

**DOCKET NO. D-1990-050 CP-3**

**DELAWARE RIVER BASIN COMMISSION**

**Ground Water Protected Area**

**Aqua Pennsylvania, Inc. – Upper Uwchlan System  
Groundwater Withdrawal  
Upper Uwchlan Township, Chester County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted by East Latitude, LLC on behalf of the Aqua Pennsylvania, Inc. (Aqua PA) to the Delaware River Basin Commission (DRBC or Commission) on September 10, 2013 (Application), for a renewal and approval of an allocation of groundwater and review of a groundwater withdrawal project in the Ground Water Protected Area of Southeastern Pennsylvania. The prior docket was approved by the Commission on June 6, 2001. The project wells were reviewed under the Pennsylvania Safe Drinking Water Act for public water supply permits and approved by the Pennsylvania Department of Environmental Protection (PADEP) on August 21, 1990 (PADEP Permit No. 1590509).

The Application was reviewed for continuation 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 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 June 10, 2014.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this project is to renew the approval of up to 92.0 million gallons per month (mgm) of water to the docket holder's public water supply distribution system from existing Wells Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10. Aqua PA is not requesting an increase in groundwater withdrawal allocation.

**2. Location.** Project Wells Nos. 1, 2, 7, 8, 9 and 10 are located outside the Ground Water Protected Area (GWPA); Wells Nos. 1 and 2 are located in the East Branch Brandywine Creek Watershed; Wells Nos. 7 and 8 are in the Marsh Creek Watershed and Wells Nos. 9 and 10 are in the Black Horse Creek Watershed. Project Wells Nos. 3, 4, 5 and 6 are located in the West Valley Creek Subbasin of the GWPA, all wells are located in East Caln, Upper Uwchlan and West Whiteland Townships, Chester County, Pennsylvania. The East Branch Brandywine Creek near the project site is designated by PADEP as supporting Warm Water Fishes (WWF) and

Migratory Fishes (MF). The Marsh Creek near the project site is designated by PADEP as supporting High Quality - Trout Stocking Fishes (HQ-TSF) and Migratory Fishes (MF). The Black Horse Creek near the project site is designated by PADEP as supporting Trout Stocking Fishes (TSF) and Migratory Fishes (MF). The West Valley Creek near the project site is designated by PADEP as supporting Cold Water Fishes (CWF) 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 Upper Uwchlan, Uwchlan, West Whiteland, East Caln and West Pikeland Townships as shown on a map entitled “Service Area and Source Location Map”, submitted with the Application.

**4. Physical features.**

**a. Design criteria.** The Aqua PA – Upper Uwchlan system currently serves an estimated population of 23,452 through 10,221 service connections with an average and maximum water demand of 2.2 million gallons per day (mgd) and 2.5 mgd, respectively. The docket holder projects an average and maximum water demand of 2.5 mgd and 2.967 mgd, respectively, by the year 2023.

**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	GEOLOGIC FORMATION
1	200	8”/ 172’	400	1957	Cambrian Quartz Dolomite
2	186	8”/ 120’	400	1960	Cambrian Quartz Dolomite
3	410	14”/ 81’	650	1968	Cambrian Quartz Dolomite
4	300	12”/ 83’	300	1974	Cambrian Quartz Dolomite
5	158	8”/ 128’	300	1978	Cambrian Quartz Dolomite
6	600	10”/ 135’	230	1979	Cambrian Quartz Dolomite
7	300	8”/ 270’	100	1973	Granitic Gneiss
8	200	8”/ 37’	100	1978	Quartz Monzonite Gneiss
9	390	8”/ 56’	300	1987	Granitic Gneiss
10	400	8”/ 40’	125	1989	Granitic Gneiss

The wells and all water service connections are metered.  
Prior to entering the distribution system, the groundwater is chlorinated.

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

The Aqua PA - Upper Uwchlan water distribution system is presently interconnected with the Aqua PA Main Division system.

c. **Other.** Wastewater is conveyed to the Downingtown Area Regional Authority sewage treatment facility most recently approved by DRBC Docket No. D-1998-033 CP-3 on May 10, 2012. The PADEP issued its most recent NPDES Permit No. PA0026531 on December 3, 2012 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from this project.

d. **Relationship to the Comprehensive Plan.** The docket holder's wells were previously included in the Comprehensive Plan by Dockets Nos. D-1969-012 CP, D-1974-194 CP, D-1976-054 CP, D-1980-042 CP, D-1985-068 CP and D-1990-050 CP, which were approved on February 26, 1969, February 26, 1975, July 28, 1976, December 16, 1980, November 26, 1985 and October 24, 1990, respectively. The total system's approval was continued in Docket No. D-1990-050 CP REN, which was approved on June 6, 2001. Issuance of this docket will continue the public water supply distribution system in the Comprehensive Plan.

