

DOCKET NO. D-1999-030 CP-5

DELAWARE RIVER BASIN COMMISSION

**Pennsylvania American Water Company – Glen Alsace District
Groundwater Withdrawal
Lower Alsace Township, Exeter Township and Amity Township,
Berks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by Pennsylvania American Water Company (PAWC) to the Delaware River Basin Commission (DRBC or Commission) on July 21, 2015 (Application), for a renewal and approval of an existing allocation of groundwater and review of a groundwater withdrawal project. The dockets contained in this approval were previously approved by the Commission on February 28, 2007 (D-1999-030 CP-4) and July 19, 2006 (D-2003-032 CP-1). 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 September 4, 2014 (PADEP Permit No. 3060088).

The Application was reviewed for continuation in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Berks 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 10, 2015.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the approval of an existing withdrawal of groundwater for the docket holder's Glen Alsace District public water supply system from existing Wells Nos. G1, G5, G7, G8, G9, G9A, GL2A, DG3, DG4, DG6, DG11, DG12A and DG13. The total allocation of groundwater will remain 81.778 million gallons per month (mgm). This docket combines the PAWC interconnected Glen Alsace and Douglasville Water Districts which were previously approved under separate dockets (D-1990-030 CP-4 and D-2003-032 CP-1). The combined water supply system will operate as the Glen Alsace District. PAWC is not requesting an increase in groundwater withdrawal allocation from that contained in its prior approval.

2. **Location.** The project wells are located in the Schuylkill River and Trout Run Watersheds, Lower Alsace Township, Exeter Township and Amity Township, Berks County, Pennsylvania. The project wells are completed in the aquifers stated in the table below (Facilities). Trout Run near the project site is designated by the PADEP as Warm Water Fishes (WWF) and Migratory Fishes (MF). The Schuylkill River near the project site is designated by the PADEP as Warm Water Fishes (WWF) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder's Glen Alsace District water distribution system serves portions of Exeter Township, Amity Township and St. Lawrence Borough as shown on a map entitled "Service Area Map", submitted with the Application.

4. **Physical features.**

a. **Design criteria.** PAWC Glen Alsace District system currently serves an estimated population of 28,075 through 8,787 domestic service connections and an additional 278 commercial, 8 industrial and 38 institutional and other connections with an average and maximum water demand of 1.47 million gallons per day (mgd) and 2.27 mgd, respectively. The docket holder projects an average and maximum water demand of 1.65 mgd and 2.74 mgd, respectively, by the year 2025. The allocation of 81.778 mgm should be sufficient to supply the docket holder's public water supply system.

PAWC currently purchases on average 0.444 mgd from the Reading Area Water Authority (RAWA) and 0.028 mgd from Mount Penn Borough Municipal Authority (MPBMA) to help supplement groundwater withdrawals for their public water supply distribution system. PAWC plans to continue purchasing water from RAWA and MPBMA.

b. **Facilities.** The existing project wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED	AQUIFER
G1	162	52' / 8"	200	1955	Hornblende Gneiss
G5	206	62' / 8"	150	1964	Hornblende Gneiss
G7	170	51' / 6"	130	1966	Hornblende Gneiss
G8	220	35' / 8"	500	1967	Fanglomerate
G9	116	47' / 8"	500	1974	Fanglomerate

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED	AQUIFER
G9A	315	60' / 8"	300	2005	Fanglomerate
GL2A	445	161' / 8"	200	2003	Brunswick
DG3	262	41' / 6"	125	1959	Brunswick
DG4	245	49' / 8"	150	1965	Brunswick
DG6	397	74' / 8"	110	1986	Brunswick
DG11	357	61' / 8"	250	1990	Brunswick
DG12A	392	69' / 12"	120	2001	Brunswick
DG13	350	92' / 8"	100	2002	Brunswick

All wells and water service connections are metered.

Prior to entering the distribution system, all groundwater is disinfected via sodium hypochlorite or gaseous chlorine. All sources except DG13 are treated with poly-phosphate for soluble metals. Wells Nos. G1, G5, G7, G8, G9, G9A and GL2A are treated with zinc orthophosphate for corrosion control. Wells Nos. DG3 and DG4 use adsorption for arsenic removal. Wells Nos. G1, G5 and G7 are treated with soda ash for pH adjustment.

The project wellheads are located above the 100-year flood elevation.

The water system is presently interconnected with the RAWA and MPBMA distribution systems. The interconnections have a 1.5 and 0.5 mgd capacity, respectively. These interconnections are used on a regular basis with an average use of approximately 0.472 mgd.

