748 = **40°**; 0.93748 x 60 = 56.2488' = **56'**; 0.2488 x 60 = 14.928 = **15"** = **40°56'15" N**

(Longitude) 75.94740 = **75°**; 0.94740 x 60 = 56.844' = **56'**; 0.844 x 60 = 50.64 = **51"** = **75°56'51" W**

**FOR PFBC USE ONLY**

SIR#	Quad Name	Data Source	Search Result-Potential Species Conflict	Action



# Pennsylvania Natural Diversity Inventory

## Project Planning & Environmental Review Form

This form provides site information necessary to perform an Environmental Review for special concern species and resources listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat code or the Pennsylvania Game and Wildlife Code.

### Applicant Information

Name: Ppl Electric Utilities, Ken Kuhn Siting Supervisor  
Address: Two North Ninth St (Genn4) Allentown, Pa 18101  
Phone Number: 610.774.5956 Fax Number: 610.774.6239

### Contact Person Information - if different from applicant

Name: Sue Davis The Louis Berger Group  
Address: 75 2<sup>nd</sup> Ave. Suite 700 Needham, MA 02494  
Phone Number: 781-707-7445 Fax Number: 781-444-0099

### Project Information

Project Name: Susquehanna To Roseland 500 Kv Transmission Line  
Project Location: Eastern Pennsylvania  
Municipality: Numerous County: Numerous  
 Attach a copy of a U.S.G.S. 7 1/2 Minute Quadrangle Map with Project Boundaries clearly marked.  
U.S.G.S. Quad Name: Quad Names Listed. Too Many To Show

### Project Description

#### Proposed Project Activity (including ALL earth disturbance areas and current conditions)

PPL Electric Utilities proposed to build a new 500 kV transmission line that will run from a PPL substation near Berwick, Pa., to a Public Service Electric and Gas Co. substation near Roseland, N.J. PPL Electric Utilities has identified three possible routes, A, B, and C and will chose a route following extensive study and public input. PJM Interconnection, the independent company that operates the electric power grid for a 13-state region including Pennsylvania is requiring a new 500 kV line because it has determined that if upgrades to the electric system are not made by May 2012, there is the potential for overloads and blackouts in eastern and northeastern Pennsylvania and throughout the region. A more detailed description of the possible routes is presented in the cover letter to this request.

Total Acres of Property: Unknown Acreage to be Impacted: Unknown

1. Will the entire project occur in or on an existing building, parking lot, driveway, road, maintained road shoulder, street, runway, paved area, railroad bed, or maintained lawn? Yes  No
2. Are there any waterways or waterbodies (intermittent or perennial rivers, streams, creeks, tributaries, lakes or ponds) in or near the project area, or on the land parcel? If so, how many feet away is the project?  
Yes  Aerial xin Feet No
3. Are wetlands located in or within 300 feet of the project area? Yes  No  If No, is this the result of a wetland delineation?

If you have a "PNDI Project Environmental Review Receipt" with potential impacts, please send a receipt copy, this completed form, and a USGS Quad Map to the agency/agencies noted on the receipt. If you are unable to generate a PNDI Receipt because you do not have Internet access, complete this form, attach a USGS Quad Map, and send them to your local DEP or County Conservation District. For review of a "Large Project," please send form and map to all the agencies listed below. See page 2 for more information.

**Dept. of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section  
400 Market St., PO Box 8552  
Harrisburg, PA 17105  
fax: 717-772-0271

**PA Fish and Boat Commission**

Natural Diversity Section  
450 Robinson Lane  
Bellefonte, PA 16823  
fax 814-359-5175

**PA Game Commission**

Bureau of Land Management  
2001 Elmerton Avenue  
Harrisburg, PA 17110-9797  
fax: 717-787-6957

**US Fish and Wildlife Service**

Endangered Species Biologist  
315 South Allen St., Suite 322  
State College, PA 16801  
no faxes please

## How to Use the PNDI Project Planning & Environmental Review Form

### How do I access the PNDI Environmental Review Tool?

Visit [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us). Click on “PNDI Project Planning and Environmental Review” on the bottom left corner of the homepage to access the tool. Follow this link to access the ER Tool and for step-by-step instructions on using the ER Tool, FAQ’s and access to an electronic version of the PNDI Form.

