



State of New Jersey

CHRIS CHRISTIE
GOVERNOR

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
COMMISSIONER

KIM GUADAGNO
LT. GOVERNOR

Mail Code 401-04Q
Division of Water Supply & Geoscience
New Jersey Geological and Water Survey Element
Bureau of Water Allocation & Well Permitting
401 E. State Street - P.O. Box 420
Trenton, New Jersey 08625-0420
Tel #: (609) 984-6831 - Fax #: (609) 633-1231
<http://www.nj.gov/dep/watersupply/>

September 11, 2017

Pennsville Twp Water Dept
110 Industrial Rd
Pennsville, NJ 08070
Attn: Jack Lynch

Dear Mr. Lynch:

Re: **Water Allocation Permit - Renewal**
Program Interest ID/ Permit No. 5047
Activity No. WAP160001

Enclosed is a permit issued pursuant to the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq. This permit becomes effective on October 1, 2017 and is to divert water from 8 wells in the following Municipality and County:

MUNICIPALITY	COUNTY
Pennsville Twp	Salem

Please note, a couple of changes have been made to the Permit Inventory, Permit Requirements and Staff Report to reflect the re-permitting of Well 8, Well Permit Number 3000012164, a test well to Well Permit Number E201112577, a public community supply well. Please make any future references to Well 8's Permit Number as E201112577.

5047 is your Program Interest ID and WAP160001 is your Permit Activity Number, and will appear on all forms and correspondence from the Bureau of Water Allocation & Well Permitting. Reference your Program Interest ID and Activity No. in all correspondence.

Be advised that as you are responsible for complying with the terms and conditions of the enclosed permit you should review them thoroughly. Failure to comply with any or all of the terms and conditions could result in penalties and/or revocation of the permit.

Within 20 calendar days following your receipt of this permit you may submit a request for an adjudicatory hearing to contest the conditions of this permit. Regulations regarding the format and requirements for requesting an adjudicatory hearing may be found in N.J.A.C. 7:19-2.13.

To request a hearing, the permittee must complete the enclosed Tracking Form and supply all the information specified in Part III of the Tracking Form. A copy of the completed, signed and dated Tracking Form, together with all of the information required by Part III of the Tracking Form, including attachments where specified, must be submitted to:

1. Janis Hoagland, Director
New Jersey Department of Environmental Protection
Office of Legal Affairs
P.O. Box 402
Trenton, New Jersey 08625

2. Terry D. Pilawski, Chief
New Jersey Department of Environmental Protection
Mail Code 401-04Q
Division of Water Supply & Geoscience
Bureau of Water Allocation & Well Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420

Very truly yours,



Terry D. Pilawski, Chief
Bureau of Water Allocation & Well Permitting

Enclosure

Certified Mail No.: 7015-1730-0001-2030-2079

C: Bureau of Water Allocation & Well Permitting
Southern Bureau of Water Compliance & Enforcement
David Kovach, Delaware River Basin Commission
Catherine Foley, BWAWP



State of New Jersey
Department of Environmental Protection
Bureau of Water Allocation & Well Permitting
PO Box 426, Trenton, New Jersey 08625-0426



Water Allocation Permit

The New Jersey Department of Environmental Protection grants this permit* in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents.

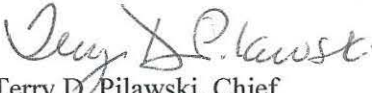
Program Interest ID/ Permit Number: 5047 Activity Number: WAP160001	Issuance Date: 09/11/2017	Effective Date: 10/01/2017	Expiration Date: 09/30/2027
Name and Address of Applicant PENNSVILLE TWP WATER DEPT 110 Industrial Rd Pennsville, NJ 08070	Location of Activity/Facility Pennsville Twp Salem		
	Type of Permit Water Allocation Permit - Renewal		Statute(s) N.J.S.A. 58:1A-1

This permit grants permission to divert water from the approved sources in the attached permit inventory, in the following municipalities, for the following water uses:

MUNICIPALITY Pennsville Twp	COUNTY Salem	Water Uses: Public Community Supply
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This permit is subject to the attached Conditions.

Approved by the authority of:
Bob Martin, Commissioner
Department of Environmental Protection


Terry D. Pilawski, Chief
Bureau of Water Allocation & Well Permitting

9/11/12
Date

* Permit means Certification, Approval, Registration, Equivalency, etc.

9/8/2017

STAFF REPORT
PERMIT RENEWAL WITH MINOR MODIFICATION

In the matter of:
Pennsville Township Water Department
Water Allocation Permit No. 5047

Pennsville Township
Salem County

In compliance with the provisions of N.J.S.A. 58:1A-1 et seq., Pennsville Township Water Department filed an application with the Department of Environmental Protection on March 31, 2016 for the Renewal of Water Allocation Permit No. 5047.

Background

On December 1, 2009 Water Allocation Permit No. 5047 was issued to Pennsville Township Water Department, 110 Industrial Rd, Pennsville, New Jersey, 08070 with an expiration date of September 30, 2015. Pursuant to the Permit Extension Act the expiration date was extended to June 30, 2016.

This permit approved the diversion of water from eight wells in the above noted Municipality and County.

