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DOCKET NO. D-1989-040 CP-4

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**Aqua Pennsylvania, Inc. – Spring Run System
Groundwater Withdrawal
West Bradford and Newlin Townships, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on November 26, 2024 for renewal of an allocation of groundwater and review of a groundwater withdrawal project (Application). The groundwater withdrawal project was approved by the Pennsylvania Department of Environmental Protection (PADEP) on August 2, 2022 (Permit No. 1522508).

The Application was reviewed for continuation of the 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 May 7, 2025.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to renew the approval of an existing groundwater withdrawal with an increase in allocation from 37.0 million gallons per month (mgm) to 52.0 mgm to supply the Aqua Pennsylvania's (Aqua PA) Spring Run public water supply distribution system from Wells UG-1, UG-2, UG-3, UG-8, UG-9, UG-10, Embreeville Well 1R and Embreeville Well 2.

2. **Location.** Project wells UG-1, UG-2, UG-3 UG-8, UG-9 and UG-10 are completed in the Wissahickon Formation and Embreeville Wells 1R and 2 are completed in the Cockysville Marble. The project wells are located in the West Branch Brandywine Creek Watershed in West Bradford and Newlin Townships, Chester County, Pennsylvania.

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder’s distribution system supplies water to West Bradford Township with some additional territory enclosed in East Fallowfield, Newlin, Pocopson and East Bradford Townships, Chester County, Pennsylvania as shown on the map entitled “Spring Run, Friendship and Honey Brook Systems Aqua PA, Inc.” submitted with the Application. Aqua PA has converted the Rock Raymond interconnection, which used to be the source of supply from Downingtown Municipal Water Authority (DMWA) to an intra-connection between the Spring Run and UGS North (Friendship and Honeybrook) systems. The docket holder’s Spring Run system will now also serve portions of East Brandywine, West Brandywine, Caln and Honey Brook Townships, all in Chester County, Pennsylvania. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in Section C. DECISION of this docket.

4. **Design Criteria.** The docket holder supplies potable water to an estimated population of approximately 9,196 via 3,110 domestic, 24 commercial and 256 other / institutional connections. The average and maximum groundwater demand for this project are 0.834 million gallons per day (mgd) and 1.37 mgd, respectively. The docket holder projects an average and maximum water demand of 1.075 mgd and 2.050 mgd, respectively, by the year 2035. The allocation of 52.0 mgm should be sufficient to meet the future demands of the docket holder’s water distribution system.

The docket holder is requesting an increase in allocation to offset the loss of the DMWA interconnection, representing a loss of 15.5 mgm. Aqua PA converted the Rock Raymond interconnection, which used to be the source of supply from DMWA to an intra-connection between Spring Run and UGS North (Friendship and Honeybrook) systems; the principal purpose of this project is to more fully utilize the Spring Run sources to offset the elimination of DMWA purchased supply. The purchase agreement and interconnection with DMWA ended in the summer of 2024 and both interconnections to DMWA were eliminated. Aqua PA then converted one of connections to an internal interconnect between the Friendship and Spring Run systems via the Lloyd Road water main project.

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
UG-1	320	61’/8”	100	1975
UG-2	360	54’/8”	100	1978
UG-3	440	23’/8”	100	1972
UG-8	305	50’/8”	100	1977
UG-9	305	41’/8”	50	1977
UG-10	260	78’/8”	75	1977
Embreeville Well 1R	203	100’/ 12”	996	2020
Embreeville Well 2	170	57’/8”	352	1956

All wells and water service connections are metered.

Prior to entering the distribution system, the groundwater is disinfected with chlorine.

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

The docket holder's water distribution system is presently intra-connected with the Aqua PA UGS North (Friendship and Honeybrook) systems. The intra-connection is used regularly and has a capacity of up to 1.0 mgd.

6. Other. Wastewater is conveyed to the Utilities Inc. of Pennsylvania sewage treatment facility most recently approved by DRBC Docket No. D-1980-058 on March 25, 1981. The PADEP issued NPDES Permit No. PA0043982 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the project. Wastewater in the project service area is also conveyed to on-lot septic systems.