### When do I use this form?

#### **1. Before conducting the PNDI online search**

The Applicant can complete the PNDI Form and submit it to the person conducting the online PNDI Project Planning and Environmental Review Tool search. This person performing the search could be someone from DEP, the County Conservation Districts, or a consultant. Alternatively, if the Applicant plans to conduct the PNDI online search his or herself—a search form is not needed prior to the PNDI online search.

#### **2. After conducting the PNDI online search**

If your PNDI Project Environmental Review Receipt has “Potential Impacts,” DEP and the jurisdictional agencies require that you submit additional information to the agencies noted on the Receipt for further review. Please send a copy of the PNDI Receipt, a completed PNDI Form, and a USGS 7.5 minute quadrangle map with project boundaries delineated on the map to the agencies referenced on your PNDI Receipt.

#### **3. If your Project is a “Large Project”**— too large/long to search on the online system

Projects are considered “Large Projects” when the ENTIRE project is:

- Linear/Large Projects that exceed map limits: approximately 2-2.84 miles depending on browser size
- Projects that will not fit on 1:24,000 scale map. Project Maximums: 1024 x 768 browsers: 2625 acres; 15,000 feet long x 7600 feet wide; approximately 2.84 miles 800 x 600 browsers: 1050 acres; 11,000 feet long x 4000 feet wide; approximately 2 miles
- Township-wide, Countywide or Statewide Projects. Examples: Act 537 Sewage Plans, Wind Farms, Roadway Improvements exceeding map limits above.

For “Large Project” review, please forward a completed PNDI Form and a USGS 7.5 minute quadrangle with project boundaries and quad name marked on the map to DCNR, PFBC, PGC, and USFWS (contact information on page 1 of form). Due to system limitations and agency requirements, projects should not be submitted piecemeal. The entire project area including roads and infrastructure should be submitted as a single unit.

### PNDI Form Definitions

**Applicant:** Person that owns the property or is proposing the project or activity

**Contact Person:** Person to receive response if different than applicant (e.g. Consultant)

**Project Name:** Descriptive title of project (e.g. Twin Pines Subdivision, Miller Bridge Replacement)

**Project Location:** Description of actual location (e.g. Intersection of Smith and Clay Rd., Latitude & Longitude)

**Proposed Activity:** Include ALL earth disturbance activities for project (e.g. for a timber sale—include stream crossings, cutting areas and new roadway accesses). Also include Current Conditions (e.g. housing, farmland, current land cover), and how Construction/Maintenance Activity is to be accomplished

**Total Acres of Property:** Entire site acreage (e.g. timber sale property—including road access (200 acres)

**Acreage to be Impacted:** Disturbance acreage (e.g. timber sale—if the property is 200 acres, but only 100 acres will be disturbed, for example: cutting on 90 acres, a road impacting 10 acres); include all temporary and permanent activities



**THE Louis Berger Group, INC.**

75 2<sup>nd</sup> Ave, Suite 700 Needham, Massachusetts 02494  
Telephone: 781-444-3330 Fax: 781-444-0099

Department of Conservation and Natural Resource  
Bureau of Forestry, Ecological Services Section  
400 Market Street., PO Box 8552  
Harrisburg, Pennsylvania 17105

June 30, 2008

Re: Susquehanna - Roseland 500 kV Transmission Line  
Request for Project Review for Pennsylvania Natural Diversity Inventory  
Large Project

We request, on behalf of PPL Electric Utilities, that your agency provide a Pennsylvania Natural Diversity Inventory (PNDI) review for current state and federal listed rare, threatened, and endangered species and habitats that are known to occur, or that could potentially occur, in the vicinity of three possible routes for the proposed Susquehanna – Roseland 500 kV Transmission Line (Project).

The independent regional electricity transmission organization, PJM Interconnection, has determined that this new 500 kV power line is needed between the Berwick area of Pennsylvania and the Roseland area of New Jersey. PJM has determined that if this upgrade to the electric delivery system is not made by May 2012, there is the potential for overloads on existing power lines. PJM oversees reliability planning for the grid and has assigned PPL Electric Utilities the responsibility to build the Pennsylvania portion of the line.

PPL Electric Utilities has identified three possible routes that could be used for this project. PPL Electric Utilities will pick one following extensive study and public input and submit it to the Pennsylvania Public Utility Commission for approval. Where practical, the routes follow paths of existing power lines or where the company already owns property or property rights. However, all of the routes would require the company to acquire some amount of new right of way.

