

1/29/2019 1:11 PM

DOCKET NO. D-1996-044 CP-4

DELAWARE RIVER BASIN COMMISSION

Groundwater Protected Area

Drainage Area to Special Protection Waters

Richland Township Water Authority

Groundwater Withdrawal

Richland Township, Bucks County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on July 26, 2018 for renewal of an allocation of groundwater and review of a groundwater water withdrawal project (Application). The project wells were reviewed under the Pennsylvania Safe Drinking Water Act for a public water supply construction permit and approved by the Pennsylvania Department of Environmental Protection (PADEP) on May 4, 2009 (Permit No. 0908514) subject to approval by the DRBC.

The Application was reviewed for continued inclusion in the Comprehensive Plan and for approval under Section 3.8 and for a withdrawal permit under Section 10.3 of the *Delaware River Basin Compact*. The Bucks County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on February 13, 2019.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the approval of an existing supply of groundwater for public water supply from existing Wells RC-1, RTW-1, RTW-2, WB-2, WB-3 and QCS-1. The total allocation of groundwater will remain 46.55 million gallons per month (mgm). The approval will also remove Wells ML-2, ML-3 and ML-4 from the docket, the groundwater use from these wells will be made up by Wells WB-2 and WB-3.

2. Location. The project wells are completed in the Brunswick Formation and are located in the Tohickon Creek Watershed in Richland Township, Bucks County, Pennsylvania. The

Tohickon Creek near the project site is designated by the PADEP as Trout Stocking Fishes (TSF) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. Area Served. The docket holder serves water to portions of Richland Township (including the Melody Lakes mobile home park) and Richlandtown Borough as outlined on a map entitled “Water Distribution System; Richland Township Water Authority”. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. Design criteria. The docket holder supplies potable water to an estimated population of 7,857 via 2,151 domestic connections. The average and maximum groundwater demand for this project are 0.589 million gallons per day (mgd) and 1.178 mgd, respectively. The docket holder projects an average and maximum water demand of 0.813 mgd and 1.626 mgd, respectively, by the year 2029. The docket holder is not requesting an increase in groundwater withdrawal allocation from that contained in its prior approval. The allocation of 46.55 mgm should be sufficient to meet the docket holder’s future demands.

5. Facilities. The docket holder’s existing wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH (FEET)	PUMP CAPACITY (GPM)	YEAR DRILLED
RTW-1	400	60’/ 10”	275	1987
RTW-2	425	80’/ 10”	150	1993
RC-1	525	102’/ 10”	215	1989
WB-2	485	80’/ 10”	300	1987
WB-3	485	80’/ 10”	300	1988
QCS-1	352	60’/ 10”	360	2007

All water service connections are metered.

All wells are metered.

Prior to entering the distribution system, groundwater from all the wells is treated by chlorination prior to entering the distribution system. Wells RC-1, RTW-2, RTW-3, WB-2 and WB-3 are also treated for arsenic removal by granular media (SORB 33) and also iron and manganese pre-treatment by granular media (OmniSORB).

The project facilities are above the 100-year flood elevation.

The water system is presently interconnected with Quakertown Borough Water Department and Milford Township Water Authority distribution systems and are used only on an emergency basis.

6. **Other.** Wastewater is conveyed to the Quakertown Borough sewage treatment facility which received approval most recently under Section 3.8 of the *Compact* by DRBC Docket No. D-1984-026 CP on October 24, 1984. The PADEP issued its most recent NPDES Permit No. PA0020290 on January 1, 2015 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the project.

7. **Relationship to the Comprehensive Plan.** Well RTW-1 was included in the Comprehensive Plan by the Commission in Docket No. D-1990-003 CP, approved on June 27, 1990. Wells WB-2 and WB-3 were included in the Comprehensive Plan by the Commission in Docket No. D-1991-096 CP, approved on August 12, 1992. Docket No. D-1992-083 CP approved an increase in system allocation for Wells WB-2 and WB-3, which was approved on May 26, 1993. Well RTW-2 was included in the Comprehensive Plan by the Commission in Docket No. D-1994-007 CP, approved on May 25, 1994. Well RC-1 was included in the Comprehensive Plan by the Commission in GWPA Permit No. D-1994-077 P.A., approved on June 7, 1995. Docket No. D-1996-044 CP, approved on August 6, 1997, continued the approval of the docket holder's wells. Wells ML-2, ML-3 and ML-4 were included in the Comprehensive Plan by the Commission in Docket No. D-1996-044 CP-2, approved on May 10, 2006. Docket No. D-1996-044 CP-3, approved on July 15, 2009, continued the approval of the docket holder's wells. Issuance of this docket will continue the withdrawal project in the Comprehensive Plan.