The renewal application filed on March 31, 2016 requests the renewal of the privilege to divert the following:

Allocation Limits

From	Designation	Parameter	Limit
5047 WA PERMIT - ALL DIVERSION SOURCES	PENNSVILLE TWP WATER DEPT	Water Diverted	<= 580 Million Gallons Per Year
5047 WA PERMIT - ALL DIVERSION SOURCES	PENNSVILLE TWP WATER DEPT	Water Diverted	<= 54.25 Million Gallons Per Month
5047 WA PERMIT - ALL DIVERSION SOURCES	PENNSVILLE TWP WATER DEPT	Maximum Diversion Rate	<= 2940 Gallons Per Minute

Approved Sources and Maximum Diversion Rates

Groundwater

Well Permit No.	Well Name or Designation	Subject Item ID	Pump Capacity (gpm)	Aquifer
5000000041	WELL 1	WSWL70417	250	Middle Potomac-Raritan-Magothy
3000000018	WELL 2	WSWL66928	400	Middle Potomac-Raritan-Magothy
3000005148	WELL 3A	WSWL67102	700	Upper Potomac-Raritan-Magothy
3000018892	WELL 4R	WSWL824635	500	Upper Potomac-Raritan-Magothy
3000016136	WELL 5R	WSWL215958	500	Upper Potomac-Raritan-Magothy
3000003013	WELL 6	WSWL67059	700	Upper Potomac-Raritan-Magothy
3000012165	WELL 7	WSWL176818	350	Middle Potomac-Raritan-Magothy
E201112577 ⁽¹⁾	WELL 8	WSWL176817	400	Middle Potomac-Raritan-Magothy

⁽¹⁾ Drilled in 1998 under Well Permit Number 3000012164 and repermited in 2011. Corrected the aquifer from Upper to Middle.

Findings of Fact

1. The diversion is used for Public Community Supply and serves the following community: Pennsville Township.
2. This application request is for a renewal of an allocation granted by the following:

Allocation Permit No.	Date Issued	Source of Water	Diversion Amount	
			(MGM)	(MGY)
5047	12/01/2009	eight wells	54.25	580
5047	10/01/2005	eight wells	54.25	580
5047	6/12/2001	six wells	54.25	580
5047	10/16/1992	six wells	54.25	580.067
5047	10/05/1998	six wells	54.25	580.067
1771	6/19/1978	five wells	54.25	---
1207	12/17/1964	four wells	1.75 mgd	---
859	6/08/1955	three wells	0.75 mgd	---
688	6/16/1952	two wells	0.45 mgd	---

3. The applicant's diversion is not located within a designated Area of Critical Water Supply Concern.
4. A review of quarterly diversion reports indicates the following water use:

Year	Annual Use (mg)	Maximum Monthly Use (mg)	Average Monthly Use (mg)	Existing Allocation	
				(MGM)	(MGY)
2016	366.885	39.054 (Aug)	30.574	54.25	580
2015	366.053	34.007 (May)	30.504	54.25	580
2014	342.170	33.470 (May)	28.514	54.25	580
2013	270.870	27.950 (May)	22.573	54.25	580
2012	327.810	35.870 (Jul)	27.318	54.25	580
2011	311.670	39.780 (Jul)	25.973	54.25	580

5. The population served is approximately 11,888, which represents an average monthly consumption of 56 gpcd, and a peak monthly consumption of 63 gpcd based upon 2015 water use data, with a 68 percent residential use component.
6. The following information is available for the applicant's diversion sources:

Well Locations

Well Permit No.	Well Name or Designation	Elevation Above Mean Sea Level – US FEET	Location
5000000041	Well 1	6	6 Water Street
3000000018	Well 2	5	Bensen Avenue
3000005148	Well 3A	7	50 Heron Street
3000018892	Well 4R	10	2 Sanderlain Road
3000016136	Well 5R	10	Fort Mott & Tufts Road
3000003013	Well 6	10	Wingate & Heron Avenue
3000012165	Well 7	10	Off Rt. 49 near Church Landing Road
E201112577	Well 8	10	Rt. 49 & Churchtown Road

Well Data

Well Name/ Designation	Pump Capacity (gpm)	Aquifer	Drilling Completed Date	Finished Depth (feet)	Smallest Diameter (inches)
Well 1/ 5000000041	250	Middle PRM	1/02/1945	246	NA
Well 2/ 3000000018	400	Middle PRM	7/14/1949	232	10
Well 3A/ 3000005148	700	Upper PRM	6/21/1988	104	12
Well 4R/ 3000018892	500	Upper PRM	8/25/2006	140	14
Well 5R/ 3000016136	500	Upper PRM	4/18/2003	118	14
Well 6/ 3000003013	700	Upper PRM	9/17/1983	117	12
Well 7/ 3000012165	350	Middle PRM	9/03/1998	267	12
Well 8/ E201112577	400	Upper PRM	9/3/1998	144	12

Well Static Water Level Data

Well Name/ Designation	Historical Static Water Level Date	Level (feet)	Recent Static Water Level Date	Level (feet)
Well 1/ 5000000041	12/28/1999	54	6/2016	65
Well 2/ 3000000018	7/14/1949	36	6/2016	48
Well 3A/ 3000005148	5/18/1988	15.86	6/2016	11
Well 4R/ 3000018892	9/15/2006	20	6/2016	14
Well 5R/ 3000016136	5/30/2003	15.61	6/2016	23
Well 6/ 3000003013	7/17/1983	18	6/2016	10
Well 7/ 3000012165	9/15/1997	70	6/2016	72
Well 8/ E201112577	9/08/1997	20	6/2016	28

