

**Application of Pennsylvania-American Water Company for Acquisition of
the Water Assets of the Steelton Borough Authority**

66 Pa. C.S. § 1329

Application Filing Checklist – Water/Wastewater

Docket No. A-2019-_____

20. Proof of Compliance. Provide proof of compliance with applicable design, construction and operation standards of DEP or of the county health department, or both, including:
- a. For **water** system acquisitions, provide copies of the public water supply/water quality management permits for the utility plant.

RESPONSE:

- a. Attached are the copies of the public water supply/water quality management permits provided by the Authority. Additional water permits may be identified going forward. Copies of any additional water permits located will be provided.



RECEIVED
MAY 19 2015

MAY 18 2015

CERTIFIED MAIL NO. 9171 9690 0935 0018 1307 34

Sara Gellatly
Steelton Borough Authority
123 N. Front St.
Steelton, PA 17113

Re: Floodplain Management Permit
DEP File No. E22-612
APS ID No. 865021
Steelton Borough, Dauphin County

Dear Ms. Gellatly:

Enclosed is your copy of your State Floodplain Management Permit. Please review this permit so that you are aware of the extent of authorization and the conditions that apply to that authorization. The Department will provide you with an acknowledgment letter upon receipt of the fully-signed Acknowledgment of Appraisal of Permit Conditions.

The permit is not effective until a copy of the Acknowledgment of Appraisal of Permit Conditions, signed by you, is received by the Department. Any work conducted prior to the Department's receipt of the signed Acknowledgment of Appraisal of Permit Conditions is a violation of the Dam Safety and Encroachments Act and the Clean Streams Law, and you may be subject to fines and penalties pursuant to those Acts.

Prior to the commencement of construction, the enclosed Acknowledgment of Appraisal of Permit Conditions must be completed and signed by you and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in the permit. Unless the signed Acknowledgment of Appraisal of Permit Conditions is submitted to this office, the permit is void.

A copy of both the Permit and Acknowledgment of Appraisal of Permit Conditions must be available at the work site for inspection upon request by any officer or agent of the Department or any other Federal, State, County and Municipal agency.

Sara Gellatly

- 2 -

RECEIVED
MAY 19 2015
MAY 18 2015

The Completion Report form must be signed by you and the supervising engineer indicating that the work has been completed as approved. The Completion Report must be submitted to this office within 30 days of the completion of the approved project.

If you have additional questions, please contact Mr. Michael Larzelere at 717.705.4746.

Sincerely,



Scott R. Williamson
Program Manager
Waterways & Wetlands Program

Enclosures

cc: U.S. Army Corps of Engineers,
Pa. Fish & Boat Commission
Dauphin County Conservation District
Eric Fleisher, Herbert, Rowland, & Grubic, Inc.

Permit No. E22-612

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

CHAPTER 106. FLOODPLAIN MANAGEMENT

The Department of Environmental Protection "DEP", established by the Act of December 3, 1970, P.L. 834 (71 P.S. § 510-1 *et seq.*) and empowered to exercise certain powers and perform certain duties under and by virtue of the Act of November 26, 1978, P.L. 1375, as amended by the Act of October 23, 1979, P.L. 204 (32 P.S. § 693.1 *et seq.*) known as the "Dam Safety and Encroachments Act"; Act of October 4, 1978, P.L. 851, (32 P.S. § 679.101 *et seq.*) known as the "Flood Plain Management Act"; Act of June 22, 1937, P.L. 1987, (35 P.S. § 691.1 *et seq.*), known as "The Clean Steams Law"; and the Administrative Code, Act of April 9, 1929, P.L. 177, as amended, which empowers DEP to exercise certain powers and perform certain duties by law vested in and imposed upon the Water Supply Commission of Pennsylvania and the Water and Power Resources Board, hereby issues this permit to:

Steelton Borough
123 N. Front Street

giving its consent to install and maintain an Electrical Generator with pad within the floodplain of the Susquehanna River (WWF,MF).

The issuance of this permit also constitutes approval of a Water Quality Certification under Section 401 of the Federal Water Pollution Control Act [33 U.S.C.A. 1341(a)].

This permit is issued in response to an application filed with DEP on the 9th day of March A.D. 2015, and with the understanding that the work shall be performed in accordance with the maps, plans, profiles and specifications filed with and made a part of the application on the 20th day of April A.D. 2015, subject, however, to the provisions of the Dam Safety and Encroachments Act, the Flood Plain Management Act, The Clean Steams Law, the Administrative Code, the rules and regulations promulgated thereunder and the following conditions and restrictions. If the work authorized by this permit is not completed on or before the 31st day of December A.D. 2020, this permit, if not previously revoked or specifically extended by DEP in writing, shall become void without further notification.

1. The permittee shall sign the Acknowledgement of Appraisal of Permit Conditions thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of this permit. The permittee shall return a signed copy of the Acknowledgement of Appraisal of Permit Conditions to DEP. Unless the Acknowledgement of Appraisal of Permit Conditions form is completed and filed with DEP, this permit is void;

Permit No. E22-612

2. DEP, in issuing this permit, has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and DEP may, in addition, institute appropriate legal proceedings;
3. This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest in, to, or over any land belonging to the Commonwealth of Pennsylvania "Commonwealth"; neither does it authorize any injury to private property or invasion of private rights, nor any infringement of Federal, State, or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary;
4. The work shall at all times be subject to supervision and inspection by representatives of DEP, and no changes in the maps, plans, profiles, and specifications as approved shall be made except with the written consent of DEP. DEP, however, reserves the right to require such changes or modifications in the maps, plans, profiles, and specifications as may be considered necessary to assure compliance with the Dam Safety and Encroachments Act and other laws administered by DEP, the Pennsylvania Fish Commission and any river basin commission created by interstate compact. DEP further reserves the right to suspend or revoke this permit for failure to comply with a provision of 25 Pa. Code Chapter 105, an administrative order of DEP or a term or condition of this permit;
5. This permit authorizes the construction, operation, maintenance and normal repair of the permitted structures conducted within the original specifications for the water obstruction or encroachment, and in accordance with the regulations of DEP and terms and conditions of this permit. Any repairs or maintenance involving modifications of the water obstruction or encroachment from its original specifications, and any repairs or reconstruction involving a substantial portion of the structure as defined by regulations of DEP shall require the prior written approval and permit of DEP;
6. All construction debris, excavated material, brush, rocks, and refuse incidental to this work shall be removed entirely from the stream channel and placed either on shore above the influence of flood waters, or at such dumping ground as may be approved by DEP;
7. There shall be no unreasonable interference with the free discharge of the river or stream or navigation during construction;

Permit No. E22-612

8. If future operations by the Commonwealth of Pennsylvania require modification of the structure or work, or if, in the opinion of DEP, the structure or work shall cause unreasonable obstruction to the free passage of floodwaters or navigation, the permittee shall, upon due notice, remove or alter the structures, work or obstructions caused thereby, without expense to the Commonwealth, so as to increase the flood carrying capacity of the channel or render navigation reasonably free, easy, and unobstructed, in such manner as DEP may require. No claim shall be made against the Commonwealth on account of any such removal or alteration;
9. The permittee shall notify DEP, in writing, of the proposed time for commencement of work at least 15 days prior to the commencement of construction;
10. If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by DEP or if this permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that DEP may prescribe, remove all or any portion of the work as DEP requires and restore the water course and floodplain to their former condition;
11. The permittee shall fully inform the engineer or contractor, responsible for the supervision and conduct of work, of the terms, conditions, restrictions and covenants of this permit. Prior to the commencement of construction, the permittee shall file with DEP in writing, on a form provided by DEP, a statement signed by the permittee and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in this permit. Unless the acknowledgment and acceptance have been filed, this permit is void. A copy of this permit and the acknowledgment shall be available at the work site for inspection upon request by an officer or agent of DEP or another Federal, State, County, or municipal agency;
12. The permittee shall operate and maintain the structure or work authorized herein in a safe condition in accordance with the permit terms and conditions and the approved maps, plans, profiles and specifications;
13. This permit may not be transferred without prior written approval from DEP, such approval being considered upon receipt of the properly executed "Application for Transfer of Permit" form;

Permit No. E22-612

14. If and when the permittee desires to discontinue use or abandon the activity authorized herein, he must remove all or part of the structure or work authorized and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by DEP;
15. If the use of explosives in any waterways is required, the permittee shall secure the prior written permit from the Pennsylvania Fish and Boat Commission, pursuant to the Pennsylvania Fish and Boat Code, Act 1980-175 Title 30 Pennsylvania Consolidated Statutes, Section 2906. Requests should be directed to the Pennsylvania Fish and Boat Commission, Division of Environmental Services, 450 Robinson Lane, Bellefonte, PA 16823-9620, telephone 814.359.5140;
16. Permittee shall implement and monitor an Erosion and Sediment Control Plan prepared in accordance with Chapter 102 so as to minimize erosion and prevent excessive sedimentation into the receiving watercourse or body of water;
17. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish and Boat Commission. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Pennsylvania Fish and Boat Commission's Southcentral Regional Office, 1704 Pine Road, Newville, PA 17241; telephone 717.486.7087;
18. The project site shall at all times be available for inspection by authorized officers and employees of the County Conservation District. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Dauphin County Conservation District, 1451 Peters Mountain Road, Dauphin, PA 17018; telephone 717.921.8100;
19. **Work may not commence until a signed copy of the Acknowledgement of Appraisal of Permit Conditions is received by DEP.** Any work authorized by this permit conducted prior to DEP's receipt of a signed copy of the Acknowledgement of Appraisal of Permit Conditions is a violation of the Dam Safety and Encroachments Act and The Clean Streams Law, and you may be subject to fines and penalties pursuant to those Acts;

Permit No. E22-612

20. SPECIAL CONDITIONS.

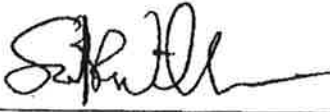
- a. This permit does not convey any real property rights or interests or authorization to trespass on privately-owned riparian land. By accepting this permit, the permittee certifies that he/she holds title, easement, right or other real interest in the riparian land. Any dispute over ownership of this land is solely a matter for private litigation.
- b. This permit does not relieve the permittee of the responsibility to comply with all applicable local codes and ordinances, including floodplain and stormwater management.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Permittee (signature)

Date

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Scott R. Williamson
Program Manager

Issue Date

Permit No. E22-612

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

ACKNOWLEDGMENT OF APPRISAL OF PERMIT CONDITIONS

Project Location:

County Dauphin

Township Steelton Borough

Ladies and Gentlemen:

Acknowledgment is made that I, Sara Gellatly, Authority Secretary/Treasurer
(permittee name)

and Kevin Leibensperger, Shannon A. Smith, Jr. 420 S. Cherry St. Myerstown, PA 17067
(name, address and telephone of individual responsible for supr. of work) (717) 866-6643

have been apprised of and are familiar with the terms and conditions of Permit No. E22-612

issued to Steelton Borough Authority giving its consent to _____
(permittee) (work authorized as stated on permit)

Install and maintain an Electrical Generator
with pad within the floodplain of the
Susquehanna River (WWF, MF)

APPROXIMATE WORK START DATE 5/29/2015

RETURN TO:

Clerical Support
DEP - Waterways & Wetlands Program
Permits Section
Southcentral Regional Office
909 Elmerton Avenue, 2nd Floor
Harrisburg, PA 17110

(permittee signature)

(date)

(signature of individual responsible
for supervision of work)

(date)

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

CHAPTER 106. FLOODPLAIN MANAGEMENT

Project Location:

County _____

Township _____

Ladies and Gentlemen:

I (We) hereby certify that the _____
(work authorized by permit)

was completed on _____, in accordance with the plans approved and that all
unauthorized obstruction have been removed.

Name: _____
(typed or printed)

Signature: _____

Title: _____

Firm: _____

Date: _____

RETURN TO:

Clerical Support
DEP – Waterways & Wetlands Program
Permits Section
Southcentral Regional Office
909 Elmerton Avenue, 2nd Floor
Harrisburg, PA 17110

(permittee signature)

(date)

(signature of individual responsible
for supervision of work)

(date)





pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

0124.0434

JUN 27 2016

CERTIFIED MAIL NO. 9171 9690 0935 0023 3758 61

Mr. Douglas Brown
Steelton Borough Authority
123 North Front Street
Steelton, PA 17113

Re: Floodplain Management Permit
DEP File No. E22-624
APS ID No. 893066
Steelton Borough, Dauphin County

Dear Mr. Douglas:

Enclosed is your copy of your State Floodplain Management Permit. Please review this permit so that you are aware of the extent of authorization and the conditions that apply to that authorization. The Department will provide you with an acknowledgment letter upon receipt of the fully-signed Acknowledgment of Appraisal of Permit Conditions.

The permit is not effective until a copy of the Acknowledgment of Appraisal of Permit Conditions, signed by you, is received by the Department. Any work conducted prior to the Department's receipt of the signed Acknowledgment of Appraisal of Permit Conditions is a violation of the Dam Safety and Encroachments Act and the Clean Streams Law, and you may be subject to fines and penalties pursuant to those Acts.

Prior to the commencement of construction, the enclosed Acknowledgment of Appraisal of Permit Conditions must be completed and signed by you and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in the permit. Unless the signed Acknowledgment of Appraisal of Permit Conditions is submitted to this office, the permit is void.

A copy of both the Permit and Acknowledgment of Appraisal of Permit Conditions must be available at the work site for inspection upon request by any officer or agent of the Department or any other Federal, State, County and Municipal agency.

Received

Mr. Douglas Brown JUN 30 2016

- 2 -

JUN 27 2016

HRG

The Completion Report form must be signed by you and the supervising engineer indicating that the work has been completed as approved. The Completion Report must be submitted to this office within 30 days of the completion of the approved project.

If you have additional questions, please contact Herman Jackson at 717.705.4814.

Sincerely,



Scott R. Williamson
Program Manager
Waterways & Wetlands Program

Enclosures

cc: Dauphin County Conservation District
Mr. William Kick, Herbert, Rowland, & Grubic, Inc.

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

CHAPTER 106. FLOODPLAIN MANAGEMENT

The Department of Environmental Protection "DEP", established by the Act of December 3, 1970, P.L. 834 (71 P.S. § 510-1 et seq.) and empowered to exercise certain powers and perform certain duties under and by virtue of the Act of November 26, 1978, P.L. 1375, as amended by the Act of October 23, 1979, P.L. 204 (32 P.S. § 693.1 et seq.) known as the "Dam Safety and Encroachments Act"; Act of October 4, 1978, P.L. 851, (32 P.S. § 679.101 et seq.) known as the "Flood Plain Management Act"; Act of June 22, 1937, P.L. 1987, (35 P.S. § 691.1 et seq.), known as "The Clean Streams Law"; and the Administrative Code, Act of April 9, 1929, P.L. 177, as amended, which empowers DEP to exercise certain powers and perform certain duties by law vested in and imposed upon the Water Supply Commission of Pennsylvania and the Water and Power Resources Board, hereby issues this permit to:

Steelton Borough Authority
123 North Front Street
Steelton, PA 17113

giving its consent to install a 43-foot diameter chlorine contact tank and related facilities, measuring approximately 1,452 ft², at the existing water treatment plant within the 100-year floodplain of the Susquehanna River (WWF, MF) (Steelton Quadrangle 40° 14' 1.5" N, 76° 50' 54" W) disturbing approximately 0.31 of an acre with no wetland impacts.

This permit is issued in response to an application filed with DEP on the 11th day of March A.D. 2016, and with the understanding that the work shall be performed in accordance with the maps, plans, profiles and specifications filed with and made a part of the application on the 1st day of April A.D. 2016 and on the 21st day of April A.D. 2016, subject, however, to the provisions of the Dam Safety and Encroachments Act, the Flood Plain Management Act, The Clean Streams Law, the Administrative Code, the rules and regulations promulgated thereunder and the following conditions and restrictions. If the work authorized by this permit is not completed on or before the 31st day of December A.D. 2021, this permit, if not previously revoked or specifically extended by DEP in writing, shall become void without further notification.

1. The permittee shall sign the Acknowledgement of Appraisal of Permit Conditions thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of this permit. The permittee shall return a signed copy of the Acknowledgement of Appraisal of Permit Conditions to DEP. Unless the Acknowledgement of Appraisal of Permit Conditions form is completed and filed with DEP, this permit is void;

Permit No. E22-624

2. DEP, in issuing this permit, has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and DEP may, in addition, institute appropriate legal proceedings;
3. This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest in, to, or over any land belonging to the Commonwealth of Pennsylvania "Commonwealth"; neither does it authorize any injury to private property or invasion of private rights, nor any infringement of Federal, State, or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary;
4. The work shall at all times be subject to supervision and inspection by representatives of DEP, and no changes in the maps, plans, profiles, and specifications as approved shall be made except with the written consent of DEP. DEP, however, reserves the right to require such changes or modifications in the maps, plans, profiles, and specifications as may be considered necessary to assure compliance with the Dam Safety and Encroachments Act and other laws administered by DEP, the Pennsylvania Fish Commission and any river basin commission created by interstate compact. DEP further reserves the right to suspend or revoke this permit for failure to comply with a provision of 25 Pa. Code Chapter 105, an administrative order of DEP or a term or condition of this permit;
5. This permit authorizes the construction, operation, maintenance and normal repair of the permitted structures conducted within the original specifications for the water obstruction or encroachment, and in accordance with the regulations of DEP and terms and conditions of this permit. Any repairs or maintenance involving modifications of the water obstruction or encroachment from its original specifications, and any repairs or reconstruction involving a substantial portion of the structure as defined by regulations of DEP shall require the prior written approval and permit of DEP;
6. All construction debris, excavated material, brush, rocks, and refuse incidental to this work shall be removed entirely from the stream channel and placed either on shore above the influence of flood waters, or at such dumping ground as may be approved by DEP;
7. There shall be no unreasonable interference with the free discharge of the river or stream or navigation during construction;
8. If future operations by the Commonwealth of Pennsylvania require modification of the structure or work, or if, in the opinion of DEP, the structure or work shall cause unreasonable obstruction to the free passage of floodwaters or navigation, the permittee shall, upon due notice, remove or alter the structures, work or obstructions caused thereby, without expense to the Commonwealth, so as to increase the flood carrying capacity of the channel or render navigation reasonably free, easy, and unobstructed, in such manner as DEP may require. No claim shall be made against the Commonwealth on account of any such removal or alteration;

Permit No. E22-624

9. The permittee shall notify DEP, in writing, of the proposed time for commencement of work at least 15 days prior to the commencement of construction;
10. If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by DEP or if this permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that DEP may prescribe, remove all or any portion of the work as DEP requires and restore the water course and floodplain to their former condition;
11. The permittee shall fully inform the engineer or contractor, responsible for the supervision and conduct of work, of the terms, conditions, restrictions and covenants of this permit. Prior to the commencement of construction, the permittee shall file with DEP in writing, on a form provided by DEP, a statement signed by the permittee and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in this permit. Unless the acknowledgment and acceptance have been filed, this permit is void. A copy of this permit and the acknowledgment shall be available at the work site for inspection upon request by an officer or agent of DEP or another Federal, State, County, or municipal agency;
12. The permittee shall operate and maintain the structure or work authorized herein in a safe condition in accordance with the permit terms and conditions and the approved maps, plans, profiles and specifications;
13. This permit may not be transferred without prior written approval from DEP, such approval being considered upon receipt of the properly executed "Application for Transfer of Permit" form;
14. If and when the permittee desires to discontinue use or abandon the activity authorized herein, he must remove all or part of the structure or work authorized and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by DEP;
15. If the use of explosives in any waterways is required, the permittee shall secure the prior written permit from the Pennsylvania Fish and Boat Commission, pursuant to the Pennsylvania Fish and Boat Code, Act 1980-175 Title 30 Pennsylvania Consolidated Statutes, Section 2906. Requests should be directed to the Pennsylvania Fish and Boat Commission, Division of Environmental Services, 450 Robinson Lane, Bellefonte, PA 16823-9620, telephone 814.359.5140;
16. Permittee shall implement and monitor an Erosion and Sediment Control Plan prepared in accordance with Chapter 102 so as to minimize erosion and prevent excessive sedimentation into the receiving watercourse or body of water;
17. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish and Boat Commission. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the

Permit No. E22-624

Pennsylvania Fish and Boat Commission's Southcentral Regional Office, 1704 Pine Road, Newville, PA 17241; telephone 717.486.7087;

18. The project site shall at all times be available for inspection by authorized officers and employees of the County Conservation District. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Dauphin County Conservation District, 1451 Peters Mountain Road, Dauphin, PA 17018; telephone 717.921.8100;
19. **Work may not commence until a signed copy of the Acknowledgement of Appraisal of Permit Conditions is received by DEP.** Any work authorized by this permit conducted prior to DEP's receipt of a signed copy of the Acknowledgement of Appraisal of Permit Conditions is a violation of the Dam Safety and Encroachments Act and The Clean Streams Law, and you may be subject to fines and penalties pursuant to those Acts.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Permittee (signature)

Date

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Scott R. Williamson
Program Manager

JUN 27 2016

Issue Date

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

ACKNOWLEDGMENT OF APPRISAL OF PERMIT CONDITIONS

Project Location:

County _____

Township _____

Ladies and Gentlemen:

Acknowledgment is made that I, _____
(permittee name)

and _____
(name, address and telephone of individual responsible for supr. of work)

have been apprised of and are familiar with the terms and conditions of Permit No. _____

issued to _____ giving its consent to _____
(permittee) (work authorized as stated on permit)

APPROXIMATE WORK START DATE _____

RETURN TO:

Clerical Support
DEP – Waterways & Wetlands Program
Permits Section
Southcentral Regional Office
909 Elmerton Avenue, 2nd Floor
Harrisburg, PA 17110

(permittee signature)

(date)

(signature of individual responsible
for supervision of work)

(date)

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

CHAPTER 106. FLOODPLAIN MANAGEMENT

Project Location:

County _____

Township _____

Ladies and Gentlemen:

I (We) hereby certify that the _____
(work authorized by permit)

was completed on _____, in accordance with the plans approved and that all
unauthorized obstruction have been removed.

