BD- 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.

7/19/2025 5:26 PM

DOCKET NO. D-2002-034 CP-5

DELAWARE RIVER BASIN COMMISSION

Artesian Water Company, Inc – New Castle County Regional System
Groundwater Withdrawal & Importation Project
New Castle County, Delaware
New Garden Township, Chester County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on March 3, 2025 for renewal of a groundwater withdrawal and importation project (Application). The docket holder's groundwater withdrawals will continue to be regulated by DNREC in accordance with the Administrative Agreement (AA) between DRBC and the State of Delaware, Section IV.C.4, enacted in July 2010 and modified on May 8, 2013. The project wells were approved by the Delaware Department of Natural Resources and Environmental Control (DNREC) as follows:

WELL FIELD	DNREC PERMIT NO.	DNREC EFFECTIVE DATE
Airport Industrial Park	89-0010R	September 1, 1989
Artisans Village	94-0010M2	August 10, 1995
Caravel Farms	94-0011	August 8, 1994
Castle Hills	90-0015M1	February 25, 1994
Collins Park	94-0012	August 1, 1994
Fairwinds	95-0005M	April 20, 1995
Glendale (Potomac)	94-0013B	January 20, 1995
Glendale (Columbia)	94-0013A	January 20, 1995
Hockessin and Valley Grove	22-0039A	December 15, 2023
Jefferson Farms	90-0016	February 25, 1994
Llangollen	95-0004M	October 15, 1998
Middle Run	01-0006M	April 3, 2001
Midvale	90-0017	February 25, 1994
Wilmington Manor Gardens	90-0018M	February 25, 1994
Wilmington Airport	94-0014M	August 15, 1994
Chesapeake City Road	05-0010	December 30, 2005
Brennan Farm	05-0009	December 30, 2005

Eastern States	89-0011R	February 25, 1994
Old County Road	95-0011M2	May 4, 2012
Augustine Creek	13-0001A and 13-0001B	January 4, 2013
Bayview	98-00014M2	June 26, 1998
Bethel Church	11-0004A	July 29, 2011
Chestnut Grove	98-0015	October 15, 1998
Choptank	98-0016M	October 15, 1998
Commodore Estates	98-0007	October 15, 1998
Emerson Farm	98-0008	October 15, 1998
Lester Farm	98-0009	October 15, 1998
Stonefield	98-0010	October 15, 1998
Thomas Cove	98-0011M	October 15, 1998
Hyetts Corner	17-0021A	January 7, 2019
Townsend	98-0012M	October 15, 1998
Willow Grove	98—0013A and 98-0013BM1	June 26, 1998
Stonefield	98-0010AR1	June 28, 2024

One additional groundwater well, the Broad Run PA well is located in Chester County, Pennsylvania. The Broad Run PA well was previously approved by the Pennsylvania Department of Environmental Resources (PADER) on March 18, 1986 (Permit No. 1585502) for the construction of the well.

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 New Castle County Department of Land Use and Planning and the Chester County Planning Commission have been notified of pending action on this docket. A public hearing on this project was held by the DRBC on August 6, 2025.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to consolidate Docket Nos. D-2002-034 CP-4 and D-2003-022 CP-4 into a single docket which makes up the docket holder's New Castle County Regional System. The approval will also include an existing import project of up to 3.369 million gallons per day (mgd) from the Chesapeake Bay Basin (CBB) from the Old County Road, Chesapeake City Road, Eastern States and Choptank and Bethel Church well fields, and up to 3.0 mgd from the Susquehanna River Basin (SRB) from an interconnection with Chester Water Authority (CWA) to augment water supply to the docket holder's public water supply system. The docket also approves the withdrawal of up to 770.93 million gallons per month (mgm) to supply the docket holder's New Castle County Regional System. The docket holder's existing groundwater withdrawals, except for the Broad Run PA Well, are approved by DNREC and will continue to be regulated in accordance with the Administrative Agreement (AA) between DRBC and the State of Delaware, Section IV.C.4, enacted in July 2010 and modified on May 8, 2013.

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

WELL NO.	TOWNSHIP, STATE	WATERSHED	GEOLOGIC FORMATION
Airport Industrial Park Well No. 1	New Castle County, Delaware	Army Creek – Delaware River	Potomac
Airport Industrial Park Well No. 2	New Castle County, Delaware	Army Creek – Delaware River	Potomac
Artisan's Village Well No. 1	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Artisan's Village Well No. 2	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Artisan's Village Well No. 3	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Artisan's Village Well No. 4	New Castle County, Delaware	Red Lion Creek – Delaware River	Upper Potomac
Caravel Farms Well No. 1	New Castle County, Delaware	Muddy Run	Upper Potomac
Castle Hills Well No. 2	New Castle County, Delaware	Broad Duke Canal- Delaware River	Columbia - Potomac
Castle Hills Well No. 4	New Castle County, Delaware	Broad Duke Canal – Delaware River	Upper Potomac
Castle Hills Well No. 5	New Castle County, Delaware	Broad Duke Canal – Delaware River	Columbia
Collins Park Well No. 1	New Castle County, Delaware	Lower Christina River	Potomac
Fairwinds Well No. 2R	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Fairwinds Well No. 4R	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Fairwinds Well No. 5R	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Fairwinds Well No. 6R	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Fairwinds Well 8	New Castle County, Delaware	Army Creek – Delaware River	Lower Potomac
Glendale Well No. 2R	New Castle County, Delaware	Red Lion Creek – Delaware River	Columbia
Glendale Well No. 4R	New Castle County, Delaware	Red Lion Creek – Delaware River	Columbia
Glendale Well No. 5	New Castle County, Delaware	Middle Christina River	Potomac