Well Chloride Data

Well Name/ Designation	Historical Chloride Level Date	Concentration (mg/l)	Recent Chloride Level Date	Concentration (mg/l)
Well 1/ 5000000041	3/21/1985	55	6/2016	61.5
Well 2/ 3000000018	3/21/1985	115	6/2016	128
Well 3A/ 3000005148	3/06/1990	35	6/2016	46.9
Well 4R/ 3000018892	9/2006	12.5	6/2016	17.8
Well 5R/ 3000016136	6/2003	10.4	6/2016	14
Well 6/ 3000003013	3/06/1990	34	6/2016	128
Well 7/ 3000012165	3/21/2000	92.67	6/2016	93.7
Well 8/ E201112577	3/21/2000	15.74	6/2016	38

Well Test Data (from Well Records)

Well Name/ Designation	Test Date	Static Level (feet)	Pumping Time (hours)	Yield (gpm)	Drawdown (feet)	Specific Capacity (gpm/ft drawdown)
Well 1/ 5000000041	NA	NA	NA	NA	NA	NA
Well 2/ 3000000018	7/14/1949	36	20	403	57	7.07
Well 3A/ 3000005148	5/18/1988	15.86	72	820	50.64	16.19
Well 4R/ 3000018892	9/15/2006	20	24	603	95	6.35
Well 5R/ 3000016136	5/30/2003	15.61	72	700	45.52	15.38
Well 6/ 3000003013	9/17/1983	18	48	708	22	32.18
Well 7/ 3000012165	9/15/1997	70	72	352	118.5	2.97
Well 8/ E201112577	9/08/1997	20	72	435	82	5.30

7. The applicant's diversion sources are located within: Planning Area No. 20, Salem River as designated by the New Jersey Water Supply Master Plan; the Southwest Drought Region; and Watershed Management Area No. 17, Maurice, Salem and Cohansey.

The diversion is in the Delaware River Basin. Previously, the Delaware River Basin Commission (DRBC) issued Docket No. D-2002-16-CP for this diversion. However, an Administrative Agreement (AA) between DRBC and the New Jersey Department of Environmental Protection became effective on December 9, 2015 upon DRBC's approval of the amendment to DRBC's Rules of Practice and Procedure to provide for a One Process/ One Permit Program. Therefore, in accordance with the AA, additional Text Requirements will be added to the allocation permit, which upon the effective date of the permit renewal will replace the conditions of the DRBC docket.

8. A site inspection was conducted on September 14, 2016. The following information was obtained during this inspection:

Source Name	Condition	Pump House Condition	Pump Type/ Horse Power	Air Line and Gage	Able to Measure Static Water Level By Tape	Meter Type	Meter Reading
WELL 1	good	good	Sub/15	Yes	Yes	No meter ⁽²⁾	NA
WELL 2	good	good	Vrt/40	Yes	Yes	No meter ⁽²⁾	NA

Source Name	Condition	Pump House Condition	Pump Type/ Horse Power	Air Line and Gage	Able to Measure Static Water Level By Tape	Meter Type	Meter Reading
WELL 3	good	good	Vrt/30	No	Yes	No meter ⁽²⁾	NA
WELL 4R	good	good	Vrt/40	Yes	Yes	Sparling	94782100
WELL 5R	good	good	Vrt/30	Yes	Yes	Sparling	22409400
WELL 6	good	good	Vrt/25	Yes	Yes	Sparling	748092000
WELL 7	good	good	Vrt/40	Yes	Yes	Sparling	22601100
WELL 8	good	good	Vrt/25	Yes	Yes	Sparling	70224700

(2)On the date of inspection, WELLS 1, 2 and 3 did not have totalizing flow meters. Subsequently these wells were equipped with temporary hour meters and replaced with totalizing flow meters. The applicant emailed pictures of the new totalizing flow meters on August 8, 2017.

9. Flow meters for all diversion sources have been calibrated within the past five years. The most recent dates of calibration are:

Source Name	Calibration Date
Well 1	3/14/2016 ⁽³⁾
Well 2	3/17/2016 ⁽³⁾
Well 3A	3/18/2016 ⁽²⁾
Well 4R	3/15/2016
Well 5R	3/16/2016
Well 6	3/18/2016
Well 7	3/19/2016
Well 8	3/19/2016

(3)The proof of meter calibration submitted for wells 1, 2 and 3 are for temporary hour meters as the Malfunctioning totalizing flow meters were removed several years ago. In late 2016 they were replaced with temporary hour meters. The applicant has since replaced the hour meters with totalizing flow meters.

10. The following wells have been abandoned, decommissioned, are inactive or unused:

Well Name	Well Permit No.	Depth (feet)	Status
Well 3	3000000451	101	Decommissioned (date unknown)
Well 4	3000001033	137	Decommissioned 6/11/1992
Unknown	Unknown	239	Decommissioned 1/12/1994
Unknown	Unknown	118	Decommissioned 1/12/2004
Unknown	Unknown	235	Decommissioned 1/12/2004
Unknown	3000002577 ⁽⁴⁾	150	Secured but not in use
Unknown	3000006717 ⁽⁴⁾	247	Secured but not in use
Unknown	3000007737 ⁽⁴⁾	230	Secured but not in use
Unknown	3000006210 ⁽⁴⁾	245	Secured but not in use

Well Name	Well Permit No.	Depth (feet)	Status
Well 4A	3000008335	134	Decommissioned 8/6/2007
Well 5	2800010466	125	Decommissioned 9/9/2003

⁽⁴⁾These wells must be decommissioned. A Decommissioning Schedule outlining a time frame of when these wells will be decommissioned must be submitted. All specified wells must be decommissioned within 2 years of the effective date of the permit.

