



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

APR - 5 2019

William Murray, Executive Director
Reading Area Water Authority
1801 Kutztown Road
Reading, PA 19604

Re: Public Water Supply
Permit No. 3060059
PWS ID No. 3060059
APS ID No. 930039
Auth ID No. 1267592
Reading Area Water Authority
18th Ward Booster Station Pump No. 1 New Motor
Ontelaunee Township, Berks County

Dear William Murray:

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

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board) pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S., § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800.654.5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717.787.3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

William Murray
Reading Area Water Authority

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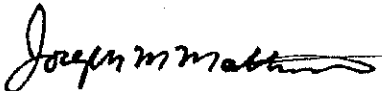
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IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717.787.3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions, please contact Nicholas Pyo at 717.705.4923.

Sincerely,



Joseph M. Mattucci
Acting Program Manager
Safe Drinking Water Program

Enclosures

cc: Thomas L. Weld, Jr., P.E., BCM Engineers

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

PUBLIC WATER SUPPLY PERMIT

NO. 3060059

A. PERMITTEE: (Name and Address)

Reading Area Water Authority
 1801 Kutztown Road
 Reading, PA 19604

B. PROJECT/PLANT LOCATION

Municipality Bern Twp., Cumru Twp., Lower Alsace Twp.,
 Muhlenberg Twp., Ontelaunee Twp.,
 Kenhorst Boro., & City of Reading
 County Berks County

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

2. OPERATION OF FACILITIES
 Approved Under Construction Permit No. See Permit History

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

KNOWN AS: Reading Area Water Authority

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 through 5

PERMIT ISSUED

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Date APR - 5 2019

By Joseph M. Mattucci
 Joseph M. Mattucci

Title Acting Program Manager

SAFE DRINKING WATER PROGRAM
Reading Area Water Authority
Permit No. 3060059

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

1. In accordance with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2), the Maiden Creek surface water source water has been classified as a Bin 2 source water at the point of taking. As such, RAWA is required to provide an additional 1-log (90%) of treatment for *Cryptosporidium*, for a total of at least 4-log (99.99%) treatment in any month the Maiden Creek source is used. RAWA will meet this requirement using Combined Filter Effluent (CFE) performance and Individual Filter Effluent (IFE) performance Toolbox Options, as outlined in 25 PA Code, Sections 109.1204 (g) and (h), respectively. RAWA will receive the following credits only when all applicable conditions are met:
 - A. 0.5-log *Cryptosporidium* treatment credit if CFE turbidity is less than or equal to 0.15 NTU in at least 95 percent of measurements taken each month, and
 - B. 0.5-log *Cryptosporidium* treatment credit, which can be in addition to the 0.5-log CFE credit, if IFE turbidity is less than or equal to 0.15 NTU in at least 95 percent of monthly measurements taken at 15-minute intervals from each filter and is never greater than 0.3 NTU in two consecutive 15-minute interval measurements from any filter.
2. The water quality parameter (WQP) performance requirements for pH/alkalinity adjustment and zinc orthophosphate addition are:
 - A. Entry point pH of 7.6 plus or minus 0.3 pH units.
 - B. Distribution system pH of 7.6 plus or minus 0.5 pH units.
 - C. Minimum entry point alkalinity target of 40 mg/l as CaCO₃.
 - D. Minimum distribution system alkalinity target of 45 mg/l as CaCO₃.
3. The approved coagulant chemicals are:
 - A. Potassium Aluminum Sulfate (Alum) or,
 - B. Cationic polymer solution containing the following with concentration by weight:
 - i) Aluminum chloride hydroxide sulfate (CAS No. 32920-78-3) 27.5-32.5%.
 - ii) Poly (dimethylamine-co-epichlorohydrin-co-ethylenediamine) (CAS No. 42751-79-1) 1-6%.
4. The permittee shall notify the Department's Reading District Office via telephone at 610.916.0100 prior to any change of the coagulant chemical.
5. The permittee shall develop and maintain an effective backflow prevention program to ensure that backflow may not occur at any time from any location at the Birdsboro power plant into the permittee's distribution system.

