

DOCKET NO. D-2001-20 CP-3

DELAWARE RIVER BASIN COMMISSION

Located Within the Drainage Area of Special Protection Waters

**Lehigh County Authority
Ground Water Withdrawal
Upper Macungie Township, Lehigh County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by the Lehigh County Authority to the Delaware River Basin Commission (DRBC or Commission) on July 1, 2008 for a docket amendment and review of pumping test results of a proposed replacement well (Well No. WL-8R) for their water supply system. Well No. WL-8 will be replaced by the larger diameter Well No. WL-8R. The allocation of ground water for the withdrawal project approved by the DRBC on September 26, 2007 (previous docket) will remain the same. Well Nos. WL-8R is pending approval by the Pennsylvania Department of Environmental Protection (PADEP).

The Application was reviewed for inclusion of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Lehigh-Northampton Joint Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on September 24, 2008.

A. DESCRIPTION

- 1. Purpose.** The purpose of this project is to amend the current docket with the removal of existing Well No. WL-8 from the docket and include replacement well WL-8R. The allocation of groundwater for the project will remain at 256.24 mg/30 days to supply the docket holder's public supply distribution system from new Well No. WL-8R and seventeen (17) other existing wells.
- 2. Location.** The project wells are located in the Schaefer Run, Little Lehigh Creek, Cedar Creek and Iron Run Watersheds. Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder’s sources serve water to portions of Upper and Lower Macungie Townships, Weisenberg Township, South Whitehall Township, Salisbury Township, Upper Milford Township, Lowhill Township, and the Town of Macungie as indicated on a map entitled “Lehigh County Authority, Western Lehigh Service Area - Central Lehigh Division Water System,” included in the hydrogeologic report submitted with the withdrawal application. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the Decisions section of this docket.

4. **Physical features.**

a. **Design criteria.** The docket holder currently operates eighteen wells with an average and maximum water demand of 172.5 mg/30 days and 254.4 mg/30 days, respectively. The docket holder anticipates a future ten-year increase in the average and maximum water demands to 298.8 mg/30 days and 449.5 mg/30 days, respectively. The docket holder is currently exploring additional sources to meet the projected demand and will submit additional applications to the Commission, as appropriate.

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

WELL NO.	DEPTH	CASED DEPTH	PUMP CAPACITY	FORMATION	YEAR DRILLED
1	305'	155'	500 gpm	Allentown	1963
2	334'	184'	250 gpm	Allentown	1964
3	400'	53'	1,200 gpm	Jacksonburg	1970
5	412'	146'	1,000 gpm	Jacksonburg	1990
6	400'	134'	800 gpm	Beekmantown	1971
9	200'	119'	1,000 gpm	Beekmantown	1985
10	400'	68'	100 gpm	Allentown	1969
11	130'	40'	200 gpm	Allentown	1973
12	206'	78'	350 gpm	Allentown	1963
13	185'	62'	350 gpm	Allentown	1966
14	184'	128'	350 gpm	Allentown	1971
15	360'	135'	350 gpm	Allentown	1972
16	272'	215'	300 gpm	Allentown	1976
17	236'	35'	210 gpm	Beekmantown	1955
20	550'	300'	600 gpm	Allentown	1990
A	596'	280'	400 gpm	Beekmantown	2006
B	571'	358'	300 gpm	Beekmantown	2006
8R	265'	150'	1,300 gpm	Beekmantown	2008

All water service connections are metered.

All wells are metered.

Prior to entering the distribution system, the water is treated by chlorination.

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

The water system has emergency interconnections with the South Whitehall Township Authority and Salisbury Township water distribution systems.

c. **Other.** Wastewater is conveyed to the City of Allentown sewage treatment facility most recently approved by DRBC Docket No. D-97-14 CP on August 6, 1997. The PADEP issued its most recent NPDES Permit No. PA0026000 on March 20, 2003 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. **Cost.** The overall project cost of new Well No. WL-8R is \$1,017,500.

e. **Relationship to the Comprehensive Plan.** The docket holder's existing wells were previously included in the Comprehensive Plan by Dockets Nos. D-67-6 CP, D-70-16 CP, D-71-148 CP, D-72-24 CP, D-73-30 CP, D-73-186 CP, D-74-14 CP, D-85-51 CP, D-90-69 CP, D-92-13 CP, D-2001-20 CP, and D-2001-20 CP-2.