WELL NO.	TOWNSHIP, STATE	WATERSHED	GEOLOGIC FORMATION
Glendale Well No. 6	New Castle County, Delaware	Middle Christina River	Potomac
Glendale Well No. 7	New Castle County, Delaware	Red Lion Creek – Delaware River	Potomac
Hockessin Well No. 1	New Castle County, Delaware	Lower White Clay Creek	Cockeysville
Hockessin Well No. 2	New Castle County, Delaware	Lower White Clay Creek	Cockeysville
Hockessin Well No. 3	New Castle County, Delaware	Lower White Clay Creek	Cockeysville
Hockessin Well No. 4	New Castle County, Delaware	Lower White Clay Creek	Cockeysville
Hockessin Well No. G-1	New Castle County, Delaware	Lower White Clay Creek	Cockeysville
Hockessin Well No. G-3	New Castle County, Delaware	Lower White Clay Creek	Cockeysville
Brennan Estates Well No. 1R (Out of Basin)	New Castle County, Delaware	C&D Canal West – Back Creek	Lower Potomac
Brennan Estates Well No. 2R (Out of Basin)	New Castle County, Delaware	C&D Canal West – Back Creek	Lower Potomac
Eastern States Well No. 1 (Out of Basin)	New Castle County, Delaware	Upper Elk River	Potomac
Eastern States Well No. 2 (Out of Basin)	New Castle County, Delaware	Upper Elk River	Potomac
Old County Road Well No. 1 (Out of Basin)	New Castle County, Delaware	C&D Canal West – Back Creek	Lower Potomac
Old County Road Well No. 2 (Out of Basin)	New Castle County, Delaware	C&D Canal West – Back Creek	Lower Potomac
Chesapeake City Road Well No. 2 (Out of Basin)	New Castle County, Delaware	C&D Canal West – Back Creek	Upper Potomac
Chesapeake City Road Well No. 3R (Out of Basin)	New Castle County, Delaware	C&D Canal West – Back Creek	Lower Potomac

WELL NO.	TOWNSHIP, STATE	WATERSHED	GEOLOGIC FORMATION
Llangollen Well No. 2	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Llangollen Well No. 6	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Llangollen Well No. 7	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Llangollen Well No. G-3R	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Llangollen Well No. ASR	New Castle County, Delaware	Army Creek – Delaware River	Upper Potomac
Middle Run Well No. 1	New Castle County, Delaware	Upper White Clay Creek	Cockeysville
Middle Run Well No. 2	New Castle County, Delaware	Upper White Clay Creek	Cockeysville
Middle Run Well No. 3	New Castle County, Delaware	Upper White Clay Creek	Cockeysville
Midvale Well No. 1	New Castle County, Delaware	Army Creek – Delaware River	Columbia
Midvale Well No. 2R	New Castle County, Delaware	Army Creek – Delaware River	Columbia
Wilmington Manor Gardens Well No. 1R	New Castle County, Delaware	Broad Duke Canal – Delaware River	Columbia
Wilmington Manor Gardens Well No. 3	New Castle County, Delaware	Broad Duke Canal – Delaware River	Columbia
Wilmington Airport Well No. 1	New Castle County, Delaware	Lower Christina River	Potomac
Wilmington Airport Well No. 2	New Castle County, Delaware	Lower Christina River	Potomac
Wilmington Airport Well No. 3R	New Castle County, Delaware	Lower Christina River	Potomac
Jefferson Farms Well No. 1R	New Castle County, Delaware	Broad Duke Canal – Delaware River	Potomac
Jefferson Farms Well No. 2R	New Castle County, Delaware	Broad Duke Canal – Delaware River	Potomac
Broad Run PA	New Garden Township, Chester County, Pennsylvania	Broad Run	Cockeysville
Valley Grove	New Castle County, Delaware	Mill Creek	Cockeysville
Augustine Creek Well No. 1	New Castle County, Delaware	Augustine Creek	Potomac

WELL NO.	TOWNSHIP, STATE	WATERSHED	GEOLOGIC FORMATION
Augustine Creek Well No. 2	New Castle County, Delaware	Augustine Creek	Potomac
Augustine Creek Well No. 3	New Castle County, Delaware	Augustine Creek	Mount Laurel
Bayview Well No. 1R	New Castle County, Delaware	C&D Canal East	Mount Laurel
Bayview Well No. 2R	New Castle County, Delaware	C&D Canal East	Mount Laurel
Bayview Well No. 3	New Castle County, Delaware	C&D Canal East	Mount Laurel
Chestnut Grove Well No. 1	New Castle County, Delaware	Drawyer Creek	Potomac
Commodore Estates Well No. 1	New Castle County, Delaware	Drawyer Creek	Potomac
Emerson Farm Well No. 1	New Castle County, Delaware	Scott Run	Potomac
Lester Farm Well No. 1	New Castle County, Delaware	Augustine Creek	Potomac
Lester Farm Well No. 2	New Castle County, Delaware	Augustine Creek	Potomac
Stonefield Well No. 1	New Castle County, Delaware	Hangmans Run	Potomac
Thomas Cove Well No. 1	New Castle County, Delaware	Appoquinimink River	Mount Laurel
Thomas Cove Well No. 2	New Castle County, Delaware	Appoquinimink River	Mount Laurel
Hyetts Corner Well No. 1	New Castle County, Delaware	Coopers Run	Middle Potomac
Townsend Well No. 1R	New Castle County, Delaware	Herring Run	Rancocas
Townsend Well No. 2R	New Castle County, Delaware	Herring Run	Rancocas
Willow Grove Well No. 1	New Castle County, Delaware	Appoquinimink River	Potomac
Willow Grove Well No. 2	New Castle County, Delaware	Appoquinimink River	Mount Laurel
Willow Grove Well No. 3	New Castle County, Delaware	Appoquinimink River	Potomac
Choptank Well No. 1 (Out of Basin)	New Castle County, Delaware	Back Creek	Middle Potomac

