

DOCKET NO. D- D-2002-037 CP-2

DELAWARE RIVER BASIN COMMISSION

**Borough of Buena Municipal Utilities Authority
Groundwater Withdrawal, Importation and Exportation
Buena Borough, Atlantic County, New Jersey**

PROCEEDINGS

This docket is issued in response to an Application submitted by Remington, Vernick & Walberg Engineers on behalf of the Borough of Buena Municipal Utilities Authority (BBMUA or docket holder) to the Delaware River Basin Commission (DRBC or Commission) on November 26, 2014 for renewal of an allocation of groundwater and review of a groundwater water withdrawal and water importation/exportation project (Application). Well No. 3 was previously approved by the Commission in Docket No. D-2002-37 CP on December 7, 2005. The docket holder's existing groundwater withdrawals will continue to be regulated by the New Jersey Department of Environmental Protection (NJDEP) Water Allocation Permit No. 5275 issued on September 10, 2015 with an expiration date of September 30, 2025.

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 Atlantic County Planning Board has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on May 11, 2016.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to approve the renewal of an existing withdrawal and export of up to 17.80 million gallons per month (mgm) of groundwater from Well No. 3 located in the Delaware River Basin and the import of water from Wells Nos. 1 and 2 located in the Atlantic Basin for use in the BBMUA public water system. BBMUA is not requesting an increase in the groundwater allocation from that contained in its prior DRBC approval. The project's sources and service area are situated in the Delaware River and Atlantic Basins and no changes to the existing importation/exportation of water will occur as a result of this approval. The existing groundwater withdrawals are approved by the NJDEP and will continue to be regulated in accordance with the March 2015 Administrative Agreement between the Commission and the NJDEP.

2. Location. Well No. 3 is completed in the Piney Point Formation and is located in the drainage area of Cedar Branch Creek in the Maurice River Watershed in the Borough of Buena, Atlantic County New Jersey. The docket holder's two other water supply wells (Wells Nos. 1 and 2) are also located in the Borough, but outside of the Delaware River Basin (Atlantic Basin). Specific location information has been withheld for security reasons.

3. Area Served. The project well provides approximately one half of the water supply to the docket holder’s public water distribution system, which serves the Borough of Buena and portions of Buena Vista Township. The service area is outlined on a map entitled “Borough of Buena Water Service Area” submitted with the Application. Geographically, approximately equal parts of the BBMUA service area are located in the Delaware River and Atlantic Basins. However, the map referenced above shows that the majority of the land parcels (DRBC staff estimate approximately 75 percent) and water distribution lines are located in the Delaware River Basin. 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 BBMUA public water system is supplied by three groundwater wells and its service area is located on the divide between the Delaware River and Atlantic Basins. Two of the water supply wells serving the system (Wells Nos. 1 and 2) are located in the Atlantic Basin and one well (Well No. 3) is located within the Delaware River Basin. Water produced from the three wells is combined and distributed throughout the docket holder’s service area. Approximately one half of the docket holder’s total system demands are met by in-basin Well No. 3 and the other half of the demand is met by the out-of-basin Wells Nos. 1 and 2. With the exception of a few private on-lot septic systems, wastewater generated within the docket holder’s service area is conveyed to the BBMUA wastewater treatment plant, which discharges the treated effluent to the Atlantic Basin. The total volume discharged by the private on-lot septic systems is estimated by the docket holder’s consultant to be less than 5 percent of the total wastewater generated in the docket holder’s service area.

The BBMUA public water system currently serves approximately 5,000 persons on 1,116 domestic service connections with reported average and maximum daily demands of 0.506 million gallons per day (mgd) and 0.953 mgd, respectively. The docket holder projects the average and maximum water demands to increase to 0.566 mgd and 1.06 mgd, respectively, in 10 years as a result of population growth. In 2014, the total system maximum monthly withdrawal was approximately 23.8 million gallons (including the out-of-basin wells). Withdrawals from Well No. 3 in the DRB ranged from 4.9 mgm to 12.5 mgm and accounted for approximately one half of the total system production. The requested allocation of 17.80 mgm for Well No. 3 when combined with the out-of-basin wells should be sufficient to meet the future demands of the BBMUA system.

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

WELL NO.	DEPTH	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY	YEAR DRILLED
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WELL NO.	DEPTH	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY	YEAR DRILLED
1 (out of basin)	460	410' / 8"	400	1984
2 (out of basin)	455	405' / 12"	700	1985
3	547	375'-540'/10"	1,000*	2000

*Denotes actual pump capacity. Withdraws are restricted to NJDEP limit of 980 gpm.

All water service connections are metered.

All wells are metered.

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

The project well is not located in a FEMA mapped 100-year floodplain.

The water system is presently interconnected with the City of Vineland, which is used only for emergency purposes.

