

DOCKET NO. D-1986-059 CP-4

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**Pennsylvania American Water Company– Merlin Hills/ Terry Lane Boosted Zone System
Groundwater Withdrawal
East Pikeland Township, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on September 16, 2021 for renewal of an allocation of groundwater and review of a groundwater water withdrawal project (Application). Pennsylvania Department of Environmental Protection (PADEP) issued its most recent Public Water Supply Permit for the operation of the facility on February 24, 2000 (Permit No. 1592511).

The Application was reviewed for continuation of this project 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 Chester 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 9, 2022.

A. DESCRIPTION

- 1. Purpose.** The purpose of this docket is to renew the approval of an existing groundwater withdrawal of up to 6.696 million gallons per month (mgm) to supply water to the docket holder's Merlin Hills/Terry Lane Boosted System public water distribution system from existing Well EP-1.
- 2. Location.** The project well is completed in Graphitic Gneiss and is located in French Creek Watershed in East Pikeland Township, Chester County, Pennsylvania. French Creek near the project site is designated by the PADEP as Exceptional Value (EV) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder’s water distribution system serves portions of East Pikeland Township and East Vincent Township as indicated on the map entitled “Royersford Interconnections”, as submitted with the application. 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 3,250 via 1,301 domestic connections with an average and maximum water demand of 0.104 mgm and 0.216 mgm, respectively. The docket holder projects an average and maximum groundwater demand of 0.120 mgd and 0.216 mgd, respectively, by the year 2032. The allocation of 6.696 mgm should be sufficient to meet the future demands of the Merlin Hills/ Terry Lane Boosted System.

The docket holder currently uses Well EP-1 to serve the Merlin Hills distribution system and the Terry Lane Boosted zone. This combined pressure system is part of the PAWC Royersford District. The two systems were interconnected in 2012 due to their proximity, their operation at virtually the same hydraulic gradient and to improve the reliability of the service area. The Terry Lane Booster Pumping Station provides water supply to this system from the Royersford Main Service system, which supplements the groundwater use from ell EP-1.

The Merlin Hills/ Terry Lane Boosted System can also provide water to the neighboring PAWC Phoenixville service zone through the existing Hares Hill Road pressure regulating valve (PRV). This 6-inch PRV is normally closed but can provide emergency service to the Phoenixville system.

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

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
EP-1	345	268’/ 6”	150	1978

The well and all water service connections are metered.

Well water is treated with sodium hypochlorite for disinfection and soda ash for pH control prior to entering the distribution system.

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

The PAWC – Merlin Hills/ Terry Lane Boosted System has an interconnection with the PAWC Royersford District with is used to supplement groundwater use from Well EP-1. This system is also interconnected with the PAWC Phoenixville System for emergency purposes only.

6. **Other.** Valley Forge Sewer Authority sewage treatment facility which received approval most recently under Section 3.8 of the *Compact* by DRBC Docket No. D-1995-006 CP-5 on December 11, 2019. The wastewater treatment facility is approved by PADEP NPDES No. PA0043974. The treatment facility has adequate capacity to continue to receive wastewater from this project.

7. **Relationship to the Comprehensive Plan.** The docket holder's well was previously included in the Comprehensive Plan by DRBC Docket Nos. D-1986-059 CP, D-1986-059 CP RENEWAL and D-1986-059 CP-3 which were approved on October 28, 1986, December 11, 1991 and September 12, 2012, respectively. Issuance of this docket will continue the withdrawal project in the Comprehensive Plan.

B. **FINDINGS**

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.

Review and analysis of the application pursuant to Section 6.D. of the *Ground Water Protected Area Regulations (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 original 1986 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 docket holder's Well EP-1 is located in the Lower Reach French Creek subbasin (Subbasin No. 67), where total net annual ground water withdrawal (31.6 million gallons per year (mgy)) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (845 mgy). The docket holder is requesting a monthly allocation of up to 6.696 mgm (80.352 mgy) from Well EP-1 in this subbasin, 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 Well EP-1, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

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

Section 2.1.8 of the *Water Code (WC)* 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 docket holder submitted their most recent Water Audit on March 24, 2022.

3. Other Findings

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*.

The project is designed to conform to the requirements of the *Water Code (WC)*, *Water Quality Regulations (WQR)* and *Ground Water Protected Area Regulations (GWPAR)* of the DRBC.

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.

C. DECISION

Effective on the approval date for Docket No. D-1986-059 CP-4 below, the project described in Docket No. D-1986-059 CP-3 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1986-059 CP-4; Docket No D-1986-059 CP-3 is terminated and replaced by Docket No. D-1986-059 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 docket holder shall continue to report to the PADEP all surface and groundwater sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

2. 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.

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.

4. The docket holder shall implement to the satisfaction of the PADEP, a continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the PADEP, on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

5. The docket holder shall continue to implement its Water Conservation Plan as approved by the PADEP, and shall report to the PADEP on actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

6. Section 2.3.10 of the Commission's *Rules of Practice and Procedure* (18 C.F.R. 401.41), limiting the Commission's approval to three years in the absence of an expenditure of substantial funds by the project sponsor in reliance on the approval, is hereby waived for good cause shown in accordance with Section 2.9.3 (18 C.F.R. 401.123) of the same regulations. This approval shall expire on the expiration date set forth below unless prior thereto the docket holder has applied to the Commission to renew or extend this approval.

7. 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.

Other Conditions

8. During any month, the combined withdrawal from all well sources shall not exceed 6.696 million gallons (80.35 mgy). No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM RATE (GPM)*	MONTHLY ALLOCATION (MGM)
EP-1	150	6.696

*Based on a 24-Hour Average

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 well 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. 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.

13. Each new water service connection shall include a water meter in accordance with the DRBC’s Resolution No. 87-7 (Revised).

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 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*.

19. 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).

20. 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).

21. 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).

22. 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 to ensure the proper control, use and management of the water resources of the Basin.

23. 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.

24. 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.

25. 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: September 8, 2022

EXPIRATION DATE: September 8, 2032