WELL NO.	TOWNSHIP, STATE	WATERSHED	GEOLOGIC FORMATION
Choptank Well No. 2 (Out of Basin)	New Castle County, Delaware	Back Creek	Upper Potomac
Choptank Well No. 3 (Out of Basin)	New Castle County, Delaware	Back Creek	Lower Potomac
Bethel Church Well No. 1 (Out of Basin)	New Castle County, Delaware	Back Creek	Middle Potomac
Stonefield Well No. 2	New Castle County, Delaware	Appoquinimink River	Rancocas

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder's water distribution system serves am large portion of New Castle County, Delaware as outlined on the map entitled "New Castle County, Delaware – Artesian Service Territory" submitted with the renewal application. Additionally, the docket holder currently provides water to customers in New Garden Township, Pennsylvania. 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's New Castle County Regional system currently serves an estimated population of 236,541 through 74,774 domestic service connections, 2,737 commercial, 8 industrial, 59 irrigation, 388 institutional and 877 other connections with an average and maximum water demand of 20.7 mgd and 23.8 mgd, respectively. The docket holder projects the population served to increase to 272,022 via 90,674 domestic connections with an average and maximum water demand of 23.81 mgd and 27.4 mgd, respectively, by the year 2035. The allocation of 770.93 mgm should be sufficient to meet the future demands of the docket holder's public water supply distribution system.

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

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
Airport Industrial Park Well No. 1	126	100'/10"	250	1982
Airport Industrial Park Well No. 2	130	103'/10"	250	1983
Artisan's Village Well No. 1	215	155'/12"	1,100	1979

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
Artisan's Village Well No. 2	225	125'/12"	300	1980
Artisan's Village Well No. 3	189	129'/12"	700	1995
Artisan's Village Well No. 4	161	117'/10"	150	2001
Caravel Farms Well No. 1	117	65'/10"	250	1977
Castle Hills Well No. 2	106	56'/ 17"	250	1958
Castle Hills Well No. 4	109	99.5'/12"	600	2011
Castle Hills Well No. 5	78	58'/12"	450	2011
Collins Park Well No. 1	135	108'/10"	400	1978
Fairwinds Well No. 2R	145	124'/10"	370	1964
Fairwinds Well No. 4R	135	112'/10"	350	2019
Fairwinds Well No. 5R	164	80'/10"	400	1965
Fairwinds Well No. 6R	146	100'/10"	225	1965
Fairwinds Well 8	528	477'/14"	125	1998
Glendale Well No. 2R	80	52'/17"	350	1960
Glendale Well No. 4R	95	68'/10"	100	1979
Glendale Well No. 5	140	108'/12"	275	1973
Glendale Well No. 6	140	100'/12"	225	1974
Glendale Well No. 7	73	43'/10"	400	1976
Hockessin Well No. 1	325	29'/18"	425	1964
Hockessin Well No. 2	332	65'/16"	425	1965

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
Hockessin Well No. 3	312	54'/16"	425	1967
Hockessin Well No. 4	292	55'/16"	700	1975
Hockessin Well No. G-1	200	127'/14"	400	1972
Hockessin Well No. G-3	305	84'/8"	300	1974
Brennan Estates Well No. 1R (Out of Basin)	460	322'/12"	900	2004
Brennan Estates Well No. 2R (Out of Basin)	567	507'/12"	750	2004
Eastern States Well No. 1 (Out of Basin)	235	160'/10"	600	1981
Eastern States Well No. 2 (Out of Basin)	265	222'/10"	300	1981
Old County Road Well No. 1 (Out of Basin)	393	320'/12"	700	1994
Old County Road Well No. 2 (Out of Basin)	475	413'/12"	1,000	1995
Chesapeake City Road Well No. 2 (Out of Basin)	163	150'/8"	225	1994
Chesapeake City Road Well No. 3 (Out of Basin)	640	562'/8"	550	2003
Llangollen Well No. 2	164	131'/10"	320	1976
Llangollen Well No. 6	165	108'/17"	600	1964
Llangollen Well No. 7	180	115'/12"	600	1968
Llangollen Well No. G-3R	157	98'/12"	1,220	2012

