

**DOCKET NO. D-1963-004 CP-2**

**DELAWARE RIVER BASIN COMMISSION**

**Special Protection Waters**

**Town of Rockland**

**Roscoe-Rockland Water District and Livingston Manor Water District**

**Groundwater Withdrawal**

**Town of Rockland, Sullivan County, New York**

**PROCEEDINGS**

This docket is issued in response to two Applications submitted by Town of Rockland (The Town or docket holder) to the Delaware River Basin Commission (DRBC or Commission) on August 7, 2013 for approval of an allocation of groundwater and review of two existing groundwater water withdrawal projects serving the docket holder's Roscoe-Rockland and Livingston Manor Water Districts (Application). The groundwater withdrawal projects were approved by the New York State Department of Environmental Conservation (NYSDEC) on June 3, 1996 (Permit No. WSA#9365 for the Roscoe-Rockland Water District) and May 15, 1995 (Permit No. WSA#8771 for the Livingston Manor Water District), subject to approval by the DRBC.

The Application was reviewed for inclusion in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Sullivan County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on June 10, 2014.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this project is for the approval of an existing groundwater withdrawal to supply up to 8.928 million gallons per month (mgm) of water from Wells Nos. 1 and 2 to the Town of Rockland Roscoe-Rockland Water District and up to 21.39 mgm of water from Wells Nos. 1 and 2 to the Town of Rockland Livingston Manor Water District. The projects consist of existing groundwater withdrawals that replaced the Town of Rockland's original surface water sources, one of which was previously approved by the Commission in Docket No. D-63-4 issued to Roscoe-Rockland Water District on May 29, 1963.

2. **Location.** The two wells (Wells Nos. 1 and 2) that supply water to the Town of Rockland Roscoe-Rockland Water District and the two wells (Wells Nos. 1 and 2) that supply water to the Town of Rockland Livingston Manor Water District are completed in the unconsolidated glacial outwash deposits that overly the Upper Walton Formation in the Town of Rockland, Sullivan County, New York. The Roscoe-Rockland Water District and its sources are located in the Beaver Kill Water Watershed. The Beaver Kill near the project site is classified by the NYSDEC as a Class C(T) water body that supports trout populations. The Town of Rockland Livingston Manor Water District and its sources are located in the Little Beaver Kill Water Watershed. The Little Beaver Kill near the project site is classified by the NYSDEC as a Class B(T) water body that supports trout populations.

The Rockland-Roscoe and Livingston Manor Water District sources are located within the drainage area of the Upper Delaware, which is designated as Special Protection Waters. Specific location information has been withheld for security reasons.

3. **Area Served.** The Town of Rockland serves water to the Hamlets of Roscoe and Rockland (Roscoe-Rockland Water District) and Livingston Manor (Livingston Manor Water District). The service areas are outlined on 2 maps entitled “Roscoe-Rockland Water District” and “Livingston Manor Water District” 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.** The Town of Rockland’s Roscoe-Rockland Water District system currently serves water to approximately 1,000 persons on 200 domestic service connections and 65 commercial service connections and records an existing average and maximum water demand of 0.096 million gallons per day (mgd) and 0.272 mgd, respectively. The Town of Rockland projects the 10-year average and maximum water demand to increase to 0.120 mgd and 0.288 mgd, respectively. The allocation of 8.928 mgm should be sufficient to meet the future demands of the Roscoe-Rockland Water District.

The Town of Rockland’s Livingston Manor Water District system currently serves water to approximately 1,300 persons on 400 domestic service connections and 75 commercial service connections and records an existing average and maximum water demand of 0.345 million gallons per day (mgd) and 0.470 mgd, respectively. The Town of Rockland projects the 10-year average and maximum water demand to increase to 0.530 mgd and 0.690 mgd, respectively. The allocation of 21.39 mgm should be sufficient to meet the future demands of the Livingston Manor Water District.

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

WELL NO.	DEPTH	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY	YEAR DRILLED
No. 1 (Roscoe-Rockland W.D.)	90'	Unknown / 16"	200 gpm	1995
No. 2 (Roscoe-Rockland W.D.)	90'	Unknown / 16"	200 gpm	1995
No. 1 (Livingston Manor W.D.)	60'	Unknown / 20"	550 gpm	1995
No. 2 (Livingston Manor W.D.)	60'	Unknown / 20"	550 gpm	1995

All water service connections are metered.

All wells are metered.

Prior to entering the distribution systems, water is treated with a sequestering agent for iron control and disinfected with chlorine.

The project wells are located outside the mapped 100-year flood hazard area.

The Roscoe-Rockland and Livingston Manor Water Districts are separate systems and neither water supply system is presently interconnected with any other water distribution system.

c. **Other.** Wastewater from the Roscoe-Rockland Water District is conveyed to the Roscoe Sewage Treatment Plant which was most recently approved by DRBC Docket No. D-82-35 CP on February 26, 1986. The NYSDEC issued its most recent SPDES Permit No. NY 0034983 on September 7, 2010 for this treatment facility. Wastewater from the Livingston Manor Water District is conveyed to the Livingston Manor sewage treatment facility most recently approved by DRBC Docket No. D-1985-028 CP-2 on May 8, 2013. The NYSDEC issued its most recent SPDES Permit No. NY 0025437 on February 27, 2007 for this treatment facility. The treatment facilities have adequate capacity to continue to receive wastewater from the project.

d. **Cost.** There are no estimated costs associated with the approval of this existing project.

e. **Relationship to the Comprehensive Plan.** The existing groundwater withdrawals were not previously reviewed and approved by the Commission. Upon approval, the project will be included 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 Town of Rockland Roscoe-Rockland and Livingston Manor Water Districts are located within in the drainage area to the Special Protection Waters. Since this project does not entail additional construction and expansion of facilities or service areas (i.e., there are not any new or increased non-point source loads associated with this approval), the non-point source pollution control plan requirement is not applicable at this time. Accordingly, Special Condition II.w. has been included in the Decision section of this docket.