7. Relationship to the Comprehensive Plan. The project was previously included in the Comprehensive Plan by the Commission in Docket Nos. D-1966-110 CP, D-1989-040 CP, D-1989-040 CP RENEWAL and D-1989-040 CP-3 approved on July 20, 1966, October 25, 1989, February 22, 1995 and December 7, 2022, 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. Historical use by the docket holder indicates 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 *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 groundwater basin, should not exceed withdrawal limits of the groundwater 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 water distribution system's original approval of this 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 Wells UG-8, UG-9 and UG-10 are located in the West Branch Brandywine-Broad Run subbasin (Subbasin No. 35), where total net annual ground water withdrawal (221.47 million gallons per year (mgy)) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (3,172.8 mgy). The docket holder is requesting a monthly allocation of up to 6.508 mgm (78.096 mgy), a fraction of which will be returned to groundwater. Historically, the docket holder has withdrawn significantly less than the total amount requested in this basin. 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 the docket holder's wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

The docket holder's Wells UG-1, UG-2 and UG-3 are located in the West Branch Brandywine-Beaver Run (Subbasin No. 78), where total net annual ground water withdrawal (709.25 mgy) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (2,813.3 mgy). The docket holder is requesting a monthly allocation of up to 9.225 mgm (110.7 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 well below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the docket holder's wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

Embreeville Wells 1R and 2 are located in the West Branch of the Brandywine-Broad Run subbasin (Subbasin No. 35), although they are not located within the boundary of the SEPA GWPA. The SEPA GWPA boundary follows the West Bradford Township boundary, portions of the Spring Run service area, like Newlin Township where these two wells are located are outside the SEPA GWPA.

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 28, 2025.

3. Monitoring Network

Although adverse impacts to the local hydrologic system were not observed in either of the Embreeville Well 1R or Embreeville Well 2 pumping tests, a monitoring network has been included as described in Section C. DECISION Condition C.3 of this Docket. The docket holder may submit a summary report of all the monitoring network water level data and production well withdrawal data to request to have the monitoring network requirement removed from this docket after five (5) years of monitoring provided the collective data continues to indicate that the withdrawals from these two wells are not adversely impacting the local hydrologic system. If there is any indication that the withdrawals from these two well are adversely impacting the local hydrologic system, the monitoring network shall remain in effect.

4. 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-1989-040 CP-4 below, the project described in Docket No. D-1989-040 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1989-040 CP-4; Docket No. D-1989-040 CP-3 is terminated and replaced by Docket No. D-1989-040 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 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. 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.
3. 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 September 14, 2022. This program will include the following:
 1. **Groundwater Level Monitoring** – The docket holder shall monitor the two (2) wells (900 Stargazers Road and the Tenant House owned by the Township) to estimate annual ground water fluctuations caused by seasonal changes and/or production well pumping, and detect water level declines that may adversely affect groundwater levels in the project area.
 2. **Reports** - All monitoring data, including records required in Conditions 2 and 3. 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.
4. 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.

5. In accordance with DRBC Resolution No. 2009-1 and Section 2.1.8 of the *WC*, 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.

6. 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.

7. The docket holder shall continue to 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.

Other Conditions

8. During any month, the combined withdrawal from all well sources shall not exceed 52 million gallons (624 mgd). No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	INSTANTANEOUS ALLOCATION (GPM)*	MONTHLY ALLOCATION (MILLION GALLONS)
UG-1	100	2.183
UG-2	100	2.582
UG-3	100	4.460
UG-8	100	3.214
UG-9	50	1.647
UG-10	75	1.647
Embreeville Well 1R	996	44.46
Embreeville Well 2	352	15.71

*Based on a 24-Hour Average

9. In accordance with 18 C.F.R. 401.8. of the Commission's *Rules of Practice and Procedure (RPP)*, if at any future time the Project is changed materially from the Project as described in this docket, it will be deemed to constitute a new and different project for the purposes of Article 11 of the Delaware River Basin *Compact* and will require Commission amendment of the Comprehensive Plan. In accordance with the same section of the *RPP*, whenever a change to the

Project is made, the sponsor must advise the Executive Director, who will determine whether the change is deemed materially for the purposes of this provision.

10. 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.

11. 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 DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. If the docket holder has not applied to renew the docket or the DRBC is unable to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable pending the renewal of the docket

12. The wells and operational records shall be available at all times for inspection by the DRBC.

13. The wells shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

14. 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.

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

16. 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).

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

18. 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.

19. 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.

20. 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*.

21. 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).

22. 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).

23. 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).

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

25. 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.

26. 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.

27. 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: June 11, 2035

DRAFT