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
Llangollen Well No. ASR	167	129’/17”	1,000	1998
Middle Run Well No. 1	419	105’/10”	300	1999
Middle Run Well No. 2	403	107’/10”	450	2002
Middle Run Well No. 3	406	156’/12”	350	2022
Midvale Well No. 1R	84	72’/17”	200	2017
Midvale Well No. 2R	75	60’/12”	200	2018
Wilmington Manor Gardens Well No. 1R	50	37’/17”	200	2017
Wilmington Manor Gardens Well No. 3	72	48’/17”	350	1956
Wilmington Airport Well No. 1	198	187’/8”	200	1942
Wilmington Airport Well No. 2	222	211’/8”	200	1942
Wilmington Airport Well No. 3R	160	132’/18”	200	1996
Jefferson Farms Well No. 1R	140	90’/12”	600	2012
Jefferson Farms Well No. 2R	102	88’/12”	600	2013
Broad Run PA	205	75’/6”	200	1984 (Deepened in 2014)
Valley Grove Well No. 1	396	246’/12”	500	2021
Augustine Creek Well No. 1	495	436’/ 8”	50	1995
Augustine Creek Well No. 2	792	418’/ 10”	80	1995

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
Augustine Creek Well No. 3	152	102’/ 6”	65	1999
Bayview Well No. 1R	200	130’/ 6”	100	2005
Bayview Well No. 2R	220	125’/ 4”	100	2001
Bayview Well No. 3	180	128’/ 8”	300	1993
Chestnut Grove Well No. 1	446	410’/ 8”	600	1993
Commodore Estates Well No. 1	435	375’/ 8”	350	1996
Emerson Farm Well No. 1	435	375’/ 8”	250	1993
Lester Farm Well No. 1	534	482’/ 8”	500	1994
Lester Farm Well No. 2	505	424’/ 8”	350	1995
Stonefield Well No. 1	813	692’/ 12”	450	1994
Thomas Cove Well No. 1	330	200’/ 8”	250	1997
Thomas Cove Well No. 2	270	195’/ 8”	250	2002
Hyetts Corner Well No. 1	422	420’/ 10”	675	1998
Townsend Well No. 1R	155	85’/ 8”	225	2004
Townsend Well No. 2R	180	80’/ 12”	225	2002
Willow Grove Well No. 1	740	606’/ 8”	450	1997
Willow Grove Well No. 2	238	157’/ 12”	100	1997
Willow Grove Well No. 3	982	931’/ 10”	500	2003
Choptank Well No. 1 (Out of Basin)	797	512’/ 8”	250	1996

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
Choptank Well No. 2 (Out of Basin)	310	213'/ 18"	400	1996
Choptank Well No. 3 (Out of Basin)	900	810'/ 10"	1,000	1998
Bethel Church Well No. 1 (Out of Basin)	827	670'/ 8"	700	1998
Stonefield Well No. 2	128	97'/8"	300	1994

All water service connections are metered.

All wells are metered.

Prior to entering the distribution system, the water is treated by chlorine for disinfection, fluoride, phosphate for corrosion resistance and filtration for iron removal. pH adjustment and filtration/absorption treatment are also used at several of the docket holder's treatment facilities.

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

The docket holder's storage facilities total 35 million gallons, which is approximately 2 days of supply.

The water system is presently interconnected with the following:

WATER COMPANY	INTERCONNECTION CAPACITY (MGD)	STATUS
Chester Water Authority	6.0	Regular
Town of Middletown	2.0	Regular
City of Wilmington – Taft and Cleveland	0.7	Regular
City of New Castle – School Lane	0.7	Auxiliary
City of New Castle – Lukens Drive	1.0	Emergency
City of Newark – Polly Drummond Hill Road	0.4	Emergency
City of Wilmington – Moorehouse Lane	0.5	Emergency
City of Wilmington – South Heald Street	1.5	Emergency
City of Wilmington – Maryland Avenue	3.0	Emergency

United Water – Red Lion Road	1.0	Emergency
United Water – First State Boulevard	1.0	Emergency
United Water – Pleasant Valley	1.0	Emergency
United Water – Newport Heights	1.0	Emergency
United Water – Churchmans Road	1.0	Emergency

6. Other. Wastewater is conveyed to the City of Wilmington sewage treatment facility, which was most recently approved by DRBC Docket No. D-1998-026 CP on November 15, 2000. DNREC issued its most recent NPDES Permit No. DE0020320 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

Wastewater is also conveyed to the New Castle County – Delaware City sewage treatment facility, which was most recently approved by DRBC Docket No. D-1972-210 CP-3 CP on June 10, 2020. DNREC issued its most recent NPDES Permit No. DE0021555 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

Wastewater is also conveyed to the Middletown - Odessa - Townsend Regional (MOT) sewage treatment facility, which was most recently approved by DRBC Docket No. D-1993-006 CP-4 on June 12, 2019. DNREC issued its most recent NPDES Permit No. DE0050547 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

Wastewater is also conveyed to the Middletown sewage treatment facility, which was most recently approved by DRBC Docket No. D-1968-075 CP on May 22, 1968. DNREC issued its most recent Spray Permit No. LTS 3020-02-07 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