### **Previous Water Use**

In 1999, the Town of Rockland replaced its original surface water sources with the groundwater wells described in this docket. Water for the Roscoe-Rockland Water District had been sources from Abe Wood Brook, a tributary to the Beaver Kill as described in DRBC Docket No. D-63-4, dated May 29, 1963. Water for the Livingston Manor Water District was withdrawn from Matawa Lake which drains to the Little Beaver Kill. This withdrawal had not been approved by the Commission.

### **Existing Water Use**

This project consists of an existing withdrawal of groundwater from Wells Nos. 1 and 2 in the Roscoe-Rockland Water District and Wells Nos. 1 and 2 in the Livingston Manor Water District. The docket holder has requested individual allocations for the existing wells based on the permitted capacities approved in the NYSDEC Water Supply Permits and are equal to the projected maximum daily demand. These rates are provided in Decision Condition II.d. in the Decision Section of this docket.

In its Application, the Town of Rockland requested an allocation of 0.800 million gallons per day (24.8 mgm) for its Livingston Manor Water District. Although this rate was permitted by NYSDEC, the estimated ten-year projected maximum water use as stated in the Application is 0.690 mgd (21.39 mgd). As the Commission bases water allocations on ten-year projected maximum use estimates, the allocation of 21.39 mgm granted herein satisfies the docket holder's ten year projected maximum use within the Livingston Manor Water District.

### **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. The Town of Rockland submitted their most recent Water Audit for the Livingston Manor Water District and Roscoe-Rockland Water District on February 4, 2014 and March 4, 2014, respectively.

### **Water Loss**

Water audits submitted by the docket holder show unbilled water amounts of 78 percent and 67 percent of the total withdrawals for the Livingston Manor and Roscoe-Rockland Water Districts, respectively. The Town of Rockland's sources and service connections are metered and the source meters are inspected annually. Additionally, the Town of Rockland conducts regular leak detection activities including sonic listening devices and water usage monitoring. The high unbilled water amounts are believed to be from frequent flushing of portions of the water systems lines that is necessary to remove scale and particulates in the water. Flushing is performed upon customer complaints of water quality using bleeder valves installed on fire hydrants. Complaints are received on a weekly basis.

In 1999, the original surface water sources supplying the system were replaced by the groundwater supply described in this docket. Because the well sources were located in a different area than the original surface water supplies, the direction of water flow in the system piping was reversed upon connection to the wells. This reversal of flow is believed to cause additional removal of scale that had built up on the pipes. The Town of Rockland began adding a sequestering agent to the water in an attempt to coat the piping and improve water quality; however, complaints continue to this day.

The docket holder is required to evaluate alternative groundwater treatment methods and/or system improvements that would reduce or eliminate the necessity of frequent flushing and water loss in the water districts. The docket holder must also begin metering and recording the times and amounts of water that is removed from the system for flushing purposes. Quantities of water used for flushing must be reported in the annual water audits. A report addressing the alternative treatment methods and/or system improvements must be submitted to the Commission by June 11, 2016. If any alternative methods are found to be both operationally

and economically feasible, the report must contain a proposed schedule in which the alternative treatment method and or system improvements will be initiated (See Condition C.II.x.).

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 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.

### C. DECISION

- I. Effective on the approval date for Docket No. D-1963-004 CP-2 below:
  - a. Docket No. D-63-4 is terminated and replaced by Docket No. D-1963-004 CP-2.
  - 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 NYSDEC in its water supply permits, 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 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 the Roscoe-Rockland Water District well sources (Wells Nos. 1 and 2) shall not exceed 8.928 million gallons. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

<b>TOWN OF ROCKLAND ROSCOE-ROCKLAND WATER DISTRICT</b>		
<b>WELL NO.</b>	<b>MAXIMUM INSTANTANEOUS RATE</b>	<b>MONTHLY ALLOCATION</b>
No. 1	200 gpm	8.928 mgm
No. 2	200 gpm	8.928 mgm

During any month, the combined withdrawal from the Livingston Manor Water District well sources (Wells Nos. 1 and 2) shall not exceed 21.39 million gallons. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

<b>TOWN OF ROCKLAND LIVINGSTON MANOR WATER DISTRICT</b>		
<b>WELL NO.</b>	<b>MAXIMUM INSTANTANEOUS RATE</b>	<b>MONTHLY ALLOCATION</b>
No. 1	550 gpm	21.39 mgm
No. 2	550 gpm	21.39 mgm

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 reseedling 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 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.

x. The docket holder shall evaluate alternative groundwater treatment methods and/or system improvements that would reduce or eliminate the necessity of frequent flushing and water loss in the water districts. The docket holder shall also begin metering and recording the times and amounts of water that is removed from the system for flushing purposes. Quantities of water used for flushing shall be reported in the annual water audits. A report addressing the alternative treatment methods and/or system improvements shall be submitted to the Commission by June 11, 2016. If any alternative methods are found to be both operationally and economically feasible, the report shall contain a proposed schedule in which the alternative treatment method and or system improvements will be initiated.

y. 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: June 11, 2014**

**EXPIRATION DATE: June 11, 2024**