11. The applicant failed to comply with permit conditions requiring that all diversion sources be metered with a totalizing flow meter. Wells 1, 2 and 3A were not equipped with totalizing flow meters during the September 14, 2016 site visit. Subsequently hour meters were installed which the permittee currently uses to estimate water use.
12. Water, after use, is discharged to Pennsville Township Sewer Authority for treatment and discharge to Delaware River under Permit No. NJ0021598. The treatment works are not under a sewer connection ban or other restriction imposed by NJDEP.
13. The system has no interconnections with adjacent systems.
14. The applicant has no agreements for the sale or purchase of water.
15. The system is 100 percent metered.
16. The applicant has indicated that their unaccounted-for-water is 25 percent.
17. The water system has storage capacity of 1.8 MG, as compared with a 2015 average water demand of 1.0 MGD.
18. The applicant submitted a Water Conservation Plan on May 3, 2016.
19. The estimated consumptive use of water is 100 percent, which could be equivalent up to 1.75 MGD based on the monthly allocation limit of 54.25 mg.

Staff Analysis/Conclusions

1. The applicant's failed to comply with permit condition requiring that all diversion sources be metered with a totalizing flow meter. Wells 1, 2 and 3A were not equipped with totalizing flow meters during the September 14, 2016 site visit. In a letter dated February 22, 2017, the applicant states that corrective action has been taken and that meters have been installed on these wells. However, the meters installed on the wells are hour meters, therefore, the applicant is still out of compliance with N.J.A.C. 7:19-2.14(a)4 and their 2009 permit. This matter has been referred to Enforcement. Proof of calibrated totalizing flow meters' installation for WELLS 1, 2 and 3A must be submitted within 60 days of this effective date of this permit.
2. The applicant's current water use is reasonable. However, 2015 unaccounted for water is 25 % which is elevated. In 2014, unaccounted for water was 8.6 % indicating a significant increase.
3. The applicant's current allocation is adequate to meet their future demands. Demand projections provided by the applicant indicate that their average ten year demands will be 31 MGM, and 366 MGY, with peak ten year demands of 40 MGM. Analysis of this in conjunction with historical water use and supporting documentation provided with the application shows that the existing allocation of 54.25 MGM and 580 MGY, should be more than sufficient to meet their needs.
4. Natural replenishment of ground water is probably occurring, as is illustrated by the findings of U.S. Geological Scientific Investigations Report 2013-5232. This report states that the Upper PRM aquifer southern segment of the regional cone of depression encompasses much of Burlington, Camden, Gloucester and eastern Salem Counties. From 2003 to 2008, water levels in this segment have remained stable or had recovered modestly. Pennsville Well 3A water levels from 1993 to 2008 have declined 1 foot. In the Middle PRM, the southwestern segment of the regional cone of depression encompasses most of Salem County. Groundwater altitudes were estimated to be highest in the south-central part of Salem County and measured water levels were lowest along the Delaware River and estuary where localized cones of depression are present in Pennsville. However, Pennsville Well 2 water level measurements have only declined 2 feet since 1978. According to Scientific Investigation Report 2011-5033, the largest change in water levels in the PRM aquifer were simulated in the full allocation scenario with a decrease of 23.3 feet in the Upper and Middle PRM and 21.4 feet in the Lower PRM as compared with the second largest change in water levels simulated in the adjusted full allocation scenario with a decrease of 6.7 feet in the Upper, Middle and Lower PRM.

In order to confirm this and given the recovery that has occurred within the Critical Area and adjacent areas coupled with the proposed increases in diversions in this region, static water level reports should continue to be required as a condition of this permit to determine future trends.

5. No adverse impacts have been reported to the Department regarding the applicant's diversion sources.
6. Analysis of applicant's chloride data indicates that chloride concentrations range from 10 to 145 mg/l in the PRM aquifer at this location. Salt water intrusion is not expected to occur because there will be no net increase in the diversion, the hydrogeologic setting and assuming that very slight increase in salinity of the aquifer over a time frame measurable in hundreds of years is tolerable. According to the Scientific Investigation Report 2011-5033, four areas in the study area have experienced acute problems with saline water. Chloride and Sodium concentrations in groundwater in the wells in these areas are near or above the secondary drinking water standard of 250 mg/L and 50 mg/L, respectively. The assessment of the movement of saline water in these problem areas indicates that the average travel time from the 250-mg/L isochlor to the Pennsville wells is several hundred years.

Due to the potential for elevated chloride concentration in the PRM Aquifer in the region the applicant should continue to be required to submit data on chloride concentrations so that significant changes can be identified and corrective action initiated if necessary.

7. No changes in diversion rates are proposed and no problems with groundwater contamination associated with the diversion have been reported to the Bureau.
8. Based upon the recommendations of DRBC staff, when the diversion is operated in accordance with the provisions and conditions recommended for this permit, the diversion should not substantially impair or conflict with the DRBC's Comprehensive Plan.
9. As the diversion is in the Delaware River Basin, the applicant is subject to DRBC reporting requirements.
10. Since this application includes diversion sources in the Delaware River Basin, the applicant may be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations.