The three possible routes, A, B, and C are shown on the attached map which depicts the USGS topographic quad names crossed by each route. Additionally, the USGS quad maps crossed by each route are provided in the list attached to this letter. More detailed maps, along with additional project information can be found on the website: <http://www.pplreliablepower.com/>. The possible route descriptions are as follows:

**Route A** begins at the PPL Electric Utilities switching station near Berwick and travels northeast through Luzerne and Lackawanna counties on the path of an existing 230-kV power line. The line then travels east through Lackawanna and Wayne counties primarily on the path of existing power lines before heading east-southeast through Pike County.

**Route B** begins at the PPL Electric Utilities switching station near Berwick and travels through Luzerne, Lackawanna and Wayne counties on the same power line rights of way as Route A. Route B separates from Route A at a point northeast of Lake Wallenpaupack



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and travels south through the Delaware State Forest on the path of an existing 230-kV power line.

**Route C** begins at the PPL Electric Utilities switching station near Berwick and travels south primarily on existing future-use right of way through Luzerne and Schuylkill counties. The line then travels east primarily on future-use or existing transmission power line routes in Schuylkill and Lehigh counties. The line then moves east-northeast through Northampton County on the path of an existing and future use right of way.

We have attached the completed PNDI Form. If you would like a GIS shapefile of the Project on individual USGS quad maps, please let me know and we'll be happy to provide it. Similarly, if you are able to provide the locations of any records you find during your PNDI search on a shapefile for us, we would appreciate it.

Please provide the requested information in writing and by email or fax at your earliest convenience to me at [sdavis@louisberger.com](mailto:sdavis@louisberger.com) or 75 2<sup>nd</sup> Ave, Suite 700, Needham, Massachusetts 02494. If you have any questions please do not hesitate to contact me at this email address, by phone at 781-707-7445, or by fax at 781-444-0099.

Sincerely,

Sue Davis  
Project Environmental Scientist  
The Louis Berger Group, Inc.



**THE Louis Berger Group, INC.**

75 2<sup>nd</sup> Ave, Suite 700 Needham, Massachusetts 02494  
Telephone: 781-444-3330 Fax: 781-444-0099

Pennsylvania Fish and Boat Commission  
Natural Diversity Section  
450 Robinson Lane  
Bellefonte, Pennsylvania 16823

June 30, 2008

Re: Susquehanna - Roseland 500 kV Transmission Line  
Request for Project Review for Pennsylvania Natural Diversity Inventory  
Large Project

We request, on behalf of PPL Electric Utilities, that your agency provide a Pennsylvania Natural Diversity Inventory (PNDI) review and Species Impact Review (SIR) for current state and federal listed rare, threatened, and endangered species and habitats that are known to occur, or that could potentially occur, in the vicinity of three possible routes for the proposed Susquehanna – Roseland 500 kV Transmission Line (Project).

The independent regional electricity transmission organization, PJM Interconnection, has determined that this new 500 kV power line is needed between the Berwick area of Pennsylvania and the Roseland area of New Jersey. PJM has determined that if this upgrade to the electric delivery system is not made by May 2012, there is the potential for overloads on existing power lines. PJM oversees reliability planning for the grid and has assigned PPL Electric Utilities the responsibility to build the Pennsylvania portion of the line.

PPL Electric Utilities has identified three possible routes that could be used for this project. PPL Electric Utilities will pick one following extensive study and public input and submit it to the Pennsylvania Public Utility Commission for approval. Where practical, the routes follow paths of existing power lines or where the company already owns property or property rights. However, all of the routes would require the company to acquire some amount of new right of way.

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**Route B** begins at the PPL Electric Utilities switching station near Berwick and travels through Luzerne, Lackawanna and Wayne counties on the same power line rights of way as Route A. Route B separates from Route A at a point northeast of Lake Wallenpaupack



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and travels south through the Delaware State Forest on the path of an existing 230-kV power line.

**Route C** begins at the PPL Electric Utilities switching station near Berwick and travels south primarily on existing future-use right of way through Luzerne and Schuylkill counties. The line then travels east primarily on future-use or existing transmission power line routes in Schuylkill and Lehigh counties. The line then moves east-northeast through Northampton County on the path of an existing and future use right of way.

We have attached the completed PNDI and SIR forms. If you would like a GIS shapefile of the Project on individual USGS quad maps, please let me know and we'll be happy to provide it. Similarly, if you are able to provide the locations of any records you find during your PNDI search on a shapefile for us, we would appreciate it.