Name: _____
(typed or printed)

Signature: _____

Title: _____

Firm: _____

Date: _____

RETURN TO:

Clerical Support
DEP – Waterways & Wetlands Program
Permits Section
Southcentral Regional Office
909 Elmerton Avenue, 2nd Floor
Harrisburg, PA 17110

(permittee signature)

(date)

(signature of individual responsible
for supervision of work)

(date)





pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

AUG 25 2017

Mr. Douglas E. Brown, Borough Manager
Steelton Borough Authority
123 North Front Street
Steelton, PA 17113

Re: Public Water Supply
Operation Permit No. 2216503
PWS ID No. 7220036
APS ID No. 910863
WTP Clearwell & Booster Station
Steelton Borough, Dauphin County

Dear Mr. Brown:

Issuance of the enclosed operation permit is authorized in accordance with the provisions of the laws of the Commonwealth.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

If you want to challenge this action, your appeal must reach the Board within 30 days. You do not need a lawyer to file an appeal with the Board. Important legal rights are at stake, however, so you should show this document to a lawyer at once. If you cannot afford a lawyer, you may qualify for free Pro Bono representation. Call the Secretary to the Board (717.787.3483) for more information.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,

Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

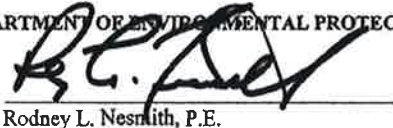
Enclosures

cc: R. Edward Spayd III, P.E., Herbert, Rowland & Grubic, Inc.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

PUBLIC WATER SUPPLY PERMIT

NO. 2216503

A. PERMITTEE: (Name and Address) Steelton Borough Authority 123 North Front Street Steelton, PA 17113		B. PROJECT/PLANT LOCATION Municipality <u>Steelton Borough</u> County <u>Dauphin County</u>	
C. THIS PERMIT APPROVES FOR: 1. <input type="checkbox"/> CONSTRUCTION 2. <input checked="" type="checkbox"/> OPERATION OF FACILITIES AS INDICATED BELOW: Approved Under Construction Permit No. <u>2216503</u>			
Source		Facilities	
<input type="checkbox"/> Well(s)	<input type="checkbox"/> Impoundment	<input type="checkbox"/> General Corrosion Control	<input type="checkbox"/> Bottled Water System
<input type="checkbox"/> Spring(s)	<input type="checkbox"/> Settling	<input type="checkbox"/> Corrosion Control for Lead/Copper	<input type="checkbox"/> Bulk Water Hauling System
<input type="checkbox"/> Surface Water	<input type="checkbox"/> Filtration	<input type="checkbox"/> Disinfection	<input type="checkbox"/> Vended Water System
<input type="checkbox"/> Finished Water	<input type="checkbox"/> Iron and Manganese Treatment	<input checked="" type="checkbox"/> Pump Station(s)	<input type="checkbox"/> Retail Water Facility
	<input type="checkbox"/> Softening	<input checked="" type="checkbox"/> Transmission Lines	
	<input type="checkbox"/> Fluoridation	<input type="checkbox"/> Finished Water Storage	
	<input type="checkbox"/> Distribution Facility	<input checked="" type="checkbox"/> Other <u>Clearwell</u>	
KNOWN AS: <u>260,000-gallon Clearwell & Booster Pumping Station</u>			
LIMIT OF AUTHORIZATION			
YOU ARE HEREBY AUTHORIZED TO CONSTRUCT OR OPERATE, AS INDICATED ABOVE, PROVIDED THAT FAILURE TO COMPLY WITH CHAPTER 109, OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OR THE TERMS OR CONDITIONS OF THIS PERMIT SHALL VOID THE AUTHORITY GIVEN TO THE PERMITTEE BY THE ISSUANCE OF THE PERMIT.			
THE PLANS, SPECIFICATIONS, REPORTS AND SUPPORTING DOCUMENTS SUBMITTED AS PART OF THE PERMIT APPLICATION BECOME PART OF THE PERMIT.			
NO DEVIATIONS FROM APPROVED PLANS OR SPECIFICATIONS AFFECTING THE TREATMENT PROCESS OR QUALITY OF WATERS SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT.			
THIS PERMIT IS ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION UNDER THE AUTHORITY OF THE PENNSYLVANIA SAFE DRINKING WATER ACT, THE ACT OF MAY 1, 1984 (P.L. 206, NO. 43). OPERATION SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 109 ADOPTED UNDER THE AUTHORITY IN SECTIONS 4 AND 6(e) OF THE PENNSYLVANIA SAFE DRINKING WATER ACT.			
THIS PERMIT IS SUBJECT TO THE ATTACHED SPECIAL CONDITIONS: <u>1</u>			
PERMIT ISSUED		DEPARTMENT OF ENVIRONMENTAL PROTECTION	
Date <u>AUG 25 2017</u>		By 	
		Rodney L. Nesmith, P.E.	
		Title <u>Program Manager</u>	

SAFE DRINKING WATER PROGRAM
Steelton Borough Authority
Operation Permit No. 2216503

AUG 25 2011
Steelton Borough
Dauphin County

Page 2

This permit is issued subject to all Department of Environmental Protection Rules and Regulations now in force and the following Special Conditions:

1. Within six (6) months of the date of the Operation Permit, the Authority shall conduct a tracer study of the clearwells to confirm that the proposed and permitted baffling efficiencies, as measured by T_{10}/T values and chlorine contact time (CT) capabilities, have been achieved. The study must evaluate the existing clearwell as a standalone reactor, as well as the existing and new clearwell in series. Sufficient sampling ports shall be available to provide for an individual evaluation of the new clearwell.

The Authority shall obtain prior Department approval of the tracer study protocol to be used and provide at least seven (7) days prior notice so Department staff can be on site while the study is done. Results of the study shall be submitted to the Department within thirty (30) days of completion.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SAFE DRINKING WATER

INTERNAL REVIEW AND RECOMMENDATIONS

Name of Applicant	Steelton Borough Authority	Project Location	Steelton Borough Dauphin County	APS ID No.	910863	Permit No.	2216503
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BRIEF DESCRIPTION OF PROJECT AND DISCUSSION (Use Additional Sheets if Necessary)

This operation permit is for the installation of a 260,000-gallon clearwell and an associated booster pumping station approved under PWS Construction Permit No. 2216503 issued on April 28, 2016.

On August 24, 2017, Mark Handley (Steelton), Ed Spayd (HRG), Tom Filip, Darin Horst and Chris Sanderson (DEP) met to inspect the installed equipment and facilities. During the inspection, the following was noted:

1. An additional connection/valve was made to the clearwell supply piping. This connection will allow for the "blow-off" or wasting of water from the treatment plant in the event of a treatment upset/mishap, thus keeping this water from entering the new clearwell. A provided example was pink water due to potassium permanganate making it through the filters.
2. While one (1) booster pump was installed and operational during the inspection, the second pump was still being installed. As a result, some electrical and control connections still need to be completed.

The Certificate of Construction/Modification was received on August 24, 2017. The microbiological analytical results, also received on August 24, 2017, were satisfactory. In addition, while not required, Steelton submitted VOC analytical results which were all non-detects.

The construction permit was published in the May 21, 2016 issue of the Pennsylvania Bulletin. No comments were received.

An addition notice of the construction permit was published in the May 28, 2016 issue of the Pennsylvania Bulletin. This notice included the notice of approval of the Uniform Environmental Review required under the PennVest program. As with the initial notice, no comments were received.

From previously issued construction permit IR&R issued April 28, 2016:

This construction permit is in response to an application filed with the Department on March 9, 2016. The applicant is proposing to construct a new clearwell and an associated booster pumping station.

The purpose of this application is to provide an additional clearwell which will be designed to assure sufficient chlorine contact time to provide 1-log Giardia inactivation while eliminating the necessity of chlorine addition in the clarifiers. This additional clearwell should also provide the additional required contact volume to achieve 3-log inactivation of Giardia. However, during cold water operations, addition of chlorine to the clarifiers will still be necessary to meet 3-log requirements under worst case conditions. The new clearwell is being provided in an effort for Steelton to reduce DBPs and enable the system to meet their TTHM and HAA5 limits.

Information provided in the application is as follows:

1. New Clearwell (minimum 260,000-gallon volume):

This tank will be located next to the existing water treatment plant in the existing paved area between the plant and the raw water pump station.

 - A. According to the Specifications the prestressed concrete tank will be designed and constructed in accordance with all provisions of AWWA D110 Standard for Wire-Wound Circular Prestressed-Concrete Water Tanks, Type III: Precast Concrete with a Steel Diaphragm.
 - B. The inside diameter is 41' with a design water depth of 30' and an overflow depth of 31'. This would result in a nominal clearwell water volume, at a 30' depth, of 296,000 gallons. The finished floor elevation will be 304.00' with a paved finished grade elevation of 309.00' surrounding the tank.

INTERNAL REVIEW AND RECOMMENDATIONS

Steelton Borough Authority
Steelton Borough, Dauphin County
Operation Permit No. 2216503
Page 2

- C. Concrete baffle walls will be provided in a double "C" configuration (Figure 1) within the tank. These walls will extend the entire 30' depth of the tank. The baffle walls are to include additional lateral bracing, stainless steel connecting plates. Baffle wall panel joints will be covered on one side by a fiberglass reinforced plastic (FRP) plate through the entire height of the panel joint.

Since the internal baffle walls will be constructed from concrete, there will be a significant impact on the available tank volume for chlorine contact purposes. The extent of the impact will depend upon the construction method utilized to form the baffle walls. If the baffle walls are cast on-site, it is being assumed that the walls would be 6" thick resulting in a volume reduction of approximately 14,000-gallons. If the baffle walls are cast off-site, the walls may be up to 14" thick resulting in a volume reduction of approximately 36,000-gallons. Based on this information, the nominal clearwell volume of 296,000-gallons will be reduced to either 282,000 gallons or 260,000 gallons depending upon on-site or off-site casting, respectively.

Based on the application, the permittee and the consultant expect to achieve a 0.65 baffling factor (BF) for the new tank. A tracer study will be required as part of the permit conditions to verify the tank baffling factor.

- D. The tank will have a separate inlet and outlet. The inlet will have a 12" diameter perforated stainless steel riser pipe, throughout the 30' water depth, with a blind flange cap. The outlet pipe will be 16" diameter ductile iron cement-lined pipe with a weir cone opening at an elevation 30' above the tank floor.
- E. An internal 12" diameter ductile iron cement-lined pipe with a weir cone opening at an elevation 31' above the tank floor will be provide to function as a tank overflow. The pipe will discharge approximately 1-2' above finish grade. The pipe opening will be equipped with a 24 mesh stainless steel screen and a flapper valve discharging onto a reinforced concrete splash pad.
- F. An 8" tank drain line will be provided with the pipe ending in a dry hydrant. The pipe discharge will extend a minimum of 2' above finish grade with an 8" quick connect with lockable cap.

Due to the design of the tank drain line (i.e. the difference in elevation of the drain line discharge and the tank finished floor elevation) a pump or other suction method will be needed to completely drain the tank.

- G. The tank will have an aluminum roof vent, stainless steel roof access hatch and a wall mounted stainless steel access manhole with interior mounted aluminum ladder. An exterior ladder with safety cage, locked access and OSHA-approved fall prevention will be provided. The dome roof will be equipped with handrails around roof hatch and vent.

2. Existing Clearwell:

Construction of the new clearwell will require a few modifications to the existing clearwell. To allow for the diversion of water to and from the new clearwell, a new baffle wall (Figure 2), perpendicular to the existing flow, will be installed within the existing clearwell. A 16" diameter ductile iron suction line will be installed upstream of the baffle wall and 16" diameter ductile iron discharge line, from the new tank, will be installed downstream of the baffle wall. Gate valves will be provided outside the existing clearwell to allow for bypassing/isolation of the new tank, when necessary (Figure 3).

- A. The baffle wall will be an FRP Enduro "D" Structural Baffle & Partition Wall, as manufactured by Enduro. No penetrations will be made through the wall. The walls are UL certified to ANSI/NSF Std 61.
- B. A level transmitter will be installed near the new suction line to control the new booster pumps.

3. Booster Pump Station:

The new clearwell booster station will be located on the lower floor of the existing treatment plant. The pump station will consist of two pumps which will serve to transfer water from the existing clearwell to the new clearwell. Each pump will be capable of meeting the entire plant flow rates. The second pump is being provided to allow pump alternation as well as redundancy. A sample tap will be provided on the pump discharge piping.

INTERNAL REVIEW AND RECOMMENDATIONS

Steelton Borough Authority
 Steelton Borough, Dauphin County
 Operation Permit No. 2216503
 Page 3

- A. Two (2) Fairbanks Morse Pumps: Horizontal split-case with design capacity of 2,083 gpm @ 34' TDH. Provided motor is to be 25 hp, 480 V, 3 phase, 60 Hz with VFD.
- B. One (1) 16" electromagnetic flow meter.
- C. All other miscellaneous equipment: Discharge and suction pressure gauges and transmitters, check valves, gate valves air release valves.

4. CT Calculations:

The following Table contains the CT calculations for the existing system along with the addition of the new clearwell under both an average and peak plant flow. The BFs are assumed to be: Clarifier @ 0.54, Clearwell @ 0.41 & New Clearwell @ 0.65. The BF for the new clearwell is what is anticipated by the design engineer. The existing clearwell volume utilized in the calculations was based on a water depth of 8.7' at 6,143 gal/ft. The new clearwell will maintain a 30' depth at all times.

Sample Date	Treatment Stage	Disinfectant	Residual Conc. (C) (mg/L)	pH	Temp. (Celsius)	Peak Flow (GPM)	Volume (gal)	TDT (min)	Contact Time (T) (min)	CT _{calc}	3-log CT _{req}	Log Inactivation (log/ft)
Current 3-log (avg)	Clarifier	Free Chlorine	3.00	8.00	0.5	1,870	274,909	184.6	88.9	266.7	381.52	2.10
	Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	53,444	32.0	13.1	39.4	381.52	0.31
	New Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	290,000	155.7	101.2	0.0		0.00
System TOTAL												2.41
New 3-log (avg)	Clarifier	Free Chlorine	0.60	8.00	0.5	1,870	274,909	184.6	88.9	35.6	277.99	0.38
	Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	53,444	32.0	13.1	36.4	381.52	0.31
	New Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	290,000	155.7	101.2	303.8	381.52	2.30
System TOTAL												1.00
New 3-log (peak)	Clarifier	Free Chlorine	1.25	8.00	0.5	2,083	274,909	132.0	71.3	89.1	314.94	0.65
	Clearwell	Free Chlorine	3.00	8.00	0.5	2,083	53,444	25.7	10.5	31.6	381.52	0.25
	New Clearwell	Free Chlorine	3.00	8.00	0.5	2,083	290,000	124.8	81.1	243.4	381.52	1.81
System TOTAL												1.01

The following Table contains the CT calculations for the existing system along with the addition of the new clearwell under both an average and peak plant flow. The BFs are assumed to be: Clarifier @ 0.54, Clearwell @ 0.35 & New Clearwell @ 0.50. For this set of calculations the BFs have been lowered for both the existing clearwell and the new clearwell to reflect the possibility that the BFs might be lowered due to tracer study results.

Sample Date	Treatment Stage	Disinfectant	Residual Conc. (C) (mg/L)	pH	Temp. (Celsius)	Peak Flow (GPM)	Volume (gal)	TDT (min)	Contact Time (T) (min)	CT _{calc}	3-log CT _{req}	Log Inactivation (log/ft)
Current 3-log (avg)	Clarifier	Free Chlorine	3.00	8.00	0.5	1,870	274,909	184.6	88.9	266.7	381.52	2.10
	Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	53,444	32.0	11.2	33.6	381.52	0.28
	New Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	290,000	155.7	77.8	0.0		0.00
System TOTAL												2.38
New 3-log (avg)	Clarifier	Free Chlorine	3.00	8.00	0.5	1,870	274,909	184.6	88.9	266.7	381.52	2.10
	Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	53,444	32.0	11.2	33.6	381.52	0.28
	New Clearwell	Free Chlorine	3.00	8.00	0.5	1,870	290,000	155.7	77.8	233.6	381.52	1.81
System TOTAL												4.19
New 3-log (peak)	Clarifier	Free Chlorine	3.00	8.00	0.5	2,083	274,909	132.0	71.3	213.8	381.52	1.08
	Clearwell	Free Chlorine	3.00	8.00	0.5	2,083	53,444	25.7	9.0	26.9	381.52	0.21
	New Clearwell	Free Chlorine	3.00	8.00	0.5	2,083	290,000	124.8	62.4	187.2	381.52	1.41
System TOTAL												1.37

A PNDI Database Search (No. 20160216549673) was conducted on February 16, 2016. The search resulted in no known impacts.

A Project Review Form was submitted to and received by the Pennsylvania Historical & Museum Commission (PHMC) on December 21, 2015. The PHMC indicated, on December 23, 2015, that the project would have no effect on historic properties.

Act 67 & 68 Land Use notification letters were sent to Steelton Borough and Dauphin County on February 24, 2016. A return receipt for Dauphin County was signed and date stamped. However the date was smudged rendering it

illegible. A response letter, dated April 6, 2016, was provided from the Steelton Borough Planning Commission. The commission appeared to be in favor of the project.
 This application was published in the April 2, 2016 issue of the Pennsylvania Bulletin. No Comments were received.

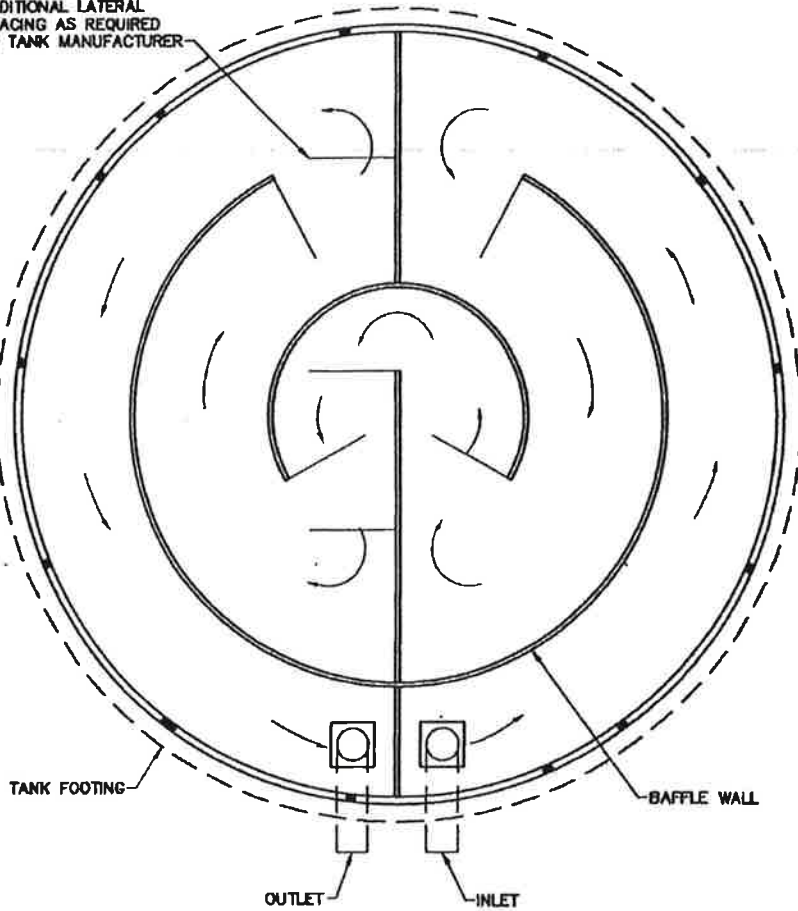
RECOMMENDATION and ACTION			
Approved	Returned	Signature	Date
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Thomas J. Filip III, P.E. ENVIRONMENTAL ENGINEER <i>Thomas J. Filip III</i>	August 25, 2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Shawn G. Cable, P.E. ENVIRONMENTAL ENGINEER MANAGER <i>Shawn G. Cable</i>	08.25.2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Rodney L. Nesmith, P.E. ENVIRONMENTAL PROGRAM MANAGER <i>R. L. Nesmith</i>	8.25.2017

Hydrogeology IR&R: Attached? Yes N/A

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Figure 1: New Clearwell Baffle Wall Layout

ADDITIONAL LATERAL
BRACING AS REQUIRED
BY TANK MANUFACTURER



BAFFLE WALL LAYOUT DETAIL

SCALE: NTS

Figure 2: Existing Clearwell new baffle wall & suction/discharge piping.