11. WELL 8 was originally drilled under Well Permit Number 3000012164 and repermited under E201112577 in 2011 from a test well to a public community supply well.

Summary

The Department has completed its review of this application pursuant to N.J.A.C. 7:19-1 et. seq. The review of this application reveals that it does not have any adverse impacts and meets, based upon the information certified to in the application, the statutory requirements of N.J.S.A. 58:1A-1 et. seq.

Therefore, based upon a review of the information submitted with the application, and the existing water allocation files, the following conclusions have been reached regarding this application:

- The maximum diversion rate should be renewed at 2940 GPM.
- The monthly allocation limit should be renewed at 54.25 MGM.
- The annual allocation limit should be renewed at 580 MGY.
- Monthly static water level measurements should continue as a requirement of this permit.
- Quarterly chloride measurements should continue as a requirement of this permit.
- The applicant should contact the DRBC to determine what DRBC fees are applicable to the diversion.
- A Well Decommissioning Schedule outlining the time frame for decommissioning Wells associated with well permit numbers 3000002577, 3000006717, 3000007737 and 3000006210 should be submitted within 120 days of the effective date of this permit. All specified wells shall be decommissioned within 2 years of the effective date of this permit.
- A plan to reduce unaccounted for water to or below 15 % within 2 years should be submitted. The plan should include all calculations used to determine the percent of unaccounted-for-water and quantify the volume of any leaks found. Updates to this plan shall be submitted in the biennial Water Conservation Plan.
- The repermitting of Well 8 under Well Permit Number E201112577 should be approved.

Therefore, this application should be approved in accordance with the following recommendations as the applicant has satisfied the requirements of N.J.A.C. 7:19-2.4 et seq.

References

In addition to the historical information on file at the Bureau of Water Allocation & Well Permitting and the application submitted, the following information sources were also utilized to establish the recommendations contained within this Staff Report:

DePaul, V.T., and Rosman, Robert, 2015, Water-level conditions in the confined aquifers of the New Jersey Coastal Plain, 2008: U.S. Geological Survey Scientific Investigations Report 2013-5232, 107 p., 9 pl., <http://dx.doi.org/10.3133/sir20135232>.

Charles, E.G., Nawyn, J.P., Voronin, L.M., Gordon, A.D., 2011. Simulated Effects of Allocation and Projected 2025 Withdrawals from the Potomac-Raritan-Magothy Aquifer System, Gloucester and Northeastern Salem Counties, New Jersey. Scientific Investigations Report 2011-5033 , 145p.

DePaul, V.T., Rosman, Robert, and Lacombe, Pierre, 2003. Water -level conditions in selected confined aquifers of the New Jersey and Delaware Coastal Plain. Scientific Investigations Report 2008-5145.

Zapacza, Otto S. 1989. The Hydrogeologic Framework of the New Jersey Coastal Plain. U.S. Geological Survey Professional Paper 1404-B. Washington, D.C. United States Government Printing Office.

March 1, 2001. The New Jersey State Development and Redevelopment Plan. New Jersey State Planning Commission, Trenton, New Jersey.

August 1996. Water for the 21st Century: Vital Resource, New Jersey Statewide Water Supply Plan. New Jersey Department of Environmental Protection – Office of Environmental Planning, Trenton, New Jersey.

Recommendations

Issuance of the permit is recommended with an expiration date of 10 years from the effective date and is subject to the attached permit requirements:

Date:

9/8/2017

Catherine Foley, Environmental Specialist 3
Bureau of Water Allocation & Well Permitting

PENNSVILLE TWP WATER DEPT

5047

Water Allocation Permit : WAP160001

Permit Inventory

Water Diversion Sources - Water may be diverted under this permit from the following sources:

Source Designation (Well Permit No. or Intake No.)	Description	Subject Item ID
3000000018	WELL 2	WSWL0000066928
3000003013	WELL 6	WSWL0000067059
3000005148	WELL 3A	WSWL0000067102
5000000041	WELL 1	WSWL0000070417
E201112577	WELL 8	WSWL0000176817
3000012165	WELL 7	WSWL0000176818
3000016136	WELL 5R	WSWL0000215958
3000018892	WELL 4R	WSWL0000824635

Group Subject Items - The following items are grouped sources for the purpose of setting permit requirements outlined in this document:

Group Designation	Group Description	Group Subject Item ID	Group Members
PENNSVILLE TWP WATER DEPT	5047 WA PERMIT - ALL DIVERSION SOURCES	WSWA0000073400	MIDDLE PRM AQUIFER SOURCES, WELLS 1, 2, 7 & 8 (WARG755574)
			UPPER PRM AQUIFER SOURCES, WELLS 3A, 4R, 5R & 6 (WARG755576)
MIDDLE PRM AQUIFER SOURCES	WELLS 1, 2, 7 & 8	WARG0000755574	3000000018, WELL 2 (WSWL066928)
			5000000041, WELL 1 (WSWL070417)
			E201112577, WELL 8 (WSWL176817)
			3000012165, WELL 7 (WSWL176818)
UPPER PRM AQUIFER SOURCES	WELLS 3A, 4R, 5R & 6	WARG0000755576	3000003013, WELL 6 (WSWL067059)
			3000005148, WELL 3A (WSWL067102)
			3000016136, WELL 5R (WSWL215958)
			3000018892, WELL 4R (WSWL824635)

