EE -This DRAFT Docket has been prepared for the purposes of the scheduled public hearing and may be substantially modified as a result of the public hearing process prior to Commission action. (EE)

7/10/2024 9:54

DOCKET NO. D-2011-012 CP-2

DELAWARE RIVER BASIN COMMISSION

Located in Drainage Area to Special Protection Waters

Town of Delaware – Hamlet of Callicoon Water District
Groundwater Withdrawal
Town of Delaware, Sullivan County, New York

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on January 5, 2022 and revised on June 20, 2024 for renewal of an allocation of groundwater and review of a groundwater water withdrawal project including two (2) new groundwater sources (Application). The project was reviewed by the Commission in accordance with the administrative agreement between the DRBC and the New York State Department of Environmental Conservation (NYSDEC) dated, March 2016.

The Application was reviewed for continuation of this project 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 August 7, 2024.

A. DESCRIPTION

1. Purpose. The purpose of this project is to approve a withdrawal of up to 7.37 million gallons per month of groundwater from two new groundwater wells known as Callicoon-1 and Callicoon-2 for use in the docket holder's public water system. The wells will replace the previously approved wells and spring sources.

2. Location. The newly developed Callicoon wellfield is located along the northern bank of the Delaware River east of the confluence with Callicoon Creek off Viaduct Road in the Hamlet of Callicoon, Town of Delaware, Sullivan County New York. The project wells are screened in the unconsolidated glaciofluvial sand and gravel deposits overlying the bedrock. The project is located in the Beaverdam Creek Delaware River Watershed within the drainage area to the section of the non-tidal Delaware River known as the Upper Delaware, which the Commission has designated as Special Protection Waters.

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder's public water system serves the Hamlet of Callicoon. The area served is outlined on a map entitled "Hamlet of Callicoon 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 Section C. DECISION of this docket.

4. **Design Criteria.** At the time of the previous docket approval, the water supply system was supplied by two springs and two wells. Well 2 was removed from service in 2013 due to a decrease in demand and the expense of maintaining two redundant sources. In 2019, the NYSDOH ordered the two spring sources to be removed from service over concerns that the spring water was under the direct influence of surface water. Currently, only one of the sources (Well W-1) remains in use. Well W-1 is a shallow, large-diameter well and experiences periodic turbidity issues. The docket holder is performing a comprehensive water system upgrade project including the development of two new groundwater sources, construction of a new well house/water treatment building, replacing distribution piping, installation of service meters and the installation of a new water storage tank.

The system currently serves water to a population of approximately 450 persons on 115 domestic service connections, 51 commercial service connections and 1 other connection (Job Corps) and records an existing average and maximum water demand of 0.080 million gallons per day (mgd) and 0.180 mgd, respectively. Water withdrawal reporting forms submitted to NYSDEC for Calendar Year 2022 indicate an average monthly withdrawal of 3.78 million gallons and a peak monthly withdrawal of 5.02 million gallons. The docket holder indicates that much of the hamlet is built out and little area remains for additional growth. As such, the future population served by the water system is not anticipated to increase significantly. The allocation of 7.37 mgm should be sufficient to meet the present and future demands of the Hamlet of Callicoon Water District.

5. **Facilities.** The proposed project wells have the following characteristics:

WELL NO.	CASING DEPTH/ DIAMETER	SCREENED INTERVAL/ DIAMETER	PUMP CAPACITY/ SETTING*	YEAR DRILLED
Callicoon 1	148' / 8"	148'-158' / 7.6"	165 gpm / 140'	2024
Callicoon 2	146.3' / 8"	146.3'-156.3" / 7.6"	235 gpm / 140'	2024

* Permanent pumps have not been installed. The pump capacity and setting is the tested rate and pump setting used during each 72-hour pumping test.

Currently only several of the largest water users are metered. The docket holder plans to install meters at all service connections in the summer and fall of 2024.

Existing Well 1 is metered. New Callicoon-1 and Callicoon-2 wells will be metered prior to operation.

Prior to entering the distribution system, the water is treated with sodium hypochlorite and orthophosphate.

The new project wells and proposed well house/treatment building are located in the 100-year floodplain.