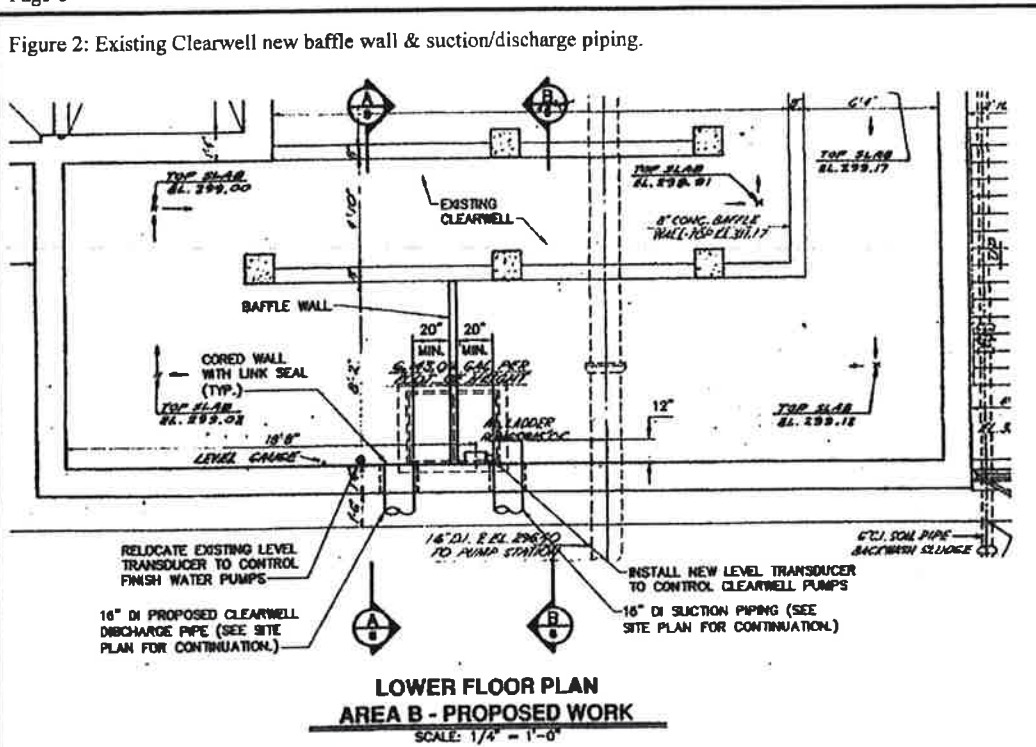
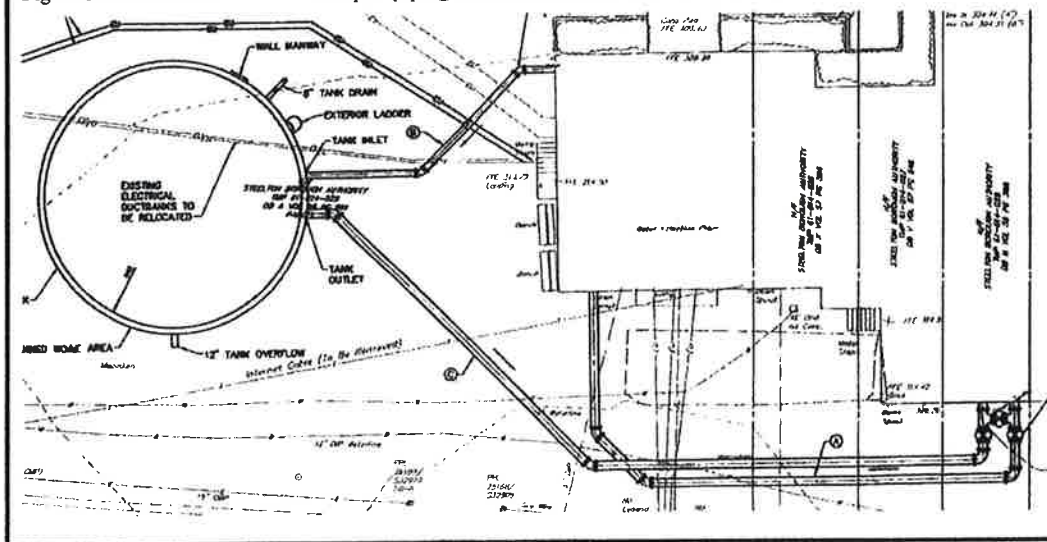


Figure 3: New Clearwell and inlet/outlet piping modifications to & from existing clearwell.







pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

OCT 18 2017

Douglas E. Brown, Borough Manager
Borough of Steelton
123 North Front Street
Steelton, PA 17113

Re: Water Allocations
DEP File No. WA 22-549B
PWS ID No. 7220036
APS ID No. 864138
Steelton Borough Authority
3.0 mgd from the Susquehanna River
Steelton Borough, Dauphin County

Dear Mr. Brown:

The water allocation application filed by the Steelton Borough Authority (Authority) has been approved. Water Allocation Permit WA 22-549B grants the right to withdraw a maximum of 3.0 million gallons per day (mgd) from the Susquehanna River at an existing intake located in the Borough of Steelton (Borough), Dauphin County. The permit is enclosed along with a report prepared on the application. Special attention should be given to the time frames for completing actions as required by certain conditions of the permit.

Condition No. 2 requires that the Authority continue to operate and maintain accurate measuring and recording instruments or devices to determine the amount of water withdrawn from the Susquehanna River and submit monthly reports of the daily withdrawals to the Department.

Condition No. 5 requires the Authority to submit to the Department annually, on or before the anniversary date of the permit, a permit compliance report.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

Douglas E. Brown, Borough Manager
Borough of Steelton

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OCT 18 2017

If you want to challenge this action, your appeal must reach the Board within 30 days. You do not need a lawyer to file an appeal with the Board. Important legal rights are at stake, however, so you should show this document to a lawyer at once. If you cannot afford a lawyer, you may qualify for free Pro Bono representation. Call the Secretary to the Board (717.787.3483) for more information.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,



Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Enclosures

cc: Mr. Allan Ausman, Chair, Steelton Water Authority w/ permit and report
Edward A. Ellinger, P.E., Herber, Rowland & Grubic, Inc. w/permit and report
Mr. Andrew Dehoff, SRBC, w/permit and report
Ms. Heather Smiles, PFBC, w/permit and report

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SAFE DRINKING WATER PROGRAM

WATER ALLOCATION PERMIT

OCT 18 2017

Steelton Borough Authority
Water Allocation WA 22-549B

PWS ID No. 7220036
Dauphin County

The Pennsylvania Department of Environmental Protection (the Department), renamed by the Act of June 28, 1995, No. 18, P.L. 89, 71 P.S. Section 1340.101 *et seq.*, known as the Conservation and Natural Resources Act, and continuing to exercise the powers and duties established by the Act of December 3, 1970, No. 275, P.L. 834, 71 P.S. Section 510-1 *et seq.*, as amended, known as The Administrative Code, as successor to the Water and Power Resources Board, under and by virtue of the authority vested in and imposed upon it by the Act of June 24, 1939, No. 365, P.L. 842, 32 P.S. §631 *et seq.*, known as the Water Rights Act, hereby grants leave to the **Steelton Borough Authority** (permittee), with its principal offices located in the **Borough of Steelton, Dauphin County, Pennsylvania**, to acquire and use for public water supply purposes, subject to such existing rights and uses as may now be lawful, water rights in the following designated waters of the Commonwealth:

The right to withdraw a maximum of 3.0 million gallons per day (mgd) from the Susquehanna River at an existing intake located in the Borough of Steelton (Borough), Dauphin County.

This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement or interest in, to or over any land belonging to the Commonwealth of Pennsylvania; neither does it authorize any injury to private property nor invasion of private rights, nor any infringement of Federal, State or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary.

This permit is issued in response to an application filed with the Department on the 26th day of January 2015, and with the understanding that the proposed sources of water supply shall be developed as set forth in said application and in accompanying and supplemental data filed with and made a part thereof, subject, however to the provisions of the Water Rights Act, and the following conditions, regulations and restrictions.

1. **Duration of Permit:** The duration of this permit shall be for a period of 25 years. However, should the permittee for any reason whatsoever (1) fail to take and use within a period of four years the water or water rights for which this permit is issued, or (2) cease for any period of seven consecutive years to take and use the water hereby allocated, then this permit shall cease and be null and void; unless upon application by the permittee an extension of such period is granted by the Department of Environmental Protection's Southcentral Regional Office.

OCT 18 2017

2. Measuring Device and Reporting Requirement: The permittee shall continue to operate and maintain accurate measuring and recording instruments or devices to determine the amount of water withdrawn from the Susquehanna River. Records of daily flow readings shall be submitted on a monthly basis to the Department of Environmental Protection's Permits Division in the Bureau of Safe Drinking Water (preferably electronically), and the original field records shall be available at all times for inspection by representatives of the Department.
3. Operations and Drought Contingency Plan: The permittee shall develop a contingency plan outlining the measures that will be taken to conserve the available supply and reduce water use during an emergency (e.g., drought, industrial waste spill, etc.). The plan shall include staged voluntary and mandatory water use restrictions and a description of parameters to trigger these actions at various stages, and the identification of available emergency sources or interconnections and when these sources would be utilized. The plan shall also indicate how water use restrictions will be enforced. The contingency plan shall be adopted by the permittee and submitted to the Department of Environmental Protection's Department's Division of Planning and Conservation under the Special Deputy Secretary for Water Resources Planning within one year of the date of this permit and updated and submitted to the Department every three years thereafter or within six months of the addition or abandonment of any source of supply.
4. Water Conservation: The permittee shall adopt and implement a continuous water conservation program for all types of use within the area served by this permit. This program shall include, but is not limited to:
 - A. An ongoing program for installing meters at all new customer connections.
 - B. An ongoing program for regularly testing and repairing or replacing all meters.
 - C. An ongoing leakage/loss control program.
 - D. A water conservation education program.
 - E. A program for reducing customer demand for water by requiring the installation of water-saving plumbing devices in all new accounts or promoting the adoption of water conservation ordinances and regulations.

The permittee's water conservation program shall comply with the water conservation policies of the Susquehanna River Basin Commission and the recommendations of the Department's Southcentral Regional Office contained in the report on this allocation.

5. Permit Compliance Reporting: The permittee shall submit a permit compliance report to the Department of Environmental Protection's Permits Division in the Bureau of Safe Drinking Water, on forms provided by the Department, annually, on or before the anniversary date of this permit, unless otherwise specified.

OCT 18 2017

6. **Chapter 110 Requirements:** The permittee shall register each source/interconnection approved under this permit and submit reports in accordance with 25 Pa. Code Chapter 110 Regulations. Registration and reporting shall be to the Department's Division of Planning and Conservation under the Special Deputy Secretary for Water Resources Planning.
7. **Prohibition on Supplying Water to Other Public Water Suppliers:** The permittee shall not supply any new or additional quantity of water to any public water supply agency until that agency shall have first obtained from the Department of Environmental Protection's Southcentral Regional Office a subsidiary water allocation permit for the specific purchase quantity.
8. **Reduction of Water Losses:** Within one year of the date of this permit, the permittee shall initiate a study to develop a plan to reduce its unaccounted-for water loss and shall reduce such loss to a level of 20 percent or less within five years of the date of this permit. Such study shall be completed and the final results and recommendations reported to the Department of Environmental Protection's Southcentral Regional Office, with a copy to the Permits Division in the Bureau of Safe Drinking Water within two years of the date of this permit. The deadlines set forth in this condition may be extended with written approval by the Southcentral Regional Office, upon good cause shown, providing that the permittee demonstrates satisfactory and good faith progress toward compliance with this condition.
9. **Interconnection Agreement:** In recognition of the contract between Suez Water Pennsylvania, Inc. (SUEZ), formerly known as United Water Pennsylvania, Inc. and the permittee dated October 7, 1999, and as amended on September 1, 2013, and considering the dependence of SUEZ upon the supply of water from the permittee to meet essential uses, the permittee shall not interrupt or terminate service of water to SUEZ except pursuant to the terms of that contract, provided that emergency reductions in sale and delivery of water to SUEZ may be implemented commensurate with emergency water use restrictions imposed throughout the permittee's service area. This condition expires upon termination of the bulk sales agreement with SUEZ, or when Water Allocation Permit No. WA 22-549B expires, whichever occurs first.
10. **Susquehanna River Basin Commission Coordination:** This application and permit was reviewed by the Susquehanna River Basin Commission in accordance with Section 3.10, Referral and Review, of the Susquehanna River Basin Compact, and approved by the Commission on October 18, 2017.
11. **Revocation of Permit:** Water Allocation Permit WA-549A, issued to the Steelton Borough Authority on January 25, 1991, and granting the right to withdraw a maximum of 3.0 million gallons per day from the Susquehanna River at an existing intake located in the Borough of Steelton, Dauphin County, is hereby revoked and shall be returned to the Department of Environmental Protection's Southcentral Regional Office.

OCT 18 2017

12. **Renewal Requirement:** Within 18 months, but no less than one year, prior to the expiration date specified in Condition No. 1, the permittee shall submit to the Department of Environmental Protection's Southcentral Regional Office a complete and acceptable application for a new permit, if permittee desires to continue to acquire the water rights granted by this permit beyond the expiration date. Upon the Department's acceptance of such application for review, the expiration date of this permit shall be extended during the review period until issuance or denial of said new permit.

13. **Permit Modification:** This permit is subject to review and possible modification of said rights, conditions, or restrictions at a later date or dates, as provided in Section 7 of the Act of June 24, 1939, P.L. 842 (No. 365). The Department may modify, suspend, or revoke this permit in whole or part during its term for cause including but not limited to the following: violation of any terms or conditions of the permit, obtaining a permit by misrepresentation or failure to disclose fully relevant facts, or change in condition that requires either a temporary or permanent reduction or elimination of the permitted water withdrawal as provided by the Clean Streams Law.

Department of Environmental Protection

By: 

Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Date: 10.18.2017

Commonwealth of Pennsylvania
Department of Environmental Protection
Safe Drinking Water Program

Southcentral Region – Field Operations

Report on the Application for
Water Allocation by

Steelton Borough Authority
Public Water Supply No. 7220036

Dauphin County

October 2017

Water Allocation Permit No. WA 22-549B

Steelton Borough Authority
WA 22-549B

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Report on the Application
for Water Allocation by
Steelton Borough Authority

I. Introduction

On February 18, 2015, the Department of Environmental Protection (Department) accepted a water allocation application from the Steelton Borough Authority (Authority). The Authority is requesting the right to withdraw a maximum of 3.0 million gallons per day (mgd) from the Susquehanna River at an existing intake located in the Borough of Steelton (Borough), Dauphin County.

Notice of the application was published in the March 15, 2015 issue of the Pennsylvania Bulletin in accordance with the Act of February 17, 1984 (P.L. 75, No. 14), 71 P.S. §510-5. The Authority provided proof of notification of this application to the Borough, the Dauphin County Commissioners and Swatara Township.

The Authority serves approximately 2,411 connections in the Borough and Swatara Township with a served population of approximately 6,411 people. The system consists on one (1) surface water source and a supplemental/emergency interconnection with Suez Water Pennsylvania, Inc. (SUEZ). The system has one (1) water treatment plant and two (2) 2.0 million gallon finished water storage tanks.

Currently, approximately 31% of the water used by the Authority is treated and returned to the receiving stream as indicated in Table 1¹. Approximately 79% of the system water is disposed by other means.

Table 1. Wastewater Receiving Streams (2013 Data)

Wastewater Treatment Plant	Amount Treated from Service Area (gpd)	Percent of Total	Receiving Stream
Capital Region Water AWTF	424,363	31	Susquehanna River
Other (Industrial/Manufacturing Loss) ¹	599,044	43	
Other	356,823	26	
Totals	1,380,230	100	

1. Industrial users billed 5% of their total water uses for sewer. The Remaining processes water is returned to the canal or consumed in the steel manufacturing process.

II. Allocation History

On January 26, 1880, the Borough was incorporated. In 1900, the Borough purchased the present water supply system from the Home Water Company and began to operate as a municipal owned public water supply system.

Since the Borough failed to file a record of its lawful acquisition of lands, water rights, and the use of water within the time limits posed by the 1939 Water Acquisition Act, a permit application was submitted to the Water and Power Resources Board on June 15, 1949. Therefore, on July 13, 1949, Water Allocation Permit No. WA-549 was issued granting the right to withdraw “three million

¹ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Section L.

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(3,000,000) gallons of water per day from the Susquehanna River, about two thousand (2000) feet riverward from the east (left) bank at the foot of Conestoga Street, in Steelton, Dauphin County.”²

By letter dated August 15, 1990³, the Department notified the Authority, that as the successor to the Borough, it must file for the water rights held by the Borough. On September 7, 1990, a water allocation application was filed with the Department. On January 25, 1991, Water Allocation Permit No. WA-549A was issued to the Authority granting “the right to withdrawal a maximum of 3.0 million gallons per day from the Susquehanna River at an existing intake located in the Borough of Steelton, Dauphin County.”⁴

On June 28, 2011, Water Allocation Permit No. WA 22-1037 was issued to the Authority granting “the right to purchase up to 648,000 gallons per day (gpd) based on a 30-day average from United Water Pennsylvania, Inc. (United Water) through an interconnection in Swatara Township, Dauphin County.”⁵ This interconnection is located near the intersection of Gibson and 19th Streets, Swatara Township, Dauphin County.

On January 25, 2015, the Authority submitted a combined water allocation permit application, due to the impending expiration of Permit Nos. WA-549A and WA 22-1037. The Department separated the application and reviewed each allocation request separately.

III. Comments from Other Agencies

The Department requested comments on the Authority’s application from the Pennsylvania Fish and Boat Commission (PFBC) and the Susquehanna River Basin Commission (SRBC). Comments were also requested from the Department’s Bureau of Safe Drinking Water, Planning and Conservation Division (PCD).

While comments were received from the SRBC, no adverse comments were provided. No adverse comments were received from the PFBC or PCD.

IV. Water Use

A. Water Usage Rates

Table 2^{6,7} contains the Authority’s past water use for the period 2004-2015, while Table 3⁸ contains a breakdown of its 2015 water use.

² M.F. Draemel, Chairman, Department of Forest and Water, Water and Power Resources Board, Water Allocation Permit No. WA-549, July 13, 1949.

³ William A. Gast, Chief, Department of Environmental Resources, Bureau of Watershed Resources Management, State Water Plan Division, Letter to Paul E. Wintergrass, Steelton Municipal Water Authority, August 15, 1990.

⁴ John E. McSparan, Director, Department of Environmental Protection, Bureau of Water Resources Management, Water Allocation Permit No. WA-549A, January 25, 1991.

⁵ James S. Spontak, Program Manager, Department of Environmental Protection, Watershed Management Program, Water Allocation Permit No. WA 22-1037, June 28, 2011.

⁶ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Section N.

⁷ Steelton Borough Authority, Primary Facility Reports for 2014 & 2015.

⁸ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Section O.

For the period 2004 to 2015 average daily use was 1,534,411 gpd and ranged between 1,195,043 gpd in 2012 and 1,716,061 in 2009. Peak day use averaged 2,429,133 gpd for this period and ranged between 1,925,500 in 2012 and 2,888,400 gpd in 2010. The peak to average ratio averaged 1.59.

Table 2. Past Water Use

Year	Average Daily Use (gpd)	Peak Daily Use (gpd)	Peak to Average Ratio
2004	1,534,390	2,267,000	1.48
2005	1,612,731	2,694,800	1.67
2006	1,591,881	2,262,100	1.42
2007	1,663,722	2,489,000	1.50
2008	1,694,988	2,691,100	1.59
2009	1,716,061	2,533,100	1.48
2010	1,494,951	2,888,400	1.93
2011	1,474,729	2,515,000	1.71
2012	1,195,043	1,925,500	1.61
2013	1,380,230	2,033,400	1.47
2014	1,446,720	2,420,500	1.67
2015	1,607,488	2,429,700	1.51
Averages	1,534,411	2,429,133	1.59

Table 3. 2015 Water Use

Use Category	Metered Connections		Un-metered Connections		Percent Total Use
	Number	Water Use (gpd)	Number	Water Use (gpd)	
Domestic	2,240	266,734			16.59
Commercial	124	25,936			1.61
Industrial	12	727,539			45.26
Institutional	34	13,224			0.82
Bulk Sales	1	12,337			0.77
Other ¹			19	192,322	11.96
Unaccounted-for				369,396	22.98
Totals	2,411	1,045,770	19	561,718	100.00

1. Water breaks, sewer flushing, fires & flushing.

Based on the water use data in Table 2 and a 2015 service area population of 6,311 people, the system per capita use (gpcd) was 254.7 gpcd. While this number is significant, due to high industrial usage, the actual domestic average daily usage rate for 2015 was approximately 42.3 gpcd.

Unaccounted-for water losses were slightly high in 2015 at approximately 23% of the total system use. Generally, unaccounted-for water losses below 20% are acceptable to the

Department and are required by the SRBC. The Authority will be required to address their reported unaccounted-for water losses and define how the Authority plans to reduce these losses to 20% or less of the total system water use.

B. Population Projections

The Authority's service area includes the Borough and portions of Swatara Township in Dauphin County. Table 4⁹ shows the Authority's service area population projections through 2040.

Table 4: Domestic Growth (Population Projections)

Municipality	% Pop. Served ¹	Historical (2000)		Current (2013)		2020		2030		2040	
		Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served
Dauphin County											
Steelton Borough	100%	5,858	5,858	5,945	5,945	6,450	6,450	6,723	6,723	7,102	7,102
Swatara Township	2%	22,611	362	23,459	375	25,370	406	26,659	427	28,359	454
Totals:		28,469	6,220	29,404	6,320	31,820	6,856	33,382	7,150	35,461	7,556

- 1. Steelton Borough Authority. Please note that % Served values were assumed to remain constant throughout projection period.
- 2. PA Dep, State Water Plan and Comprehensive Water Quality Management Program.

The permit report accompanying the Authority's previously issued subsidiary water allocation (Permit No. WA 22-1037), indicated that, "Steelton serves and is expected to continue to serve 100% of the population of the Borough of Steelton. Since the borough has been built out to capacity and no buildable lots remain, no significant population changes are projected. The service area in Swatara Township is composed primarily of single family units. Steelton has projected no service area population increases through 2030. The permit application package indicates that Steelton is largely developed and no significant changes in population are anticipated within Steelton Borough."¹⁰

Although the Borough has apparently been built out to capacity and no building lots remain, the State Water Plan, with populations included in the current application package, is still projecting an increase in population. Given these two conflicting data sets, the 2015 Annual Water Supply Report (AWSR) for the Authority lists the served population as 6,311 people, which indicates that some population growth is occurring.

Table 5¹¹ shows the Authority's non-domestic growth rates and projections through 2040. The existing "Bulk Sales to Other PWS" refers to an existing interconnection with SUEZ, through which SUEZ purchases water from the Authority. Although the Authority is projecting an increase of three (3) additional bulk sales through 2040, given the proximity of other systems, these additional connections can only be considered as projected.