7. Relationship to the Comprehensive Plan. The docket holder's northern project wells were previously included in the Comprehensive Plan by the Commission in Docket Nos. D-1965-027 CP approved on April 28, 1965, D-1968-069 CP approved on May 22, 1968, D-1969-045 CP approved on May 28, 1969, D-1974-049 CP approved on September 25, 1974, D-1974-078 CP approved on September 25, 1974, D-1974-097 CP approved on June 17, 1975, D-1974-110 CP approved on September 25, 1974, D-1974-110 CP approved on September 25, 1974, D-1974-195 CP approved on December 17, 1975, D-1975-008 CP approved on April 23, 1975, D-1976-044 CP approved on June 2, 1976, D-1976-092 CP approved on September 28, 1977, D-1978-030 CP approved on May 24, 1978, D-1979-058 CP approved on April 27, 1982, D-1982-043 CP approved on November 30, 1983, D-1982-053 CP approved on April 20, 1983, D-1996-033 CP approved on December 11, 1996, D-1997-048 CP approved on August 18, 1999, D-2001-024 CP approved on September 13, 2001, D-2002-034 CP approved on September 3, 2003, D-1985-027 CP approved on May 28, 1986, D-1985-027 CP RENEWAL approved on June 19, 1991, D-1985-027 CP RENEWAL 2 approved on September 19, 1996, D-2002-034 CP-2 approved on May 18, 2005 and D-2002-034 CP-3 approved on March 11, 2015.

The docket holder's southern project wells were previously included in the Comprehensive Plan by the Commission in Docket Nos. D-1997-048 CP approved on August 18, 1999, D-2003-022 CP approved on January 21, 2004, D-2003-022 CP-2 approved on May 10, 2006 and D-2003-022 CP-3 approved on December 12, 2006.

Issuance of this docket will continue the public water supply distribution system in the Comprehensive Plan.

B. FINDINGS

1. Water Audits for Public Water Supply Systems Serving Greater than 100,000 gpd

Section 2.1.8 of the *Water Code (WC)* 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.

2. Water Importation

The docket holder's northern portion of their water distribution system is presently interconnected with the Chester Water Authority (CWA) system which provides up to 3.0 mgd of water to the docket holder's system in New Castle County, Delaware from two surface water intakes in the SRB. CWA has a surface water intake on the Susquehanna River and on a reservoir on Octoraro Creek. The withdrawal and exportation of surface water from the SRB to the CWA was approved by the Susquehanna River Basin Commission (SRBC) in Docket No. 19961104 on November 26, 1996. DRBC approved the importation of the water from the SRB into the DRBC via dockets issued to CWA (Nos. D-1969-060 as amended by Docket 1984-55 CP). Groundwater is also imported into the Delaware River Basin (DRB) from three of the docket holder's well fields (Old County Road, Chesapeake City Road/Brennan Estates and Eastern States) in the CBB which provides up to 3.0 mgd. The continued importation of water to the DRB from sources outside of the DRB reduces reliance on in-basin sources. No other significant benefit or impairment has incurred to the basin from the ongoing importation of water from the CWA surface water intakes or the docket holder wells located in the SRB and CBB, respectively.

The docket holder's southern portion of their water distribution system has four wells (Choptank Wells Nos. 1, 2 and 3 and Bethel Church Well No. 1) which provide up to 15.5 mgd of groundwater from the CBB. The docket holder's southern system is also located in the DRB in New Castle County, Delaware. Wastewater for both projects is conveyed to the New Castle Middletown - Odessa - Townsend Regional and Middletown sewage treatment facilities which are

both located within the DRB. The continued importation of water to the DRB from sources outside of the DRB reduces reliance on in-basin sources. No other significant benefit or impairment is incurred to the basin from the ongoing importation of water from the docket holder wells located in the CBB.

3. Water Allocation

The docket holder's groundwater use is from seventy-nine (79) wells and is not expected to exceed 770.93 mgm. As such, the docket holder requested a monthly allocation of 770.93 mgm in their DRBC withdrawal Application. However, the docket holder's existing groundwater withdrawals are approved by DNREC in Permits listed in the table in the Proceedings Section and will continue to be regulated by DNREC in accordance with the Administrative Agreement (AA) between DRBC and the State of Delaware, Section IV.C.4, enacted in July 2010 and modified on May 8, 2013. As such, this allocation may change as a result of future permit actions by DNREC (See Condition C.6.).

4. Phase-in and Monitoring and Reporting Program

Docket No. D-2002-034 CP-3 and continued in D-2002-034 CP-4, required the docket holder to prepare and submit a Groundwater and Surface Water Monitoring Plan (Plan) to confirm that pumping at the Broad Run PA well will not adversely impact the local Broad Run hydrologic system including Broad Run. The docket holder submitted the Plan to the Commission on March 19, 2015. After consideration by Commission staff, the Plan has been modified by Commission staff in response to the concerns of staff, local residents, and other interested parties as discussed in the Comment and Response Document for the docket. The revised Broad Run PA Well Monitoring and Reporting Program (Program) is attached to this docket. The basic requirements for this Program include:

1. Prior to the initiation of water withdrawal from the Broad Run PA Well the docket holder will conduct a 9-month monitoring program in accordance to Condition No. C.5. of the docket and the attached Broad Run PA Well Monitoring and Reporting Program. Water withdrawal from the Broad Well Run PA Well will only be initiated after 9 months of baseline data collection and the written approval of the Executive Director. The basic purpose of the 9-month program is to establish a baseline of the existing conditions in Broad Run and monitoring wells. (Docket Condition C.5.)

   This monitoring program was completed by the docket holder and the Executive Director approved initiation of withdrawals from the Broad Run PA Well by letter dated November 3, 2023.

2. Monitoring and reporting in accordance with the attached Monitoring and Reporting Plan will continue for a minimum of 5 years. After 5 years from the initiation of the initial monitoring, the docket holder may submit a written request to the Executive Director for modifications and or cessation of the monitoring and reporting as required in the attached

Program. The docket holder shall continue to comply with the attached Program until it has received written approval of Program modifications from the Executive Director.