Please provide the requested information in writing and by email or fax at your earliest convenience to me at [sdavis@louisberger.com](mailto:sdavis@louisberger.com) or 75 2<sup>nd</sup> Ave, Suite 700, Needham, Massachusetts 02494. If you have any questions please do not hesitate to contact me at this email address, by phone at 781-707-7445, or by fax at 781-444-0099.

Sincerely,

Sue Davis  
Project Environmental Scientist  
The Louis Berger Group, Inc.



**THE Louis Berger Group, INC.**

75 2<sup>nd</sup> Ave, Suite 700 Needham, Massachusetts 02494  
Telephone: 781-444-3330 Fax: 781-444-0099

Pennsylvania Game Commission  
Bureau of Land Management  
2001 Elmerton Avenue  
Harrisburg, Pennsylvania 17110-9797

June 30, 2008

Re: Susquehanna - Roseland 500 kV Transmission Line  
Request for Project Review for Pennsylvania Natural Diversity Inventory  
Large Project

We request, on behalf of PPL Electric Utilities, that your agency provide a Pennsylvania Natural Diversity Inventory (PNDI) review for current state and federal listed rare, threatened, and endangered species and habitats that are known to occur, or that could potentially occur, in the vicinity of three possible routes for the proposed Susquehanna – Roseland 500 kV Transmission Line (Project).

The independent regional electricity transmission organization, PJM Interconnection, has determined that this new 500 kV power line is needed between the Berwick area of Pennsylvania and the Roseland area of New Jersey. PJM has determined that if this upgrade to the electric delivery system is not made by May 2012, there is the potential for overloads on existing power lines. PJM oversees reliability planning for the grid and has assigned PPL Electric Utilities the responsibility to build the Pennsylvania portion of the line.

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**Route B** begins at the PPL Electric Utilities switching station near Berwick and travels through Luzerne, Lackawanna and Wayne counties on the same power line rights of way as Route A. Route B separates from Route A at a point northeast of Lake Wallenpaupack



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and travels south through the Delaware State Forest on the path of an existing 230-kV power line.

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We have attached the completed PNDI Form. If you would like a GIS shapefile of the Project on individual USGS quad maps, please let me know and we'll be happy to provide it. Similarly, if you are able to provide the locations of any records you find during your PNDI search on a shapefile for us, we would appreciate it.

Please provide the requested information in writing and by email or fax at your earliest convenience to me at [sdavis@louisberger.com](mailto:sdavis@louisberger.com) or 75 2<sup>nd</sup> Ave, Suite 700, Needham, Massachusetts 02494. If you have any questions please do not hesitate to contact me at this email address, by phone at 781-707-7445, or by fax at 781-444-0099.

Sincerely,

Sue Davis  
Project Environmental Scientist  
The Louis Berger Group, Inc.



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Telephone: 781-444-3330 Fax: 781-444-0099

United States Fish and Wildlife Service  
Endangered Species Biologist  
315 South Allen Street, Suite 322  
State College, Pennsylvania 16801

June 30, 2008

Re: Susquehanna - Roseland 500 kV Transmission Line  
Request for Project Review for Pennsylvania Natural Diversity Inventory  
Large Project

We request, on behalf of PPL Electric Utilities, that your agency provide a Pennsylvania Natural Diversity Inventory (PNDI) review for current state and federal listed rare, threatened, and endangered species and habitats that are known to occur, or that could potentially occur, in the vicinity of three possible routes for the proposed Susquehanna – Roseland 500 kV Transmission Line (Project).

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**Route A** begins at the PPL Electric Utilities switching station near Berwick and travels northeast through Luzerne and Lackawanna counties on the path of an existing 230-kV power line. The line then travels east through Lackawanna and Wayne counties primarily on the path of existing power lines before heading east-southeast through Pike County.

**Route B** begins at the PPL Electric Utilities switching station near Berwick and travels through Luzerne, Lackawanna and Wayne counties on the same power line rights of way as Route A. Route B separates from Route A at a point northeast of Lake Wallenpaupack



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and travels south through the Delaware State Forest on the path of an existing 230-kV power line.

**Route C** begins at the PPL Electric Utilities switching station near Berwick and travels south primarily on existing future-use right of way through Luzerne and Schuylkill counties. The line then travels east primarily on future-use or existing transmission power line routes in Schuylkill and Lehigh counties. The line then moves east-northeast through Northampton County on the path of an existing and future use right of way.