6. Other. Wastewater is conveyed to the Town of Delaware sewage treatment facility most recently approved by DRBC Docket No. D-82-47 CP on December 14, 1988. The NYSDEC has issued SPDES Permit No. NY0110574 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

7. Cost. The overall cost of the water system improvement project is estimated to be $4,200,000.

8. Relationship to the Comprehensive Plan. The project was previously included in the Comprehensive Plan by the Commission in Docket No D-2011-0012 CP-1 approved on March 7, 2012. Issuance of this docket will continue the withdrawal project with the modifications as described in the Comprehensive Plan.

B. FINDINGS

1. Special Protection Waters

In 1992, the DRBC amended its Water Quality Regulations (WQR) by the addition of regulations for the protection of Special Protection Waters (SPW), designed to maintain the quality of interstate waters where existing quality is better than the established stream quality objectives. As the result of its initial classifications and subsequent amendments, the Commission has designated the entire non-tidal main stem Delaware River from Hancock, New York to Trenton, New Jersey as SPW. DRBC's SPW regulations apply within the designated reaches and their drainage area.

The wells providing water supply to the docket holder are located within the drainage area to SPW. Sections 3.10.3A.2.e.1) and 2) of the WQR state that projects subject to review under Section 3.8 of the Compact that are located within the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) 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 SPW.

Since this project involves additional construction and/or expansion of facilities and creates new or increased non-point source loads, the NPSPCP requirement is applicable at this time. The Project will result in less than one acre of soil disturbance, therefore a NYSDEC SPDES General Permit for Stormwater Discharges is not required. Although the docket holder did not prepare a

formal Erosion and Sediment Control Plan or Stormwater Pollution Prevention Plan for the Project, the docket holder requires that all contractors implement NYSDEC Best Management Practices (BMP's) for sediment and erosion control as they progress through the project to ensure no sediment leaves their work site. The docket holder will have a full-time inspector onsite to monitor the status and ensure the contractors adhere to this requirement. The docket holder submitted a copy of Sheet D-20, Erosion and Sediment Control Details from the construction plans that included general BMP descriptions including the use of sediment entrapment areas, silt fencing, check dams and drainage swales as well as seeding of disturbed areas and maintenance of temporary erosion and control structures. Condition C.29. of this docket provides that at such time, if ever, as additions to the area served by the docket holder's withdrawals are proposed, the docket holder will be required to demonstrate compliance with an approved NPSPCP in accordance with DRBC's SPW regulations.

2. Aquifer Pumping Tests

The Callicoon-1 and Callicoon-2 production wells were completed in February 2024 to replace the docket holder's existing water supply sources. The two proposed production wells are located approximately 20 feet apart and are screened in coarse sand and gravel deposits directly overlying the bedrock which was encountered at depths 158-159 feet below ground surface. The coarse sand and gravel aquifer is overlain by approximately 90 feet of silty clay.

Callicoon-2 Pumping Test

Beginning on February 26, 2024, a 72-hour pumping test was conducted on Callicoon-2 at a constant pumping rate of 235 gpm. The rate was determined from analysis of a stepped-rate discharge test conducted on the well. Water was discharged 300 feet to the northwest of the pumping well to eliminate recharge of the water to the aquifer. Pumping rates were measured frequently during the test using an external ultrasonic flow meter. Water levels were measured using a pressure transducer and data logger. Prior to the start of the pumping test, the static water level was 5.59 feet below top of casing (btoc). After 72-hours of pumping, the maximum drawdown was 90.14 feet (water level of 95.73 feet btoc) resulting in a 72-hour specific capacity of 2.61 gpm/foot of drawdown. The final 10 hours of water level data show stabilized drawdown was achieved in accordance with NYSDEC criteria. The 180-day extrapolated drawdown at a continuous pumping rate of 235 gpm was projected to be 93.21 feet (water level of 98.80 feet below top of casing). Under these extrapolated conditions approximately 44.2 feet of available water column would be maintained above the top of the pump intake set at 143 feet btoc. After the pumping ceased, the water level in the pumping well recovered to 95 percent of the pretest level within 8 hours.

During the pumping test, water levels were measured in two observation wells including Callicoon-1 (20 feet from the pumping well) and Well TW-1 (123 feet from the pumping well). At the completion of the 72-hour pumping test, maximum drawdown in Callicoon-1 and Well TW-1 were measured at 23.74 feet and 19.55 feet respectively. The estimated transmissivity and storativity values from the analysis of the Callicoon-1 drawdown data were 2,193 foot squared per day (ft^2/day) and 6.78×10^{-5}.