The docket holder continues to monitor and submits reports on a quarterly basis.

3. Monitor a downstream stream gage on Broad Run in addition to the upstream gage;

The docket holder continues to monitor and submits reports on a quarterly basis.

4. During this period the docket holder may apply for an increase in the withdrawal rate from the well in 50 gpm increments from 100 gpm to 150 gpm, and from 150 gpm to and 200 gpm on an annual basis. The requests shall be in writing and include the demonstration required in the Plan. The Executive Director may approve phased water withdrawal increases up to the Broad Run PA Well allocation provided in this docket. Phased increases in water withdrawal amounts will occur only upon demonstration that the monitoring program does not indicate significant impacts to the stream or existing groundwater wells. The Executive Director may also deny requested increases or reduce the allowable withdrawal rate based on the results of the monitoring program or any other information that demonstrates that reductions are required to protect neighboring wells from adverse impacts or surface water flow in Broad Run.

By letter dated January 15, 2025, the Commission approved an increase in withdrawal rate from 100 gpm to 150 gpm from the Broad Run PA Well.

5. The docket holder shall submit written (or electronic) reports to the Executive Director. The docket holder shall also send copies of the Program reports to the PADEP, DNREC, New Garden Township and the CCWRA at the same time they are submitted to the DRBC. The Commission will publish these reports on its website or otherwise make it available to the public.

5. Other Findings

The DNREC water allocation permit is valid for a period of 30 years from date of issue, with review every five years.

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* 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

Effective on the approval date for Docket No. D-2002-034 CP-5 below, the project described in Docket Nos. D-2002-034 CP-4 and D-2003-022 CP-4 are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2002-034 CP-5; Docket Nos. D-2002-034 CP-4 and D-2003-022 CP-4 are terminated and replaced by Docket No. D-2002-034 CP-5; 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 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 DNREC 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 DNREC annually and shall be available at any time to the Commission if requested by the Executive Director.

2. In accordance with DRBC Resolutions No. 87-6 (Revised) and No. 2009-1, the docket holder shall continue to implement to the satisfaction of DNREC, 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.

3. 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.

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

5. A Broad Run PA Well Monitoring and Reporting Program (Program) is required to obtain data on hydrologic conditions in the project area. Groundwater and surface water monitoring shall be conducted in accordance with the attached Program to confirm that pumping at the Broad Run PA well will not adversely impact the local Broad Run hydrologic system. The docket holder shall implement the monitoring program attached to this docket and shall abide by all conditions contained herein and in the attached Program.

A. Prior to the initiation of water withdrawal from the Broad Run PA Well the docket holder shall conduct a 9-month monitoring program in accordance attached Program. Water withdrawal from the Broad Run PA Well will only be initiated after the docket holder has collected 9 months of baseline data and received the written approval of the Executive Director.

B. Monitoring and reporting in accordance with the attached Program shall continue for a minimum of 5 years. After 5 years from the initiation of the initial monitoring, the docket holder may submit a written request to the Executive Director for modifications and or cessation of the monitoring and reporting as required in the attached Program. The docket holder shall continue to comply with the attached Program unless and until it has received written approval of Program modifications from the Executive Director.

C. Following the completion of the pre-pumping phase of the monitoring program required in Condition C.5.A. above, the docket holder may annually apply for an increase in the withdrawal rate from the well in 50 gpm increments from 100 gpm to 150 gpm, and from 150 gpm to 200 gpm. The requests shall be in writing and shall include the demonstration required in the Plan. The Executive Director may approve phased water withdrawal increases up to the Broad Run PA Well allocation provided in this docket. Phased increases in water withdrawal amounts will occur only upon demonstration by the docket holder that the monitoring program does not indicate significant impacts to the stream or existing groundwater wells. The Executive Director may also deny requested increases or reduce the allowable withdrawal rate based on the results of the monitoring program or any other information that demonstrates that reductions are required to protect neighboring wells or surface water flow in Broad Run from adverse impacts. The docket holder shall not increase the rate of water withdrawal until it receives the approval of the Executive Director authorizing such increase. In a letter dated January 15, 2025 from the Commission to the docket holder, an increase in withdrawal rate from 100 gpm to 150 gpm in the Broad Run PA Well was approved.

D. The docket holder shall submit the written (or electronic) reports required by the Program to the Executive Director. The docket holder shall also

send copies of the Program reports to the PADEP, DNREC, New Garden Township and the CCWRA at the same time they are submitted to the DRBC. The Commission will publish these reports on its website or otherwise make it available to the public.

Other Conditions

6. During any month, the total withdrawal of groundwater shall not exceed 770.93 million gallons. This allocation may be modified as a result of future permit actions by DNREC in accordance with the July 2010 and modified on May 8, 2013 Administrative Agreement between the DRBC and the State of Delaware.

7. During any month, the total withdrawal of groundwater from Broad Run PA Well shall be in accordance with Condition C.5. and the attached monitoring program. According to Condition C.5. and the monitoring plan the Broad Run PA Well may pump up to 200 gpm and 8.928 mgm.

8. 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 materially 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 materially for purposes of this provision.

9. 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.

10. 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).

11. 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).

12. 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*.

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 *Water Code* and *Water Quality Regulations* 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. 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.