Permit Requirements

Limit Requirements

The following limits apply and are the maximum permitted allocation:

Final Permit Phase from 10/01/2017 -

Subject Item	Parameter	Limit
PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)	Maximum Diversion Rate	<= 2940 Gallons Per Minute. [N.J.A.C. 7:19- 2]
	Water Diverted	<= 54.25 Million Gallons Per Month. [N.J.A.C. 7:19- 2]
		<= 580 Million Gallons Per Year. [N.J.A.C. 7:19- 2]

Other Limit Requirements

Final Permit Phase from 10/01/2017 -

Subject Item	Parameter	Limit
3000000018, WELL 2 (WSWL66928)	Rated Pump Capacity	<= 400 Gallons Per Minute. [N.J.A.C. 7:19- 2]
3000003013, WELL 6 (WSWL67059)	Rated Pump Capacity	<= 700 Gallons Per Minute. [N.J.A.C. 7:19- 2]
3000005148, WELL 3A (WSWL67102)	Rated Pump Capacity	<= 700 Gallons Per Minute. [N.J.A.C. 7:19- 2]
5000000041, WELL 1 (WSWL70417)	Rated Pump Capacity	<= 250 Gallons Per Minute. [N.J.A.C. 7:19- 2]
E201112577, WELL 8 (WSWL176817)	Rated Pump Capacity	<= 400 Gallons Per Minute. [N.J.A.C. 7:19- 2]
3000012165, WELL 7 (WSWL176818)	Rated Pump Capacity	<= 350 Gallons Per Minute. [N.J.A.C. 7:19- 2]
3000016136, WELL 5R (WSWL215958)	Rated Pump Capacity	<= 500 Gallons Per Minute. [N.J.A.C. 7:19- 2]
3000018892, WELL 4R (WSWL824635)	Rated Pump Capacity	<= 500 Gallons Per Minute. [N.J.A.C. 7:19- 2]

Monitoring Requirements

Final Permit Phase from 10/01/2017 -

Subject Item	Requirement	Frequency	Monitored Parameter	Monitoring Method
3000000018, WELL 2 (WSWL66928)	Static water levels for each well indicated shall be monitored. [N.J.A.C. 7:19- 2]	Each Month	Static Water Level	Airline, Tape, or Gage

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Monitoring Requirements

Final Permit Phase from 10/01/2017 -

Subject Item	Requirement	Frequency	Monitored Parameter	Monitoring Method
3000003013, WELL 6 (WSWL67059)	Static water levels for each well indicated shall be monitored. [N.J.A.C. 7:19- 2]	Each Month	Static Water Level	Airline, Tape, or Gage
3000005148, WELL 3A (WSWL67102)				
5000000041, WELL 1 (WSWL70417)				
E201112577, WELL 8 (WSWL176817)				
3000012165, WELL 7 (WSWL176818)				
3000016136, WELL 5R (WSWL215958)				
3000018892, WELL 4R (WSWL824635)				
3000000018, WELL 2 (WSWL66928)	The monthly diversion from each source indicated shall be monitored. [N.J.A.C. 7:19- 2]	Each Month	Water Diverted	Meter
3000003013, WELL 6 (WSWL67059)				
3000005148, WELL 3A (WSWL67102)				
5000000041, WELL 1 (WSWL70417)				
E201112577, WELL 8 (WSWL176817)				
3000012165, WELL 7 (WSWL176818)				
3000016136, WELL 5R (WSWL215958)				
3000018892, WELL 4R (WSWL824635)				
3000000018, WELL 2 (WSWL66928)	A raw water sample from each well indicated shall be analyzed for chloride concentration. [N.J.A.C. 7:19- 2]	Quarterly in Mar; June; Sept; Dec	Chloride	Total sample
3000003013, WELL 6 (WSWL67059)				
3000005148, WELL 3A (WSWL67102)				

Monitoring Requirements

Final Permit Phase from 10/01/2017 -

Subject Item	Requirement	Frequency	Monitored Parameter	Monitoring Method
5000000041, WELL 1 (WSWL70417)	A raw water sample from each well indicated shall be analyzed for chloride concentration. [N.J.A.C. 7:19-2]	Quarterly in Mar; June; Sept; Dec	Chloride	Total sample
E201112577, WELL 8 (WSWL176817)				
3000012165, WELL 7 (WSWL176818)				
3000016136, WELL 5R (WSWL215958)				
3000018892, WELL 4R (WSWL824635)				

Record Keeping Requirements

Final Permit Phase from 10/01/2017 -

Subject Item	Requirement	Frequency	Monitored Parameter	Record Keeping Method
PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)	A log book of month end meter readings for each diversion source shall be maintained on site. [N.J.A.C. 7:19-2]	Each Month	Meter Reading	Log Book

Submittal/Action Requirements

Final Permit Phase from 10/01/2017 -

Applicable Subject Items	Submittal/Action Type	Requirement
3000000018, WELL 2 (WSWL66928)	Submit Public Quarterly Report	The required monitoring results shall be recorded on the form provided by the Department. The completed form shall be submitted within 30 days after the end of each quarter. [N.J.A.C. 7:19-2]
3000003013, WELL 6 (WSWL67059)		

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Submittal/Action Requirements

