

DOCKET NO. D-2002-014 CP-2

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

**Town of Roxbury
Groundwater Withdrawal and Out-of-Basin Diversion
Town of Roxbury, Delaware County, New York**

PROCEEDINGS

This docket is issued in response to an Application submitted by the Town of Roxbury to the Delaware River Basin Commission (DRBC or Commission) on September 10, 2013 for renewal of an allocation of groundwater and review of a groundwater water withdrawal and water and wastewater export project (Application). The water supply project was approved by the New York State Department of Environmental Conservation (NYSDEC) under Permit No. WSA No. 10223 on March 12, 2002, modified July 29, 2002, subject to approval by the DRBC.

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 Delaware County Planning Department has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on September 9, 2014.

A. DESCRIPTION

1. Purpose. The purpose of this project is to renew the approval of an allocation of up to 13.0 million gallons per month of groundwater from existing wells Nos. 1 and 2 and a collection of 12 existing spring sources for use in the docket holder's public water system that serves the Roxbury and the Grand George Water Districts with no increase in allocation. The project involves the exportation of up to 0.3 mgd of water, half in the form of raw wastewater and half as groundwater supply, from the Hamlet of Roxbury in the Delaware River Basin to the Hamlet of Grand George in the Mohawk-Hudson River Basin.

2. Location. The project is located entirely in the Town of Roxbury, Delaware County, New York, which straddles the Basin Divide. The project wells are screened in unconsolidated glacial stratified outwash deposits in the East Branch Delaware River Watershed in the drainage area of the portion of the non-tidal main stem Delaware River known as the Upper Delaware,

which the Commission has designated as Special Protection Waters (SPW). Water from the wells is used in the Roxbury Water District (in the DRB) and transferred out-of-basin via a transmission line to the Grand Gorge Water District, approximately 6 miles distant. The East Branch Delaware River near the project withdrawal is classified by the NYSDEC as a Class C(T) waterbody.

Specific location information has been withheld for security reasons.

3. Area Served. The springs and wells Nos. 1 and 2 serve the Hamlet of Roxbury (Roxbury Water District) in the Delaware River Basin and the Hamlet of Grand George (Grand George Water District) outside the Delaware River Basin as shown on figures entitled “Roxbury Water District Location Map” and “Grand Gorge Water District Location Map” submitted with 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. As described in Docket D-2002-14 CP, the docket holder completed improvements to the Roxbury Water District distribution system including the replacement of Well No. 1, increasing the withdrawals from Well No. 2 and the installation of transmission mains to convey potable water and sewage out-of-basin to facilities in the Grand Gorge Water District. The water supply expansion project was undertaken to provide a reliable supply and alleviate water quality issues in the Grand Gorge Water system. The purpose of the collection and conveyance of the Hamlet of Roxbury and adjacent properties in the Hamlet of Hubells Corners wastewater to the New York City Department of Environmental Protection (NYCDEP) Grand Gorge Wastewater Treatment Plant (GGWWTP) for treatment was to halt the discharge of untreated or inadequately treated wastewater from failing individual on-lot septic systems to the East Branch Delaware River Watershed and the NYC water supply watershed above its Pepacton Reservoir.

Potable water supply sources for the Town of Roxbury-Roxbury and Grand Gorge Water Districts includes a collection of 12 springs located east of the Hamlet of Roxbury and two groundwater wells (Wells Nos. 1 and 2) located north of the Hamlet. In 2008, the NYSDOH declared the spring source and Well No. 2 to be Ground Water Under the Direct Influence of Surface Water (GWUDI). Town of Roxbury disconnected the spring source from the water distribution system in March 2009. Well No. 1 is now used exclusively and Well No. 2 is retained only as an emergency back-up supply well. The Grand Gorge water district is supplied entirely by its interconnection to the Roxbury Water District, but two of its original water supply wells were retained for emergency back-up supplies.

The existing (currently unused) spring collection system consists of 12 individual spring sources that are piped via gravity to a common treatment point (Springs Treatment Building) where the water is chlorinated and the pH adjusted as necessary and then discharged into a 0.225 million gallon capacity concrete, covered ground-level reservoir. Water collected from the spring sources is metered prior to entering the Springs Treatment Building. During very wet periods and periods of low demands, some overflow of untreated spring water occurs at the

Springs Treatment Building bypassing the storage reservoir. Historically, the Town of Roxbury utilized the water from the springs and supplemented water, as necessary, water from its well supplies to make up for any additional demands. Prior to the interconnection with Grand Gorge Water District, the springs were able to supply the entire system demands for most of the year.

The Town of Roxbury is currently evaluating the spring sources and plans to begin rehabilitating three of the best producing springs later this year. Prior to reconnecting the springs to the distribution system, the spring sources must be reevaluated for evidence of direct surface water influence and approved by the New York State Department of Health (NYSDOH). This docket approves the use of the existing springs contingent on the docket holder obtaining all necessary approvals from the NYSDOH. Prior to reconnecting the springs to the distribution system, the docket holder must submit a copy of the NYSDOH approval letter to the DRBC Executive Director and provide confirmation that all water diverted from the spring sources into the distribution system is metered (see conditions c.II.f and w. in the decision section of this docket).