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

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

23. 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.

24. 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.

25. 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 10, 2035

Broad Run PA Well Monitoring and Reporting Program

DRBC Docket No. D-2002-034 CP-5

New Garden Township, Chester County, Pennsylvania

This Broad Run PA Well Monitoring and Reporting Program (the Program) has been developed by the Delaware River Basin Commission (DRBC or Commission) staff by modifying the Monitoring Plan submitted to the Commission by Artesian Water Company on March 19, 2015. Several of the modifications were the result of the public comments received during the public comment period that ended on November 12, 2015. The implementation of this Plan is a requirement of Docket No. D-2002-034 CP-5 (see Condition C.5. of this docket) and is required to establish a baseline prior to the initiation of operations of the new Broad Run PA well and to assess any interactions between the Broad Run PA Well (the Well) during its operations as approved in Docket No. D-2002-034 CP-5, Broad Run and surrounding area domestic wells.

The Broad Run PA Well has a proposed maximum flow rate of 200 gallons per minute (gpm) and is completed within the Cockeysville Marble. The Well is located roughly 280 feet from Broad Run in New Garden Township, Chester County, Pennsylvania. A 72-hour aquifer pumping test was conducted on the Broad Run PA Well in March and April, 2014, before, during, and after which, two piezometers located near Broad Run and seven other private domestic wells located within one-half (½) mile of the Well were monitored.

This Program focuses on observing any interactions between the water level and water quality in the Well compared to Broad Run. In addition, water level pumping effects of the Well will be compared to the two existing and two proposed piezometers located near Broad Run. The private wells used in the aquifer test will also be used for water level monitoring if the owners agree to property access by Artesian Water Company. The proposed minimum duration of monitoring is five (5) years. Data collected from the program will be provided to DRBC, DNREC and PADEP on a quarterly interval. This data will also be provided to the CCWRA, and the New Garden Township. In addition the information will be publicly available on the Commission's website. The quarterly reports will include hydrographs of stream flow, water levels in wells and piezometers, and metered pumpage from the Broad Run PA Well. Comparison of stream and well water levels and quality will be summarized in the report. Monthly Microscopic Particulate Analyses (MPA) will be provided with these quarterly reports for the first year of monitoring. The reports will be submitted within 30 days of the last data downloads for the quarter. Phased limitations on the pumping rate for the Broad Run PA well are included in this monitoring program. Demonstration Reports shall be submitted to the DRBC for approval by the Executive Director prior to any adjustments in the pumping rate.

1. Broad Run PA Well Monitoring

Water level and quality will be obtained from the Well. A water level and temperature transducer (In Situ Series 500 or equivalent) will be installed in the Well below the pumping level based on results of the 72-hour pumping test. Water quality monitoring of the Well discharge will include conductivity and turbidity monitoring recorded at 60 minute intervals. MPA samples will be obtained at monthly intervals for the first year of the monitoring plan.

2. Piezometers:

The two existing piezometers from the original aquifer test will be used for this Plan. These piezometers were installed beneath a clay layer from 5 to 9 feet below grade, 20 and 40 feet from the bank of Broad Run. Two new piezometers screened above the clay layer will be installed for additional monitoring points. In addition, the stream gauge used for the aquifer test will be reused or reinstalled for this program. Prior to selecting the location of the new piezometers, the elevation of the top of the clay will be evaluated by looking at the stream bank for the presence or absence the clay. In addition, hand borings will be installed approximately 20 feet from the stream bank to look at the depth to the clay. Variations in the elevation of the clay surface will affect the saturated thickness of the water table zone to be monitored. The location of the piezometers must be set in locations where the top of the clay is low relative to the average top of the clay. Otherwise, the shallow piezometers may dry up during the late summer months. It is estimated that 10 to 12 soil borings, 25 to 50 feet, apart will be installed to look for variations in the top of clay elevation. The boring locations will be centered on the existing piezometer locations. The soils boring separation distance will be based on the initial variations observed in the elevation of the clay layer; small variations in clay elevation will result in wider spacing of the soil borings. The final piezometers will be installed by a licensed driller. One and a half-inch PVC piezometers will be installed with 2 feet of screen set on top of the clay layer, an estimated depth of 5 to 7 feet. Gravel pack will be extended 3 to 6 inches over the top of the screen. A bentonite seal to grade will be included to prevent any surface water from entering the piezometers. A 4 or 6 inch diameter locking steel protective well cover will be installed to protect the piezometers and water level recorders set into the piezometers. Following completion of the piezometers, the 5 monitoring points (two deep and two shallow piezometers and the stream gauge) will be surveyed for location and top of casing elevations. An In Situ 200 series level-temperature-conductivity (LTC) transducer will be installed into each of the 5 monitoring points. The transducers will be set to record at 1 hour linear time schedule to monitor changes in the stream and piezometers. The transducers will be downloaded weekly during the first two months of monitoring. After the first two months, the transducers will be downloaded monthly. The weekly frequency for downloading the transducers is primarily to evaluate security of the piezometers.

