

DOCKET NO. D-1975-078 CP-4

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

**Aqua Pennsylvania, Inc. - Waymart Division
Ground Water Withdrawal and Importation
Waymart Borough and Canaan Township, Wayne County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by East Latitude, LLC on behalf of Aqua Pennsylvania, Inc. (Aqua PA) to the Delaware River Basin Commission (DRBC or Commission) on March 26, 2015 (Application), for renewal of an allocation of ground water and review of a ground water withdrawal project. This docket was previously approved by the Commission on May 10, 2012. 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) as follows:

WELL NO.	PADEP PERMIT NO.	PADEP APPROVAL DATE
1 and 2	6404501	October 11, 2004
3	2640032	February 14, 2011
4	6475501	September 3, 1975
6	Under Review	Pending
Spring	2640032	July 2, 2012

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Wayne County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on September 15, 2015.

A. DESCRIPTION

1. **Purpose.** The purpose of this project is to renew the approval of an existing groundwater and spring withdrawal and to increase the withdrawal allocation from 11.68 million gallons per month (mgm) to 22.28 mgm to supply the docket holder's public water supply system from existing Wells Nos. 2, 3 and 4, an existing spring source, and new Well No. 6. The increased allocation is requested in order to meet projected increases in demand within their service area.

The project also includes an existing importation of 0.494 million gallons per day (mgd) of groundwater from the Susquehanna River Basin.

2. **Location.** The project wells are located in the Van Auken Creek Watershed, in the Duncannon, Polar Gap and Packerton members of the Catskill Formation in Waymart Borough and Canaan Township, Wayne County, Pennsylvania. Van Auken Creek is designated by the PADEP as a High Quality-Trout Stocked Fishery (HQ-TSF). The wells are located within the drainage area to the section of the non-tidal Delaware River known as the Upper Delaware, which is designated as Special Protection Waters.

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder serves public water to portions of Waymart Borough and Canaan Township, Wayne County, Pennsylvania as outlined on a map entitled “Service Area Plan, Aqua Pennsylvania, Inc.” submitted as part of 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 system currently serves an estimated population of 1,450 through 499 service connections, 101 commercial and 5 industrial connections with an average and maximum water demand of 0.175 million gallons per day (mgd) and 0.296 mgd, respectively. The docket holder projects an average and maximum water demand of 0.426 mgd and 0.688 mgd, respectively, by the year 2025. The allocation of 22.28 mgm should be sufficient to meet the future demands of the Aqua Waymart Division.

b. **Facilities.** The project sources have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
2	Unknown	Unknown	40	Unknown
3	Unknown	Unknown	100	Unknown
4	298	47' / 8"	200	1975
6 (new)	940	100' / 10"	250	2014

INTAKE NO.	DISCHARGE WATER BODY	PUMP CAPACITY	SAFE YIELD	YEAR CONSTRUCTED
Spring	Van Auken Creek	80 gpm	Unknown	Unknown

All water service connections are metered.
All withdrawals are metered.

Prior to entering the distribution system, the water is treated with sodium hypochlorite.

The project well heads are above the 100-year flood elevation.

The Waymart Division water system is presently interconnected with the Aqua PA SCI Waymart System which provides up to 0.494 mgd of groundwater from wells in the Susquehanna River Basin (SRB) to the Pennsylvania State Correctional Institution at Waymart (SCI) and the Federal Bureau of Prisons Facility (FBOP facility). Both facilities are located in the Delaware River Basin (DRB) in Canaan Township, Wayne County, Pennsylvania. DRB sources described in this docket are included in the Waymart Division System (PWSID No. PA2640032)

c. **Other.** Wastewater is conveyed to the Waymart Area Authority sewage treatment facility most recently approved by DRBC Docket No. D-2002-032 CP-2 on September 10, 2014. The PADEP issued its most recent NPDES Permit No. PA0046353-A1 on July 28, 2014 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the project.

d. **Cost.** The overall cost of the new well is estimated to be \$180,000.

e. **Relationship to the Comprehensive Plan.** The docket holder's sources were previously included in the Comprehensive Plan by DRBC Dockets Nos. D-1975-078 CP-1, D-1975-078 CP-2 and D-1975-078 CP-3, approved by the Commission on June 17, 1975, September 26, 2007, May 10, 2012, respectively. Issuance of this docket will continue the groundwater withdrawal project in the Comprehensive Plan.

