

DOCKET NO. D-2000-060 CP-2

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

**Hemlock Farms Community Association
Groundwater Withdrawal
Blooming Grove Township, Pike County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by Entech Engineering, Inc. on behalf of Hemlock Farms Community Association (Hemlock Farms) to the Delaware River Basin Commission (DRBC or Commission) on September 30, 2013 for renewal of an allocation of groundwater and review of a groundwater water withdrawal project (Application). The most recent Public Water Supply Permit No. 2520033 approving the operation of facilities were issued by the Pennsylvania Department of Environmental Protection (PADEP) on January 25, 2011 (Wells Nos. 1, 10 and 49) and October 11, 2011 (Wells Nos. 4 and 80).

The Application was reviewed for continued inclusion in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Pike County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on March 11, 2014.

A. DESCRIPTION

1. Purpose. The purpose of this project is to renew the previous approval to withdrawal up to 31 million gallons per month (mgm) of groundwater from Wells Nos. 1, 4, 10, 49 and 80 for use in the docket holder's existing public water supply system. The allocation is not an increase in the previously approved allocation.

2. Location. The project wells are completed in the Catskill Formation in Blooming Grove Township, Pike County, Pennsylvania. The northern part of the Hemlock Farm community including wells Wells Nos. 1, 4 and 10 is located in the Upper Shohola Creek watershed within the drainage area to the Upper Delaware, which is classified as Special Protection Waters (SPW). The southern part of the community including wells Nos. 49 and 80 is located in the Upper Bush Kill watershed within the drainage area to the Middle Delaware, which is classified as SPW. The Bush Kill is designated by the PADEP as Exceptional Value (EV) supporting Migratory Fishes (MF). Shohola Creek near the project site is designated by the PADEP as High Quality (HQ) supporting Cold Water Fishes (CWF) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. **Area Served.** The public water distribution system operated by Hemlock Farms serves only the Hemlock Farms Community as delineated on a map entitled “Hemlock Farms Community Association Service Area Map” submitted with the Application. Hemlock Farms Community is located approximately one mile south of Interchange 9 of Interstate 84, approximately 14 miles west of Milford, Pennsylvania predominately in Blooming Grove Township, Pike County, Pennsylvania. The extreme southern portion and southeastern portion of Hemlock Farms are located in Porter Township and Dingman Township, respectively.

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 water to approximately 8,321 customers on 3,227 domestic service connections, 35 commercial service connections and 5 institutional service connections and records an existing average and maximum water demand of 0.736 million gallons per day (mgd) and 0.965 mgd, respectively. Hemlock Farms projects the 10-year average and maximum water demand to increase to 0.797 mgd and 1.0 mgd, respectively as a result of 273 additional domestic service connections. In 2012, the combined monthly withdrawals averaged 23.23 mgm and peaked at 29.93 mgm. As described in the FINDINGS section of this docket, the continued allocation of 31 mgm should be sufficient to meet the future demands of the Hemlock Farms Community if current water losses are reduced.

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

WELL NO.	DEPTH	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY	YEAR DRILLED
1	333’	57’ / 6”	60 gpm	1963
4	545’	110’ / 10”	500 gpm	1998
10	585’	107’ / 10”	50 gpm	Unknown
49	350’	42’ / 8”	300 gpm	1969
80	430’	41’ / 8”	300 gpm	1969

All water service connections are metered.

All wells are metered.

Prior to entering the distribution system, the water is treated by disinfection and corrosion control.

The project wells are outside the 100-year floodplain.

The water system is not presently interconnected with any other distribution system.

- c. **Other.** Wastewater is disposed at individual on-lot septic systems.
- d. **Cost.** There are no projects costs associated with this docket renewal.
- e. **Relationship to the Comprehensive Plan.** The original project, which at the time included Wells Nos. 1, 4, 51, 49 and 80 were previously included in the Comprehensive Plan by the Commission in Docket No. D-69-183 CP issued to Consolidated Utilities Corp. on December 11, 1969. Without knowledge of the previous Commission approval, the project consisting of existing Wells Nos. 1, 49 and 80 (approved in D-69-183 CP) and new wells Nos. 10 and 4 were added to the Comprehensive plan via approval of Docket No. D-2000-60 CP on January 9, 2001. Well No. 4 approved by the latter docket is not the same source identified as Well No. 4 in Docket D-69-183 CP.

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 and project service area are located within in the drainage area to the Special Protection Waters. The docket holder previously submitted an acceptable non-point source pollution control plan to demonstrate that Best Management Practices (BMPs) are, and will continue to be, implemented in the service area. The development incorporates large man-made

lakes that provide substantial nutrient control and stormwater control, both of which reduce the potential for non-point source pollution; stormwater retention capacity, and wetlands with buffer areas required for preservation from development. Development is restricted to large lots with a requirement that 60 percent of the area remain undisturbed. No significant new non-point source pollution is expected from the service area development due to implementation of the applicant's required site development criteria, stormwater management, open space preservation, buffer zones, and other BMPs.

Water Loss

At the time of the previous docket approval, unaccounted-for water was estimated at 50 percent. In the early 2000's and 2005, the docket holder embarked upon an aggressive leakage and loss detection program including the replacement of water mains, service lines, service meters and hydrants. Despite these efforts, unaccounted-for water use in the project service area remains at approximately 50 percent. In order to reduce unaccounted-for water and remain below the approved system allocation, the docket holder is required to submit an updated water leakage detection and reduction plan to the Commission within 12 months of the approval date of this docket and annual status reports detailing the efforts and results of the program (see Condition C.II.i).

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 every year. To date, Hemlock Farms has not submitted any Water Audits. The docket holder is aware of this requirement and Condition C.II.j requires that the docket holder submit water audits for calendar year 2012 and 2013 by March 31, 2014.

This project consists of an existing withdrawal of groundwater from Well Nos. 1, 4, 10, 49 and 80. The docket holder has requested individual allocations for the existing wells based on the existing water use. These rates are provided in Decision Condition II.d. in the Decision Section of this docket. As the existing water withdrawals have already been realized by the local hydrologic system, there should be no significant impacts from continued withdrawals from the existing system wells.

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-2000-060 CP-2 below:

a. The projects described in Docket Nos. D-69-183 CP and D-2000-60 CP are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2000-060 CP-2; and

b. Docket Nos. D-69-183 CP and D-2000-60 CP are terminated and replaced by Docket No. D-2000-060 CP-2.

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. The docket holder shall register with and 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).

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 31 million gallons. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM INSTANTANEOUS RATE	MONTHLY ALLOCATION
1	50 gpm	2.07 mgm
4	500 gpm	18.60 mgm
10	50 gpm	2.23 mgm
49	220 gpm	8.5 mgm
80	300 gpm	10.33 mgm

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. 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 order to reduce unaccounted-for water, the docket holder is required to submit an updated water leakage detection and reduction plan to the Commission by March 12, 2015 (12 months of the approval date of this docket) and annual status reports (due March 31) detailing the efforts and results of the program.

j. 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. Water audits for calendar years 2012 and 2013 shall be submitted by March 31, 2014.

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

p. 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.

q. 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.

r. 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*.

s. 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.

t. 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.

u. 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.

v. 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.

w. 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.

x. 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: March 12, 2014

EXPIRATION DATE: March 12, 2024