## **B. FINDINGS**

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 (GWPARG)* of the DRBC.

Review and analysis of the application pursuant to Section 6.D. of the *GWPARG* 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 found infeasible.
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*.

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 Commission Docket No. D-1974-011 which is under the docket holder Uwchlan Water Company, contains a single well which is designated as Well No. 1. Based on the location and information contained in that Docket, it is apparent that Well No.1 is the same source as Well No. 7 (Milford Well) contained in this docket. With the approval of this docket, Docket No. D-1974-011 will be rescinded and administratively continued in this docket, D-1990-050 CP-3.

Aqua PA Wells Nos. 3, 4, 5 and 6 are located in the West Valley Creek subbasin in the GWPA. Aqua PA Wells Nos. 1, 2, 7, 8, 9 and 10 are located outside of the GWPA. The total net annual groundwater withdrawal of the West Valley Creek subbasin is 1,087.31 million gallons per year (mgy) is less than the withdrawal limit set in Section 6.I of the *GWPAR* of 2,231 mgy. The docket holder is requesting a monthly allocation of 92.0 mgm, which equates to 1,104 mgy (approximately 60 percent of which will be withdrawn from outside the GWPA), 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 Aqua PA wells in conjunction with other withdrawals in the subbasins are in accordance with the requirements of Section 6.I of the *GWPAR*.

#### **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. 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 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.

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**

I. Effective on the approval date for Docket No. D-1990-050 CP-3 below:

a. The project described in Docket Nos. D-1990-050 CP-2 and D-1974-011 are removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1990-050 CP-3 ; and

b. Docket No. D-1990-050 CP-2 and D-1974-011 are rescinded and replaced by Docket No. D-1990-050 CP-3 ; and

c. The project and the appurtenant facilities described in the Section A “Physical Features” of this docket 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. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s. Within 60 days (August 11, 2014), the docket holder shall provide written confirmation to the Commission that it has registered and reported with 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).

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

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

d. During any month, the combined withdrawal from all well sources shall not exceed 92.0 mgm or 1,104 mgy. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

WELL NO.	INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MILLION GALLONS)
1	400	18.445
2	400	18.445
3	650	29.967
4	300	13.836
5	300	13.888
6	230	10.602
7	100	4.609
8	100	4.609
9	300	14.281
10	125	6.252

e. The wells shall be equipped with readily accessible capped ports and 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 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 annually by March 31, to the PADEP. Withdrawal records 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. The docket holder shall continue to implement its Water Conservation Plan as approved by PADEP, and shall report to the PADEP on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

i. 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).

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

k. 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.

l. 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 every year.

m. 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 November 17, 2003. This program will include the following:

1. **Ground Water Level Monitoring** – Aqua PA shall monitor seven (7) wells identified in the above referenced letter 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 Wells Nos. 2, 9, A and E.
2. **Reports** - All monitoring data, including records required in Conditions “f.” and “m.” 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.

n. 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.

o. 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.

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 area served by this project is limited to the service area as described above. Any expansion beyond this area is subject to review in accordance with Section 3.8 of the *Compact* and the *GWPAR*.

r. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges 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 (or the later date established by an extension that has been timely requested and approved), 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 issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the right 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.

t. If the monitoring required herein, or any other data or information demonstrates that the operation of this project significantly affects or interferes with any domestic or other existing wells or surface water supplies, or if the docket holder receives a complaint by any user of wells or surface water supplies within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by users of wells or surface water supplies within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. Any well or surface water supply which is substantially adversely affected, or rendered dry or otherwise unusable as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder in accordance with Section 10B of the *GWPAR*. A report of investigation and/or mitigation plan prepared by a hydrologist shall be submitted to the Executive Director as soon as practicable. The Executive Director shall make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and the extent of appropriate mitigation measures, if required. The Executive



Director may modify or suspend this docket approval, or require mitigating measures, pending additional review.

u. 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.

v. For the duration of any drought emergency declared by either Pennsylvania or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of Pennsylvania, the Pennsylvania Emergency Management Council, PADEP, or the Commonwealth Drought Coordinator, to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

w. 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: June 11, 2014**

**EXPIRATION DATE: June 11, 2024**