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 Reading Area Water Authority
 Public Water Supply Permit No. 3060059

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Permit History

Permit No.	Date	Description
3060059	APR - 5 2019	Comprehensive operation permit to approve the use rehabilitated Booster Pump No. 1 at the 18 th Ward Booster Station.
0616512	4/4/2019	Partial operation permit for the use of rehabilitated Filter No. 8.
0619502 MA	4/2/2019	Operation permit for the use of the new chemical injection pumps and emergency electrical generator installed at the 18 th Ward Booster Station.
0619502 MA	3/13/2019	Construction permit for the approval to install new chemical injection pumps and an emergency electrical generator at the 18 th Ward Booster Station.
0616512	2/6/2019	Partial operation permit for the use of the rehabilitated Filter No. 6.
0616515	2/6/2019	Partial operation permit for the use of the rehabilitated 18 th Ward Booster Station.
0619501 E	1/15/2019	Emergency construction/operation permit for the use a hydrant-to-hydrant transfer of purchased water from Leesport Borough Water Authority to serve Ontelaunee Township Municipal Authority.
0616512	12/31/2018	Partial operation permit for the use of the rehabilitated Filter No. 1.
0616515	12/31/2018	Partial operation permit for the use of the approximate 7,000 LF of new 16" water main installed along Route 10.
0618525 MA	12/6/2018	Construction permit for the approval to replace the existing south siphon chamber.
0616515	11/14/2018	Partial operation permit for the use of 6,700 LF of 16" existing piping located between Buttonwood Street and Bingman Street, which was cleaned and relined.
0616515	10/24/2018	Partial operation permit for the use of the metering facility and water mains along SR 724 from Cedar Hill Road to Birdsboro Power, LLC.
3060059	10/23/2018	Comprehensive operation permit to provide the required additional 1-log <i>Cryptosporidium</i> treatment for the Maiden Creek source. This will be done by implementing control of the Combined Filter Effluent turbidity and the Individual Filter Effluent turbidity limits.
0616515	8/21/2018	Partial operation permit for the use of new 16" and 12" transmission main along River Road.
0618514 E	5/31/2018	Emergency construction/operation permit to temporarily fix a crack on the south siphon chamber.

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Permit No.	Date	Description
0616515	2/28/2018	Construction permit for the expansion of the distribution system to serve Birdsboro Power LLC. Includes modifications to the existing 18 th Ward Booster Station, installation of three (3) new sections of water mains, and construction of a new meter building at the Birdsboro Power LLC site.
0616512	2/13/2018	Reissued construction permit for the installation of new stainless-steel underdrain systems and new filter media and support gravel in the eight (8) existing filters. This permit eliminated the previously proposed air scour system replacement.
3060059	12/14/2017	Comprehensive operation permit to include rehabilitated Sedimentation Basin Nos. 1, 2, and 3.
0615510 MA	9/26/2017	Operation permit for the Northwest Reservoir No. 2 finished water storage tank.
0615506 MA	6/19/2017	Partial operation permit for Sedimentation Basin Nos. 2 and 3.
0616512	3/13/2017	Construction permit for the rehabilitation of the eight (8) existing dual-cell filters. Includes new air scour system, filter media and support gravel, and inspections of each filter.
0615506 MA	12/21/2016	Partial operation permit for Sedimentation Basin No. 3.
0615510 MA	1/20/2016	Construction permit for the rehabilitation of Northwest Reservoir Tank No. 2 Rehabilitation.
0615506 MA	6/22/2015	Construction permit for the rehabilitation of the existing sedimentation basins located at the treatment building.
3060059	3/18/2015	Comprehensive operation permit to include the approval to use a cationic polymer coagulant.
3060059	12/18/2014	Comprehensive operation permit to include facilities constructed under PWS Permit Nos. 0610513 MA and 0611511.
3060059	1/27/2012	Comprehensive operation permit to include facilities constructed under PWS Permit No. 0608515.
0610513 MA	11/7/2011	Construction permit for Robeson Township water main extension.
3060059	9/14/2011	Comprehensive operation permit to include facilities constructed under PWS Permit No. 0609515.
0609515 E	8/10/2011	Emergency permit to temporarily operate the replacement raw water source pumps to pump water directly from Maiden Creek due to high manganese levels in Lake Ontelaunee. These facilities were constructed under PWS Permit No. 0609515.
0611511	8/10/2011	Construction permit for a chlorine booster station and a chlorine analyzer station for the Robeson Township transmission main extension.