B. FINDINGS

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 docket holder are located within in the drainage area to the Special Protection Waters. Since this project does entail additional construction and expansion of facilities and there are potentially new or increased non-point source loads associated with this approval, the non-point source pollution control plan requirement is applicable at this time. Accordingly, Special Conditions C.II.z. has been included in the Decision section of this docket.

Well No. 6 Hydrogeological Evaluation

On June 17 through June 20, 2014, a 66.5-hour continuous-rate pumping test was conducted to assess withdrawal capabilities of Well No. 6. The well was drilled 940 feet deep with 100 feet of casing was installed and grouted. The major water-bearing zones were encountered between 600 and 917 feet. The constant rate pumping test was also conducted to assess the underlying aquifer characteristics and potential impacts to the local hydrologic system. The average pumping rate of the test on Well No. 6 was approximately 250 gallons per minute (gpm). Discharge from the pumping well was directed approximately 1,500 feet through the wooded area north of Well No. 6, across a meadow area and then into an existing stormwater drain, outside of the estimated area where recharge effects might be expected. Well No. 6 was pumped for a total period of 3,990 minutes.

Groundwater response monitoring was conducted in the pumping well (Well No. 6), seven (7) monitoring wells (monitored with continuous dataloggers), staff gages located at the East and North wetlands and the culver drain to the North pond and a stilling well located at the North pond (all monitored with a continuous datalogger). Monitoring wells ranged in distance to the pumping well from approximately 530 feet (401 South Street) to approximately 2,450 feet (Grimm Business). The staff gages at the East and North wetlands were located approximately 1,880 feet and 1,920 feet, respectively, from the pumping well and the culver drain and stilling well at the North pond were located approximately 1,860 feet and 1,880 feet, respectively, from the pumping well.

Prior to the start of the pumping test, Well No. 6 had a static water level of 220.6 feet below top of casing (btoc). Maximum drawdown observed at the pumping well, after approximately 66.5 hours of pumping at a rate of 250 gpm, was 203.4 feet (water level of 424.0 feet btoc). Drawdown as a result of pumping was observed in two (2) monitoring wells, Well 401 South Street and Spojnia which had drawdowns of 22.2 and 6.46 feet, respectively.

Drawdown as a result of the withdrawals from the Well No. 6 were not discernable in the other monitoring wells or the surface water gauges.

The observed drawdown was used to calculate aquifer parameters to characterize the underlying aquifer. The transmissivity values for Well No. 6 test data was 1,320 ft²/day (Cooper-Jacob time versus drawdown), 2,100 ft²/day (Theis log-log time versus drawdown), and 636 ft²/day (recovery data) at the test rate of 250 gpm. Including calculations from the monitoring wells the average transmissivity value for the pumping test was 3.590 ft²/day. An average Storativity of 6.0×10^{-4} was calculated from the drawdown data observed at monitoring wells 401 South Street and Spojnia monitored during the pumping test. The storage coefficient is indicative of confined conditions.

The DRBC has reviewed the hydrogeological report for Well No. 6 pumping test. No adverse impacts are expected to occur to the local hydrologic system due to pumping from Well No. 6.