⁹ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Supplemental Information Table E-1, Page 2.

¹⁰ James S. Spontak, Program Manager, Department of Environmental Protection, Watershed Management Program, Water Allocation Permit No. WA 22-1037, June 28, 2011.

¹¹ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Supplemental Information Table E-2, Page 2.

Table 5. Non-Domestic Growth Projections

Type of Usage	Connection Data			Estimated	Growth Projections: # of Connections ²			
	2012	2013	% change per year	% change per year ¹	2010	2020	2030	2040
Commercial	122	122	0.00%	1.00%	122	135	150	166
Industrial	13	12	-0.77%	1.00%	13	14	16	18
Institutional	33	34	0.30%	1.00%	33	38	42	47
Bulk Sales to Other PWS	1	1	0.00%	1.00%	1	2	3	4
Other	11	10	-0.91%	1.00%	11	12	14	6
Unaccounted-for Water	0	0	0.00%	1.00%	0	0	0	16
Totals:	180	179			180	201	225	257

1. For conservative estimating purposes, any usage that had zero connections or growth and/or experienced a decrease in connections from 2012 to 2013 was assumed to have a small growth rate of 1.0% per year.

2. Growth projections calculated using the following formula: $Growth = C(1+r/n)^{nt}$, where

C = current value
r = rate of increase

n = # of compounds annually
t = years compounded

C. Water Use Projections

Projected water use for this system is atypical, since non-domestic uses exceed the domestic/residential uses of the system. This can be readily seen in Table 6^{12,13,14,15}, where the Authority's historic domestic and system per capita usages are 48.6 gpcd and 236.8 gpcd, respectively.

The projected average daily water use, domestic and system, as shown in Table 7¹⁶, was predicted based upon the historic peak to average ratio, shown in Table 2, the projected population data determined in Table 4, and the historic domestic and system per capita use in Table 6. Therefore, the projected use values maintain and assume the domestic and system per capita use will remain at 48.6 gpcd and 236.8 gpcd respectively, and the peak to average ratio will remain at the historic average of 1.59. The Authority's projections were based on the projected population projection data in Table 4 and their non-domestic growth projections as shown in Table 5.

Therefore, based on the projected use and on historic usage, the requested amount is reasonable. It should be noted that these projections were based upon data currently available as provided to the Department by the Authority.

¹² Steelton Borough Authority, Department of Environmental Protection, Bureau of Watershed Management Program, Bureau of Water Supply and Wastewater Management, Annual Water Supply Report, 2004.

¹³ Steelton Borough Authority, Department of Environmental Protection, Bureau of Watershed Management Program, Public Water Supply Annual Primary Facility Report, 2005 & 2006.

¹⁴ Steelton Borough Authority, Department of Environmental Protection, Bureau of Watershed Management Program, Primary Facility Reports, 2007 through 2011.

¹⁵ Steelton Borough Authority, Department of Environmental Protection, Bureau of Safe Drinking Water, Planning and Conservation Division, Primary Facility Reports, 2012 through 2015.

¹⁶ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Supplemental Information Table E-4, Page 3.

Table 6. Historic System and Domestic per Capita Use

Year	Service Area Population	Average Daily Use (gpd)	Domestic Daily Use (GPD)	System gpcd	Domestic gpcd
2005	5,858	1,612,731	339,041	275.3	57.9
2006	5,858	1,591,881	261,153	271.7	44.6
2007	5,858	1,134,799	401,811	193.7	68.6
2008	6,168	1,694,987	302,493	274.8	49.0
2009	6,229	1,513,459	308,386	243.0	49.5
2010	6,229	1,400,683	291,674	224.9	46.8
2011	6,311	1,444,744	313,165	228.9	49.6
2012	6,311	1,195,043	282,981	189.4	44.8
2013	6,311	1,380,230	284,121	218.7	45.0
2014	6,311	1,446,720	271,789	229.2	43.1
2015	6,311	1,607,488	226,734	254.7	35.9
Average		1,456,615	298,486	236.8	48.6

Note: All numbers taken from the Authority's AWSR's for that year.

Table 7. Projected Water Use (gpd)

Year	Projected Population	Average Day			Peak Day	
		DEP Domestic	System	Steelton System ¹	DEP	Steelton ¹
2020	6,856	333,202	1,623,501	1,506,000	2,581,366	2,220,000
2030	7,150	347,490	1,693,120	1,633,000	2,692,061	2,407,000
2040	7,556	367,222	1,789,261	1,774,000	2,844,925	2,615,000

1. Numbers taken from the Authority's permit application.

V. Water Supply Available

The Authority's system currently uses a surface water withdrawal from the Susquehanna River as its primary water supply. The Susquehanna River withdrawal is authorized by Water Allocation Permit No. WA 22-549A and provides the Authority with up to 3.0 million gallons per day (mgd). While this permit expired on January 25, 2016, the Authority applied to the Department on January 26, 2015, for a new permit for the Susquehanna withdrawal. Therefore, the existing permit remains valid while the submitted application is under review.

Since the Authority's existing intake is located only slightly downstream from the Harrisburg gaging station on the Susquehanna River, U.S. Geological Survey (USGS) Gage Station 01570500, Susquehanna River at Harrisburg, PA was utilized. This is an active gage station with a period of record from October 1890 to the current year. This gage has an approximate drainage area of 24,100 mi². Five (5) sources of data were located providing stream statistics for this gage station.

These sources are the *USGS Water-Data Report PA-89-2*¹⁷, indicating a minimum discharge of 1,600 cubic feet per second (cfs) on November 29, 1930, due a result of a freezeup, and a minimum daily discharge of 1,700 cfs on September 18, 1964, since construction of a sanitary dam and not affected by freezeup. The USGS Surface-Water Daily Statistics¹⁸ indicated that a minimum discharge of 1,700 cfs occurred on both November 29, 1931 and September 28, 1964. The USGS StreamStats Data-Collection Station Report¹⁹ indicated that the Q₇₋₁₀²⁰, for the period April 1, 1900 to March 31, 1972, was 2,440 cfs, and that the mean annual flow, for the period October 1, 1990 to September 30, 2015, and the average daily streamflow were 34,400 cfs and 34,252.156 cfs, respectively. The USGS Water-Year Summary 2016²¹ report indicated that, for water years 1891-2016, the annual mean flow was 34,570 cfs and the annual 7-day minimum flow was 1,786 cfs. However, the *USGS Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania*²² provides two (2) separate Q₇₋₁₀ values for USGS Gage 01570500. These values are 2,400 cfs (1901-1972 period of record) and 3,200 cfs (1972-2008 period of record), which represent the period of record pre-regulation and the period of record post-regulation, respectively.

Thus, the Authority's requested allocation of 3.0 mgd represents approximately 0.27% of the minimum (1,700 cfs) streamflow, 0.145% of the post-regulation Q₇₋₁₀ (3,200 cfs) streamflow, 0.013% of the mean (34,570 cfs) streamflow, or average daily flow (ADF), and 0.067% of the 20% ADF (6,914 cfs) streamflow.

The Department's general instream flow requirements indicate that a withdrawal request representing 10% or less than the Q₇₋₁₀ flow would be considered as having minimal impact. Based upon SRBC Policy No. 2012-01^{23,24}, specifically the Low Flow Protection Policy (LFPP), the Susquehanna River is classified as an ARC 6²⁵ stream since it has a drainage area of $\geq 5,000$ mi². Per the policy, the *De Minimis* withdrawal (considered both individually and cumulatively) threshold for an ARC 6 water is 10% of the monthly P95²⁶. Per the USGS StreamStats Data-Collection Station Report, two (2) streamflows were reported. These were 4,200 cfs (95% duration) and 4,840 cfs (controlled 95% duration) representing the pre-regulation and post-regulation flows, respectively.

¹⁷ W.C. Loper, T.E. Behrendt, and W.P. Schaffstall, U.S. Geological Survey, *Water Resources Data for Pennsylvania Water Year 1989*, Volume 2, Susquehanna and Potomac River Basins, May 1990, Page 135.

¹⁸ U.S. Geological Survey, National Water Information System: Web Interface, (<https://waterdata.usgs.gov/pa/nwis/rt>), USGS Surface-Water Daily Statistics, Reference Gage USGS 01570500, October 3, 2017.

¹⁹ U.S. Geological Survey, StreamStats Data-Collection Station Report, (<https://streamstatsags.cr.usgs.gov/gagepages/html/01570500Reference>), Reference Gage USGS 01570500, October 3, 2017.

²⁰ Q₇₋₁₀ (7-day, 10-year low flow): This is defined as the average annual 7-day minimum flow that is expected to be exceeded on average in 9 out of 10 years, which is equivalent to the tenth percentile of the distribution of 7-day annual minimum streamflows.

²¹ U.S. Geological Survey, National Water Information System: Web Interface (<https://waterdata.usgs.gov/pa/nwis/rt>), USGS Water-Year Summary 2016 for Site USGS 01570500.

²² Marla H. Stuckey and Mark A. Roland, U.S. Geological Survey, *Selected Streamflow Statistics for Streamgage Location in and near Pennsylvania*, Open-File Report 2011-1070, Reference Gage USGS 01570500, 2011, Page 27.

²³ Susquehanna River Basin Commission, Low Flow Protection Policy Related to Withdrawal Approvals, Policy No. 2012-01, December 14, 2012.

²⁴ Susquehanna River Basin Commission, Technical Guidance for Low Flow Protection Policy Related to Withdrawal Approvals Under Policy No. 2012-01, December 14, 2012.

²⁵ Aquatic Resources Class: ARC 6 refers to a "Large River" which function as receiving waters of large volumes of water draining from the lands and stream upgradient in the watershed. These rivers are least sensitive to potential impacts from withdrawals due to their large size and streamflow volumes.

²⁶ P95: Refers to the 95th percentile or the streamflow at which 95% of all streamflow readings are expected to exceed.

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As such, utilizing the control P95 value, the proposed withdrawal represents approximately 0.096% of the SRBC *De Minimis* streamflow for the Susquehanna River at Harrisburg, PA.

Per the SRBC comment letter, a flow analysis was conducted at the point of taking. The analysis determined that for a withdrawal of 3.0 mgd, and using a drainage area ratio transfer from Gage Station 01570500, the instantaneous withdrawal at a point measured immediately downstream was 0.2% to 0.16% of the calculated P95 flow, suggesting that a passby isn't required.

The letter further stated that an upstream cumulative use analysis was conducted. The "existing approved consumptive uses exceed the 10 percent de minimis standard (up to a maximum of approximately 19 percent of the calculated monthly P95 flow) for 5 months (July-November) which would suggest if the LFPP were determined to be applicable to this renewing project, that a passby flow condition equivalent to the P95 flow in those months would be recommended."²⁷

The letter further states that "the LFPP allows for consideration of passby applicability on a case-by-case basis for existing projects undergoing renewal not previously subject to special low flow protection requirements."²⁸ Therefore, since "no increase is being requested by the Authority for their existing withdrawal that was not previously subject to passby flow conditions. [This withdrawal] is consistent with the discretion provided in Section IV (Coordination and Implementation) of the LFPP, the Commission recommends approval with no passby flows."²⁹

Therefore, per the previous discussion, no passby requirement is necessary for this proposed withdrawal.

VI. Determinations Before Granting Permit

Section 7 of the Water Rights Act of June 24, 1939 outlines the duties of the Commonwealth to investigate water allocation requests, consider conflicts of interest, and to give approval. Approval of the requested allocation shall be given where it is determined that the:

- A. Proposed new source of supply will not conflict with the water rights held by any other public water supply agency.
- B. Water and water rights proposed are reasonably necessary for the present purposes and future needs of the public water supplier making application.
- C. Taking of said water or exercise of water rights will not interfere with navigation.
- D. Taking of said water or exercise of water rights will not jeopardize public safety.
- E. Taking of said water or exercise of water rights will not cause substantial injury to the Commonwealth.

In cases of apparent conflicts of interest, the Commonwealth investigations shall consider the extent of conservation development and use of the existing sources of water to the best advantage.

²⁷ Michael F. College, P.E. and Todd D. Eaby, P.G., Susquehanna River Basin Commission, Letter to Thomas J. Filip III, P.E. Department of Environmental Protection, Safe Drinking Water Program, October 18, 2017, Summary of Findings Comment No. 12.

²⁸ College and Eaby, Comment No. 9.

²⁹ College and Eaby, Recommendations Comment No. 2.

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The Department of Environmental Protection has reviewed the proposed allocation and considered all the issues requiring evaluation under Section 7 of the Water Rights Act. A summary of the findings and conclusions regarding these issues follows:

A. Conflicts with Water Rights of Other Agencies

The Department finds that there are no conflicts with the water rights of other agencies.

B. Present and Future Need for Water

The Authority has requested a withdrawal of 3.0 mgd. The Department's 2040 projected demand for the Authority is expected to be approximately 1.79 mgd with a peak demand of approximately 2.84 mgd. The requested amount is sufficient to meet the Authority's demands.

C. Navigation

The Department finds that granting the allocation will have no adverse effect on navigation.

D. Public Safety

The Department finds that granting the allocation will have no adverse effect on public safety.

E. Environmental Issues

The Department finds that granting the allocation will have no adverse effect on the environment. The 3.0 mgd being granted to the Authority represents approximately 0.27% of the minimum (1,700 cfs) streamflow of record for the Susquehanna River at Harrisburg, PA.

F. Conservation

The Authority encourages its residents to adopt water conservation practices and promotes water conservation efforts by annually providing information to educate and inform people about how they can reduce their water consumption.

The Borough also has a policy to ensure that all new construction and remodeling work requiring a building permit will incorporate flow reduction devices.

In 2009 and 2010 the Authority's unaccounted-for losses were high at 51% and 46% of the total system use, respectively. In 2015, the unaccounted-for water losses were 23% of the total system use. While this shows a significant reduction in the water losses from previous years, this number still exceeds the Department's goal, as well as SRBC's requirement, of less than 20% losses. A special condition will be included in the permit requiring the Authority to develop a plan to reduce its unaccounted-for water loss to 20% or less.

G. Antidegradation

The Pennsylvania Clean Streams Law and the implementing regulations at 25 Pa. Code Sections 93.4a(b) and 93.4c(a) require that existing uses of surface waters be maintained and protected. Existing use protection must occur at the time of permit issuance and for Water Allocation approvals, both the taking of water and the resultant wastewater production must be considered.

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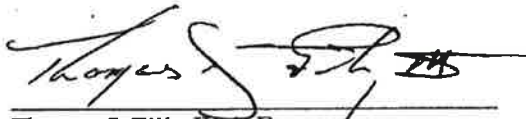
Since the requested taking is approximately 0.27% of the minimum (1,700 cfs) streamflow of record, 0.145% of the post-regulation Q₇₋₁₀ (3,200 cfs) streamflow, 0.013% of the mean (34,570 cfs) streamflow and 0.067% of the 20% ADF (6,914 cfs) streamflow for the Susquehanna River at Harrisburg, PA, no passby will be required. The Department has determined that the water allocation authorized by this permit will result in the protection of the existing uses of the Susquehanna River.

Wastewater generated in the Authority's service area is not expected to increase and will be treated at the existing wastewater treatment plant, Capital Region Water AWTP, as identified in the January 2015 water allocation permit application.

VII. Recommendations

The application submitted by the Steelton Borough Authority has been carefully reviewed and considered. It is recommended that the Authority be granted a permit for the right to withdraw a maximum of 3.0 million gallons per day (mgd) from the Susquehanna River at an existing intake located in the Borough of Steelton (Borough), Dauphin County.

This report was prepared by:



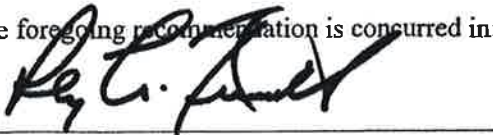
Thomas J. Filip III, P.E.
Environmental Engineer
Safe Drinking Water Program

This report was reviewed and is respectfully submitted by:



Shawn G. Cable, P.E.
Environmental Engineer Manager
Safe Drinking Water Program

The foregoing recommendation is concurred in:



Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Date: 10.18.2017





AUG 25 2017

Mr. Douglas E. Brown, Borough Manager
Steelton Borough Authority
123 North Front Street
Steelton, PA 17113

Re: Public Water Supply
Operation Permit No. 2216503
PWS ID No. 7220036
APS ID No. 910863
WTP Clearwell & Booster Station
Steelton Borough, Dauphin County

Dear Mr. Brown:

Issuance of the enclosed operation permit is authorized in accordance with the provisions of the laws of the Commonwealth.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

If you want to challenge this action, your appeal must reach the Board within 30 days. You do not need a lawyer to file an appeal with the Board. Important legal rights are at stake, however, so you should show this document to a lawyer at once. If you cannot afford a lawyer, you may qualify for free Pro Bono representation. Call the Secretary to the Board (717.787.3483) for more information.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,

A handwritten signature in black ink, appearing to read "R. L. Nesmith".

Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Enclosures

cc: R. Edward Spayd III, P.E., Herbert, Rowland & Grubic, Inc.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

PUBLIC WATER SUPPLY PERMIT

NO. 2216503

A. PERMITTEE: (Name and Address)

Steelton Borough Authority
123 North Front Street
Steelton, PA 17113

B. PROJECT/PLANT LOCATION

Municipality Steelton Borough
County Dauphin County

C. THIS PERMIT APPROVES FOR: 1. CONSTRUCTION
AS INDICATED BELOW:

2. OPERATION OF FACILITIES

Approved Under Construction Permit No. 2216503

<u>Source</u>	<u>Facilities</u>	<u>BVRB</u>
<input type="checkbox"/> Well(s)	<input type="checkbox"/> Impoundment	<input type="checkbox"/> Bottled Water System
<input type="checkbox"/> Spring(s)	<input type="checkbox"/> Settling	<input type="checkbox"/> Bulk Water Hauling System
<input type="checkbox"/> Surface Water	<input type="checkbox"/> Filtration	<input type="checkbox"/> Vended Water System
<input type="checkbox"/> Finished Water	<input type="checkbox"/> Iron and Manganese Treatment	<input type="checkbox"/> Retail Water Facility
	<input type="checkbox"/> Softening	
	<input type="checkbox"/> Fluoridation	
	<input type="checkbox"/> Distribution Facility	
	<input type="checkbox"/> General Corrosion Control	
	<input type="checkbox"/> Corrosion Control for Lead/Copper	
	<input type="checkbox"/> Disinfection	
	<input checked="" type="checkbox"/> Pump Station(s)	
	<input checked="" type="checkbox"/> Transmission Lines	
	<input type="checkbox"/> Finished Water Storage	
	<input checked="" type="checkbox"/> Other <u>Clearwell</u>	

KNOWN AS: 260,000-gallon Clearwell & Booster Pumping Station

LIMIT OF AUTHORIZATION

YOU ARE HEREBY AUTHORIZED TO CONSTRUCT OR OPERATE, AS INDICATED ABOVE, PROVIDED THAT FAILURE TO COMPLY WITH CHAPTER 109, OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OR THE TERMS OR CONDITIONS OF THIS PERMIT SHALL VOID THE AUTHORITY GIVEN TO THE PERMITTEE BY THE ISSUANCE OF THE PERMIT.

THE PLANS, SPECIFICATIONS, REPORTS AND SUPPORTING DOCUMENTS SUBMITTED AS PART OF THE PERMIT APPLICATION BECOME PART OF THE PERMIT.

NO DEVIATIONS FROM APPROVED PLANS OR SPECIFICATIONS AFFECTING THE TREATMENT PROCESS OR QUALITY OF WATERS SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT.

THIS PERMIT IS ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION UNDER THE AUTHORITY OF THE PENNSYLVANIA SAFE DRINKING WATER ACT, THE ACT OF MAY 1, 1984 (P.L. 206, NO. 43). OPERATION SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 109 ADOPTED UNDER THE AUTHORITY IN SECTIONS 4 AND 6(e) OF THE PENNSYLVANIA SAFE DRINKING WATER ACT.

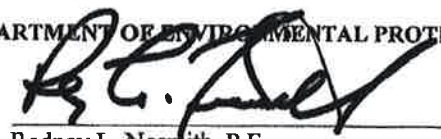
THIS PERMIT IS SUBJECT TO THE ATTACHED SPECIAL CONDITIONS: 1

PERMIT ISSUED

Date AUG 25 2017

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By


Rodney L. Nesmith, P.E.

Title Program Manager

SAFE DRINKING WATER PROGRAM
Steelton Borough Authority
Operation Permit No. 2216503

AUG 25 2011
Steelton Borough
Dauphin County

Page 2

This permit is issued subject to all Department of Environmental Protection Rules and Regulations now in force and the following Special Conditions:

1. Within six (6) months of the date of the Operation Permit, the Authority shall conduct a tracer study of the clearwells to confirm that the proposed and permitted baffling efficiencies, as measured by T_{10}/T values and chlorine contact time (CT) capabilities, have been achieved. The study must evaluate the existing clearwell as a standalone reactor, as well as the existing and new clearwell in series. Sufficient sampling ports shall be available to provide for an individual evaluation of the new clearwell.

