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DOCKET NO. D-2001-013 CP-4

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**Northampton Bucks County Municipal Authority
Groundwater Withdrawal
Northampton Township, Bucks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on December 1, 2023, for renewal of an allocation of groundwater and review of a groundwater withdrawal project (Application). The project wells were reviewed under the Pennsylvania Safe Drinking Water Act for a public water supply construction permit and approved by the Pennsylvania Department of Environmental Protection (PADEP) as follows:

WELL NO.	PADEP PERMIT NO.	PADEP APPROVAL DATE
1, 2, 7, 11 and 12	0916514	July 31, 2017
3, 5, 6 and 17	0917515	May 25, 2017
4, 8, 9, 10, 13 and 16	0917511	April 26, 2017

The Application was reviewed for continuation of this project in the Comprehensive Plan and for approval under Section 3.8 and for a withdrawal permit under Section 10.3 of the *Delaware River Basin Compact*. The Bucks County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on May 8, 2024.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the approval of an existing supply of groundwater for public water supply from existing Wells 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16 and 17. The total allocation of groundwater will increase from 68.2 million gallons per month (mgm) to 86.692 mgm.

2. Location. The project wells are completed in the Stockton Formation and are located in the Neshaminy Creek and Ironworks Creek Watersheds in Northampton Township, Bucks

County, Pennsylvania. The Neshaminy Creek near the project site is designated by the PADEP as supporting Warm Water Fishes (WWF) and Migratory Fishes (MF). The Ironworks Creek near the project site is designated by the PADEP as supporting Warm Water Fishes (WWF) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. Area Served. The docket holder’s water distribution system serves portions of Northampton Township as shown on a map entitled “Map of Existing Facilities, Well and Monitoring Well Map”, 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. The docket holder currently serves an estimated population of 35,845 through 11,716 domestic service connections, 291 commercial connections, 80 industrial and 76 institutional and other types of connections with an average and maximum water demand of 2.195 million gallons per day (mgd) and 6.635 mgd, respectively. The docket holder projects an average and maximum water demand of 2.528 mgd and 7.102 mgd, respectively, with an increase in population to 41,276 on 17,147 domestic connections, 301 commercial connections, 81 industrial and 79 institutional and other types of connections by the year 2034. The allocation of 86.692 mgm should be sufficient to supply the docket holder’s public water supply system in case the Authority cannot purchase water from their interconnections.

The docket holder’s wells supply between 20-40 percent of their distribution system demands. The docket holder has two interconnections with Bucks County Water and Sewer Authority (BCWSA); Antler Drive and Bristol Road, which supply the additional water demand. NBCMA currently purchases approximately 1.741 mgd and projects to purchase 2.96 mgd in the next 10 years.

5. Facilities. The docket holder’s existing wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
1	608	65’/ 8”	80	1964
2	300	70’/ 12”	200	1966
3	500	70’/ 10”	50	1966
4	300	70’/ 12”	200	1966
5	298	75’/ 12”	160	1967
6	600	83’/ 10”	180	1991
7	517	33’/ 11”	200	1971
8	400	40’/ 10”	111	1973
9	500	53’/ 12”	200	1979

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
10	400	63'/ 10"	130	1977
11	550	62'/ 10"	139	1978
12	425	80'/ 10"	300	1989
13	600	84'/ 10"	200	1989
16	404	102'/ 10"	167	1998
17	451	102'/ 10"	165	2000

All wells and water service connections are metered.

All wells are treated by chlorination, prior to entering the distribution system. Well 16 is also treated with green sand filters.

The project facilities are above the 100-year flood elevation.

The docket holder's water distribution system is presently interconnected with the BCWSA system at Antler Drive and Bristol Road. Both interconnections are used regularly with average daily purchases of 1.099 million gallons per day (mgd) at Antler Drive and 0.643 mgd at Bristol Road. The docket holder's water system also currently has an emergency interconnection with the Warminster Municipal Authority water distribution system.

6. Other. Wastewater is conveyed to the BCWSA's Neshaminy Interceptor which in turn is conveyed to the City of Philadelphia Northeast sewage treatment facility which received approval most recently by DRBC Docket No. D-1970-052 CP-2 on December 11, 2019. The treatment facility has adequate capacity to receive wastewater from the project. The PADEP issued NPDES Permit No. PA0026689 for this facility. The treatment facility has adequate capacity to receive wastewater from this project.

Wastewater is also conveyed to the Warminster Municipal Authority's Log College Drive sewage treatment facility which received approval most recently under Section 3.8 of the *Compact* by DRBC Docket No. D-1988-067 CP on January 12, 1990. The PADEP issued NPDES Permit No. PA0026166 for this facility. The treatment facility has adequate capacity to receive wastewater from this project.