B. FINDINGS

On January 19, 2005, September 26, 2005, September 27, 2006, September 26, 2007, and May 14, 2008, the DRBC approved interim amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. On July 16, 2008, the DRBC approved permanent amendments to its *Water Quality Regulations* that included the portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area as Special Protection Waters. (Lower SPW)

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/service areas (i.e., there are 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 Condition II.v. has been included in the Decision section of this docket.

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

The DRBC estimates that the project withdrawals, used for the purpose of public water supply, result in a consumptive use of ten 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.

The docket holder conducted a 72-hour constant-rate pumping test on replacement Well No. WL-8R in May, 2008. The well was pumped at an average rate of 1,970 gallons per minute (gpm). Drawdown in the well was 11 feet. Due to the lack of private wells in the area, only one off-site residential well was monitored for the duration of the test. Maximum drawdown observed in the residential well was 0.171 feet. No adverse impact is anticipated with the operation of Well No. WL-8R, however, the docket holder shall agree to include the above mentioned monitoring well in the long-term monitoring program as stipulated in the Decision Section. The safe yield calculated for the well was 1,300 gpm, or 1.872 mgd, or 56.16 mg/30 days.

C. DECISION

- I. Effective on the approval date for Docket No. D-2001-20 CP-3 below:
 - a. Docket Nos. D-2001-20 CP-2 is terminated and replaced by Docket No. D-2001-20 CP-3. As such, Well No. WL-8 is hereby removed from the docket and shall be abandoned as described in the June 2008, Hydrogeologic Report (Engineer's Project No. 7028.01). Well No. WL-8R is hereby included in this docket to replace Well No. WL-8.
 - b. 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 and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's. The docket holder shall register with the PADEP all surface and ground water sources described in this docket in accordance with the Pennsylvania Water Resources Planning Act (Pennsylvania Act 220).

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 30-day period, the withdrawal from Well No. WL-8R shall not exceed 56.16 million gallons, the withdrawal from Well No. A shall not exceed 17.28 million gallons, the withdrawal from Well No. B shall not exceed 12.96 million gallons, the withdrawal from Well No. 20 shall not exceed 25.92 million gallons, and the total withdrawal from all wells shall not exceed 256.24 million gallons.

e. The wells shall be equipped with readily accessible capped ports and drop pipes 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 and shall be available at any time to the Commission if requested by the Executive Director.

g. 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 submitted by the docket holder in a letter dated March 9, 2007. This program will include the following:

1. **Ground Water Level Monitoring** - Water levels from Monitoring Wells Nos. C, WL-20, MW1, MW2, Wright Well, the three additional private wells (yet to be determined), and the well located at 4817 L. Macungie Road (monitored during the WL-8R pumping test) 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 area of Wells Nos. A, B, and WL-8R.

2. Within sixty days of the date of approval of this docket, the docket holder shall submit a status update to the Commission detailing the final three monitoring wells added to the long-term monitoring program, the anticipated date of commencement of operation of Wells Nos. A, B, and WL-8R and the anticipated date of commencement of monitoring.

3. **Reports** - All monitoring data, including records required in Conditions "f." and "g." herein shall be submitted to the Commission annually beginning one month after the first year of operation. 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.

h. 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.

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 Resolution No. 87-6 (Revised), 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 unaccounted-for 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. 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.

l. 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).

m. 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.

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. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of this 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 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. 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 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. 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 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. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

w. The docket holder and any other person aggrieved by a reviewable action or decision taken by the Executive Director or Commission pursuant to this docket may seek an administrative hearing pursuant to Articles 5 and 6 of the Commission's *Rules of Practice and Procedure*, and after exhausting all administrative remedies may seek judicial review pursuant to Article 6, section 2.6.10 of the *Rules of Practice and Procedure* and section 15.1(p) of the Commission's *Compact*.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: September 24, 2018