

DOCKET NO. D-1990-006 CP-4

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**North Wales Water Authority
Groundwater Withdrawal and Surface Water Withdrawal
North Wales Borough, Upper Gwynedd, Lower Gwynedd, Whitpain,
Upper Dublin, and Montgomery Townships in Montgomery County; and
New Britain Township in 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 7, 2020 for renewal of an allocation of groundwater and review of a groundwater water withdrawal project (Application). The project wells were reviewed under the Pennsylvania Safe Drinking Water Act for public water supply permits and approved by the Pennsylvania Department of Environmental Protection (PADEP) as indicated below in Section A.5.

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 Montgomery 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 11, 2021.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the approval of an existing groundwater withdrawal of up to 195 mgm of groundwater from existing Wells Nos. 1, 4, 8, 9, 10, 11, 14, 17, 21, 22, 25, 31 and 34; and to receive up to 15.88 million gallons per day (mgd) or 492.28 million gallons per month (mgm) potable water via an interconnection with the Forest Park Water Treatment Plant to supply water to the docket holder's public water supply distribution system.

2. **Location.** The project wells are located as follows:

WELL NO.	TOWNSHIP	WATERSHED	STREAM DESIGNATION	GEOLOGIC FORMATION
1	Whitpain	Stony Creek	TSF-MF	Stockton
4	Whitpain	Stony Creek	TSF-MF	Stockton
8	Lower Gwynedd	Wissahickon	TSF-MF	Stockton
9	Lower Gwynedd	Wissahickon	TSF-MF	Stockton
10	Lower Gwynedd	Wissahickon	TSF-MF	Stockton
11	Lower Gwynedd	Wissahickon	TSF-MF	Stockton
14	Lower Gwynedd	Wissahickon	TSF-MF	Stockton
17	Montgomery	Neshaminy	WWF-MF	Brunswick
21	Upper Gwynedd	Wissahickon	TSF-MF	Lockatong
22	Montgomery	Neshaminy	WWF-MF	Brunswick
25	Lower Gwynedd	Wissahickon	TSF-MF	Stockton
31	Upper Dublin	Wissahickon & Pennypack	TSF-MF	Stockton
34	Upper Dublin	Wissahickon	TSF-MF	Stockton

Warm Water Fishes – WWF

Trout Stocking Fishes – TSF

Migratory Fishes - MF

The Forest Park Water Treatment Plant is located in Chalfont Borough, Bucks County, Pennsylvania. The plant treats water withdrawn from the North Branch Neshaminy Creek that is augmented with water from the Delaware River via the Point Pleasant Pumping Station, located in Plumstead Township, Bucks County, Pennsylvania. Specific location information has been withheld for security reasons.

3. **Area Served.** The North Wales Water Authority (NWWA) distribution system serves the Borough of North Wales and portions of Upper Gwynedd, Lower Gwynedd, Whitpain, Upper Dublin, Horsham and Montgomery Townships in Montgomery County; and New Britain, Warminster, Warrington, and Doylestown Townships in Bucks County as indicated on the plan entitled “North Wales Water Authority Water Distribution System”, submitted with the renewal application. Horsham, Warminster and Doylestown Township purchase water daily from NWWA to supplement their Township water supplies. 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. **Design Criteria.** The docket holder supplies potable water to an estimated population of 72,496 via 24,519 domestic connections, 1,282 commercial connections, 355 industrial connections and 250 public and institutional connections. The average and maximum groundwater demand for this project are 12.702 million gallons per day (mgd) and 14.234 mgd, respectively. The docket holder projects an average and maximum water demand of 14.23 mgd and 17.37 mgd, respectively, by the year 2031. Merck and Company (West Point Facility) in

Upper Gwynedd Township, Montgomery County reserves 5.0 mgd from NWWA. Over the past 10 years Merck averaged 1.16 mgd with a maximum water demand of approximately 2.50 mgd. The allocation of 195 mgm of groundwater plus 15.88 mgd or 492.28 mgm of surface water from Forest Park Water Treatment Plant should be sufficient to meet the future demands. The primary source of water supply for the NWWA is treated water from the Forest Park Water Treatment Plant located in Chalfont Borough, which is used to meet 96 percent of NWWA's total demand. The Forest Park interconnection is referenced in DRBC Dockets Nos. D-65-76 CP-8 and D-65-76 CP-9 approved on February 18, 1981 and March 16, 2005, respectively.

The North Wales Water Authority (NWWA) purchased the assets of the Warrington Township water distribution system on October 1, 2019. This system is operated independently from the NWWA main system. The Warrington water distribution system is supplied water from the Forest Park Water Treatment Plant and nine (9) wells.