3. Stream Gauging:

Stream flow discharge rate will be monitored for Broad Run at two locations during the monitoring period. The location for flow gauging will be the Newark Road and Broad Run Road Bridges over Broad Run. The Newark Road Bridge is the location where flows were measured during the aquifer test. The width of the stream at both locations is controlled by the bridge abutments. A profile of the stream bottom will be made at 6 inch intervals across the streams on the downstream side of each bridge prior to the initiation of flow measurements. The depth of flow beneath the bridges will be recorded by In-Situ LTC transducers located (and hidden) beneath the bridge. The recorders will be set to measure depth of water on a one hour interval. Conductivity on these probes will provide redundancy on the downstream stream piezometer location. The velocity of flow will be recorded weekly at each stream gauging location for the first two months of monitoring to develop a relationship between depth of the stream and flow velocity. Velocity will be

measured using an electronic calibrated velocity instrument (Marsh McBirney FloMate or equivalent) at six inch intervals across the stream profile. The approximate depth of monitoring the velocity will be at 60 percent of the total depth of the stream, below the water surface (40% of total depth above the stream bottom). Multiple measurements should be made at each location along the transect and averaged to accommodate any variability in measuring at each location. If low flow conditions where 3 inches of water depth or less are encountered, a more sensitive velocity instrument shall be employed (e.g. SonTec FlowTracker Handheld ADV with a 2D/3D probe or equivalent) for stream flow velocity measurements. After two months of weekly velocity monitoring, the velocity monitoring frequency will be reduced to monthly when the transducers are downloaded. Weekly velocity measurements in Broad Run shall resume for the period of June 1 thru October 15 during the pre-pumping period to include observations of expected low flows in the rating curve. Monthly velocity measurements may continue thereafter. The stream base profile will be re-measured following any stream flooding event if deemed necessary by the docket holder. Flow velocity measurements in Broad Run shall not be made within 72-hours of a precipitation event to allow for stream flow recession and an accurate measurement of baseflow.

4. Domestic Well Monitoring

The owners of the domestic wells monitored during the testing will be contacted for permission to reuse their wells during this long-term monitoring program. Water level and temperature will be recorded hourly using In Situ 500 Series water level and temperature transducers or equivalent. To minimize impact to the owner, the well transducers will be downloaded on a monthly basis.

5. Broad Run PA Well Withdrawal Rate

Commission staff have determined that the long-term pumping test of Broad Run PA well did not indicate that adverse impacts will occur to the local hydrologic system as a result of pumping. This monitoring program and the controlled phase-in of withdrawal rates from the well over time will reveal any adverse impacts to the Broad Run hydrologic system over increasing pumping rates or confirm the absence of any such impacts. It will also provide the Commission with the information to make adjustments in operations if it is found necessary. Prior to the initiation of water withdrawal from the Broad Run PA Well the docket holder will conduct a 9-month monitoring program. Water withdrawal from the Broad Run PA Well will only be initiated after the docket holder has collected 9 months of baseline data and received the written approval of the Executive Director.

Following the completion of 9 months of baseline monitoring, the docket holder may submit a written request to the Executive Director seeking approval of the phased initiation of withdrawal operations at the Well. Annual increases in the withdrawal rate from the well in 50 gpm increments from an initial 100 gpm to 150 gpm, and from 150 gpm to 200 gpm are shown in the table below. These requests shall be in writing and shall include the demonstration required in this Program. The Executive Director may approve, deny, scale back or otherwise modify phased water withdrawal increases up to the Broad Run PA Well allocation provided in this docket D-2002-034 CP-5. Phased increases in water withdrawal amounts will occur only upon demonstration by the docket holder that the monitoring program does not indicate significant impacts to the stream or existing groundwater wells. The Executive Director may also deny requested increases or reduce the allowable withdrawal rate based on the results of the monitoring program or any other information that the Executive Director concludes demonstrates that reductions are required to protect neighboring wells or surface water flow in Broad Run from adverse impacts or otherwise warrants such action. The docket holder shall not increase the rate of water withdrawal until it receives the approval of the Executive Director authorizing such increase.

The withdrawal rate of the Broad Run PA well will be phased in the following manner:

PHASE	PHASE LENGTH	WITHDRAWAL RATE (GPM)	NOTES
Pre-pumping	9 months beginning after docket approval date	0	This phase shall include monitoring over one seasonally low-flow period i.e. June 1 through October 15
1	Minimum 12 months of well operation	100	Phase 1 shall continue until Executive Director approves an increase in the pumping rate
2	Minimum 12 months of well operation after phase 2 operation is approved	150	Phase 2 shall continue until Executive Director approves an increase in the pumping rate
3	12+ months of well operation after phase 3 is approved	200	Phase 3 may continue unless otherwise modified by the Executive Director

6. Monitoring Term

Monitoring and reporting in accordance with the attached Program will continue for a minimum of 5 years. After 5 years from the initiation of the initial monitoring, the docket holder may submit a written request to the Executive Director for modifications and or cessation of the monitoring and reporting as required in this Program. The docket holder shall continue to comply with this Program until it has received written approval of Program modifications from the Executive Director.

7. Quarterly Data and Demonstration Reports

In addition to quarterly data reports described above, the docket holder shall submit demonstration reports to the DRBC for any increase in water withdrawal from the Well in excess of 100 gpm. These reports shall provide interpretation of the collected data and shall demonstrate that no adverse impacts are occurring to neighboring wells or surface water flow in Broad Run as a result of pumping in the well. The docket holder shall submit written (or electronic) reports to the Executive Director. The docket holder shall also send copies (or electronic copies) of the Program reports to the PADEP, DNREC, New Garden Township and

the CCWRA at the same time as they are submitted to the DRBC. The Commission will publish these reports on its website.