Surface water levels were also monitored in Delaware River (427 feet from Callicoon-2) and Callicoon Creek (745 feet from Callicoon-2) using temporary staff gauges. Water level responses directly related to the Callicoon-2 pumping test were not observed in the surface monitoring locations. Surface water elevations increased during the monitoring period in response to two precipitation events totaling 1.31 inches during the pumping test. The increase in surface water levels did not exhibit any noticeable changes in the water level data collected in the production well or observation wells indicating no direct connection between the surface waters and glaciofluvial aquifer in which the production wells are completed.

Callicoon-1 Pumping Test

Beginning on March 4, 2024, a 72-hour pumping test was conducted on Callicoon-1 at a constant pumping rate of 165 gpm. The rate was determined from analysis of a stepped-rate discharge test conducted on the well. Water was discharged 300 feet to the northwest of the pumping well to eliminate recharge of the water to the aquifer. Pumping rates were measured frequently during the test using an external ultrasonic flowmeter. Water levels were measured using a pressure transducer and data logger. Prior to the start of the pumping test, the static water level was 5.96 feet btoc. After 72-hours of pumping, the maximum drawdown was 97.24 feet (water level of 103.20 feet btoc) resulting in a 72-hour specific capacity of 1.70 gpm/foot of drawdown. The final 13.3 hours of water level data show stabilized drawdown was achieved in accordance with NYSDEC criteria. The 180-day extrapolated drawdown at a continuous pumping rate of 165 gpm was projected to be 97.87 feet (water level of 103.83 feet btoc). Under these extrapolated conditions approximately 39.2 feet of available water column would be maintained above the top of the pump intake set at 143 feet btoc. After the pumping ceased, the water level in the pumping well recovered to 95 percent of the pretest level within 90 minutes.

During the pumping test, water levels were measured in two observation wells including Callicoon-2 (20 feet from the pumping well) and Well TW-1 (140 feet from the pumping well). At the completion of the 72-hour pumping test, maximum drawdown in Callicoon-2 and Well TW-1 were measured at 14.81 feet and 11.86 feet respectively. The estimated transmissivity and storativity values from the analysis of the Callicoon-2 drawdown data were 1,731 ft^2/day and 0.0033.

Surface water levels were also monitored in Delaware River (426 feet from Callicoon-1) and Callicoon Creek (764 feet from Callicoon-2) using temporary staff gauges. Water level responses directly related to the Callicoon-1 pumping test were not observed in the surface monitoring locations. Surface water elevations increased during the monitoring period in response to a precipitation event totaling 0.81 inches during the pumping test. The increase in surface water levels did not exhibit any noticeable changes in the water level data collected in the production well or observation wells indicating no direct connection between the surface waters and glaciofluvial aquifer in which the production wells are completed.

3. 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.

As service meters are not yet installed and are necessary to complete a water audit, the first water audit is due following the first full year of metered service connection data. The docket holder has awarded the contract to install meters at all service connections in the summer and fall of 2024. Therefore, the first complete water audit for Calendar year 2025 should be submitted by March 31, 2026.

4. Flood Plain Regulations

New Callicoon-1 and Callicoon-2 wells are located in the 100-year floodplain. The NYSDOH requires that the well casing be raised a minimum of three feet above the 100-year base flood elevation. The existing Well W-1 wellhouse and treatment building is also located in the 100-year floodplain. This treatment building will be demolished following the construction of a new well house/treatment building proposed in the same general area. Based on plans submitted to the Commission, the new well house/treatment building will be constructed so that the lowest operating floor is located two feet above the 100-year flood elevation of 757.00 feet above mean sea level. New waterlines and electrical connections needed for the project will be installed in trenches below the ground surface. As the structure will be built above the flood protection elevation, the project is permitted under the DRBC, *Administrative Manual – Part III, Basin Regulations – Floodplain Regulations.*

5. Other Findings

The docket holder indicated that following the completion of the water system improvement project, the existing wells will be decommissioned. The docket holder shall submit Water Well Abandonment and Decommissioning Reports for Wells W-1 and W-2 to the NYSDEC (see Section C. DECISION Condition C.8).