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	PADEP PERMIT NO.
1	350	45'8"	250	1950	8330W-T1
4	473	40'8"	380	1964	Unknown
8	381	50'8"	160	1956	8629W
9	582	42'8"	525	1961	762W003
10	550	50'8"	230	1962	764W009
11	505	50'12"	1,250	1962	764W009
14	533	50'12"	575	1963	764W009
17	505	60'12"	325	1964	764W018
21	500	62'8"	275	1970	4670504
22	500	60'8"	510	1969	4671503
25	500	40'8"	400	1977	4678508
31	300	42'8"	250	1969	8671W-T1
34	300	150'8"	375	1964	4671501-T1

All wells are metered.

All water service connections are metered.

Prior to entering the distribution system, groundwater from all the wells is treated by chlorination.

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

The water system is presently interconnected with the following:

WATER COMPANY	INTERCONNECTION CAPACITY (MGD)	STATUS
Pennsylvania American - Norristown	1.9	Auxiliary
Aqua Pennsylvania – Upper Dublin	2.3	Auxiliary
Aqua Pennsylvania - Chalfont	0.625	Emergency
Horsham Water and Sewer Authority	1.2	Regular
Doylestown Township Municipal Authority	1.0	Regular
Warrington Township Water and Sewer	2.0	Regular
Warminster Municipal Authority	3.0	Regular
Warwick Township	1.0	Regular
Ambler Borough	1.0	Emergency
North Penn Water Authority	0.5	Regular/ Emergency
Forest Park Water Treatment Plant	20.0	Regular

System storage facilities have the following capacities:

LOCATION	CAPACITY (MG)
DVI Tank – Susquehanna Road	0.4
DVI Tank – Maryland Road	0.4
Fort Washington Ave. Upper Dublin Tank	0.7
North Wales Tanks Nos. 1 and 2	3.0
Blue Bell Tank	1.0
Montgomeryville Elevated Tank	1.5
Highpoint Elevated Tank	4.1
Montgomery Ground Storage	2.0
Clearwell Ground Storage	0.3
TOTAL:	13.40

6. **Other.** Wastewater is conveyed to the following sewage treatment facilities which have received approval most recently under Section 3.8 of the *Compact* by Commission Dockets as listed below:

Treatment Facility	DRBC Docket No.	Docket Approval Date	NPDES Permit No.	Design Capacity (MGD)	Operating Load (MGD)
Chalfont-New Britain WWTP	D-1999-063 CP-4	9/11/2019	PA0025917	6.000	4.625
Upper Gwynedd Township WWTP	D-2011-011 CP-1	7/13/2011	PA0023256	6.500	5.700
Montgomery Township – Eureka WWTP	D-2001-016 CP	9/13/2001	PA0054318	3.500	2.400
Ambler Borough WWTP	D-1975-016 CP-4	9/14/2016	PA0026603	6.500	4.900
Bucks Co. Water and Sewer Authority WWTP	D-1993-076 CP-4	12/13/2017	PA0029441	1.100	0.725
Hatfield Township WWTP	D-1985-036 CP-3	6/10/2015	PA0026247	8.370	6.400

7. **Relationship to the Comprehensive Plan.** The existing project water facilities were previously included in the Comprehensive Plan by the following DRBC Dockets:

DOCKET NO.	DATE APPROVED	APPROVED WELLS
D-1967-045 CP	April 26, 1967	4, 8, 9, 10, 11, 14 and 17
D-1970-247 CP	January 29, 1971	4, 8, 9, 10, 11, 14, 17 and 21
D-1971-137 CP	March 29, 1972	4, 8, 9, 10, 11, 14, 17, 21 and 22
D-1978-094 CP	March 28, 1979	4, 8, 9, 10, 11, 14, 17, 21, 22 and 25
D-1978-094 CP Ren	March 28, 1984	4, 8, 9, 10, 11, 14, 17, 21, 22 and 25
D-1980-043 CP	July 23, 1980	4, 8, 9, 10, 11, 14, 17, 21, 22, 25 and transferred 31 and 34 from Dublin Water Company
D-1990-006 CP	June 27, 1990	4, 8, 9, 10, 11, 14, 17, 21, 22, 25, 31 and 34
D-1990-006 CP (Revision)	July 25, 1991	4, 8, 9, 10, 11, 14, 17, 21, 22, 25, 31 and 34
D-1990-006 CP-3	December 8, 2011	4, 8, 9, 10, 11, 14, 17, 21, 22, 25, 31, 34 and the Forest Park surface water intake
D-1965-076 CP-12	December 12, 2013	Forest Park Water Filtration Plant

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

B. FINDINGS

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. 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.