The Authority shall obtain prior Department approval of the tracer study protocol to be used and provide at least seven (7) days prior notice so Department staff can be on site while the study is done. Results of the study shall be submitted to the Department within thirty (30) days of completion.





pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

AUG 28 2017

Mr. Douglas E. Brown, Borough Manager
Steelton Borough Authority
123 North Front Street
Steelton, PA 17113

RECEIVED
AUG 28 2017

Re: Public Water Supply
PWS ID No. 7220036
WTP 260,000-gallon Clearwell Tracer Study
Steelton Borough, Dauphin County

Dear Mr. Brown:

The Department hereby authorizes The Steelton Borough Authority (Authority) to conduct a tracer study of its new 260,000-gallon clearwell at the Steelton Water Treatment Plant. The study may be conducted in accordance with *Tracer Study Sample Plan* (Plan) submitted to the Department by Mr. R. Edward Spayd's, Herbert, Rowland & Grubic, Inc., on August 1, 2017 and as revised on August 17, 2017 and August 28, 2017 with the following qualifications:

1. The tracer chemical for the study will be a saturated sodium chloride (NaCl) solution. The approved sodium chloride for use as a tracer are Cargill Hi-Grade Evaporated Salt, Morton Culinox 999 Food Grade Salt, Morton Pool Salt and Cargill Diamond Crystal Solar Naturals Salt Crystals. Any tracer chemical utilized must be certified for conformance with ANSI/NSF Standard 61.
2. The feed rate shall not exceed 250 mg/l as chloride at any time. Steelton shall be in violation of the Secondary Maximum Contaminant Level (SMCL) if the product water concentration exceeds 250 mg/l at any time.
3. Per the Plan, two (2) separate tests will be conducted. Test No. 1 will confirm both the baffling factor for the new clearwell and the baffling factor of the existing and new clearwells in series. Test No. 2 will confirm the baffling factor of the existing clearwell only.
4. Steelton shall notify the Department at least three (3) days prior to the start of the Study. Contact Mr. Shawn Cable at 717.705.4932 or Mr. Tom Filip at 717.705.4941.
5. Steelton shall submit a copy of its final Tracer Study Report (with the detention time calculations and recommendations) to the Department within thirty (30) days of completion of the Study. The final report shall be submitted by a PA registered professional engineer.

Thank you for providing the details of your proposed tracer study. We look forward to seeing its completion and the detention time data that it will provide.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,

Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Enclosures

cc: R. Edward Spayd III, P.E., Herbert, Rowland & Grubic, Inc.





OCT 23 2017

Douglas E. Brown, Borough Manager
Borough of Steelton
123 North Front Street
Steelton, PA 17113

Re: Water Allocations
DEP File No. WA 22-1037A
PWS ID No. 7220036
APS ID No. 864138
Steelton Borough Authority
Subsidiary Allocation with SUEZ Water PA
Steelton Borough, Dauphin County

Dear Mr. Brown:

The water allocation application filed by the Steelton Borough Authority (Authority) has been approved. Water Allocation Permit No. WA 22-1037A grants the right to purchase up to 648,000 gallons per day (gpd), based on a 30-day average, from SUEZ Water Pennsylvania, Inc., through an existing interconnection in Swatara Township, Dauphin County. The permit is enclosed along with a report prepared on the application. Special attention should be given to the time frames for completing actions as required by certain conditions of the permit.

Condition No. 3 requires that the Authority continue to operate and maintain accurate measuring and recording instruments or devices to determine the amount of water purchased from SUEZ and submit monthly reports of the daily usage readings to the Department.

Condition No. 6 requires the Authority to submit to the Department annually, on or before the anniversary date of the permit, a permit compliance report.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

Douglas E. Brown, Borough Manager
Borough of Steelton

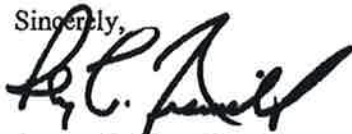
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If you want to challenge this action, your appeal must reach the Board within 30 days. You do not need a lawyer to file an appeal with the Board. Important legal rights are at stake, however, so you should show this document to a lawyer at once. If you cannot afford a lawyer, you may qualify for free Pro Bono representation. Call the Secretary to the Board (717.787.3483) for more information.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,



Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Enclosures

cc: Mr. Allan Ausman, Chair, Steelton Water Authority, w/ permit and report
Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., w/permit and report
Mr. Andrew Dehoff, SRBC, w/permit and report
Ms. Heather Smiles, PFBC, w/permit and report

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SAFE DRINKING WATER PROGRAM

WATER ALLOCATION PERMIT

OCT 23 2017

Steelton Borough Authority
Water Allocation WA 22-1037A

PWS ID No. 7220036
Dauphin County

The Pennsylvania Department of Environmental Protection (the Department), renamed by the Act of June 28, 1995, No. 18, P.L. 89, 71 P.S. Section 1340.101 et seq., known as the Conservation and Natural Resources Act, and continuing to exercise the powers and duties established by the Act of December 3, 1970, No. 275, P.L. 834, 71 P.S. Section 510-1 et seq., as amended, known as The Administrative Code, as successor to the Water and Power Resources Board, under and by virtue of the authority vested in and imposed upon it by the Act of June 24, 1939, No. 365, P.L. 842, 32 P.S. §631 et seq., known as the Water Rights Act, hereby grants leave to the **Steelton Borough Authority** (permittee), with its principal offices located in the **Borough of Steelton, Dauphin County, Pennsylvania**, to acquire and use for public water supply purposes, subject to such existing rights and uses as may now be lawful, water rights in the following designated waters of the Commonwealth:

The right to purchase up to 648,000 gallons per day (gpd), based on a 30-day average, from SUEZ Water Pennsylvania, Inc. (SUEZ), through an interconnection in Swatara Township, Dauphin County.

This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement or interest in, to or over any land belonging to the Commonwealth of Pennsylvania; neither does it authorize any injury to private property nor invasion of private rights, nor any infringement of Federal, State or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary.

This permit is issued in response to an application filed with the Department on the 26th day of January, 2015, and with the understanding that the proposed sources of water supply shall be developed as set forth in said application and in accompanying and supplemental data filed with and made a part thereof, subject, however to the provisions of the Water Rights Act, and the following conditions, regulations and restrictions.

1. **Duration of Permit:** The duration of this permit shall be until August 30, 2030 coincident with the expiration of Water Allocation Permit No. WA 22-3031, which was issued to SUEZ. However, should the permittee for any reason whatsoever (1) cease for any period of seven consecutive years to take and use the water hereby allocated, or (2) should the permittee or

OCT 23 2017

SUEZ terminate or fail to renew the purchase agreement, then this permit shall cease and be null and void; unless upon application by the permittee an extension of such period is granted by the Department of Environmental Protection's Southcentral Regional Office.

2. Maximum Withdrawals: The maximum daily combined withdrawal from the permittee's surface water sources and the interconnection with SUEZ shall not exceed the total permitted capacity of the permittee's surface water sources at 3.0 million gallons per day (mgd).
3. Measuring Device and Reporting Requirement: The permittee shall continue to operate and maintain accurate measuring and recording instruments or devices to determine the amount of water purchased from SUEZ. Records of daily usage readings shall be submitted on a monthly basis to the Department of Environmental Protection's Permits Division in the Bureau of Safe Drinking Water (preferably electronically), and the original field records shall be available at all times for inspection by representatives of the Department.
4. Operations and Drought Contingency Plan: The permittee shall develop a contingency plan outlining the measures that will be taken to conserve the available supply and reduce water use during an emergency (e.g., drought, industrial waste spill, etc.). The plan shall include staged voluntary and mandatory water use restrictions and a description of parameters to trigger these actions at various stages, and the identification of available emergency sources or interconnections and when these sources would be utilized. The plan shall also indicate how water use restrictions will be enforced. The contingency plan shall be adopted by the permittee and submitted to the Department of Environmental Protection's Department's Division of Planning and Conservation under the Special Deputy Secretary for Water Resources Planning within one year of the date of this permit and updated and submitted to the Department every three years thereafter or within six months of the addition or abandonment of any source of supply.
5. Water Conservation: The permittee shall adopt and implement a continuous water conservation program for all types of use within the area served by this permit. This program shall include, but is not limited to:
 - A. An ongoing program for installing meters at all new customer connections.
 - B. An ongoing program for regularly testing and repairing or replacing all meters.
 - C. An ongoing leakage/loss control program.
 - D. A water conservation education program.
 - E. A program for reducing customer demand for water by requiring the installation of water-saving plumbing devices in all new accounts or promoting the adoption of water conservation ordinances and regulations.

The permittee's water conservation program shall comply with the water conservation policies of the Susquehanna River Basin Commission and the recommendations of the Department's Southcentral Regional Office contained in the report on this allocation.

6. **Permit Compliance Reporting:** The permittee shall submit a permit compliance report to the Department of Environmental Protection's Permits Division in the Bureau of Safe Drinking Water, on forms provided by the Department, annually, on or before the anniversary date of this permit, unless otherwise specified.
7. **Chapter 110 Requirements:** The permittee shall register each source/interconnection approved under this permit and submit reports in accordance with 25 Pa. Code Chapter 110 Regulations. Registration and reporting shall be to the Department's Division of Planning and Conservation under the Special Deputy Secretary for Water Resources Planning.
8. **Prohibition on Supplying Water to Other Public Water Suppliers:** The permittee shall not supply any new or additional quantity of water to any public water supply agency until that agency shall have first obtained from the Department of Environmental Protection's Southcentral Regional Office a subsidiary water allocation permit for the specific purchase quantity.
9. **Reduction of Water Losses:** Within one year of the date of this permit, the permittee shall initiate a study to develop a plan to reduce its unaccounted-for water loss and shall reduce such loss to a level of 20 percent or less within five years of the date of this permit. Such study shall be completed and the final results and recommendations reported to the Department of Environmental Protection's Southcentral Regional Office, with a copy to the Permits Division in the Bureau of Safe Drinking Water within two years of the date of this permit. The deadlines set forth in this condition may be extended with written approval by the Southcentral Regional Office, upon good cause shown, providing that the permittee demonstrates satisfactory and good faith progress toward compliance with this condition.
10. **Susquehanna River Basin Commission Coordination:** This application and permit was reviewed by the Susquehanna River Basin Commission in accordance with Section 3.10, Referral and Review, of the Susquehanna River Basin Compact.
11. **Revocation of Permit:** Water Allocation Permit No. WA 22-1037, issued to Steelton Borough Authority on June 28, 2011, and granting the right to purchase up to 648,000 gallons per day (gpd), based on a 30-day average, from United Water Pennsylvania, Inc. through an interconnection in Swatara Township, Dauphin County, is hereby revoked and shall be returned to the Department of Environmental Protection's Southcentral Regional Office.
12. **Renewal Requirement:** Within 18 months, but no less than one year, prior to the expiration date specified in Condition No. 1, the permittee shall submit to the Department of Environmental Protection's Southcentral Regional Office a complete and acceptable application for a new permit, if permittee desires to continue to acquire the water rights granted by this permit beyond the expiration date. Upon the Department's acceptance of such application for review, the expiration date of this permit shall be extended during the review period until issuance or denial of said new permit.

WA Permit No. WA 22-1037A
Steelton Borough Authority
Dauphin County

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13. Permit Modification: This permit is subject to review and possible modification of said rights, conditions, or restrictions at a later date or dates, as provided in Section 7 of the Act of June 24, 1939, P.L. 842 (No. 365). The Department may modify, suspend, or revoke this permit in whole or part during its term for cause including but not limited to the following: violation of any terms or conditions of the permit, obtaining a permit by misrepresentation or failure to disclose fully relevant facts, or change in condition that requires either a temporary or permanent reduction or elimination of the permitted water withdrawal as provided by the Clean Streams Law.

Department of Environmental Protection

By: 

Rodney L. Nesmith, P.E.

Program Manager

Safe Drinking Water Program

Date: 10.23.2017

Commonwealth of Pennsylvania
Department of Environmental Protection
Safe Drinking Water Program

Southcentral Region – Field Operations

Report on the Application for
Subsidiary Water Allocation by

Steelton Borough Authority
Public Water Supply No. 7220036

Dauphin County

October 2017

Water Allocation Permit No. WA 22-1037A

Steelton Borough Authority
WA 22-1037A

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Report on the Application
for Subsidiary Water Allocation by
Steelton Borough Authority

I. Introduction

On February 18, 2015, the Department of Environmental Protection (Department) accepted a water allocation application from the Steelton Borough Authority (Authority). The Authority is requesting the right to purchase up to 648,000 gallons per day (gpd) based on a 30-day average from SUEZ Water Pennsylvania, Inc. (SUEZ), formerly known as United Water Pennsylvania, Inc. The volume of 648,000 gpd selected by the Authority, for this request, was based on the maximum pumping rate allowed by SUEZ, equal to 450 gallons per minute (gpm).

Notice of the application was published in the March 15, 2015 issue of the Pennsylvania Bulletin in accordance with the Act of February 17, 1984 (P.L. 75, No. 14), 71 P.S. §510-5. The Authority provided proof of notification of this application to the Borough of Steelton (Borough), the Dauphin County Commissioners and Swatara Township.

The existing contract between the Authority and SUEZ was dated October 7, 1999, amended on September 1, 2013 and provided for the emergency interconnect and transfer of water from the Authority to SUEZ and as needed from SUEZ to the Authority. The contract currently runs on a year-by-year basis and has a one (1) year period for giving notice of termination. Additionally, SUEZ provided a letter¹, dated March 8, 2011, confirming willingness to provide 450 gpm, when available, to the Authority at this interconnection.

II. Allocation History

On April 6, 2010, the Authority received a construction permit from the Department's Safe Drinking Water Program for the installation of an interconnection with SUEZ for use during the Authority's water filtration plant upgrade project. The Authority was further required to obtain a subsidiary allocation permit to purchase water from SUEZ since SUEZ utilizes surface water sources to supply its systems. A subsidiary water allocation permit (No. WA 22-1037) was issued to the Authority on June 28, 2011, with an expiration date of January 25, 2016.

III. Comments from Other Agencies

The Department requested comments on The Authority's application from the Pennsylvania Fish and Boat Commission (PFBC) and the Susquehanna River Basin Commission (SRBC). Comments were also requested from the Department's Bureau of Safe Drinking Water, Planning and Conservation Division (PCD).

No adverse comments were received from the SRBC, PFBC or PCD.

¹ Arthur Sanders, P.E., Senior Engineer, United Water Pennsylvania, Inc., letter to Vaughan S. Leer, P.E., Navarro & Wright Engineering, March 8, 2011.

IV. Water Use

A. Water Usage Rates

Table 1^{2,3} contains the Authority's past water use for the period 2004-2015, while Table 2⁴ contains a breakdown of its 2015 water use.

For the period 2004 to 2015 average daily use was 1,534,411 gpd and ranged between 1,195,043 gpd in 2012 and 1,716,061 in 2009. Peak day use averaged 2,429,122 gpd for this period and ranged between 1,925,500 in 2012 and 2,888,400 gpd in 2010. The peak to average ratio averaged 1.59. Although the average daily use for the period from 2004 to 2015 is greater than the requested allocation, the requested allocation is only intended to supplement the Authority's existing water supply during periods of high demand when the water treatment plant cannot meet demand.

Table 1. Past Water Use

Year	Average Daily Use (gpd)	Peak Daily Use (gpd)	Peak to Average Ratio
2004	1,534,390	2,267,000	1.48
2005	1,612,731	2,694,800	1.67
2006	1,591,881	2,262,100	1.42
2007	1,663,722	2,489,000	1.50
2008	1,694,988	2,691,100	1.59
2009	1,716,061	2,533,100	1.48
2010	1,494,951	2,888,400	1.93
2011	1,474,729	2,515,000	1.71
2012	1,195,043	1,925,500	1.61
2013	1,380,230	2,033,400	1.47
2014	1,446,720	2,420,500	1.67
2015	1,607,488	2,429,700	1.51
Averages	1,534,411	2,429,133	1.59

² Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Section N.

³ Steelton Borough Authority, Department of Environmental Protection, Bureau of Safe Drinking Water, Planning and Conservation Division, Primary Facility Reports for 2014 & 2015.

⁴ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Section O.

Table 2. 2015 Water Use

Use Category	Metered Connections		Un-metered Connections		Percent Total Use
	Number	Water Use (gpd)	Number	Water Use (gpd)	
Domestic	2,240	266,734			16.59
Commercial	124	25,936			1.61
Industrial	12	727,539			45.26
Institutional	34	13,224			0.82
Bulk Sales	1	12,337			0.77
Other ¹			19	192,322	11.96
Unaccounted-for				369,396	22.98
Totals	2,411	1,045,770	19	561,718	100.00

1. Water breaks, sewer flushing, fires & flushing.

Based on the water use data in Table 3 and a 2015 service area population of 6,311 people, the system per capita use (gpcd) was 243.1 gpcd. While this number is significant, due to high industrial usage, the actual domestic average daily usage rate for 2015 was approximately 42.3 gpcd.

Unaccounted-for water losses were slightly high in 2015 at approximately 23 percent of the total system use. Generally, unaccounted-for water losses below 20 percent are acceptable to the Department and are required by the SRBC. The Authority will be required to address their reported unaccounted-for water losses and define how the Authority plans to reduce these losses to 20 percent or less of the total system water use.

B. Population Projections

The Authority's service area includes the Borough and portions of Swatara Township in Dauphin County. Table 3⁵ shows Steelton's service area population projections through 2040.

Table 3. Domestic Growth (Population Projections)

Municipality	% Pop. Served ¹	Historical (2000)		Current (2013)		2020		2030		2040	
		Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served	Pop. ²	Est. Pop. Served
Dauphin County											
Steelton Borough	100%	5,858	5,858	5,945	5,945	6,450	6,450	6,723	6,723	7,102	7,102
Swatara Township	2%	22,611	362	23,459	375	25,370	406	26,659	427	28,359	454
Totals:		28,469	6,220	29,404	6,320	31,820	6,856	33,382	7,150	35,461	7,556

1. Steelton Borough Authority. Please note that % Served values were assumed to remain constant throughout projection period.

2. PA Dep, State Water Plan and Comprehensive Water Quality Management Program.

The previous report on Water Allocation No. WA 22-1037, indicated that, "Steelton serves and is expected to continue to serve 100 percent of the population of the Borough of Steelton. Since the borough has been built out to capacity and no buildable lots remain, no significant population

⁵ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Supplemental Information Table E-1, Page 2.

changes are projected. The service area in Swatara Township is composed primarily of single family units. Steelton has projected no service area population increases through 2030. The permit application package indicates that Steelton is largely developed and no significant changes in population are anticipated within Steelton Borough.”⁶

Although the Borough has apparently been built out to capacity and no building lots remain, the State Water Plan, with populations included in the current application package, is still projecting an increase in population. Given these two conflicting data sets, the current Annual Water Supply Report (AWSR) for the Authority lists the served population as 6,311 people, which indicates that some population growth is occurring.

Table 4⁷ shows the Authority’s non-domestic growth rates and projections through 2040. The existing “Bulk Sales to Other PWS” refers to an existing interconnection with SUEZ, through which SUEZ purchases water from Steelton. Although the Authority is projecting an increase of three (3) additional bulk sales through 2040, given the proximity of other systems, these additional connections can only be considered as projected.

Table 4. Non-Domestic Growth Projections

Type of Usage	Connection Data			Estimated % change per year ^t	Growth Projections: # of Connections ²			
	2012	2013	% change per year		2010	2020	2030	2040
Commercial	122	122	0.00%	1.00%	122	135	150	166
Industrial	13	12	-0.77%	1.00%	13	14	16	18
Institutional	33	34	0.30%	1.00%	33	38	42	47
Bulk Sales to Other PWS	1	1	0.00%	1.00%	1	2	3	4
Other	11	10	-0.91%	1.00%	11	12	14	6
Unaccounted-for Water	0	0	0.00%	1.00%	0	0	0	16
Totals:	180	179			180	201	225	257

1. For conservative estimating purposes, any usage that had zero connections or growth and/or experienced a decrease in connections from 2012 to 2013 was assumed to have a small growth rate of 1.0% per year.

2. Growth projections calculated using the following formula: $Growth = C(1+r/n)^{nt}$, where

C = current value
r = rate of increase

n = # of compounds annually
t = years compounded

C. Water Use Projections

Projected water use for this system is atypical, since non-domestic uses exceed the domestic/residential uses of the system. This can be readily seen in Table 5^{8,9,10,11}, where the

⁶ James S. Spontak, Program Manager, Department of Environmental Protection, Watershed Management Program, Water Allocation Permit No. WA 22-1037, June 28, 2011.

⁷ Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Supplemental Information Table E-2, Page 2.

⁸ Steelton Borough Authority, Department of Environmental Protection, Bureau of Watershed Management Program, Bureau of Water Supply and Wastewater Management, Annual Water Supply Report, 2004.

⁹ Steelton Borough Authority, Department of Environmental Protection, Bureau of Watershed Management Program, Public Water Supply Annual Primary Facility Report, 2005 & 2006.

¹⁰ Steelton Borough Authority, Department of Environmental Protection, Bureau of Watershed Management Program, Primary Facility Reports, 2007 through 2011.

¹¹ Steelton Borough Authority, Department of Environmental Protection, Bureau of Safe Drinking Water, Planning and Conservation Division, Primary Facility Reports, 2012 through 2015.

OCT 23 2017

Authority's historic domestic and system per capita usages are 48.6 gpcd and 236.8 gpcd, respectively.

The projected average daily water use, domestic and system, as shown in Table 6¹², was predicted based upon the historic peak to average ratio, shown in Table 1, the projected population data determined in Table 3, and the historic domestic and system per capita use in Table 5. Therefore, the projected use values maintain and assume the domestic and system per capita use will remain at 48.6 gpcd and 236.8 gpcd respectively, and the peak to average ratio will remain at the historic average of 1.59. The Authority's projections were based on the projected population projection data in Table 3 and their non-domestic growth projections as shown in Table 4.

Therefore, based on the projected use and on historic usage, the requested amount is reasonable. It should be noted that these projections were based upon data currently available, as provided to the Department by the Authority.