Final Permit Phase from 10/01/2017 -

Applicable Subject Items	Submittal/Action Type	Requirement
3000005148, WELL 3A (WSWL67102)	Submit Public Quarterly Report	The required monitoring results shall be recorded on the form provided by the Department. The completed form shall be submitted within 30 days after the end of each quarter. [N.J.A.C. 7:19- 2]
5000000041, WELL 1 (WSWL70417)		
E201112577, WELL 8 (WSWL176817)		
3000012165, WELL 7 (WSWL176818)		
3000016136, WELL 5R (WSWL215958)		
3000018892, WELL 4R (WSWL824635)		
PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)	Submit Well Decommissioning Schedule	The permittee shall submit a schedule to decommission Well Permit Numbers 3000002577, 3000006717, 3000007737 and 3000006210 in accordance with N.J.A.C. 7:9D-3. This schedule shall be submitted within 120 days of the effective date of the permit . All specified wells must be decommissioned within 2 years of the effective date of the permit. [N.J.A.C. 7:19- 2]
PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)	Submit Water Conservation and Drought Management Plan	The permittee shall continue to implement, to the satisfaction of the Department, a water conservation and drought management program. The program shall encourage water conservation in all types of use within the area served by the permittee, including actions taken pursuant to this program and the impact thereof. The plan shall specifically address measures Pennsville Township Water Department will take to reduce the percent of unaccounted-for-water to or below 15 % within 2 years. The plan should include all calculations used to determine the percent of unaccounted-for-water and quantify the volume of any leaks found. An update to the water conservation and drought management plan shall be submitted. Submit according to the following schedule: on or before May 31, 2018 and then prior to May 31, every other year thereafter. [N.J.A.C. 7:19- 2]
PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)	Submit Renewal Application	A renewal application shall be submitted three months prior to the expiration date. [N.J.A.C. 7:19- 2]

Text Requirements

All Phases

PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)

1. Water may be diverted under this renewed permit for public community supply. [N.J.A.C. 7:19- 2]
2. Water may be diverted under this permit only from the approved diversion sources at the maximum rates specified. [N.J.A.C. 7:19- 1]
3. A major modification of this permit may be required in order to request the approval of any additional diversion sources or an increase in the pumping capacity. [N.J.A.C. 7:19- 2]
4. All diversion sources shall be metered with a totalizing flow meter. [N.J.A.C. 7:19- 2]
5. At a minimum, each diversion source flow meter shall be calibrated at least once every five years. [N.J.A.C. 7:19- 2]
6. Each flow meter shall be calibrated to within five percent accuracy. [N.J.A.C. 7:19- 2]
7. All wells shall be equipped with a metal tag showing the well permit numbers (source designation) as listed in the allocation permit inventory or have the well permit numbers painted on the casings. [N.J.A.C. 7:19- 2]
8. The pumping equipment capacity shall not be increased without prior approval from the Bureau of Water Allocation and Well Permitting. [N.J.A.C. 7:19- 1]
9. Any well not intended for use shall be decommissioned in accordance with N.J.A.C. 7:9D-3.1 et seq. [N.J.A.C. 7: 9D- 3]
10. Any required chemical analysis shall be performed by a New Jersey Certified Laboratory. [N.J.A.C. 7:19- 2]
11. Static water level shall be measured and reported as depth to water, in feet, from ground surface. [N.J.A.C. 7:19- 2]
12. For pumping wells, static water level (depth to water) shall be taken when the well pump has been shut down for a recovery period of at least 12 hours. If the well cannot be shut down for the required period, it must be noted on an addendum to the Quarterly Monitoring Report form. Please note on the addendum the number of hours the well was shut down or that the reading is a pumping level. [N.J.A.C. 7:19- 2]
13. All new services shall be metered in accordance with all applicable laws, regulations or codes including, but not limited to, the Water Supply Management Act and the Delaware River Basin Commission Rules. [N.J.A.C. 7:19- 6]
14. All existing services shall be metered. [N.J.A.C. 7:19- 6]
15. Water charges for each service connection shall be based in part on metered usage. [N.J.A.C. 7:19- 6]
16. The monthly quantity of water transferred and delivered to/received from interconnections shall be reported as part of the water system monitoring on separate forms provided by the Department. [N.J.A.C. 7:19- 2]
17. The Department may modify, suspend or terminate this permit, after due process, for violations of permit conditions, N.J.S.A. 58:1A-1, N.J.A.C. 7:19-1 et seq., any orders issued by the Department, or when in the public interest. [N.J.A.C. 7:19- 2]
18. The permittee shall investigate to the Department's satisfaction complaints by users of wells or surface water supplies within the zone of influence of its diversion to determine what impact the diversion has had on such wells or surface water supplies. A report on these investigations shall be forwarded to the Bureau of Water Allocation and Well Permitting. Any well or surface water supply which becomes damaged, dry, has reduced capacity, reduced water quality or is otherwise rendered unusable as a water source as a result of the permittee's diversions shall be repaired or replaced at the expense of the permittee. Work shall be in accordance with all State, County and Municipal construction standards for potable water. After reviewing all applicable investigational reports the Department of Environmental Protection will make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and will determine how to resolve any problems resulting from the diversion. [N.J.A.C. 7:19- 2]
19. This permit is issued for a limited period, and is not subject to automatic renewal. [N.J.A.C. 7:19- 2]
20. The permittee is subject to such fees as may be prescribed by the regulations. [N.J.A.C. 7:19- 3]
21. The permittee shall have the right to apply at any time for modification of this permit by submission of the appropriate application forms. [N.J.A.C. 7:19- 2]
22. The permittee may informally discuss the terms and conditions of this permit at any time with the Bureau of Water Allocation and Well Permitting. [N.J.A.C. 7:19- 2]