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 Basin Regulations-Water Supply Charges 18 C.F.R. 420.1(d).

The project is designed to conform to the requirements of the *Water Code (WC)* and *Water Quality Regulations (WQR)* 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

Effective on the approval date for Docket No. D-2011-012 CP-2 below, the project described in Docket No. D-2011-012 CP-1 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2011-012 CP-2; Docket No. D-2011-012 CP-1 is terminated and replaced by Docket No. D-2011-012 CP-2; and the project and the appurtenant facilities described in in Section A.4. (Design Criteria) and A.5. (Facilities) shall be added in the Comprehensive Plan. The project and appurtenant facilities as described in in Section A.4. (Design Criteria) and A.5. (Facilities) are approved subject to the following conditions, pursuant to Section 3.8 of the *Compact*:

Monitoring and Reporting

1. The docket holder shall satisfy annual withdrawal, capacity and conservation reporting requirements in the form and manner prescribed by NYSDEC's Division of Water in accordance with NYCRR Part 601.5(a).

2. The project withdrawals shall be metered by means of an automatic continuous recording device, flow meter, or other method, and shall be measured to within 5 percent of actual flow. Meters or other methods of measurement shall be subject to approval and inspection by the NYSDEC as to the type, method, installation, maintenance, calibration, reading and accuracy. 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.

3. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date. Within 30 days of the date of project completion, the docket holder shall notify the DRBC of the project completion date.

4. Prior to December 31, 2024, meters shall be installed at all service connections.

5. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement ("Statement") signed by the docket holder's professional engineer for the project. The Statement must (1) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; and (2) indicate the date on which the project was (or is to be) placed in operation.

6. 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.

7. In accordance with DRBC Resolution No. 2009-1 and Section 2.1.8 of the *Water Code (WC)*, 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. The first water audit shall be submitted by March 31, 2026.

8. The docket holder shall properly decommission and submit Water Well Abandonment and Decommissioning Reports for Wells W-1 and W-2 to the NYSDEC.

Other Conditions

9. During any month, the combined withdrawal from all well sources shall not exceed 7.37 million gallons. No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM RATE (GPM)*	MONTHLY ALLOCATION (MGM)	WELL FIELD ALLOCATION
Callicoon-1	165 gpm	7.37 mgm	237,600 gpd or 7.37 mgm
Callicoon-2	235 gpm	7.37 mgm	

Additionally, Callicoon-1 and Callicoon-2 shall not be operated simultaneously.

10. In accordance with 18 C.F.R. 401.8. of the Commission's *Rules of Practice and Procedure (RPP)*, if at any future time the Project is changed substantially from the Project as described in this docket, it will be deemed to constitute a new and different project for the purposes of Article 11 of the Delaware River Basin Compact and will require Commission amendment of the Comprehensive Plan. In accordance with the same section of the RPP, whenever a change to the Project is made, the sponsor must advise the Executive Director, who will determine whether the change is deemed substantial for purposes of this provision.

11. Section 2.3.10 of the Commission's Rules of Practice and Procedure (18 C.F.R. 401.41), limiting the Commission's approval to three years in the absence of an expenditure of substantial funds by the project sponsor in reliance on the approval, is hereby waived for good cause shown in accordance with Section 2.9.3 (18 C.F.R. 401.123) of the same regulations. This approval shall expire on the expiration date set forth below unless prior thereto the docket holder has applied to the Commission to renew or extend this approval.

12. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 C.F.R. 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application whether DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. If 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 the current docket will remain fully effective and enforceable pending the grant or denial of the application for docket approval.

13. The wells and operational records shall be available at all times for inspection by the DRBC.

14. The wells shall be operated at all times to comply with the requirements of the *WC* and *WQR* of the DRBC.

15. 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.

16. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).

17. 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).

18. 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.

19. 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.

20. 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.

21. 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*.

22. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations. (see 18 CFR 401.43).

23. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

24. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name

change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 C.F.R. 401.43).

25. 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 to ensure the proper control, use and management of the water resources of the Basin.

26. 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 permit 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 email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director 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.

27. 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.

28. 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.

29. 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 complies with a DRBC approved NPSPCP.

30. 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:

EXPIRATION DATE: September 5, 2034