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Permit No.	Date	Description
3060059	8/9/2011	Comprehensive operation permit to include sodium hypochlorite addition at the Ames Way Booster Pumping Station.
3060059	1/20/2011	Comprehensive operation permit to include 18 th Ward Booster Pumping Station.
0610529	1/12/11	Construction Permit for sodium hypochlorite addition at the Ames Way Booster Pumping Station.
0609515	2/16/10	Replacement of raw water source pumps to pump water directly from Maiden Creek.
3060059	2/16/10	Comprehensive operation permit to include rebuilt Filter Cells 3A & 3B.
0609502 MA	11/16/09	Construction permit for Bern Township water main extension.
0609505	9/9/2009	Construction permit for the 18 th Ward Booster Pumping Station.
0608515	3/25/2009	Construction permit for the addition of alum storage and transfer pumping facilities.
0608511 MA	11/13/2008	Construction permit to rebuild Filter Cells 3A & 3B.
3060059	8/16/07	Comprehensive operation permit to include Phase 2 of the Ontelaunee Township transmission main and booster station.
3060059	5/22/2007	Comprehensive operation permit for the Reading Area Water Authority PWS system. This permit updated the Water Quality Parameter Performance Requirements for caustic soda addition.
0606510 MA-T1	3/20/2007	Transfer of ownership of the St. Joseph Hospital Interconnection.
0603513 MA-T1	3/20/2007	Transfer of ownership of the West Shore Region Interconnection.
0607502 MA	4/9/2007	Construction permit for screen house and raw water piping rehabilitation project.
0605519	5/10/2006	Construction permit for Phase 2 of the Ontelaunee Township transmission main and booster station.
0604502 MA	12/15/2005	Operation permit for the upgrades to the disinfection system.
0603515 MA	12/15/2005	Operation permit for the caustic soda addition facilities.
0603520	10/20/2005	Operation permit for Phase 1 of the Ontelaunee Township transmission main and booster chlorination station.
0603520	5/21/2004	Construction permit for Phase 1 of Ontelaunee Township transmission main. Includes a booster chlorination station.

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Permit No.	Date	Description
0604502 MA	5/11/2004	Construction permit for upgrades to existing chlorination system.
0603515 MA	12/31/2003	Construction permit for caustic soda addition facilities at the Maiden Creek Treatment Plant.
0603501	7/7/2003	Operation permit for the Lombard Street booster pump station.
0603501	4/25/2003	Construction permit for the Lombard Street booster pump station to send more water to the 17 th Street standpipe.
0601518	5/15/2002	Operation permit for corrosion control by addition of ortho/polyphosphate at the filter plant and 2 zinc orthophosphate booster stations.
0601518	12/11/2001	Construction permit for corrosion control by addition of ortho/polyphosphate at the filter plant and two (2) zinc orthophosphate booster stations.
0600508 MA	8/29/2000	Six (6) operational changes. Full scale caustic study extension approved 6/30/03.
3060059	3/16/1999	Comprehensive operation permit for the Reading Area Water Authority PWS system. This permit updated the sludge handling facilities at the Maiden Creek Filter Plant.
3060059	3/18/1998	Comprehensive operation permit for the Reading Area Water Authority PWS system. This permit updated the Water Quality Parameter Performance Requirements.
0697502	7/25/1997	Construction permit for the addition of sludge handling facilities at Maiden Creek Filter Plant.
3060059	6/18/1997	Modifications to clearwell basin. Eliminate chambers 6 through 10.
3060059	3/26/1997	Rehabilitation of Northwest Reservoirs, replace Bingaman Street and Penn Street transmission lines.
3060059	8/14/1996	Comprehensive operation permit including chemical change to T.P.C. Virachem 932.
3060059	5/8/1995	Transfer comprehensive operation permit from the City of Reading to the Reading Area Water Authority.
0690503	12/14/1994	Chemical change to T.P.C. 532 inhibitor.
0690507	3/30/1993	Chlorine evaporator, aqua ammonia system and prechlorination capability.
668W006	7/29/1992	Lining of Clearwell #1.
0691501	5/11/1992	Operation permit for chlorine booster station at Northwest Reservoir.

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Permit No.	Date	Description
0691514	9/25/1991	Operation permit for Booster pump station on Hill Road.
0690503	8/2/1991	Change to Calciquest inhibitor.
0691501	4/9/1991	Construction permit for addition of a chlorine booster station at Northwest Reservoir.
0690507	7/10/1990	Construction/operation permit for Improvements at Maiden Creek Filter Plant including filter and chlorine-ammonia upgrades.
0690503	4/26/1990	Chlorine booster stations at Tenth and South, Route 183, Schlegel Park and High Service #1, and Aquamag addition.
668W006	5/13/1968	Four (4) filter beds, treatment of waste in lagoons, misc. improvements.
8397W	9/22/1954	Two (2) filter beds, chlorine building, alternate intake, misc. improvements.
1540W	10/14/1952	Fluoridation-.
7435	12/13/1938	High Service Reservoir #2.
6890	11/6/1935	15 MG Hegel-Gehl Reservoir.
6829	8/8/1935	10 MG Neversink Reservoir.
6409	11/18/1933	Design of filter plant with six (6) filter beds.
P6251	8/26/1932	Filter Plant.
P6093	5/26/1932	System purchased by City of Reading from the Angelica Water and Ice Co.
5187	12/23/1927	Impounding dam on Maiden Creek, design and plans for a 40 MGD filter plant.