The docket holder’s public water system currently serves water to approximately 1,000 customers on 458 domestic service connections and records an existing average and maximum water demand of 0.170 million gallons per day (mgd) and 0.279 mgd, respectively. The Town of Roxbury estimates the 10-year projected average and maximum daily demand to increase to 0.260 mgd and 0.420 mgd. The total allocation of 13.0 mgm (0.42 mgd) should be sufficient to meet the future demands in the Roxbury and Grand Gorge Water Districts.

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

WELL NO.	DEPTH	SCREENED INTERVAL	PUMP CAPACITY	YEAR DRILLED
No. 1	70	55’ – 70’	350	2001
No. 2	36	26’ – 36’	160	1964

SPRING NO.	WITHDRAWAL WATERBODY	DEPTH	PUMP CAPACITY	YEAR CONSTRUCTED
No. 1-12	Shallow groundwater*	4’ (approximate)	Unknown – gravity fed	1890

*After rehabilitation and prior to resumption of use, additional testing is required by the NYSDOH to determine if the groundwater is under the direct influence of surface water.

All water service connections are metered.

All wells are metered. All spring water diverted is metered prior to entering the Springs Treatment Building.

Prior to entering the distribution system, the well water is disinfected with chlorine and treated with zinc orthophosphate for corrosion control. When used, spring water is chlorinated and its pH adjusted.

The project wells are located within the 100-year floodplain of the East Branch Delaware River. Base flood elevations are not available for this area. The wellhead and associated infrastructure have been elevated above the largest known flood elevation.

The Grand Gorge Water District is interconnected with the Roxbury Water District. Neither of these systems are interconnected with any other distribution system.

c. **Other.** Wastewater from the Roxbury Water District is conveyed via force main from the Roxbury pump station to the NYCDEP GGWWTP, which is located in the Town of Roxbury out of the Delaware River Basin. The NYSDEC issued its most recent SPDES Permit No. NY0026565 on September 24, 2009 for this treatment facility. The treatment facility has adequate capacity to continue to receive wastewater from the existing project.

d. **Cost.** There are no construction costs associated with this renewal project.

e. **Relationship to the Comprehensive Plan.** The project was previously included in the Comprehensive Plan by the Commission in Docket No. D-2002-14 CP, approved on July 17, 2002.

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 docket holder's service within the Delaware River Basin is located within the drainage area of the East Branch Delaware River above the Pepacton Reservoir. This reservoir is listed as one of the major surface water impoundments in Section 3.10.3A.2.g.5) and the docket holder's water supply project is exempt from the NPSPCP requirements, as outlined in Article 3.10.3A.2. of the Commission's WQR.

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

A detailed discussion justifying the exportation of water is provided in DRBC Docket No. D-2002-14 CP. This docket renews the exportation of up to 0.3 mgd of water (and wastewater) approved in Docket No. D-2002-14 CP with no increase in the export amount.

This project consists of an existing withdrawal of groundwater from Well Nos. 1 and 2. The individual well allocations provided in Condition C.II.d. in the Decision Section of this docket are based on the previously approved well allocations. 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.

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. Town of Roxbury submitted their most recent Water Audit on March 24, 2014.

Project withdrawals are used for the purpose of public water supply and the consumptive use, including exported water and wastewater is estimated to be 100 percent. 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.

C. DECISION

- I. Effective on the approval date for Docket No. D-2002-014 CP-2 below:

a. The project described in Docket No. D-2002-14 CP is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2002-014 CP-2; and

b. Docket No. D-2002-14 CP is terminated and replaced by Docket No. D-2002-014 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 NYSDEC and NYSDOH, 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 NYSDEC all groundwater sources described in this docket in accordance with the NYSDEC Regulations ECL Article 15 Title 33 - § 15-3301 Water Withdrawal Reporting.

b. The wells, springs 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 (wells and springs) shall not exceed 13.0 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
Well No. 1	350 gpm	9.3 mg
Well No. 2	160 gpm	7.1 mg

In addition, the total combined exportation of all water (or wastewater) shall not exceed 0.3 mgd.

e. The wells shall be equipped, where possible, with readily accessible capped ports and minimum ½ inch inner diameter (ID) drop pipes as repairs or modifications are made at each existing well 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 NYSDEC 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 NYSDEC, 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 NYSDEC, 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 NYSDEC on the actions taken pursuant to this program and the impact of those actions as requested by the NYSDEC.

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. The docket holder shall continue to implement its Water Conservation Plan as approved by NYSDEC, and shall report to the NYSDEC on actions taken pursuant to this program and the impact of those actions as requested by the NYSDEC.

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

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

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 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.

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 New York 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 New York to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

w. Prior to reconnecting the springs to the distribution system, the docket holder shall submit a copy of the NYSDOH approval letter to the DRBC Executive Director and provide confirmation that all water diverted from the spring sources into the distribution system is metered.

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: September 10, 2014

EXPIRATION DATE: September 10, 2024