Groundwater Importation

The Aqua PA Waymart Division water system is presently interconnected with the Aqua PA SCI Waymart System which provides up to 0.494 mgd of groundwater from wells in the SRB to the SCI and the FBOP facility. Both facilities are located in the DRB in Canaan Township, Wayne County, Pennsylvania. The withdrawal and exportation of groundwater from the SRB was approved by the Susquehanna River Basin Commission (SRBC) in Docket No. 20030805 on August 14, 2003. Wastewater for both facilities is conveyed to the Waymart Area Authority sewage treatment facility located within the DRB. As the FBOP facility has filled to capacity, demand on the SCI Waymart system has at times exceeded the limits of the SRBC docket. The increased allocation granted in this Waymart Division docket (Docket No. D-1975-078 CP-4) will help to address the occasional shortfall in supply to the FBOP from the out-of-basin sources by increasing available supply to the FBOP through the Waymart Division and SCI Waymart (Well No. 6) sources in the DRB. The continued importation of water to the DRB from sources outside of the DRB reduces reliance on in-basin sources. No significant benefit or impairment is incurred to the basin from the ongoing importation of water from the Aqua SCI Waymart System wells located in the SRB.

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. Aqua PA submitted their most recent Water Audit on March 30, 2015

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* and *Water Quality Regulations* of the DRBC.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on 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-1975-078 CP-4 below:

a. The project described in Docket No. D-1975-078 CP-3 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1975-078 CP-4; and

b. Docket No. D-1975-078 CP-3 is terminated and replaced by Docket No. D-1975-078 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 and appurtenant facilities as described in the Section A “Physical features” are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its Public Water Supply permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s.

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 sources shall not exceed 22.28 million gallons. No source shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

SOURCE	MAXIMUM INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MGM)
Well No. 2	40	1.116
Well No. 3	100	2.676
Well No. 4	200	7.492
Well No. 6	250	10.602
Spring	80	1.426

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. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement (“Statement”) signed by the docket holder’s professional engineer for the project. The Statement must (a) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; (b) report the project’s final construction cost as such cost is defined by the project review fee schedule in effect at the time application was made; and (c) indicate the date on which the project was (or is to be) placed in operation. In the event that the final project cost exceeds the estimated cost used by the applicant to calculate the DRBC project review fee, the statement must also include (d) the amount of any outstanding balance owed for DRBC review. Such outstanding balance will equal the difference between the fee paid to the Commission and the fee calculated on the basis of the project’s final cost, using the formula and definition of “project cost” set forth in the DRBC’s project review fee schedule in effect at the time application was made.

h. This approval to utilize Well No. 6 shall expire three years from the docket approval date below unless prior thereto the docket holder has commenced operation of

the subject project or has expended substantial funds (in relation to the cost of the project) in reliance upon the approval granted in this docket.

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

j. 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.

k. 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.

l. 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 implement the long-term monitoring program as recommended by the docket holder in the Hydrogeological Report of Well No. 6 which includes the domestic well located at 401 South Street and the domestic well located at 381 South Street which was monitored during the long-term pumping test of Well No. 6. This program will include the following:

1. **Ground Water Level Monitoring** – Two (2) monitoring wells shall be measured 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 respective areas surrounding the Aqua PA production wells.
2. **Reports** - All monitoring data, including records required in Conditions “f.” 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 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.

n. 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).

o. 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.

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

q. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams from any new facilities or repair related construction.

r. 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.

s. 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.

t. 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*.

u. 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.

v. 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.

w. 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 uses of ground or surface water, or if the docket holder receives a complaint by any existing ground or surface water users within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by any ground or surface users within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. The docket holder should direct phone call notifications of potential well or surface water interference or complaints of interference to the DRBC Project Review Section at 609-883-9500, extension 216. Oral notification must always be followed up in writing directed to the Executive Director. In addition, the docket holder shall provide written notification to all potentially impacted users of wells or surface water supplies of the docket holder's responsibilities under this condition. Any ground or surface water user which is substantially adversely affected, rendered dry or otherwise diminished as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder. 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.

x. 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.

y. 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.

z. 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.

aa. 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 16, 2015

EXPIRATION DATE: September 16, 2025