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 ground water basin, should not exceed withdrawal limits of the ground water 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*. There have been no reported complaints of well interference since the first approval of a well in this system. No adverse impact is anticipated due to 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*.

With the development of the Point Pleasant Diversion Project and the Forest Park Water Treatment Plant, NWWA no longer needs to purchase water from other purveyors, although all the interconnections will be kept in case of an emergency. Currently, the yearly system wide water ratio is approximately 96% from Forest Park and 4% groundwater from their wells. The plan is to continue this approximate ratio in the immediate future.

The Point Pleasant Pumping Station, located at Delaware River Mile 157.3 in Plumstead Township, Bucks County, Pennsylvania, is owned and operated by Forest Park Water Authority (FPWA). Docket No. D-65-76 CP (8), approved on February 18, 1981, approves the Delaware River diversion. Condition II. D. of Docket No. D-65-76 CP (8) approved a total diversion from the Delaware River of 95 mgd. Of the 95 mgd, up to 48.8 mgd can be used for public water supply purposes and up to 46.2 mgd can be routed to the East Branch Perkiomen Creek via the Bradshaw Reservoir. The original approval was issued to the Neshaminy Water Resources Authority (NWRA) but a change of ownership occurred in 1994, transferring the docket from the NWRA to the FPWA.

The docket holder's Wells 17 and 22 are located in the West Branch Neshaminy Creek subbasin (Subbasin No. 53), where total net annual groundwater withdrawal (14.5 million gallons per year (mgy)) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,405 mgy). The docket holder is requesting a monthly allocation of up to 32.19 mgm (386.28 mgy) from the docket holder's two (2) wells located in Subbasin No. 53, a fraction of which will be returned to groundwater. The docket holder primarily uses surface water to supply their water supply distribution system, last year a total of 3.88 million gallons was used by their two (2) wells in this subbasin. 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 Wells 17 and 22, 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 8, 9, 10, 11, 14, 21, 25, 31 and 34 are located in the Upper Reach Wissahickon Creek subbasin (Subbasin No. 59), where total net annual groundwater withdrawal (901 million gallons per year (mgy)) is significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,736 mgy). The docket holder is requesting a monthly allocation of up to 155.64 mgm (1,867.68 mgy) from the docket holder's nine (9) wells located in Subbasin No. 59, a fraction of which will be returned to groundwater. The docket holder primarily uses surface water to supply their water supply distribution system, last year a total of 238.75 million gallons was used by their nine (9) wells in this subbasin. 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 nine (9) 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 and 4 are located in the Stony Creek subbasin (Subbasin No. 63), where total net annual groundwater withdrawal (54.5 million gallons per year (mgy)) is

significantly less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,655 mg). The docket holder is requesting a monthly allocation of up to 24.8 mgm (297.6 mg) from the docket holder's two (2) wells located in Subbasin No. 63, a fraction of which will be returned to groundwater. The docket holder primarily uses surface water to supply their water supply distribution system, last year a total of 1.94 million gallons was used by their two (2) wells in this subbasin. 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 Wells 1 and 4, 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 30, 2020.

3. Other

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 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-1990-006 CP-4 below, the project described in Docket No. D-1990-006 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1990-006 CP-4; Docket No. D-1990-006 CP-3 is terminated and replaced by Docket No. D-1990-006 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 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. 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.

4. 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.

5. 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

6. During any month, the combined withdrawal from all well sources shall not exceed 195 million gallons (2,340 mgd). The total monthly transfer of potable water from the Forest Park Water Treatment Plant shall not exceed 492.28 mgd or 5,907.36 mgd. No source shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM RATE (GPM)*	MONTHLY ALLOCATION (MGM)
1	250	9.30
4	380	15.50
8	160	5.68
9	525	18.60
10	230	8.53
11	1,250	49.60
14	575	22.48
17	325	12.04
21	275	10.85
22	510	20.15
25	400	15.35
31	250	9.82
34	375	14.73

*Based on a 24-Hour Average

7. The docket holder shall not receive more than 15.88 million gallons per day or 492.28 million gallons per month of water via the interconnection with the Forest Park Water Treatment Plant.

8. 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 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, 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.

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

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

11. 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.

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

13. 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).

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

15. 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 *WQR* of the Commission.

16. 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.

17. 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*.

18. 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).

19. 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).

20. 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).

21. 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.

22. 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.

23. 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.

24. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE: September 9, 2021

EXPIRATION DATE: September 9, 2031