B. FINDINGS

This approval will remove Wells ML-2, ML-3 and ML-4 from the docket, the docket holder has plans to decommission these wells. The groundwater use (2.25 mgm) from these wells will be made up by Wells WB-2 and WB-3. There will be no increase in system allocation.

1. Ground Water Protected Area

The project is located within the Southeastern Pennsylvania Ground Water Protected Area delineated by the DRBC pursuant to *Compact* Section 10.2. Tests conducted by the docket holder indicate the operation of this project will not create a local water shortage. The project is designed to conform to the requirements of the *Water Code*, *Water Quality Regulations* and *Ground Water Protected Area Regulations (GWPAR)* of the DRBC.

Review and analysis of the application pursuant to Section 6.D. of the *GWPAR* result in the following:

1. The withdrawal is consistent with the Commission's Comprehensive Plan and the policies and purposes of these regulations.
2. Opportunities to satisfy water requirements on a timely basis from existing available supplies and facilities have been explored and are being utilized.

3. The withdrawal, in conjunction with other withdrawals in the applicable ground water basin, should not exceed withdrawal limits of the ground water basin, aquifer or aquifer system.

4. The withdrawal should not significantly impair or reduce the flow of perennial streams in the area.

5. Existing ground and surface water withdrawals should not be adversely impacted, or will be otherwise assured of adequate supplies in accordance with the requirements of Section 10 of the *GWPAR*. There have been no reported complaints of well interference since the 1997 approval of this renewal project. No adverse impact is anticipated due to continued operation of this project.

6. The withdrawal should not cause substantial, permanent adverse impact to the overlying environment.

7. The docket holder adopted and will implement conservation and management programs as required by Section 7 of the *GWPAR*.

The project does not conflict with the Comprehensive Plan, and is designed to prevent substantial adverse impact to the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

RTWA Wells are located in the Tohickon-Beaver-Morgan Creeks subbasin (Subbasin No. 39), where total net annual ground water withdrawal (456.9 million gallons per year (mgy)) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,541 mgy). The docket holder is requesting a monthly allocation of up to 46.55 mgm, a fraction of which will be returned to groundwater. However, even if no water from this project were returned to groundwater, the total net annual groundwater withdrawal from this subbasin would remain well below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from these RTWA wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

2. Special Protection Waters

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations* (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The wells providing water supply to the RTWA distribution system are located within in the drainage area to the Special Protection Waters. Richland Township is designated as a Phase II municipal separate storm sewer system (MS 4) in the Allentown/Bethlehem Urbanized Area and has adopted the PADEP model stormwater ordinance under Pennsylvania's Storm Water Management ACT 167 for Tohickon Creek. This ordinance was adopted by Richland Township in September 2006 and fulfills the necessary requirement for a Non-Point Source Pollution Control Plan.

3. Water Audits for Public Water Supply Systems Serving Greater than 100,000 gpd

Section 2.1.8 of the Water Code states that it is the policy of the Commission to establish a standardized water audit methodology for owners of water supply systems serving the public to ensure accountability in the management of water resources. Voluntary Water Audits were encouraged for public water supply systems through December 31, 2011 (Section 2.1.8.B.). Effective January 1, 2012, the owners of each public water supply system are required to 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 AWWA guidance (Section 2.1.8.C). Water audits shall be submitted annually to the Commission by March 31. The RTWA submitted their most recent Water Audit on February 13, 2018.

The DRBC estimates that the project withdrawals, used for the purpose of public water supply, result in a consumptive use of 10 percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

C. DECISION

Effective on the approval date for Docket No. D-1996-044 CP-4 below, the project described in Docket No. D-1996-044 CP-3 are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1996-044 CP-4 ; Docket No. D-1996-044 CP-3 is terminated and replaced by Docket No. D-1996-044 CP-4; and the project and the appurtenant facilities described in in Section A.4. (Design Criteria) and A.5. (Facilities) shall be continued in the Comprehensive Plan. The project and appurtenant facilities as described in in

Section A.4. (Design Criteria) and A.5. (Facilities) are approved subject to the following conditions, pursuant to Section 3.8 of the *Compact*:

Monitoring and Reporting

1. The project withdrawals shall be metered by means of an automatic continuous recording device, flow meter, or other method, and shall be measured to within 5 percent of actual flow. Meters or other methods of measurement shall be subject to approval and inspection by the PADEP as to the type, method, installation, maintenance, calibration, reading and accuracy. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

2. A long-term monitoring program is required to obtain data on ground water and surface water hydrologic conditions in the project area. The docket holder shall continue to implement the long-term monitoring program as submitted by the docket holder in a letter dated June 19, 1997, plus monitoring wells MW-1, MW-3, MW-6 and Quakertown Well 14 which were included in previous docket approval. This program will include the following:

A. **Groundwater Level Monitoring** - RTWA shall monitor the thirteen (13) wells to estimate annual ground water fluctuations caused by seasonal changes and/or production well pumping and detect water level declines that may affect the performance of public and private wells in the area of RTWA production wells.