7. Relationship to the Comprehensive Plan. The docket holder's existing wells were previously included in the Comprehensive Plan as follows:

Docket No.	Date Approved	Approved Wells
D-1965-036 (Part I)	October 7, 1965	1, 2 and 3
D-1965-165 CP	January 26, 1966	5, 6 and 7
D-1966-049 CP	April 27, 1966	Long Lane Farm Well

D-1966-210 CP	October 26, 1966	2 and 4
D-1971-066 CP	May 27, 1971	6A and 6B
D-1980-091 CP	November 23, 1982	11
D-1981-025 CP	October 24, 1984	9
D-1987-021 CP	February 24, 1988	10 and 14
D-1987-048 CP	February 24, 1988	10 and 14
D-1991-003 CP	December 11, 1991	1, 2, 3, 4, 7, 8, 9, 10, 11 and 12
D-1993-005 CP	October 27, 1993	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13
D-1999-001 CP	November 15, 2000	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 16
D-2001-013 CP	October 31, 2001	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16 and 17
D-2001-013 CP-2	May 18, 2005	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16 and 17
D-2001-013 CP-3	December 10, 2014	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16 and 17

Issuance of this docket will continue the withdrawal project in the Comprehensive Plan.

B. FINDINGS

The increase in allocation is due to potential future modifications to the docket holder's system within the next ten (10) years which could possibly increase the number of people served. It is estimated that approximately 5,431 people within the docket holder's service area are served by private wells. By the year 2040, it is projected that all these people will be served by the docket holder's public water distribution system. The requested increase in system allocation is to ensure the docket holder can meet projected peak demands if the BCWSA interconnections are ever unavailable to the docket holder's water supply system.

1. Ground Water Protected Area

The project is located within the Southeastern Pennsylvania Ground Water Protected Area delineated by the DRBC pursuant to *Compact* Section 10.2. Tests conducted by the docket holder indicate the operation of this project will not create a local water shortage.

Review and analysis of the application pursuant to Section 6.D. of the *GWPAR* result in the following:

1. The withdrawal is consistent with the Commission's Comprehensive Plan and the policies and purposes of these regulations.
2. Opportunities to satisfy water requirements on a timely basis from existing available supplies and facilities have been explored and are being utilized.

3. The withdrawal, in conjunction with other withdrawals in the applicable groundwater basin, should not exceed withdrawal limits of the groundwater basin, aquifer or aquifer system.

4. The withdrawal should not significantly impair or reduce the flow of perennial streams in the area.

5. Existing ground and surface water withdrawals should not be adversely impacted or will be otherwise assured of adequate supplies in accordance with the requirements of Section 10 of the *GWPAR*. No adverse impact is anticipated due to the continued operation of this project.

6. The withdrawal should not cause substantial, permanent adverse impact to the overlying environment.

7. The docket holder adopted and will implement conservation and management programs as required by Section 7 of the *GWPAR*.

The docket holder's Wells 3, 7, 8, 9, 16 and 17 are located in the Ironworks Creek subbasin (Subbasin No. 10), where total net annual groundwater withdrawal (62.07 million gallons per year (mgy)) is less than the withdrawal limit set in Section 6.I of the *GWPAR* (435 mgy). The docket holder is requesting a monthly allocation of up to 33.485 mgm (401.82 mgy) from their wells in this subbasin, a fraction of which will be returned to groundwater. Historically, the docket holder has withdrawn significantly less than the total amount requested in this basin. However, even if no water from this project were returned to groundwater, the total net annual groundwater withdrawal from this subbasin would remain below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the docket holder's wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

The docket holder's Wells 2 and 5 are located in the Northampton Neshaminy Creek (Subbasin No. 6), where total net annual groundwater withdrawal (127.92 mgy) is less than the withdrawal limit set in Section 6.I of the *GWPAR* (807 mgy). The docket holder is requesting a monthly allocation of up to 11.029 mgm (132.348 mgy), a fraction of which will be returned to groundwater. However, even if no water from this project were returned to groundwater, the total net annual groundwater withdrawal from this subbasin would remain well below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the docket holder's wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

The docket holder's Wells 1, 4, 6, 10 and 13 are located in the Lower Section Neshaminy Creek subbasin (Subbasin No. 24), where total net annual groundwater withdrawal (35.534 mgy) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (4,027 mgy). The docket holder is requesting a monthly allocation of up to 22.581 mgm (270.972 mgy), a fraction of which will be returned to groundwater. Historically, the docket holder has withdrawn significantly less than the total amount requested in this basin. However, even if no water from

this project were returned to groundwater, the total net annual groundwater withdrawal from this subbasin would remain well below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the docket holder's wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