Table 5. Historic System and Domestic per Capita Use

Year	Service Area Population	Average Daily Use (gpd)	Domestic Daily Use (GPD)	System gpcd	Domestic gpcd
2005	5,858	1,612,731	339,041	275.3	57.9
2006	5,858	1,591,881	261,153	271.7	44.6
2007	5,858	1,134,799	401,811	193.7	68.6
2008	6,168	1,694,987	302,493	274.8	49.0
2009	6,229	1,513,459	308,386	243.0	49.5
2010	6,229	1,400,683	291,674	224.9	46.8
2011	6,311	1,444,744	313,165	228.9	49.6
2012	6,311	1,195,043	282,981	189.4	44.8
2013	6,311	1,380,230	284,121	218.7	45.0
2014	6,311	1,446,720	271,789	229.2	43.1
2015	6,311	1,607,488	226,734	254.7	35.9
Average		1,456,615	298,486	236.8	48.6

Note: All numbers taken from the Authority's ACSR's for that year.

¹² Edward A. Ellinger, P.E., Herbert, Rowland & Grubic, Inc., Steelton Borough Authority Water Allocation Permit Application, January 2015, Supplemental Information Table E-4, Page 3.

Table 6. Projected Water Use (gpd)

Year	Projected Population	Average Day		Steelton System ¹	Peak Day	
		DEP Domestic	System		DEP	Steelton ¹
2020	6,856	333,202	1,623,501	1,506,000	2,581,366	2,220,000
2030	7,150	347,490	1,693,120	1,633,000	2,692,061	2,407,000
2040	7,556	367,222	1,789,261	1,774,000	2,844,925	2,615,000

1. Numbers taken from the Authority's permit application.

V. Water Supply Available

The Authority's system currently uses a surface water withdrawal from the Susquehanna River as its primary water supply. The Susquehanna River withdrawal is authorized by Water Allocation Permit No. WA 22-549A and provides the Authority with up to 3.0 million gallons per day (mgd). While this permit expired on January 25, 2016, per Condition No. 2 of the permit, the Authority submitted an application to the Department on January 26, 2015, for a new permit for the Susquehanna withdrawal. Therefore, the existing permit remains valid and the submitted application is under review.

The Authority's surface water source capacity is more than sufficient to meet its current and future projected water needs. However, the existing interconnection is a redundant source of water supply for when the water treatment plant is not operational due to maintenance or in the event of an emergency as a supplemental source of water.

SUEZ currently holds Water Allocation Permit No. WA 22-303I that allows for the right to withdraw a maximum of 17.0 mgd from the Susquehanna River at an existing intake south of the Rockville Bridge in Susquehanna Township, Dauphin County, a maximum of 12.0 mgd from Stony Creek at an existing intake in the Borough of Dauphin, Dauphin County with a combined maximum withdrawal of 17.0 mgd from both sources. Also, it grants the right to withdraw a maximum of 4.5 mgd from Swatara Creek at an existing intake in the Borough of Hummelstown, Dauphin County. This permit was issued on August 30, 2005 for a period of 25 years and will expire in August 2030. Based on its reported system uses, it is expected that SUEZ will have enough water to supply its current customers as well as provide a redundant supply to the Authority.

VI. Determinations Before Granting Permit

Section 7 of the Water Rights Act of June 24, 1939 outlines the duties of the Commonwealth to investigate water allocation requests, consider conflicts of interest, and to give approval. Approval of the requested allocation shall be given where it is determined that the:

- A. Proposed new source of supply will not conflict with the water rights held by any other public water supply agency.
- B. Water and water rights proposed are reasonably necessary for the present purposes and future needs of the public water supplier making application.
- C. Taking of said water or exercise of water rights will not interfere with navigation.

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- D. Taking of said water or exercise of water rights will not jeopardize public safety.
- E. Taking of said water or exercise of water rights will not cause substantial injury to the Commonwealth.

In cases of apparent conflicts of interest, the Commonwealth investigations shall consider the extent of conservation development and use of the existing sources of water to the best advantage.

The Department of Environmental Protection has reviewed the proposed allocation and considered all the issues requiring evaluation under Section 7 of the Water Rights Act. A summary of the findings and conclusions regarding these issues follows:

A. Conflicts with Water Rights of Other Agencies

The Department finds that there are no conflicts with the water rights of other agencies.

B. Present and Future Need for Water

The Authority intends to utilize the interconnection with SUEZ as a redundant source of water to be used when its surface water source is not operational due to maintenance or for other unforeseen emergency situations.

However, the Department recognizes that this request is only sufficient as a supplemental source and as an emergency source since it isn't sufficient, in and of itself, to cover the normal demands of the system.

C. Navigation

The Department finds that granting the allocation will have no adverse effect on navigation.

D. Public Safety

The Department finds that granting the allocation will have no adverse effect on public safety.

E. Environmental Issues

The Department finds that granting the allocation will have no adverse effect on the environment.

F. Conservation

The Authority encourages its residents to adopt water conservation practices and promotes water conservation efforts by annually providing information to educate and inform people about how they can reduce their water consumption.

The Authority also has a policy to ensure that all new construction and remodeling work requiring a building permit will incorporate flow reduction devices.

In 2009 and 2010 the Authority's unaccounted-for losses were high at 51 percent and 46 percent of the total system use, respectively. In 2015, the unaccounted-for water losses were 23 percent of the total system use. While this shows a significant reduction in the water losses from previous years, this number still exceeds the Department's goal, as well as SRBC's requirement, of less than 20 percent losses.

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G. Antidegradation

The Pennsylvania Clean Streams Law and the implementing regulations at 25 Pa. Code Sections 93.4a(b) and 93.4c(a) require that existing uses of surface waters be maintained and protected. Existing use protection must occur at the time of permit issuance and for Water Allocation approvals, both the taking of water and the resultant wastewater production must be considered.

This source of supply is a bulk water purchase from SUEZ and is not a new or increased direct taking from a surface water source. SUEZ holds Water Allocation Permit No. WA 22-303I and has adequate supply of water to serve their customers and the Authority. SUEZ is not requesting an increased allocation under WA 22-303I to further support this interconnection.

Wastewater generated in the Authority's service area is not expected to increase as a result of this approval and will be treated at the existing wastewater treatment plant, Capital Region Water AWTF, as identified in the January 2015 water allocation permit application.

VII. Recommendations

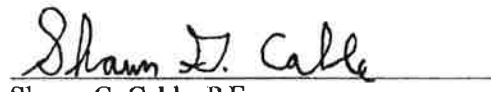
The application submitted by the Steelton Borough Authority has been carefully reviewed and considered. It is recommended that the Authority be granted a permit for the right to purchase 648,000 gpd, based on a 30-day average, from SUEZ through an existing interconnection in Swatara Township, Dauphin County.

This report was prepared by:



Thomas J. Filip III, P.E.
Environmental Engineer
Safe Drinking Water Program

This report was reviewed and is respectfully submitted by:



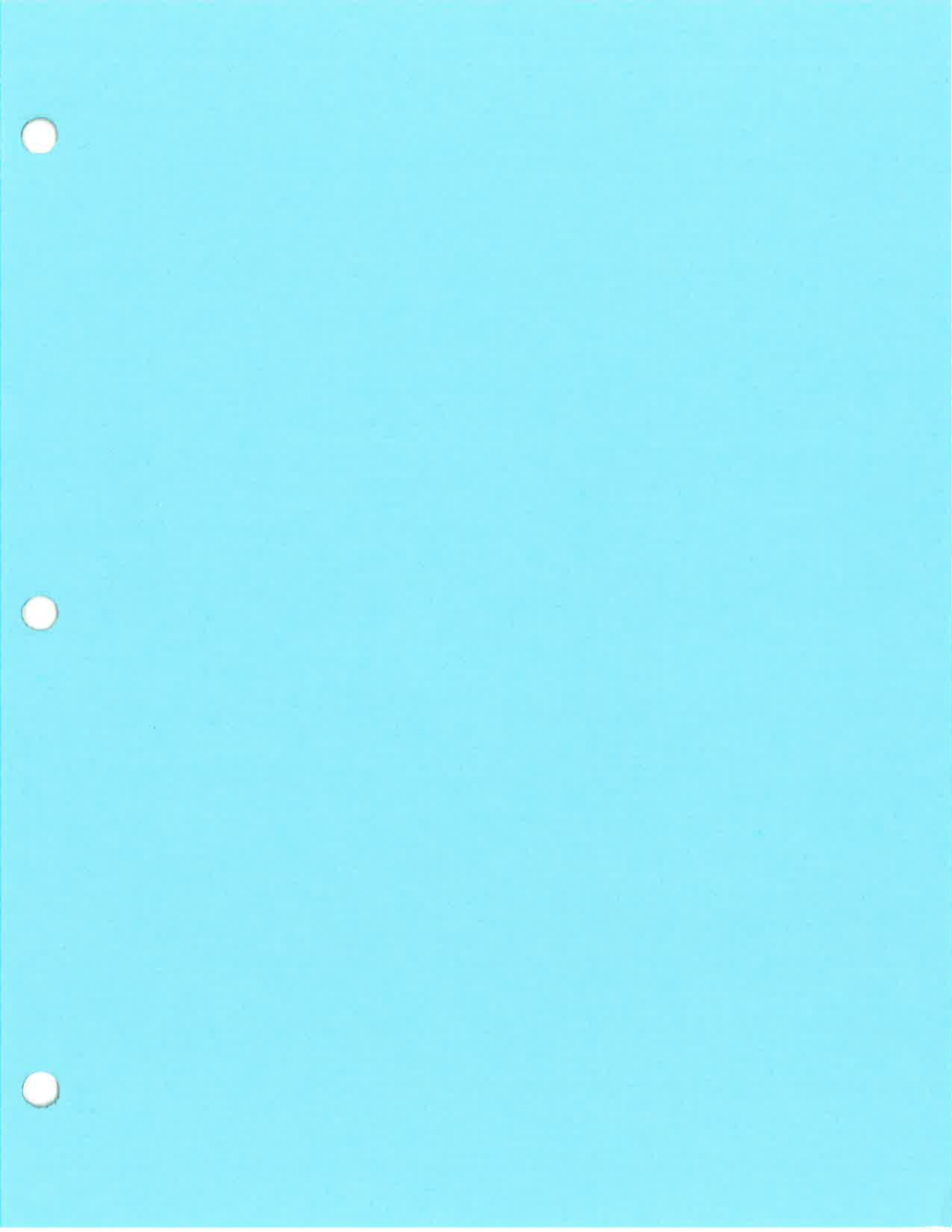
Shawn G. Cable, P.E.
Environmental Engineer Manager
Safe Drinking Water Program

The foregoing recommendation is concurred in:



Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Date: 10.23.2017





pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

DEC 04 2017

John Hollenbach, General Manager
SUEZ Water Pennsylvania, Inc.
4211 East Park Circle
Harrisburg, PA 17111

Re: Water Allocations
DEP File No. WA 22-303J
PWS ID No. 7220015
APS ID No. 892195
Subsidiary Allocation with Steelton Borough Authority
Swatara Township, Dauphin County

Dear Mr. Hollenbach:

The water allocation application filed by SUEZ Water Pennsylvania, Inc.(SUEZ) has been approved. Water Allocation Permit WA 22-303J grants the right to purchase a maximum of 1.0 million gallons per day (mgd) from the Steelton Borough Authority (Authority) through an existing interconnection located off Reservoir Road in Swatara Township, Dauphin County. The permit is enclosed along with a report prepared on the application. Special attention should be given to the time frames for completing actions as required by certain conditions of the permit.

Condition No. 2 requires that SUEZ continue to operate and maintain accurate measuring and recording instruments or devices to determine the amount of water purchased from the Steelton Borough Authority and submit monthly reports of the daily purchases to the Department.

Condition No. 5 requires SUEZ to submit to the Department annually, on or before the anniversary date of the permit, a permit compliance report.

Additionally, you are advised that, per your request, Condition Nos. 10 and 12, referring to Water Allocation Permit Nos. WA-303F and WA 303H, respectively, granting the right to purchase water from Capital Region Water (formerly the Harrisburg Authority), are hereby rescinded. This action is being taken, at your request, since these interconnections are no longer being used by SUEZ.

The rescission should not be interpreted as preventing SUEZ from applying for water rights to purchase water from Capital Region Water at a future date. However, any future application will be reviewed using current water resource management standards.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal

John Hollenbach, General Manager
SUEZ Water Pennsylvania, Inc.

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form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

If you want to challenge this action, your appeal must reach the Board within 30 days. You do not need a lawyer to file an appeal with the Board. Important legal rights are at stake, however, so you should show this document to a lawyer at once. If you cannot afford a lawyer, you may qualify for free Pro Bono representation. Call the Secretary to the Board (717.787.3483) for more information.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,



Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Enclosures

cc: Mr. Chad Bingaman, SUEZ Water Pennsylvania, Inc. w/permit and report
Jennifer P. Miller, P.E., Herbert, Rowland & Grubic, Inc. w/permit and report
Mr. Andrew Dehoff, SRBC, w/permit and report
Ms. Heather Smiles, PFBC, w/permit and report

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SAFE DRINKING WATER PROGRAM

WATER ALLOCATION PERMIT

DEC 04 2017

SUEZ Water Pennsylvania, Inc.
Water Allocation WA 22-303J

PWS ID No. 7220015
Dauphin County

The Pennsylvania Department of Environmental Protection (the Department), renamed by the Act of June 28, 1995, No. 18, P.L. 89, 71 P.S. Section 1340.101 et seq., known as the Conservation and Natural Resources Act, and continuing to exercise the powers and duties established by the Act of December 3, 1970, No. 275, P.L. 834, 71 P.S. Section 510-1 et seq., as amended, known as The Administrative Code, as successor to the Water and Power Resources Board, under and by virtue of the authority vested in and imposed upon it by the Act of June 24, 1939, No. 365, P.L. 842, 32 P.S. §631 et seq., known as the Water Rights Act, hereby grants leave to **SUEZ Water Pennsylvania, Inc. (permittee)**, with its principal offices located in **Lower Paxton Township, Dauphin County, Pennsylvania**, to acquire and use for public water supply purposes, subject to such existing rights and uses as may now be lawful, water rights in the following designated waters of the Commonwealth:

The right to purchase a maximum of 1.0 million gallons per day (mgd), based on a 30-day average, from the Steelton Borough Authority (Authority) through an existing interconnection located off Reservoir Road in Swatara Township, Dauphin County.

This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement or interest in, to or over any land belonging to the Commonwealth of Pennsylvania; neither does it authorize any injury to private property nor invasion of private rights, nor any infringement of Federal, State or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary.

This permit is issued in response to an application filed with the Department on the 27th day of January, 2016, and with the understanding that the proposed sources of water supply shall be developed as set forth in said application and in accompanying and supplemental data filed with and made a part thereof, subject, however to the provisions of the Water Rights Act, and the following conditions, regulations and restrictions.

1. **Duration of Permit:** The duration of this permit shall be until October 18, 2042, coincident with the expiration of Water Allocation Permit No. WA 22-549B, which was issued to the Authority. However, should the permittee for any reason whatsoever (1) cease for any period of seven consecutive years to take and use the water hereby allocated, or (2) should the permittee or the Authority terminate or fail to renew the purchase agreement, then this permit shall cease and be null and void; unless upon application by the permittee an extension of such period is granted by the Department of Environmental Protection's Southcentral Regional Office.

2. **Measuring Device and Reporting Requirement:** The permittee shall continue to operate and maintain accurate measuring and recording instruments or devices to determine the amount of water purchased from the Authority. Records of daily flow readings shall be submitted on a monthly basis to the Department of Environmental Protection's Permits Division in the Bureau of Safe Drinking Water (preferably electronically), and the original field records shall be available at all times for inspection by representatives of the Department.
3. **Operations and Drought Contingency Plan:** The permittee shall develop a contingency plan outlining the measures that will be taken to conserve the available supply and reduce water use during an emergency (e.g., drought, industrial waste spill, etc.). The plan shall include staged voluntary and mandatory water use restrictions and a description of parameters to trigger these actions at various stages, and the identification of available emergency sources or interconnections and when these sources would be utilized. The plan shall also indicate how water use restrictions will be enforced. The contingency plan shall be adopted by the permittee and submitted to the Department of Environmental Protection's Department's Division of Planning and Conservation under the Special Deputy Secretary for Water Resources Planning within one year of the date of this permit and updated and submitted to the Department every three years thereafter or within six months of the addition or abandonment of any source of supply.
4. **Water Conservation:** The permittee shall adopt and implement a continuous water conservation program for all types of use within the area served by this permit. This program shall include, but is not limited to:
 - A. An ongoing program for installing meters at all new customer connections.
 - B. An ongoing program for regularly testing and repairing or replacing all meters.
 - C. An ongoing leakage/loss control program.
 - D. A water conservation education program.
 - E. A program for reducing customer demand for water by requiring the installation of water-saving plumbing devices in all new accounts or promoting the adoption of water conservation ordinances and regulations.

The permittee's water conservation program shall comply with the water conservation policies of the Susquehanna River Basin Commission and the recommendations of the Department's Southcentral Regional Office contained in the report on this allocation.
5. **Permit Compliance Reporting:** The permittee shall submit a permit compliance report to the Department of Environmental Protection's Permits Division in the Bureau of Safe Drinking Water, on forms provided by the Department, annually, on or before the anniversary date of this permit, unless otherwise specified.

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6. Chapter 110 Requirements: The permittee shall register each source/interconnection approved under this permit and submit reports in accordance with 25 Pa. Code Chapter 110 Regulations. Registration and reporting shall be to the Department's Division of Planning and Conservation under the Special Deputy Secretary for Water Resources Planning.
7. Prohibition on Supplying Water to Other Public Water Suppliers: The permittee shall not supply any new or additional quantity of water to any public water supply agency until that agency shall have first obtained from the Department of Environmental Protection's Southcentral Regional Office a subsidiary water allocation permit for the specific purchase quantity.
8. Reduction of Water Losses: Within one year of the date of this permit, the permittee shall initiate a study to develop a plan to reduce its unaccounted-for water loss and shall reduce such loss to a level of 20 percent or less within five years of the date of this permit. Such study shall be completed and the final results and recommendations reported to the Department of Environmental Protection's Southcentral Regional Office, with a copy to the Permits Division in the Bureau of Safe Drinking Water within two years of the date of this permit. The deadlines set forth in this condition may be extended with written approval by the Southcentral Regional Office, upon good cause shown, providing that the permittee demonstrates satisfactory and good faith progress toward compliance with this condition.
9. Susquehanna River Basin Commission Coordination: This application and permit was reviewed by the Susquehanna River Basin Commission in accordance with Section 3.10, Referral and Review, of the Susquehanna River Basin Compact.
10. Revocation of Permit: Water Allocation Permit WA-303F, issued to the Dauphin Consolidated Water Supply Company on February 19, 1991, and granting the right to purchase 120,000 gallons per day, based on a 30-day average, from the Harrisburg Authority at two existing interconnections, one located at 22nd Street and Canby Street and the other located at 28th Street and Canby Street in the City of Harrisburg, Dauphin County, is hereby revoked and shall be returned to the Department of Environmental Protection's Southcentral Regional Office.
11. Revocation of Permit: Water Allocation Permit WA-303G, issued to the Dauphin Consolidated Water Supply Company on February 19, 1991, and granting the right to purchase 500,000 gallons per day, based on a 30-day average, from the Steelton Borough Authority at an existing interconnection located off Reservoir Road in Swatara Township, Dauphin County, is hereby revoked and shall be returned to the Department of Environmental Protection's Southcentral Regional Office.
12. Revocation of Permit: Water Allocation Permit WA-303H, issued to the Dauphin Consolidated Water Supply Company - Edgemont System on January 6, 1992, and granting the right to purchase 75,000 gallons per day (gpd), based on a 30-day average, from the Harrisburg Authority through two existing interconnections located in Susquehanna

WA Permit No. WA 22-303J
SUEZ Water Pennsylvania, Inc.
Dauphin County

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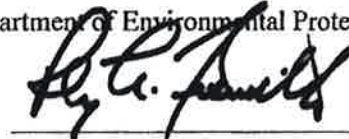
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Township, Dauphin County, for a period of five years, after which period, the right shall be reduced to 65,000 gpd, based on a 30-day average, is hereby revoked and shall be returned to the Department of Environmental Protection's Southcentral Regional Office.

13. **Renewal Requirement:** Within 18 months, but no less than one year, prior to the expiration date specified in Condition No. 1, the permittee shall submit to the Department of Environmental Protection's Southcentral Regional Office a complete and acceptable application for a new permit, if permittee desires to continue to acquire the water rights granted by this permit beyond the expiration date. Upon the Department's acceptance of such application for review, the expiration date of this permit shall be extended during the review period until issuance or denial of said new permit.
14. **Permit Modification:** This permit is subject to review and possible modification of said rights, conditions, or restrictions at a later date or dates, as provided in Section 7 of the Act of June 24, 1939, P.L. 842 (No. 365). The Department may modify, suspend, or revoke this permit in whole or part during its term for cause including but not limited to the following: violation of any terms or conditions of the permit, obtaining a permit by misrepresentation or failure to disclose fully relevant facts, or change in condition that requires either a temporary or permanent reduction or elimination of the permitted water withdrawal as provided by the Clean Streams Law.

Department of Environmental Protection

By:



Rodney L. Nesmith, P.E.

Program Manager

Safe Drinking Water Program

Date: 12/4/2017

Commonwealth of Pennsylvania
Department of Environmental Protection
Safe Drinking Water Program

Southcentral Region – Field Operations

Report on the Application for
Subsidiary Water Allocation
by

SUEZ Water Pennsylvania, Inc.

Public Water Supply No. 7220015

Dauphin County

December 2017

Water Allocation Permit No. WA 22-303J

SUEZ Water Pennsylvania, Inc.
WA 22-303J

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Report on the Application
for Subsidiary Water Allocation by
SUEZ Water Pennsylvania, Inc.

I. Introduction

On March 21, 2016, the Department of Environmental Protection (Department) accepted a water allocation application from SUEZ Water Pennsylvania, Inc. (SUEZ). SUEZ is requesting the right to purchase a maximum of 1.0 million gallons per day (mgd), based on a 30-day average, from the Steelton Borough Authority (Authority) through an existing interconnection located off Reservoir Road in Swatara Township, Dauphin County.