B. **Reports** - All monitoring data, including records required in Conditions “1.” and “2.” herein shall be submitted to the Commission annually, due by April 1. The docket holder is encouraged to submit the annual report electronically. The report shall be prepared by a hydrogeologist and shall assess the effects of well withdrawals on hydrologic conditions in the area. This report shall include an evaluation of the monitoring data required by this docket approval and such information as deemed appropriate by the hydrogeologist or required by the Executive Director.

C. The Executive Director may modify the monitoring program or temporarily suspend or modify this docket at any time if review of the hydrologic data and/or any other information indicates such action is necessary or appropriate.

3. In accordance with DRBC Resolution No. 2009-1 and Section 2.1.8 of the Water Code, the docket holder 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.

Other Conditions

4. During any month, the combined withdrawal from all well sources shall not exceed 46.55 million gallons (558.6 mgd). No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM RATE (GPM)	MONTHLY ALLOCATION (MGD)
RC-1	215	7.56
RTW-1	275	7.67
RTW-2	150	4.75
WB-2	300	13.39
WB-3	300	13.39
OCS-1	360	15.00

5. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

6. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.35).

7. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.35).

8. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

9. The well and operational records shall be available at all times for inspection by the DRBC.
10. The well shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.
11. The wells shall be equipped with readily accessible capped ports and minimum ½ inch inner diameter (ID) drop pipes so that water levels may be measured under all conditions. Existing wells are to be similarly equipped, where possible, with readily accessible ports and ½ inch ID drop pipes as repairs or modifications are made at each existing well.
12. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).
13. In accordance with DRBC Resolutions No. 87-6 (Revised) and No. 2009-1, the docket holder shall continue to implement to the satisfaction of the PADEP, the systematic program to monitor and control leakage within the water supply system. The program shall at a minimum include: periodic surveys to monitor leakage, enumerate non-revenue water and determine the current status of system infrastructure; recommendations to monitor and control leakage; and a schedule for the implementation of such recommendations. The docket holder shall proceed expeditiously to correct leakages and unnecessary usage identified by the program.
14. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).
15. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.
16. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the *Water Quality Regulations* of the Commission.
17. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.
18. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations. (see 18 CFR 401.43).
19. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder in order to insure the proper control, use and management of the water resources of the Basin.
20. If the monitoring required herein or any other relevant data or information demonstrates that the operation of this project is interfering with or otherwise impairing existing uses of

ground or surface water, or if the docket holder receives a complaint from an existing ground or surface water user within the zone of influence of the withdrawal alleging such interference or impairment, the permit holder shall immediately notify the Executive Director, and unless excused by the Executive Director, shall investigate the demonstrated or alleged impacts. For purposes of this condition, notification shall mean either (a) electronic transmittal of written notice to the Executive Director via email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director and a telephone call to the Project Review Section at 609-883-9500, ext. 216. (Oral notification must always be accompanied by immediate written notification directed to the Executive Director.) In addition, the docket holder shall provide written notice to all potentially affected water users of the docket holder's responsibilities under this condition. **Any well or surface water supply that is impaired as a result of the docket holder's project withdrawal shall be repaired, replaced or mitigated at the docket holder's expense.** The scope of the options to consider for repair, replacement and/or mitigation shall not be limited solely to those that are owned, operated, or controlled by the project sponsor. An investigation report and/or mitigation plan prepared and certified by a licensed professional engineer and/or a licensed professional geologist shall be submitted to the Executive Director as soon as practicable following notice of the demonstrated or alleged impairment consistent with this paragraph. The Executive Director shall make the final determination regarding the scope and sufficiency of the investigation and the extent of any mitigation measures that may be required. Where ground and surface waters are rendered unavailable, unusable, or unsuitable for the pre-existing use, the Executive Director may direct the docket holder to take interim actions to mitigate such impacts, pending completion of the investigative report and any long-term repair, replacement or mitigation.

21. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

22. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: March 13, 2029