

**DOCKET NO. D-1997-012 CP-4**

**DELAWARE RIVER BASIN COMMISSION**

**Southeastern Pennsylvania  
Ground Water Protected Area**

**Located Within the Drainage Area of Special Protected Waters**

**Perkasie Regional Authority  
Groundwater Withdrawal  
Perkasie Borough and East Rockhill Township, Bucks County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Mercuri and Associates, Inc. (MAI) on behalf of Perkasie Regional Authority (PRA) on April 27, 2018, for an allocation of groundwater and review of a groundwater withdrawal project in the Ground Water Protected Area of Southeastern Pennsylvania previously approved by the DRBC on September 24, 2008 (Application). The project revision was approved by the Pennsylvania Department of Environmental Protection (PADEP) on June 16, 2008 (Public Water Supply Permit No. 0908503), subject to approval by the DRBC.

The Application was reviewed for inclusion of the project in the Comprehensive Plan and 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 November 14, 2018.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this project is to renew the approval of an existing groundwater withdrawal project and to increase the allocation from 40.2 million gallons per 30 days (mg/30 days) to 44.83 million gallons per month (mgm) to supply water to the docket holder's distribution system from existing Wells 5, 6, 7, 10 and 11.

2. **Location.** The project wells are located in the Tohickon Three Mile Run Watershed and East Branch Perkiomen Creek Watershed, in Perkasie Borough and East Rockhill Township, Bucks County, Pennsylvania. The Tohickon Three Mile Run near the project site is designated by the PADEP as Trout Stocking Fishes (TSF) and Migratory Fishes (MF). The Tohickon Three Mile Run near the project site is designated by the PADEP as Trout Stocking Fishes (TSF) and Migratory Fishes (MF). The project wells are completed in the mixed zone of the Brunswick and Lockatong Formations.

Specific location information has been withheld for security reasons.

3. **Area Served.** PRA wells supply water to Perkasie Borough and adjacent portions of East Rockhill Township in Bucks County, Pennsylvania as delineated on the map entitled “PRA Service Area”, 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. **Physical features.**

a. **Design criteria.** The PRA system supplies water to an estimated population of 12,000 via 3,614 connections, 135 commercial connections 26 industrial connections and 61 institutional and other connections. The average and maximum groundwater demand for this project are 0.618 million gallons per day (mgd) and 0.945 mgd, respectively. The docket holder projects an average and maximum water demand of 0.859 mgd and 1.398 mgd, respectively, by the year 2028. The allocation of 44.83mgm should be sufficient to meet the future demands of the PRA system.

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

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
5	309	32’/10”	190	1949
6	300	14’/12”	400	1965
7	420	250’/ 10”	300	1977
10	400	40’/10”	200	1978
11	400	80’/10”	500	1986

All wells and all water service connections are metered.

All well water is treated by chlorination prior to entering the distribution system. Additionally, water withdrawn from Well 10 is treated with air stripping for the removal of volatile organic compounds (VOCs) and Well 11 is treated for arsenic prior to entering the distribution system.

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

The water system is presently interconnected with the North Penn Water Authority (NPWA) Borough of Sellersville system and Hilltown Township, the interconnections are used for emergency purposes only.

c. **Other.** Wastewater is conveyed to the Pennridge Wastewater Treatment Authority's sewage treatment facility most recently approved by DRBC Docket No. D-2001-001 CP on May 31, 2002. The PADEP issued its most recent NPDES Permit No. PA0020460 on August 143, 2013 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. **Relationship to the Comprehensive Plan.** The docket holder's wells were previously included in the Comprehensive Plan by the dockets listed in the following table:

Docket No.	Date Approved	Approved Wells
Resolution No.62-14	July 25, 1962	Well 2, 3, 4, 5 and Spring No. 1
D-1965-111 CP	September 13, 1965	Well 2, 3, 4, 5, 6 and Spring No. 1
D-1978-075 CP	May 16, 1979	Wells 2, 4, 5, 6 and 9
D-1979-028 CP	January 23, 1980	Wells 2, 4, 5, 6, 9 and 10
D-1979-028 CP RENEWAL	January 30, 1985	Wells 2, 4, 5, 6, 9 and 10
D-1987-075 CP	February 24, 1988	Wells 2, 4, 5, 6, 9, 10 and 11
D-1992-075 CP	September 27, 1995	Wells 2, 4, 5, 6, 9, 10 and 11
D-1997-012 CP	December 17, 1997	Wells 5, 6, 9, 10, 11 and 12
D-1997-012 CP (Revision)	April 3, 2002	Wells 5, 6, 9, 10, 11 and 12
D-1992-020 CP-3	September 24, 2008	Wells 5, 6, 7, 9, 10, 11 and 12

Issuance of this docket will continue the withdrawal project in the Comprehensive Plan.