This application also requested that Permit Nos. WA-303F and WA-303H be rescinded as the associated interconnections with Capital Region Water, previously known as the Harrisburg Authority, located in the City of Harrisburg and Susquehanna Township, respectively, are no longer utilized.

Notice of the application was published in the April 2, 2016, issue of the Pennsylvania Bulletin in accordance with the Act of February 17, 1984 (P.L. 75, No. 14), 71 P.S. §510-5. SUEZ provided proof of notification of this application to the Borough of Steelton (Borough), the Dauphin County Commissioners, and Swatara Township.

The existing contract between the Authority and SUEZ was dated October 7, 1999, amended on September 1, 2013 and provided for the purchase of up to a maximum of 1.0 mgd with the withdrawal not to exceed more than 700 gallons per minute (gpm) from the Authority's system. A minimum quantity of water is not required to be purchased. The contract currently runs on a year-by-year basis and has a one (1) year period for giving notice of termination.

II. Allocation History

For a detailed water allocation history of SUEZ, see the Report on the Application for the previously issued Water Allocation Permit No. WA 22-303I. The following is an excerpt of relevant information.

“On February 19, 1991, Water Allocation Permit No. WA 22-303F was issued to the Company [Dauphin Consolidated Water Company] for the right to purchase 120,000 gpd, based on a 30-day average, from Harrisburg at two (2) existing interconnections, one located at 22nd St and Canby St and the other located at 28th St and Canby St in the City of Harrisburg, Dauphin County. This permit was for the purchase of water to supply the Company's Penbrook system. No agreement was provided between the Company and Harrisburg, however, Harrisburg indicated, by letters dated October 16, 1990 and January 2, 1991, that it has capacity to provide a maximum of 150,000 gpd to the Company.

“Also on February 19, 1991, Water Allocation Permit No. WA 22-303G was issued to the Company for the right to purchase 500,000 gpd, based on a 30-day average, from the Steelton Borough Authority (Steelton) at an existing interconnection located off Reservoir Rd in Swatara Township, Dauphin County. An agreement dated December 22, 1987, for the purchase of a minimum of 100,000 gpd with a maximum of 1,008,000 gpd was provided. The agreement became effective January 1, 1988 for a five (5) year period, with renewals on a year-to-year basis thereafter. ...

“On January 6, 1992, Water Allocation Permit No. WA 22-303H was issued to the Company for the right to purchase 75,000 gpd, based on a 30-day average, from Harrisburg through two (2) existing interconnections located in Susquehanna Township, Dauphin County, for a period of five (5) years,

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after which period, the right shall be reduced to 65,000 gpd, based on a 30-day average. This permit was issued to supply the Edgemont system with interconnects at 28th St and Locust Lane and the other at Edgemont and Wayne Streets. ...

"In the Company's 1993 Annual Water Supply Report (AWSR) it was indicated that water for the Penbrook system was no longer being purchased from Harrisburg nor is water purchased for the Oberlin area from Steelton [the Authority] since these areas were integrated into the Company's main system. In addition, it was further noted that the Corporation's [General Waterworks Corporation] name changed to General Waterworks of PA, Inc. ...

"Per letter dated March 30, 1995, the Department was notified that General Waterworks of PA was dissolved, through the merger process, into United Water Pennsylvania, Inc. [United]. ...

"On October 7, 1999, a new emergency purchase agreement between Steelton [the Authority] and United was signed for purchasing a maximum of 1.0 mgd and a withdrawal limit of not more than 700 gallons per minute (gpm). This new agreement became effective January 1, 2000 for a ten (10) year period, with renewals on a year-to-year basis thereafter."¹

On August 30, 2005, Water Allocation Permit No. WA 22-303I was issued to United for the right to withdraw a maximum of 17.0 mgd from the Susquehanna River at an existing intake south of the Rockville Bridge in Susquehanna Township, Dauphin County, a maximum of 12.0 mgd from Stony Creek at an existing intake in the Borough of Dauphin, Dauphin County with a combined maximum withdrawal of 17.0 mgd from both sources; and a maximum withdrawal of 4.5 mgd from Swatara Creek at an existing intake in the Borough of Hummelstown, Dauphin County.

On June 28, 2011, a Modification Order² appending Condition No. 24 to Water Allocation Permit No. 22-303I was issued to United. Condition No. 24 was the result of Water Allocation Permit No. WA 22-1037 issued to the Authority. The permit granted the right for the Authority to purchase up to 648,000 gpd, based on a 30-day average, from United, through an existing interconnection in Swatara Township, Dauphin County.

On September 1, 2013, the purchase agreement between the Authority and United was amended to modify billing rates and affirm the agreement remains in effect, and remains in effect on a year-by-year basis.

On January 29, 2016, United's name was changed to SUEZ Water Pennsylvania, Inc. An amended Certificate of Incorporation was filed on November 6, 2015 with an effective date of November 9, 2015.

On January 27, 2016, SUEZ submitted a water allocation permit application due to the expiration of Water Allocation Permit No. 22-303G on January 25, 2016. Although the requested purchase quantity of 1.0 mgd agrees with the current purchase agreement between the Authority and SUEZ, this will represent an increase in the allocated quantity from the 500,000 gpd granted in the expired permit. SUEZ, additionally, requested that Water Allocation Permit Nos. WA-303F and WA-303H

¹ Rodney L. Nesmith, P.E., Program Manager, Department of Environmental Protection, Water Supply Management Program, Water Allocation Permit No. WA 22-303I, Report on the Application, August 30, 2005, pp. 2-6.

² James S. Spontak, Program Manager, Department of Environmental Protection, Watershed Management Program, Water Allocation Permit No. WA 22-303I, Modification Order, June 28, 2011.

be rescinded. These permits represent a total purchased allocated amount of 195,000 gpd to be rescinded.

III. Comments from Other Agencies

The Department requested comments on SUEZ's application from the Susquehanna River Basin Commission (SRBC) and from the Department's Bureau of Safe Drinking Water, Planning and Conservation Division (PCD).

No adverse comments were received from either the SRBC or PCD.

IV. Water Use

A. Water Usage Rates

Table 1^{3,4,5,6} contains SUEZ's past water use for the period 2006 to 2016, as well as breakdown of water purchased through the interconnection with the Authority. Table 2⁷ contains a breakdown of SUEZ's 2016 water use.

Table 1. Past Water Use

Year	System Use			No. of Days Use	Interconnection Only	
	Average Daily Use (gpd)	Peak Daily Use (gpd)	Peak to Average Ratio		Average Daily Use (gpd)	Peak Daily Use (gpd)
2006	12,094,121	14,888,000	1.23	26	311,663	459,000
2007	13,633,659	16,247,000	1.19	21	139,016	604,000
2008	13,100,360	15,365,000	1.17	11	91,364	313,000
2009	12,405,870	13,826,000	1.11	6	153,167	606,000
2010	12,237,000	14,939,000	1.22	5	107,920	406,000
2011	14,840,674	15,436,000	1.04	15	337,000	584,000
2012	11,606,039	15,777,000	1.36	1	65,500	65,500
2013	11,750,465	15,653,260	1.33	9	180,778	605,000
2014	11,312,483	12,870,000	1.14	8	341,625	867,000
2015	11,294,128	13,236,000	1.17	18	237,389	510,000
2016	11,406,863	13,210,000	1.16	4	596,750	-
Averages	12,334,697	14,677,024	1.19		232,925	501,950

³ United Water Pennsylvania, Inc., Department of Environmental Protection, Bureau of Watershed Management Program, Primary Facility Reports, 2006 through 2011.

⁴ United Water Pennsylvania, Inc., Department of Environmental Protection, Bureau of Safe Drinking Water, Planning and Conservation Division, Primary Facility Reports, 2012 through 2014.

⁵ SUEZ Water Pennsylvania, Inc., Department of Environmental Protection, Bureau of Safe Drinking Water, Planning and Conservation Division, Primary Facility Reports, 2015 through 2016.

⁶ Jennifer P. Miller, P.E., Herbert, Rowland & Grubic, Inc., SUEZ Water Pennsylvania, Inc. Water Allocation Permit Application, January 25, 2016, Section N.

⁷ SUEZ Water Pennsylvania, Inc., Primary Facility Report, 2016.

For the period 2006 to 2016 average daily use was 12,334,697 gpd for this period and ranged between 11,294,128 in 2015 and 14,840,674 gpd in 2011. Peak day use averaged 14,677,024 gpd for this period and ranged between 12,870,000 in 2014 and 16,247,000 gpd in 2007. The peak to average ratio averaged 1.19. Although the average daily use for the period from 2006 to 2016 is greater than the requested allocation, the requested allocation is only intended to supplement SUEZ's existing water supply.

Table 2. 2016 Water Use

Use Category	Metered Connections		Un-metered Connections		Percent Total Use
	Number	Water Use (gpd)	Number	Water Use (gpd)	
Domestic	31,777	3,753,678			51.31
Commercial	3,255	3,058,235			41.80
Industrial	20	293,486			4.01
Institutional	135	210,175			2.87
Other ¹			1	1,804,210	24.66
Unaccounted-for			1	2,287,079	31.26
Totals	35,187	7,315,574	2	4,091,289	155.93

1. Plant usage, blowoffs, street sweeping, flushing, main breaks.

Based on the water use data in Table 2 and a 2016 service area population of 106,000 people, the system per capita use (GPCD) was 107.6 gpcd. Due to the size of this system and the number of commercial and institutional connections, the domestic average daily usage rate was approximately 35.4 gpcd.

Unaccounted-for water losses were high in 2016 at 31 percent of the total system use. Generally, unaccounted-for water losses below 20 percent are acceptable to the Department and are required by the SRBC. SUEZ will be required to address their reported unaccounted-for water losses and define how they plan to reduce these losses to 20 percent or less of the total system water use.

Table 3. 2016 System Water Withdrawals and Purchases

Source	Withdrawals	Sales	Purchases
	(Total Gallons per Year)		
Direct Takings			
Stony Creek	46,266,000	-	-
Susquehanna River	2,880,438,000	-	-
Swatara Creek	1,246,059,000	-	-
Interconnections			
Capital Region Water	-	-	-
Harrisburg International Airport	-	-	-
Steelton Borough Authority	-	-	2,387,000
Totals	4,172,763,000	-	2,387,000

DEC 04 2017

Table 3^{8,9,10,11} shows the total amount of water taken or purchased from each of SUEZ's sources during 2016. Taking the information from both Table 2 and Table 3, SUEZ withdrew a total of 9,358,005 gallons more water over the course of 2016 than was delivered to the distribution system as finished treated water. Taking this information into consideration, the amount of water purchased from the Authority represents 0.0572 percent of the system source water and 0.0573 percent of the water delivered to the distribution system. Overall, the Authority interconnection supplies a minute fraction of the water utilized by SUEZ and functions as a supplemental and emergency source of water supply.

B. Population Projections

SUEZ's service area includes, either in part or whole, 13 Boroughs and Townships in three (3) counties. Table 4¹² shows a breakdown of 2016 system connections by type and municipality. While Suez's application only indicates that Swatara Township is served by the interconnection, for population projection purposes, the system map¹³ provided along with the application indicates that portions of the City of Harrisburg, Hummelstown Borough, Lower Paxton Township, Lower Swatara Township, Paxtang Borough, South Hanover Township, and Swatara Township are within the potential service area boundary which could potentially receive water from the interconnection.

Table 5¹⁴ and as extended through 2040, shows the projected population for the entire SUEZ system. While this table was taken from SUEZ's 2005 main water allocation permit, their current application only provided population projects for Swatara Township, as shown in Table 6¹⁵.

While the population projections for Swatara Township don't quite agree, they both do show an increasing trend in the population for Swatara Township. Also, per SUEZ, the number of domestic connections has fluctuated from 7,713¹⁶ in 2014 to 7,770¹⁷ and 7,667 in 2015 and 2016, respectively. Even though there are these fluctuations, the overall current system population of 106,000 people is still within the range shown in the original 2005 projections.

⁸ SUEZ Water Pennsylvania, Inc., Department of Environmental Protection, Bureau of Safe Drinking Water, Planning and Conservation Division, Subfacility Report for Stony Creek, 2016.

⁹ SUEZ Water Pennsylvania, Inc., Subfacility Report for Susquehanna River, 2016.

¹⁰ SUEZ Water Pennsylvania, Inc., Subfacility Report for Swatara Creek, 2016.

¹¹ SUEZ Water Pennsylvania, Inc., Subfacility Report for Steelton Borough Authority Interconnection, 2016.

¹² SUEZ Water Pennsylvania, Inc., Primary Facility Report, 2016

¹³ Jennifer P. Miller, P.E., January 25, 2016, Appendix D - Mapping.

¹⁴ Rodney L. Nesmith, P.E., August 30, 2005, pp. 13.

¹⁵ Jennifer P. Miller, P.E., January 25, 2016, Section M.

¹⁶ SUEZ Water Pennsylvania, Inc., Primary Facility Report, 2014.

¹⁷ SUEZ Water Pennsylvania, Inc., Primary Facility Report, 2015.

DEC 04 2017

Table 4. 2016 Service Area - by Connection Type and Municipality

Municipality	Number of Connections					% Population Served	Multiple Unit Connections	
	Domestic	Commercial	Industrial	Institutional	Other		# Connects	# Units
Cumberland County								
East Pennsboro Twp	-	-	-	-	1	0.00	-	-
Dauphin County								
Dauphin Boro	292	26	-	3	-	87.45	1	4
Derry Twp	36	16	-	-	-	1.00	-	-
Highspire Boro	779	94	2	2	-	84.50	23	375
Hummelstown Boro	1,537	150	1	16	-	94.87	31	365
Lower Paxton Twp	11,338	1,165	2	34	-	93.26	415	6,640
Lower Swatara Twp	2,184	150	8	37	-	80.00	32	480
Middle Paxton Twp	188	17	-	1	-	14.43	4	24
Paxtang Boro	595	58	-	2	-	100.00	2	30
Penbrook Boro	511	105	-	1	-	41.73	1	15
South Hanover Twp	166	5	-	0	-	8.14	2	16
Susquehanna Twp	5,313	515	-	10	-	58.56	123	1,175
Swatara Twp	7,667	887	7	28	-	100.00	162	2,435
Perry County								
Marysville Boro	960	64	-	1	-	92.60	4	60
Rye Twp	211	3	-	-	-	24.35	-	-
Total	31,777	3,255	20	135	1		800	11,619

Table 5. Municipal Population Projections (System Wide)

Municipality	Census Population ¹		% Pop. Change/yr	Estimated Growth %/yr ²	Population Projections				
	1990	2000			Estimated pop. 2003	2010	2020	2030	2040
Cumberland County									
East Pennsboro Twp	16,588	18,254	1.00	1.00	-	-	-	-	-
Dauphin County									
Dauphin Boro	845	773	-0.85	0.10	552	555	561	567	572
Derry Twp	18,408	21,273	1.56	1.56	5	5	6	7	8
Highspire Boro	2,668	2,720	0.19	0.19	2,413	2,446	2,494	2,542	2,592
Hummelstown Boro	3,981	4,360	0.95	0.95	4,366	4,657	5,101	5,586	6,118
Lower Paxton Twp	39,162	44,424	1.34	1.34	38,721	42,363	48,055	54,512	61,836
Lower Swatara Twp	7,072	8,149	1.52	1.52	6,008	6,648	7,661	8,827	10,172
Middle Paxton Twp	5,129	4,823	-0.60	0.10	633	637	643	650	656
Paxtang Boro	1,599	1,570	-0.18	0.10	1,444	1,454	1,468	1,483	1,498
Penbrook Boro	2,791	3,044	0.91	0.91	1,151	1,224	1,335	1,456	1,588
South Hanover Twp	4,626	4,793	0.36	0.36	506	519	537	557	577
Susquehanna Twp	18,636	21,895	1.75	1.75	12,281	13,785	16,195	19,027	22,355
Swatara Twp	19,661	22,611	1.50	1.50	21,261	23,494	27,020	31,074	35,736
Perry County									
Marysville Boro	2,425	2,306	-0.49	0.10	2,111	2,125	2,147	2,168	2,190
Rye Twp	2,136	2,327	0.89	0.89	584	620	676	736	802
Total	145,727	163,322			92,034	100,533	113,898	129,191	146,699

1. 1990 & 2000 Census, US Census Bureau

2. United, for projection purposes, assumed a 0.1% per Year growth for all negative growth areas from the 1990's.

Table 6. Municipal Population Projections

Municipality	Domestic	Actual		Population Projections ³		
	Connections ¹	Present Population	Population Served ²	2020	2030	2040
Dauphin County						
Swatara Twp	7,713	23,362	23,338	23,804	24,280	24,766

1. Multiple units included as single service.

2. Based on percent population served, found in primary annual water supply permit.

3. Based on 2000-2010 Census data.

C. Water Use Projections

The water use projected for this system is not expected to change significantly from what was predicted in the 2005 permit, as shown in Table 7¹⁸ and as extended through 2040.

Table 7. Projected Water Use (gpd)

Year	Projected Population	Average Day		United System	Peak Day	
		DEP Domestic	System		DEP	United
2010	100,533	4,604,411	12,244,919	12,150,000	14,571,454	15,610,000
2020	113,898	5,216,528	13,872,776	13,760,000	16,508,604	17,680,000
2030	129,191	5,916,948	15,735,464	15,610,000	18,725,202	20,060,000
2040	146,699	6,718,814	17,867,938	-	21,262,846	-

Since the Authority interconnection primarily functions as a supplemental and emergency source of water supply, and given the service area projections remain consistent, the Department doesn't foresee any significant change in projected water use over the 2005 permit.

V. Water Supply Available

Currently, SUEZ, as shown in Table 3, obtains the overwhelming majority of its water from three (3) surface water sources. Suez withdraws water from both the Stony Creek and Susquehanna River sources to supply its 6th Street Treatment Plant. Water from the Swatara Creek supplies the Hummelstown Treatment Plant.

SUEZ's surface water source capacity is more than sufficient to meet its current and future projected water needs. However, the existing interconnection is a redundant/supplemental source of water supply in the event of an emergency. As can be seen in Table 1, the use of this interconnection ranged from one (1) day in 2012 to a total of 26 days in 2006.

SUEZ currently holds Water Allocation Permit No. WA 22-303I that allows for the right to withdraw a maximum of 17.0 mgd from the Susquehanna River at an existing intake south of the Rockville Bridge in Susquehanna Township, Dauphin County, a maximum of 12.0 mgd from Stony Creek at an existing intake in the Borough of Dauphin, Dauphin County with a combined maximum withdrawal of 17.0 mgd from both sources. Also, it grants the right to withdraw a maximum of

¹⁸ Rodney L. Nesmith, P.E., August 30, 2005, pp. 14.

4.5 mgd from Swatara Creek at an existing intake in the Borough of Hummelstown, Dauphin County. This permit was issued on August 30, 2005 for a period of 25 years and will expire in August 2030.

The Authority currently holds Water Allocation Permit No. WA 22-549B that allows for the right to withdraw a maximum of 3.0 million gallons per day (mgd) from the Susquehanna River at an existing intake located in the Borough of Steelton (Borough), Dauphin County.

VI. Determinations Before Granting Permit

Section 7 of the Water Rights Act of June 24, 1939 outlines the duties of the Commonwealth to investigate water allocation requests, consider conflicts of interest, and to give approval. Approval of the requested allocation shall be given where it is determined that the:

- A. Proposed new source of supply will not conflict with the water rights held by any other public water supply agency.
- B. Water and water rights proposed are reasonably necessary for the present purposes and future needs of the public water supplier making application.
- C. Taking of said water or exercise of water rights will not interfere with navigation.
- D. Taking of said water or exercise of water rights will not jeopardize public safety.
- E. Taking of said water or exercise of water rights will not cause substantial injury to the Commonwealth.

In cases of apparent conflicts of interest, the Commonwealth investigations shall consider the extent of conservation development and use of the existing sources of water to the best advantage.

The Department of Environmental Protection has reviewed the proposed allocation and considered all the issues requiring evaluation under Section 7 of the Water Rights Act. A summary of the findings and conclusions regarding these issues follows:

A. Conflicts with Water Rights of Other Agencies

The Department finds that there are no conflicts with the water rights of other agencies.

B. Present and Future Need for Water

The Department recognizes that this request is only sufficient as a supplemental source and as an emergency source since it isn't sufficient, in and of itself, to cover the normal demands of the system. SUEZ has further stated that the quantity of water purchased from the Authority is intended to provide a supply of water in times of emergency, peak use, or catastrophic event.

Since SUEZ has indicated that the four (4) interconnections with Capital Region Water, located in the City of Harrisburg, specifically in Penbrook Borough, and Susquehanna Township, are no longer utilized, at their request Permit Nos. WA-303F and WA-303H will be rescinded

C. Navigation

The Department finds that granting the allocation will have no adverse effect on navigation.

D. Public Safety

The Department finds that granting the allocation will have no adverse effect on public safety.

E. Environmental Issues

The Department finds that granting the allocation will have no adverse effect on the environment.

F. Conservation

All of United's sources and customer connections are metered. However, SUEZ's unaccounted-for water use in 2016 was 31 percent, which exceeds the Department's and SRBC's acceptable limits. Therefore, a permit condition is included requiring SUEZ to reduce this loss.

SUEZ currently has both a Water Conservation and Drought Contingency Plan and a Non-Revenue Water Reduction Plan in place.

G. Antidegradation

The Pennsylvania Clean Streams Law and the implementing regulations at 25 Pa. Code Sections 93.4a(b) and 93.4c(a) require that existing uses of surface waters be maintained and protected. Existing use protection must occur at the time of permit issuance and for Water Allocation approvals, both the taking of water and the resultant wastewater production must be considered.