The docket holder's Wells 11 and 12 are located in the Warminster Little Neshaminy Creek subbasin (Subbasin No. 8), where total net annual groundwater withdrawal (158.277 mgy) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,350 mgy). The docket holder is requesting a monthly allocation of up to 19.597 mgm (235.164 mgy), a fraction of which will be returned to groundwater. Historically, the docket holder has withdrawn significantly less than the total amount requested in this basin. However, even if no water from this project were returned to groundwater, the total net annual groundwater withdrawal from this subbasin would remain well below the withdrawal limits set in Section 6.I of the *GWPAR*. Therefore, the withdrawals from the docket holder's wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

2. 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 docket holder submitted their most recent Water Audit on March 26, 2024.

3. Other Findings

The DRBC estimates that the project withdrawals, used for the purpose of public water supply, result in a consumptive use of 10 percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

The project is designed to conform to the requirements of the *Water Code (WC)*, *Water Quality Regulations (WQR)* and *Ground Water Protected Area Regulations (GWPAR)* of the DRBC.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact to 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-2001-013 CP-4 below, the project described in Docket No. D-2001-013 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2001-013 CP-4; Docket No. D-2001-013 CP-3 is terminated and replaced by Docket No. D-2001-013 CP-4; and the project and the appurtenant facilities described in in Section A.4. (Design Criteria) and A.5. (Facilities) shall be continued in the Comprehensive Plan. The project and appurtenant facilities as described 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 continue to report to the PADEP all surface and groundwater sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

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 PADEP 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 PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

3. A long-term monitoring program is required to obtain data on groundwater and surface water hydrologic conditions in the project area. The docket holder shall continue to implement the long-term monitoring program as submitted in a letter dated April 8, 2005. This program will include the following:

1. **Groundwater Level Monitoring** – Twenty-six (26) monitoring wells shall be measured to estimate annual groundwater fluctuations caused by seasonal changes and/or production well pumping and detect water level declines that may affect the performance of public and private wells in the respective areas surrounding the Northampton Bucks County Municipal Authority production wells.

2. **Reports** - All monitoring data, including records required in Conditions “2” and “7” herein shall be submitted to the Commission annually, due by April 1. The docket holder is encouraged to submit the annual report electronically. The report shall be prepared by a hydrogeologist and shall assess the effects of well withdrawals on hydrologic conditions in the area. This report shall include an evaluation of the monitoring data required by this docket approval and such information as deemed

appropriate by the hydrogeologist or required by the Executive Director.

3. The Executive Director may modify the monitoring program or temporarily suspend or modify this docket at any time if review of the hydrologic data and/or any other information indicates such action is necessary or appropriate.

4. In accordance with DRBC Resolutions No. 87-6 (Revised) and No. 2009-1, the docket holder shall continue to implement to the satisfaction of the PADEP, the systematic program to monitor and control leakage within the water supply system. The program shall at a minimum include: periodic surveys to monitor leakage, enumerate non-revenue water and determine the current status of system infrastructure; recommendations to monitor and control leakage; and a schedule for the implementation of such recommendations. The docket holder shall proceed expeditiously to correct leakages and unnecessary usage identified by the program.

5. 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.

6. The docket holder shall implement to the satisfaction of the PADEP, a continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the PADEP on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

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

Other Conditions

8. During any month, the combined withdrawal from all well sources shall not exceed 86.692 million gallons (1,040.3 mgy). No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	INSTANTANEOUS ALLOCATION (GPM)*	MONTHLY ALLOCATION (MILLION GALLONS)
1	80	1.535
2	200	3.887
3	50	0.959
4	200	3.837

5	160	7.142
6	180	5.650
7	200	3.837
8	111	4.955
9	200	8.928
10	130	5.803
11	139	6.205
12	300	13.392
13	200	5.756
16	167	7.440
17	165	7.366

*Based on a 24-Hour Average

In addition, the total combined withdrawal from Wells 3, 7, 8, 9, 16 and 17 shall not exceed 320 mgy.

9. 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.

10. 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.

11. 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 CFR 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 against the docket holder pending the grant or denial of the application for docket approval.

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

13. The wells shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

14. The wells shall be equipped with readily accessible capped ports and minimum ½ inch inner diameter (ID) drop pipes so that water levels may be measured under all conditions. Existing wells are to be similarly equipped, where possible, with readily accessible ports and ½ inch ID drop pipes as repairs or modifications are made at each existing well.

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

16. 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).

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

18. 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.

19. 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.

20. 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*.

21. 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).

22. 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 401.35).

23. 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 CFR 401.35).

24. 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.

25. 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.

26. 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.

27. 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: June 5, 2034