System storage facilities have the capacity of 4.46 million gallons (mg), which is equivalent to approximately 1.5 days of supply.

c. **Other.** Wastewater from the service area is conveyed to the following two wastewater treatment facilities:

- Exeter Township Authority sewage treatment facility most recently approved by DRBC Docket No. D-1992-003 CP on December 9, 1992. The Authority has submitted a renewal application and is awaiting approval. The PADEP issued its most recent NPDES Permit No. PA0026972 on February 21, 2008 for this treatment

facility. The treatment facility has adequate capacity to receive wastewater from this project. The Authority has submitted a renewal application to the PADEP and is awaiting approval.

- Amity Township sewage treatment facility most recently approved by DRBC Docket No. D-1990-078 CP-4 on September 16, 2015. The PADEP issued its most recent NPDES Permit No. PA0070351 on June 14, 2010 for this treatment facility. The PADEP has received a renewal application for this facility and the permit has been administratively extended. The treatment facility has adequate capacity to receive wastewater from this project.

d. Relationship to the Comprehensive Plan. The PAWC wells were included in the Comprehensive Plan via DRBC Dockets Nos. D-1966-111 CP, D-1966-194 CP, D-1968-065 CP, D-1974-068 CP, D-1986-054 CP, D-1996-053 CP, D-1999-030 CP, D-1999-030 CP-2, D-1999-030 CP-3, D-1999-030 CP-4, D-2001-049 CP and D-2003-032 CP issued on July 20, 1966, September 26, 1966, April 24, 1968, April 24, 1974, March 25, 1987, March 26, 1997, December 8, 1999, January 19, 2005, September 26, 2005, February 28, 2007, February 6, 2002 and July 19, 2006, respectively. Issuance of this docket will continue the groundwater withdrawal project in the Comprehensive Plan.

B. FINDINGS

This docket will combine two previous approvals for the Glen Alsace District and the Douglasville District, Docket Nos. D-1990-030 CP-4 and D-2003-032 CP-1, respectively, into a single public water supply system. The combined water supply system will operate as the Glen Alsace District.

Wells Nos. DG3, DG4, DG6, DG11 and DG12A are located within the drainage area of one of the Southeastern Pennsylvania Ground Water Protected Area (SEPA GWPA) subbasins, within a municipality that is not included in the SEPA GWPA. The wells are located within the drainage area of the Schuylkill-Sixpenny Creek (SEPA GWPA Subbasin No. 19). Although these sources are not located in the SEPA GWPA, the actual usage of these wells is included in the subbasin's total annual water use for planning purposes in the SEPA GWPA. The total approved allocation of the five (5) PAWC sources located within the Schuylkill-Sixpenny Creek subbasin is 33.842 mgm or 406.104 mgy, which is less than the withdrawal limit set in Section 6.I of the *GWPA Regulations* of 1,987 mgy.

The docket holder 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 on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

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. PAWC submitted their most recent Water Audit on March 31, 2015 for the combined Glen Alsace District.

C. DECISION

- I. Effective on the approval date for Docket No. D-1999-030 CP-5 below:
 - a. The project described in Dockets Nos. D-1999-030 CP-4 and D-2003-032 CP are removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1999-030 CP-5; and
 - b. Dockets Nos. D-1999-030 CP-4 and D-2003-032 CP are rescinded and replaced by Docket No. D-1999-030 CP-5.
 - c. The project and the appurtenant facilities described in the Section entitled “Physical features” above 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, 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 well sources shall not exceed 81.778 million gallons. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MGM)
G1	200	5.803
G5	150	6.25
G7	130	5.083
G8	500	22.32
G9	500	22.32
G9A	300	13.392
GL2A	200	6.026
DG3	125	5.446
DG4	150	6.696
DG6	110	4.91
DG11	250	11.16
DG12A	120	5.357
DG13	100	4.464

e. The wells shall be equipped with a readily accessible capped port and drop pipe so that water levels may be measured under all conditions.

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 continue to implement the long-term monitoring program as submitted by the docket holder in a letter dated April 2003 and re-affirmed in an email to the Commission dated May 24, 2006. This program will include the following:

1. **Ground Water Level Monitoring** – PAWC shall monitor four (4) 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 the PAWC 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 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. 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 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.

t. 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 docket 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 certified mail or email (using addresses posted on the DRBC website); or (b) written notice in accordance with the preceding clause 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. 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.

u. 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.

v. 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: December 9, 2015

EXPIRATION DATE: December 9, 2025