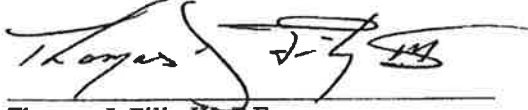
This source of supply is a bulk water purchase from the Authority and is not a new or increased direct taking from a surface water source. The Authority holds Water Allocation Permit No. WA 22-549B and has adequate supply of water to serve their customers and SUEZ. The Authority is not requesting an increased allocation under WA 22-549B to further support this interconnection.

Wastewater generated in the SUEZ's service area is not expected to increase as a result of this approval and will be treated at the seven (7) existing wastewater treatment plants noted in the 2005 permit, with wastewater generated from the interconnection primarily being treated at the Capital Region Water AWTF, as identified in the January 2016 water allocation permit application.

VII. Recommendations

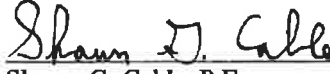
The application submitted by SUEZ Water Pennsylvania, Inc. has been carefully reviewed and considered. It is recommended that SUEZ be granted a permit for the right to purchase a maximum of 1.0 million gallons per day (mgd), based on a 30-day average, from the Steelton Borough Authority (Authority) through an existing interconnection located off Reservoir Road in Swatara Township, Dauphin County.

This report was prepared by:



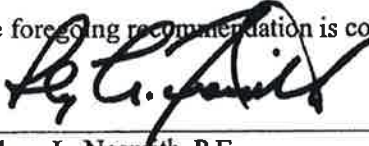
Thomas J. Filip III, P.E.
Environmental Engineer
Safe Drinking Water Program

This report was reviewed and is respectfully
submitted by:



Shawn G. Cable, P.E.
Environmental Engineer Manager
Safe Drinking Water Program

The foregoing recommendation is concurred in:



Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Date: 12.4.2017





SUSQUEHANNA RIVER
BASIN COMMISSION

NY PA MD USA

123 North Front Street Harrisburg, PA 17113-1001

January 24, 2018

RECEIVED
JAN 22 2018

Mr. Douglas E. Brown
Borough Manager
Borough of Steelton
123 North Front Street
Steelton, PA 17113

Re: Susquehanna River Basin Commission Approval – Docket No. 20171211:
Steelton Borough Authority;
Steelton Borough, Dauphin County, Pennsylvania;
PADEP Water Allocation Permit No. WA 22-549B

Dear Mr. Brown:

The Susquehanna River Basin Commission (Commission) has reviewed the permit application for Water Allocation Permit No. WA 22-549B and the permit issued to Steelton Borough Authority on October 18, 2017, by the Pennsylvania Department of Environmental Protection (PADEP). The Commission concurs with the October 18, 2017, permit as approved and conditioned by PADEP. Pursuant to Commission Regulation 18 CFR § 806.7 and the Memorandum of Understanding between the Commission and PADEP, this permit will also serve as your approval from the Commission under Commission Regulation 18 CFR Part 806, and is identified as Commission Docket No. 20171211.

Pursuant to Commission Regulation 18 CFR § 808.2 relating to administrative appeals, an appeal to this action must be made to the Commission within thirty (30) days of receipt of this notice. All appeals must be made in writing on the Commission's Notice of Appeal form and conform to the requirements of Commission Regulation 18 CFR § 808.2. Pursuant to Commission Regulation 18 CFR § 808.2(i), an appeal made under this section stays the commencement of the ninety (90)-day appeal period contained in Section 3.10(6) of the Susquehanna River Basin Compact.

Should you have any questions, please feel free to contact me at (717) 238-0423, extension 1234, or via e-mail at teaby@srbc.net.

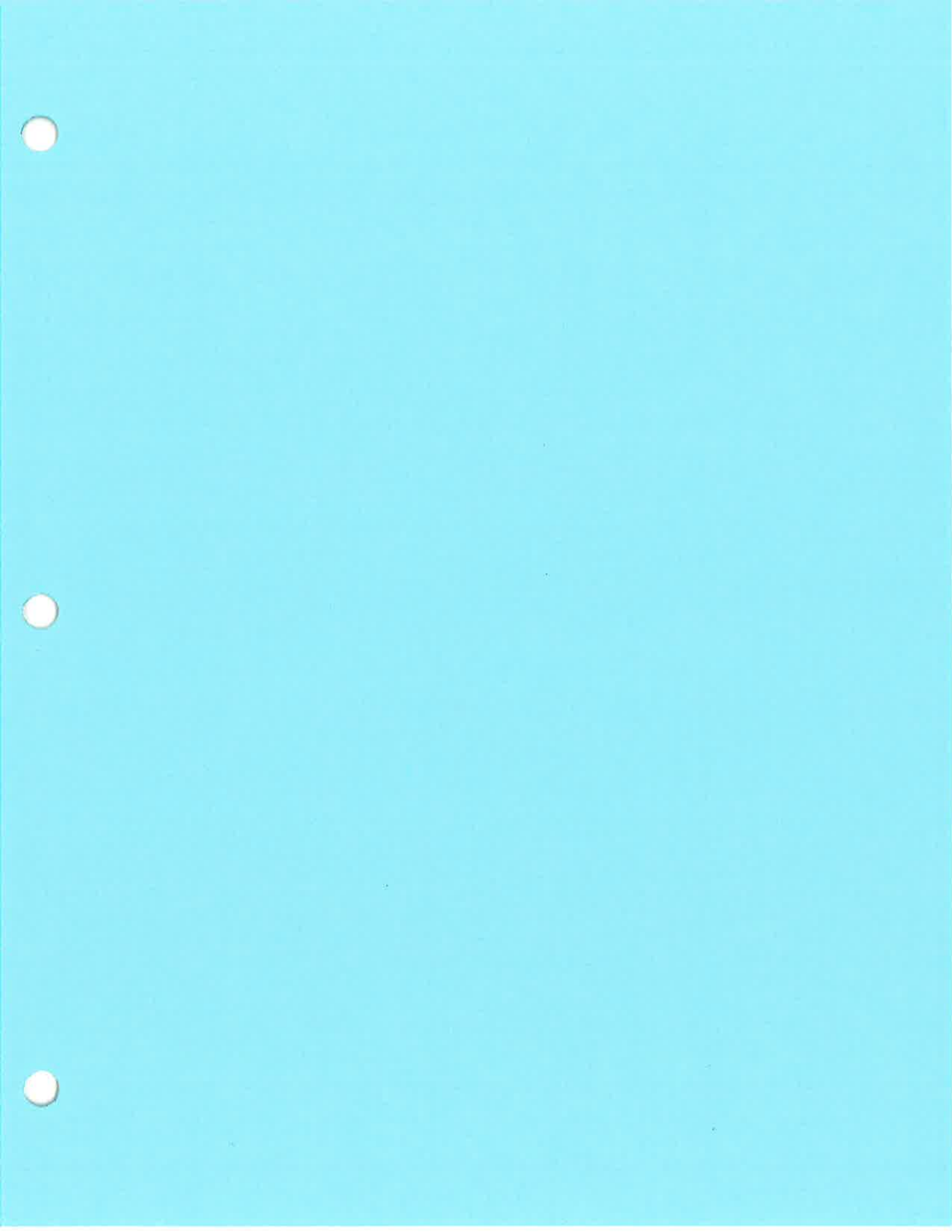
Sincerely,

Todd D. Eaby, P.G.
Manager, Project Review

cc: Allan Ausman – Steelton Water Authority
Thomas J. Filip III, P.E. – PADEP, South-central Regional Office

394510.1

A water resources agency serving
the Susquehanna River Watershed





SUSQUEHANNA RIVER
BASIN COMMISSION

NY PA MD USA

1000 Independence Ave., Harrisburg, PA 17103-2000 (717) 238-0423

January 24, 2018

RECEIVED
JAN 22 2018

Mr. Douglas E. Brown
Borough Manager
Borough of Steelton
123 North Front Street
Steelton, PA 17113

Re: Susquehanna River Basin Commission Approval – Docket No. 20171212;
Steelton Borough Authority;
Steelton Borough, Dauphin County, Pennsylvania;
PADEP Water Allocation Permit No. WA 22-1037A

Dear Mr. Brown:

The Susquehanna River Basin Commission (Commission) has reviewed the permit application for Water Allocation Permit No. WA 22-1037A and the permit issued to Steelton Borough Authority on October 23, 2017, by the Pennsylvania Department of Environmental Protection (PADEP). The Commission concurs with the October 23, 2017, permit as approved and conditioned by PADEP. Pursuant to Commission Regulation 18 CFR § 806.7 and the Memorandum of Understanding between the Commission and PADEP, this permit will also serve as your approval from the Commission under Commission Regulation 18 CFR Part 806, and is identified as Commission Docket No. 20171212. Additionally, Commission Docket No. 20110636 shall be considered expired effective October 23, 2017.

Pursuant to Commission Regulation 18 CFR § 808.2 relating to administrative appeals, an appeal to this action must be made to the Commission within thirty (30) days of receipt of this notice. All appeals must be made in writing on the Commission's Notice of Appeal form and conform to the requirements of Commission Regulation 18 CFR § 808.2. Pursuant to Commission Regulation 18 CFR § 808.2(i), an appeal made under this section stays the commencement of the ninety (90)-day appeal period contained in Section 3.10(6) of the Susquehanna River Basin Compact.

Should you have any questions, please feel free to contact Todd Eaby, Manager of Project Review, at (717) 238-0423, extension 1234, or via e-mail at teaby@srbc.net.

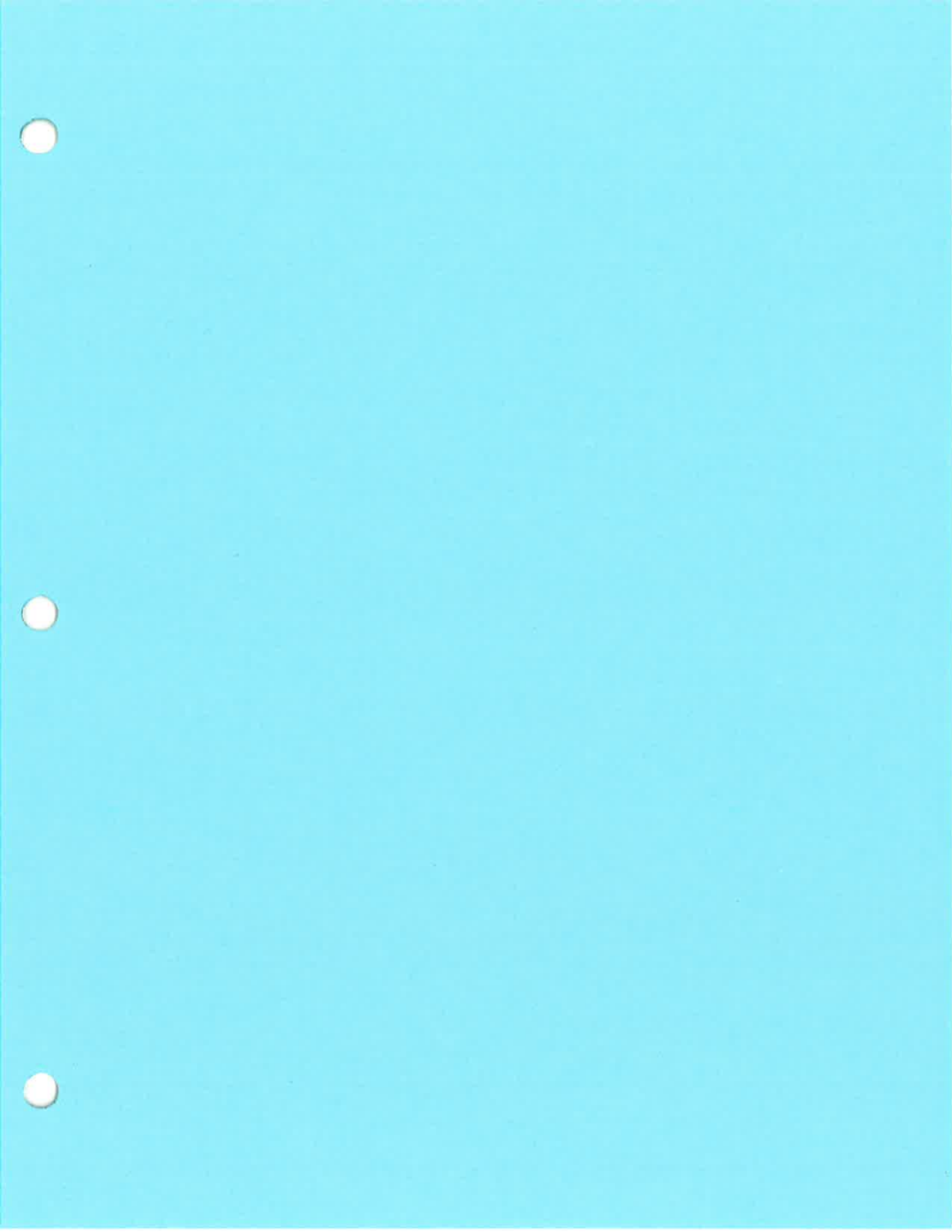
Sincerely,

Andrew D. Dehoff, P.E.
Executive Director

cc: Allan Ausman – Steelton Water Authority
Thomas J. Filip III, P.E. – PADEP, South-central Regional Office

394522.1

A water resource agency serving
the Susquehanna River Watershed





pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

2C

MAY 15 2017

Mr. Douglas E. Brown, Borough Manager
Borough of Steelton
123 N Front Street
Steelton, PA 17113

Re: Public Water Supply
Operation Permit Nos. 2209510 & 2204508
PWS ID No. 7220036
APS ID No. 710202 & 540040
Steelton Borough Authority
WTP Modifications & Kelker St. Pump Station
Steelton Borough, Dauphin County

Dear Mr. Brown:

Issuance of the enclosed operation permits is authorized in accordance with the provisions of the laws of the Commonwealth.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

If you want to challenge this action, your appeal must reach the Board within 30 days. You do not need a lawyer to file an appeal with the Board. Important legal rights are at stake, however, so you should show this document to a lawyer at once. If you cannot afford a lawyer, you may qualify for free Pro Bono representation. Call the Secretary to the Board (717.787.3483) for more information.

If you have any questions, please contact Mr. Thomas Filip at 717.705.4941.

Sincerely,

Rodney L. Nesmith, P.E.
Program Manager
Safe Drinking Water Program

Enclosures

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

PUBLIC WATER SUPPLY PERMIT

NO. 2204508

A. PERMITTEE: (Name and Address) Steelton Borough Authority 123 North Front Street Steelton, PA 17113		B. PROJECT/PLANT LOCATION Municipality <u>Steelton Borough</u> County <u>Dauphin County</u>	
C. THIS PERMIT APPROVES FOR: 1. <input type="checkbox"/> CONSTRUCTION 2. <input checked="" type="checkbox"/> OPERATION OF FACILITIES AS INDICATED BELOW: Approved Under Construction Permit No. <u>2204508</u>			
Source		Facilities	
<input type="checkbox"/> Well(s)	<input type="checkbox"/> Impoundment	<input type="checkbox"/> General Corrosion Control	<input type="checkbox"/> Bottled Water System
<input type="checkbox"/> Spring(s)	<input type="checkbox"/> Settling	<input type="checkbox"/> Corrosion Control for Lead/Copper	<input type="checkbox"/> Bulk Water Hauling System
<input type="checkbox"/> Surface Water	<input type="checkbox"/> Filtration	<input type="checkbox"/> Disinfection	<input type="checkbox"/> Vented Water System
<input type="checkbox"/> Finished Water	<input type="checkbox"/> Iron and Manganese Treatment	<input checked="" type="checkbox"/> Pump Station(s)	<input type="checkbox"/> Retail Water Facility
	<input type="checkbox"/> Softening	<input type="checkbox"/> Transmission Lines	
	<input type="checkbox"/> Fluoridation	<input type="checkbox"/> Finished Water Storage	
	<input type="checkbox"/> Distribution Facility	<input type="checkbox"/> Other _____	
KNOWN AS: <u>Kelker Street Pumping Station</u>			
LIMIT OF AUTHORIZATION			
YOU ARE HEREBY AUTHORIZED TO CONSTRUCT OR OPERATE, AS INDICATED ABOVE, PROVIDED THAT FAILURE TO COMPLY WITH CHAPTER 109, OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OR THE TERMS OR CONDITIONS OF THIS PERMIT SHALL VOID THE AUTHORITY GIVEN TO THE PERMITTEE BY THE ISSUANCE OF THE PERMIT.			
THE PLANS, SPECIFICATIONS, REPORTS AND SUPPORTING DOCUMENTS SUBMITTED AS PART OF THE PERMIT APPLICATION BECOME PART OF THE PERMIT.			
NO DEVIATIONS FROM APPROVED PLANS OR SPECIFICATIONS AFFECTING THE TREATMENT PROCESS OR QUALITY OF WATERS SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT.			
THIS PERMIT IS ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION UNDER THE AUTHORITY OF THE PENNSYLVANIA SAFE DRINKING WATER ACT, THE ACT OF MAY 1, 1984 (P.L. 206, NO. 43). OPERATION SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 109 ADOPTED UNDER THE AUTHORITY IN SECTIONS 4 AND 6(e) OF THE PENNSYLVANIA SAFE DRINKING WATER ACT.			
THIS PERMIT IS SUBJECT TO THE ATTACHED SPECIAL CONDITIONS: <u>N/A</u>			
PERMIT ISSUED		DEPARTMENT OF ENVIRONMENTAL PROTECTION	
Date <u>MAY 15 2017</u>		By <u>R. L. Nesmith</u>	
		Rodney L. Nesmith, P.E.	
		Title <u>Program Manager</u>	

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SAFE DRINKING WATER

INTERNAL REVIEW AND RECOMMENDATIONS

Name of Applicant	Steelton Borough Authority	Project Location	Steelton Borough Dauphin County	APS ID No.	540040	Permit No.	2204508
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BRIEF DESCRIPTION OF PROJECT AND DISCUSSION (Use Additional Sheets if Necessary)

This operation permit is for the replacement of the booster pumps and various sections of water main throughout Steelton Borough approved under PWS Construction Permit No. 2204508 issued on April 15, 2005.

During the Department's Filter Plant Performance Evaluation (FPPE) conducted on November 18, 2013 and a Sanitary Survey of the water system the Department discovered significant violations of the Safe Drinking Water Act and its Regulations as well as violations of the Authority's construction permits and failure to obtain operation permits. Thus, on March 31, 2014, the Authority entered into a Consent Order & Agreement (CO&A) with the Department. The CO&A was subsequently amended on November 21, 2014. The CO&A was terminated on August 21, 2015.

The construction permit, as issued on April 15, 2005, was for the replacement of two (2) existing booster pumps and the installation of chlorine booster station at the Authority's existing Kelker St. pumping station. While the pumping station is currently operational, only the booster pumps were replaced. Only one Hach Cl-17 unit was installed. No other chlorination equipment was installed at the facility. Department inspection reports, dating from at least 2010, indicate that booster chlorination equipment at this location was not installed. This operation permit doesn't provide any provision for the installation or operation of booster chlorination at this location.

The Certificate of Construction/Modification was received on April 29, 2014. All bacteriological testing results for the permit were received on April 29, 2014.

The construction permit was published in the May 7, 2005 issue of the Pennsylvania Bulletin. No Comments were received.

From previously issued construction permit IR&R issued April 15, 2005:

This permit is in response to an application filed with the Department on November 2, 2004. The submitted application requested the addition of a chlorine booster station, replacement of the existing booster pumps and water line replacement.

Water Line Replacement:

The Authority will be replacing various sections of main throughout the system. Approximately 7,790 ft of main will be replaced, per drawings, with 3,078 ft of 8", 4,176 ft of 12" and 536 ft of 10". In addition the Authority will be installing check valves at various locations to create a high service area in an effort to increase the pressure in this area from less than 25 psi to approximately 40 psi. In addition a section of 6" main and a check valve chamber will be installed at the Steelton-Highspire High School.

Booster Pump Replacement:

The two (2) existing booster pumps will be replaced. They will be replaced by two (2) new pumps which meet design points of 150 gpm @ 85' TDH, 480 gpm @ 75' and 860 gpm @ 50'. A direct replacement would be an Aurora Series 410 (4x5x11A) with a 20 HP motor at 1800 rpm. The motor will be controlled by a VFD.

Chlorine Booster Station:

This will be a sodium hypochlorite feed system consisting of two (2) chemical metering pumps and two (2) chlorine analyzers to supplement the chlorine residual in the distribution system. Based upon the design, chlorine could be injected in either of two (2) locations. The first location will be in a new chemical feed chamber located on the tank supply line while the second location will be in the booster pump building in the pump supply line.

INTERNAL REVIEW AND RECOMMENDATIONS

Steelton Borough Authority
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The Authority anticipates that this system will only operate during the summer months and only utilize a minimal amount of chlorine to increase residuals to the eastern part of the system.

Chlorination equipment:

1. Two (2) LMI/Milton Roy Model A9 chemical metering pumps.
2. One (1) 50-gallon chemical storage tank.
3. Two (2) Hach Model CL17 chlorine analyzers. (One CL17 will be provided for each metering pump)

A PNDI search wasn't conducted since all proposed work would occur on previously disturbed land or within existing structures.

Acts 67 & 68 Land Use notifications were provided to Dauphin County and the Borough of Steelton. The notices were undated. The return receipts were dated November 24, 2004.

This application was published in the December 4, 2004 issue of the Pennsylvania Bulletin. No comments were received.

RECOMMENDATION and ACTION

Approved	Denied	Signature	Date
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Thomas J. Filip III, P.E. ENVIRONMENTAL ENGINEER <i>Thomas J. Filip III</i>	May 12, 2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Shawn G. Cable, P.E. ENVIRONMENTAL ENGINEER MANAGER <i>Shawn G. Cable</i>	06.12.2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Rodney L. Nesmith, P.E. ENVIRONMENTAL PROGRAM MANAGER <i>Rodney L. Nesmith</i>	5.15.2017

Hydrogeology IR&R: Attached? Yes N/A