The docket holder also uses two irrigation wells, which are located in the Atlantic Basin and are not interconnected with the public water supply system.

c. **Other.** The majority of wastewater from the docket holder's service area is conveyed to the BBMUA sewage treatment facility, which has a discharge location in the Atlantic Basin. The NJDEP issued its most recent NJPDES Permit No. NJ0021717 effective October 1, 2015 for this treatment facility. The treatment facility has adequate capacity to continue to receive wastewater from the project. According to the docket holder's engineer, a few parcels in the service area utilize private on-lot septic systems which are estimated to account for less than 5 percent of the total wastewater generated by the project.

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

e. **Relationship to the Comprehensive Plan.** The BBMUA Wells Nos. 1 and 2 are located outside of the Delaware River Basin. BBMUA's water supply project including Well No. 3 and the water importation/exportation was previously included in the Comprehensive Plan by the Commission in Docket No. D-2002-37 CP on December 7, 2005. Issuance of this docket will continue the water importation, exportation and withdrawal project in the Comprehensive Plan.

B. FINDINGS

Water Importation and Exportation

The docket holder's sources and service area span both the Delaware River and Atlantic Basins and result in the importation and exportation of water. However, the configuration of the docket holder's sources, service area and wastewater discharge results primarily in export of water from the Delaware River Basin. By means of Wells Nos. 1 and 2, the BBMUA will continue to import water from the Atlantic basin to its customers located in the Delaware River Basin service area. Conversely, by means of Well No. 3, the BBMUA will continue to export water from the Delaware River Basin to its customers located its service area in the Atlantic Basin. However, actual water gains and losses to and from the Delaware River Basin from these in-pipe transfers of water are minor because after use, most of this water is collected and ultimately treated and discharged at the BBMUA WWTP located in the Atlantic Basin. The only treated wastewater not returned to the Atlantic Basin is that from a few private on-lot septic systems. The maximum amount of Delaware River Basin water exported from the Basin is equal to the allocation of Well No. 3 (980 gpm and 17.80 mgm). In accordance with Section 2.3.11 (18 CFR 401.43) of the Rules of Practice and Procedure, and the DRBC/NJDEP March, 2015 Administrative Agreement (AA), any increases in the imports or exports of water included in this docket shall be approve by the DRBC (See Condition C.II.s.).

The NJDEP water allocation permit No. 5275 is valid for a period of 10 years from the effective date of October 1, 2015 and will expire on September 30, 2025. The maximum diversion rates provided by the NJDEP Water Allocation Permit for the BBMUA Piney Point Aquifer public supply sources (Wells Nos. 1, 2 and 3) are 1,955 gpm, 33 mgm, and 243 million gallons per year. The rated pump capacity of in-basin Well No. 3 is limited to 980 gallons per minute.

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. BBMUA submitted their most recent Water Audit on June 10, 2015.

The project withdrawals from Well No. 3 used for the purpose of public supply and wastewater discharge outside of the basin results in a consumptive use of 100 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-2002-037 CP-2 below:

a. The project described in Docket No. D-2002-37 CP is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2002-037 CP-2; and

b. Docket No. D-2002-37 CP is terminated and replaced by Docket No. D-2002-037 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 NJDEP in its water allocation permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s.

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 withdrawal from Well No. 3 shall not exceed 17.80 million gallons. The well shall not be pumped above the maximum instantaneous rate as indicated below:

WELL NO.	MAXIMUM INSTANTANEOUS RATE
3	980 gpm

e. The well shall be equipped, if possible, with a readily accessible capped port and minimum ½ inch inner diameter (ID) drop pipe as repairs or modifications are made at the 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 NJDEP quarterly 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 NJDEP, 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 NJDEP, 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 NJDEP on the actions taken pursuant to this program and the impact of those actions as requested by the NJDEP.

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

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

n. 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.

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. In accordance with Section 2.3.11 (18 CFR 401.43) of the Rules of Practice and Procedure, and the DRBC/NJDEP March, 2015 Administrative Agreement (AA), this docket shall be deemed administratively continued upon the docket holder submitting an application to the NJDEP for the renewal of its NJDEP Water Allocation Permit in a timely manner and compliance with the terms of Section III of the AA.

s. In accordance with Section 2.3.11 (18 CFR 401.43) of the Rules of Practice and Procedure, and the DRBC/NJDEP March, 2015 Administrative Agreement (AA), any increases in the imports or exports of water included in this docket shall be approved by the DRBC.

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 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 permit 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 permit holder shall provide written notice to all potentially affected water users of the permit holder's responsibilities under this condition. **Any well or surface water supply that is impaired as a**

result of the permit holder’s project withdrawal shall be repaired, replaced or mitigated at the permit 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 permit holder to take interim actions to mitigate such impacts, pending completion of the investigative report and any long-term repair, replacement or mitigation.

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. During any water emergency or other non-emergency declaration by the Governor of New Jersey, NJDEP or the Commission, water service or use by the project docket holder pursuant to this docket approval shall be subject to any order or restriction governing those non-essential uses specified by the NJDEP to the extent that they may be applicable, and to any other emergency resolutions or orders adopted 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: June 15, 2016

EXPIRATION DATE: June 15, 2026