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PENNSVILLE TWP WATER DEPT, 5047 WA PERMIT - ALL DIVERSION SOURCES (WSWA73400)

23. Based upon the written recommendation of the Delaware River Basin Commission (DRBC), when the water withdrawal is operated in accordance with the provisions and conditions established by this permit, then with respect to the water withdrawal, the project does not substantially impair or conflict with the DRBC's Comprehensive Plan (DRBC Compact § 3.8). [DRBC Resolution No. 2015-9]
24. In accordance with DRBC Resolution No. 2009-1 and Section 2.1.8 of the Water Code, the permittee shall implement an annual calendar year water audit program conforming to IWA/AWWA Water Audit Methodology (AWWA Water Loss Control Committee (WLCC) Water Audit Software) and corresponding guidance. Water audits shall be submitted annually to the Commission by March 31. [DRBC Resolution No. 2015-9]
25. Water withdrawals that involve a diversion of water into or out of the basin (including to or from Delaware Bay) or a change to a diversion into or out of the basin (including to or from Delaware Bay) previously approved by DRBC in accordance with Section 2.30 of the Delaware River Basin Commission Water Code (18 CFR 10) and section 401.35(a)(16), (17), or (18) of the Rules of Practice and Procedure (18 CFR part 401), may be subject to review and approval by the Delaware River Basin Commission. [DRBC Resolution No. 2015-9]
26. The permittee shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations. [DRBC Resolution No. 2015-9]
27. The permittee shall obtain approval from the Bureau of Water System Engineering before using the diversion for public water supply. [N.J.A.C. 7:19- 2]
28. In addition to the specific management requirements cited above, and when so directed by the Department, the permittee shall comply with applicable portions of the Water Supply Management Rules (N.J.A.C. 7:19-6 et seq. and N.J.A.C. 7:19-8 et seq.) to include the determination of dependable yield; unaccounted-for water; rehabilitation; system pressure and storage; interconnections; and operation of interconnections. [N.J.A.C. 7:19- 6]
29. If the permittee violates any condition of this permit, the permittee is subject to administrative penalties up to \$25,000 per day per offense as specified. [N.J.S.A. 58: 1A-16]
30. The issuance of this permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application. [N.J.A.C. 7:19- 2]
31. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey. [N.J.A.C. 7:19- 2]
32. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:19- 2]
33. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:19- 2]
34. A copy of this permit shall be kept at the facility site, and shall be exhibited upon request of any authorized Department representative. [N.J.A.C. 7:19- 2]
35. The Department has the right to enter and inspect any site, building, or equipment, or any portion thereof, owned or operated by the permittee, at any time, in order to ascertain compliance or noncompliance with N.J.S.A. 58:1A-1 et seq., 58:4A-4.1 et seq., 58:12A-1 et seq., these rules, or any other agreement or order issued or entered into pursuant thereto. Such right shall include, but not be limited to, the right to require the testing of any equipment at the facility, to sketch or photograph any portion of the site, building or equipment, to copy or photograph any document or records necessary to determine such compliance or noncompliance, and to interview any employees or representative of the owner, operator, or permittee. Such right shall be absolute and shall not be conditioned upon any action by the Department, except the presentation of appropriate credentials as requested and compliance with appropriate standard safety procedures. [N.J.A.C. 7:19- 2]
36. This permit may be transferred, with the consent of the Department, but only for the identical use of the waters. [N.J.A.C. 7:19- 2]

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37. If the authorized diversion privileges are not currently diverted, subject to contract, or reasonably required for a demonstrated future need, they shall revert back to the State upon renewal or modification of the permit. [N.J.A.C. 7:19- 2]
38. The permittee shall protect each source from vandalism, tampering, and contamination at all times. [N.J.A.C. 7:19- 2]
39. This permit shall expire as indicated on the permit approval cover page. [N.J.A.C. 7:19- 2]

**Administrative Hearing Request Checklist
And Tracking Form for Permits**

1. Permit Being Appealed:

Title and Type of Permit

Issuance Date of Permit

Permit Number

2. Person Requesting Hearing:

Name/Company

Name of Attorney (if applicable)

Address

Address of Attorney

3. The following information must be included with the request:

- a. The date the permittee received the final permit;
- b. A copy of permit with a list of all permit conditions and issues contested;
- c. The legal and factual questions at issue;
- d. A statement as to whether or not the permittee raised each legal and factual issues during the public comment period of the permit;
- e. Suggested revised or alternative permit conditions;
- f. An estimate of the time required for the hearing;
- g. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
- h. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's processing of the hearing request to the Office of Administrative Law; and
- i. This form, completed with all of the information listed above, signed, and dated, including attachments, to:

i. Office of Legal Affairs
ATTENTION: Adjudicatory Hearing Requests
Department of Environmental Protection
401 East State Street
P.O. Box 402
Trenton, New Jersey 08625-0402

ii. Terry D. Pilawski, Chief
Mail Code 401-04Q
Division of Water Supply & Geoscience
Bureau of Water Allocation & Well Permitting
P.O. Box 420
Trenton, New Jersey 08625

iii. All co-permittees (w/attachments)

4. Signature: _____ Date: _____