We have attached the completed PNDI Form. If you would like a GIS shapefile of the Project on individual USGS quad maps, please let me know and we'll be happy to provide it. Similarly, if you are able to provide the locations of any records you find during your PNDI search on a shapefile for us, we would appreciate it.

Please provide the requested information in writing and by email or fax at your earliest convenience to me at [sdavis@louisberger.com](mailto:sdavis@louisberger.com) or 75 2<sup>nd</sup> Ave, Suite 700, Needham, Massachusetts 02494. If you have any questions please do not hesitate to contact me at this email address, by phone at 781-707-7445, or by fax at 781-444-0099.

Sincerely,

Sue Davis  
Project Environmental Scientist  
The Louis Berger Group, Inc.

**Susquehanna - Roseland 500 kV Transmission Line  
PPL Electric Utilities  
USGS Topographic Quad List**

**Route A**

Berwick  
Shickshinny  
Nanticoke  
Wilkes-Barre West  
Kingston  
Pittston  
Ransom  
Scranton  
Olyphont  
Carbondale  
Lake Ariel  
Lakeville  
Rawley  
Rowland  
Shohola  
Pond Eddy  
Milford

**Route B**

Berwick  
Shickshinny  
Nanticoke  
Wilkes-Barre West  
Kingston  
Pittston  
Ransom  
Scranton  
Olyphont  
Carbondale  
Lake Ariel  
Lakeville  
Rawley  
Promised Land  
Pecks Pond  
Twelvemile Pond  
Bushkill  
Flatbrooksville

**Route C**

Berwick  
Nuremberg  
Shenandoah  
Pottsville  
Orwigsburg  
Delano  
Tamaqua  
New Ringgold  
New Tripoli  
Slatedale  
Gementon  
Palmerton  
Kunkletown  
Wind Gap  
Bangor  
Belvedere

**Sparhawk, Peter**

**From:** Stephanie Orndorff [sorndorff@TNC.ORG]  
**Sent:** Thursday, July 24, 2008 1:07 AM  
**To:** Sparhawk, Peter  
**Subject:** RE: Multi-Species Management Guidelines

Hi Peter. It was nice meeting you as well. We are glad you are interested in using our information and data on the Moosic Mountain barrens complex. Here are instructions on downloading the State Wildlife Grant funded report from our partner ftp site (sorry it is too large to send in an email). It is titled "Management guidelines for priority barrens habitats in Pennsylvania".

<ftp://partner@ftp.tnc.org>

Login: partner  
 Password: T3nsleep

Go to the folder titled Stephanie\_orndorff\SWG\_barrens. The file is called SWG\_Priority\_Barrens\_FINAL\_022808. Please call me if you have any problems. My cell phone number is 717-645-1876.

We are hoping that if Route B is chosen that we have PPL's assurance that they will work with us to avoid fragmenting the barrens communities and impacting the potential for management in the future, in addition to following best management practices there. Please let me know if there is anything else I can do right now.

Thank you,

Stephanie

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**From:** Sparhawk, Peter [mailto:psparhawk@louisberger.com]  
**Sent:** Sunday, July 13, 2008 10:06 AM  
**To:** Stephanie Orndorff  
**Cc:** Davis, Sue; Smith, Gregory J; McMackin, Patrick J; Canevari, Paul J  
**Subject:** Multi-Species Management Guidelines

Hi Stephanie:

I was nice meeting you in Tannersville to discuss the PPL Susquehanna to Roseland Transmission Line Project. Thanks again for your input – it will prove to be very helpful throughout the process going forward.

You had mentioned the "Multi-Species Management Guidelines for Priority Barrens Habitat" report that the TNC prepared for the Game Commission in June 2007. Do you have a copy of that report or is it on line somewhere? I didn't see it on the PGC web site, but I could have missed it. Please let us know how we might get a copy for our review. Email would be the best way at this point, but I'm open to suggestions. Thanks again.