## B. FINDINGS

PRA requested an increase in allocation from 40.2 mg/30 days to 44.83 mgm to meet an expected increase in water demand over the next 10 years. North Penn Water Authority (NPWA) sold their East Rockhill Satellite system called the Ridge Run Development to the PRA in December 2017. The requested increase in allocation is equal to the allocation previously assigned to NPWA Wells NP-73 and NP-74 in Docket D-1992-044 CP-4. PRA does not intend to operate Wells NP-73 and NP-74 as both wells are contaminated with perfluorooctanesulonic acid (PFOS) and perfluorononanoic acid (PFOA). Prior to selling the satellite system to PRA, NPWA stopped using Wells NP-73 and NP-74 and was purchasing water from the PRA for this development. The PRA will continue to serve the Ridge Run Development with their production wells. The docket holder has submitted annual monitoring reports for over 20 years and no well

interference have been reported during this time. The annual reports also do not indicate any adverse impacts on the water levels in the monitoring wells.

### **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. 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. 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.
3. The withdrawal should not significantly impair or reduce the flow of perennial streams in the area.
4. Existing groundwater 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 approval of this renewal project. No adverse impact is anticipated due to continued operation of this project.
5. The withdrawal should not cause substantial, permanent adverse impact to the overlying environment.
6. The docket holder adopted and will implement conservation and management programs as required by Section 7 of the *GWPAR*.

Wells 5, 6 and 7 are located in the Tohickon-Three Mile Run subbasin (GWPA Subbasin No. 44), where total net annual groundwater withdrawal (143.2 mgy) is less than the withdrawal limit set in Section 6.I of the *GWPAR* (968.32 mgy). The applicant is requesting a monthly allocation of up to 35.75 mgm, which equates to 429 million gallons per year (mgy) 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 below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the project wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

Wells 10 and 11 are located in the East Branch Perkiomen-Morris Run subbasin (GWPA Subbasin No. 46), where total net annual groundwater withdrawal (298.1 mgd) is less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,619 mgd). The applicant is requesting a monthly allocation of up to 28.13 mgd, which equates to 337.56 million gallons per year (mgd) 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 below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the project wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

### **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. Wells 5, 6, 7 and the Three Mile Run service area providing water supply from the PRA are located within in the drainage area to Special Protection Waters. Since this project does not entail additional construction and expansion of facilities or service areas and there are not any new or increased non-point source loads associated with this approval, the non-point source pollution control plan requirement is not applicable at this time. Accordingly, Special Condition C.II.v. has been included in the Decision section of this docket.

### **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 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 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

- I. Effective on the approval date for Docket No. D-1997-012 CP-4 below:
  - a. The project described in Docket No. D-1997-012 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1997-012 CP-4; and
  - b. Docket No. D-1997-012 CP-3 is terminated and replaced by Docket No. D-1997-012 CP-4.
  - c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.
- II. The project as described in the Section A “Physical features” is approved pursuant to Section 3.8 of the *Compact* and is granted this withdrawal permit pursuant to Section 10.3 of the *Compact* and *GWPAR*, subject to the following conditions:
  - a. The wells and operational records shall be made available for inspection by the DRBC when requested.
  - b. The wells shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.
  - c. During any month, the combined withdrawal from all well sources shall not exceed 44.83 million gallons (537.96 mgy). No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL I.D.	MAXIMUM RATE (GPM)	MONTHLY ALLOCATION (MGM)
5	190	7.633
6	400	16.07
7	300	12.05
10	200	8.04
11	500	20.09

d. During any month, the total withdrawal from wells located in the Tohickon-Three Mile Run subbasin (Wells 5, 6 and 7) shall not exceed 24.99 mgm. Total withdrawal from wells located in the East Branch Perkiomen Morris Run subbasin (Wells 10 and 11) shall not exceed 19.84 mgm.

e. 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.

f. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. 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.

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

h. 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.

i. 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.

j. The docket holder shall implement to the satisfaction of the PADEP, the 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.

k. 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).

l. A long-term monitoring program is required to obtain data on ground water hydrologic conditions in the project area. The docket holder shall implement the long-term monitoring program as submitted in a letter dated September 25, 1997. This program will include the following:

1. **Groundwater Level Monitoring** – PRA shall monitor thirty-nine (39) wells identified in the above referenced letter to estimate annual groundwater 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 the PRA production wells.

2. **Reports** - All monitoring data, including records required in Conditions “e.” and “l.” 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.

3. 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.

m. The docket holder shall implement its Water Conservation Plan as approved by 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.

n. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.

o. 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.



p. 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.

q. 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.

r. 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.

s. 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).

t. 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 401.43).

u. 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 401.43).

v. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

w. 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.

x. 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 permit 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 permit holder shall provide written notice to all potentially affected water users of the permit holder's responsibilities under this condition. Any well or surface water supply that is impaired as a result of the permit holder's project withdrawal shall be repaired, replaced or mitigated at the permit 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 permit holder to take interim actions to mitigate such impacts, pending completion of the

y. 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.

z. 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: December 12, 2028**