*Peter Sparhawk, AICP  
 Manager, Environmental Compliance  
 The Louis Berger Group, Inc.  
 350 Eagleview Boulevard, Suite 250  
 Exton, PA 19335-1178  
 Office: (610) 280-4006  
 Mobile: (201) 247-7662  
 Fax: (610) 363-5390  
 email: psparhawk@louisberger.com*

**From:** Stephanie Orndorff [mailto:sorndorff@TNC.ORG]  
**Sent:** Thursday, July 10, 2008 4:30 PM  
**To:** Smith, Gregory J  
**Subject:** WPC-TNC priorities data sharing agreement

Dear Greg,

I have attached our latest data sharing agreement for you to review. As I said in the meeting we can customize a data sharing agreement for anyone through working with our attorneys.

I just want to thank you again for taking the time to meet with us. It was a very good information sharing session and we really learned a lot. Please let me know if there is any other information I can provide you now.

I look forward to hearing back from you regarding sharing TNC-WPC conservation priorities data.

Sincerely,

Stephanie

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**Stephanie Orndorff**

*Sr Conservation Planner*

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August 1, 2008

Mr. Doug McLearen  
Chief, Archaeology and Protection  
Bureau for Historic Preservation  
Commonwealth Keystone Building, Second Floor  
400 North Street  
Harrisburg, Pennsylvania 17138-0093

RE: Susquehanna to Roseland 500kV Transmission Line  
Cultural Resource Identification Protocols

Dear Mr. McLearen:

During a July 9, 2008 meeting among representatives of the PHMC/BHP, PPL, and The Louis Berger Group, the following protocols for cultural resource studies were discussed and agreed upon. The protocols will be implemented once a preferred route is selected for the design and construction of a 500 kV transmission line from the Susquehanna switching Station in Berwick, Pennsylvania to the New Jersey state line on the Delaware River.

**ARCHAEOLOGY**

- The Area of Potential Effect (APE) for archaeological resources will be defined after selection of the preferred route and will include all areas of proposed ground disturbance.
- The APE for archaeological resources will be surveyed to identify and record all archaeological resources present.
- Archaeological survey will be required in all areas where direct impacts (new ground disturbances) will occur.
- The APE will be stratified by virtue of portions' high or low potential to contain archaeological resources.
- Areas of high archaeological potential initially will be systematically surveyed using subsurface tests (shovel tests) at 15-meter intervals (18-tests/acre).
- Areas of high archaeological potential in the APE will include:
  - Areas within 300-feet of surface water (streams, springs, and wetlands);
  - Areas within 300-feet of previously recorded archaeological sites;
  - Areas within 300 -feet of historic resources;
  - Floodplains;
  - Kames and other elevated glacial features providing view sheds over valleys; and
  - Saddles (low passes between drainages).
- Areas of low archaeological potential in the APE will be surveyed using subsurface tests (shovel tests) at 25-meter intervals (6-tests/acre).
- Areas of low archaeological potential will include:



Mr. Doug McLearn  
Chief, Archaeology and Protection  
Bureau for Historic Preservation  
August 1, 2008  
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- All areas not assessed as having a high potential to contain archaeological resources; and
- Areas with slopes greater than 15 %. Slopes will be examined for the presence archaeological deposits in caves and rock overhangs.
- Deep testing in conjunction with pedological/geomorphological study will be conducted on floodplains and other high probability areas containing colluvial and alluvial sediments.
- All identified archaeological sites to which adverse effects cannot be avoided will be 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 PHMC/BHP.

#### HISTORIC ARCHITECTURE

- The APE for historic architectural resources will be defined after selection of the preferred route and will include all areas within 1-mile of the proposed transmission line from which the transmission line facilities and associated cleared areas will be visible.
- The APE for historic architectural resources will be surveyed to identify, record, and evaluate for eligibility for inclusion on the NRHP all standing structures, linear resources, and rural historic landscapes greater in age than 50 years.
- The effects of the proposed transmission line on identified historic resources will be assessed.
- Adverse effects to unavoidable eligible resources will be mitigated according to plans developed in consultation with the PHMC/BHP.

It was generally agreed that adverse effects to cultural resources would be best avoided if the selection of the proposed transmission line route emphasized corridors where transmission facilities are already in place as the modification of existing facilities will involve less ground disturbance than would new construction. PPL agreed to make every effort to give a high priority to existing corridors in the route selection process.

If you have any questions, please call me at 973-337-2408.

Sincerely yours,  
THE LOUIS BERGER GROUP, INC.

Roderick S. Brown, RPA  
Principal Archaeologist

cc: Ken Kuhns, PPL  
Susan Grzybowski, Berger  
Peter Sparhawk, Berger  
Jack Halpern, Berger  
Berger XE4175