

DOCKET NO. D-1992-020 CP-4

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**Hilltown Township Water and Sewer Authority
Groundwater Withdrawal
Hilltown Township, Bucks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Castle Valley Consultants, Inc. on behalf of Hilltown Township Water and Sewer Authority (HTWSA) on November 20, 2017, for an allocation of groundwater and review of a groundwater withdrawal project in the Ground Water Protected Area of Southeastern Pennsylvania previously approved by the DRBC on May 5, 2010 (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 follows:

WELL NO.	PADEP PERMIT NO.	PADEP APPROVAL DATE
1A	0909530	November 1, 2010
2	0986509	October 30, 1986
5	0986501	May 30, 1986

The Application was reviewed for inclusion of the project in the Comprehensive Plan and 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 16, 2018.

A. DESCRIPTION

1. Purpose. The purpose of this project is to renew the approval of an existing groundwater withdrawal project and to increase the allocation from 16.0 million gallons per 30 days (mg/30

days) to 21.52 million gallons per month (mgm) to supply water to the docket holder's distribution system from existing Wells 1A, 2 and 5.

2. **Location.** The project wells are located in the Pleasant Spring Creek Watershed a tributary to the East Branch Perkiomen Creek, in Hilltown Township, Bucks County, Pennsylvania. The Pleasant Spring Creek near the project site is designated by the PADEP as Trout Stocking Fishes (TSF) and Migratory Fishes (MF). Wells 1A and 2 are completed in the Brunswick Formation and Well 5 is completed in the Lockatong Formation.

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder's wells supply portions of Hilltown Township and Silverdale Borough in Bucks County, Pennsylvania as shown on map entitled "Hilltown Township Water Service Areas", dated November 2009. The docket holder will be supplying water to the Reserve at Hilltown development, which is currently under construction as well as the Regency development and other commercial and residential developments along Routes 113 and 313. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. **Physical features.**

a. **Design criteria.** The HTWSA system supplies water to an estimated population of 5,376 via 1,820 connections, 57 commercial connections and 2 schools. The average and maximum groundwater demand for this project are 0.392 million gallons per day (mgd) and 0.516 mgd, respectively. The docket holder projects an average and maximum water demand of 0.576 mgd and 0.741 mgd, respectively, by the year 2028. The allocation of 21.52 mgm should be sufficient to meet the future demands of the HTWSA system.

The HTWSA water demand is supplemented with interconnections with North Penn Water Authority (NPWA) and Dublin Borough. HTWSA regularly purchases bulk water from NPWA with an average daily use of 0.1 mgd and a maximum daily use of 1.56 mgd. HTWSA regularly purchases bulk water from Dublin Borough with an average daily use of 0.002 mgd and a maximum daily use of 0.003 mgd.

b. **Facilities.** The docket holder's existing wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
1A	285	60' / 12"	300	2009
2	457	80' / 8"	230	1985
5	360	40' / 8"	35	1985

All wells and all water service connections are metered.

Well water is disinfected by chlorination facilities at each well. Well water from Wells 1A and 2 is also treated for iron, manganese, and arsenic prior to entering the distribution system.

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

The water system is presently interconnected with North Penn Water Authority, Telford Borough, Perkasio Borough Authority, and Dublin Borough. The two North Penn Water Authority and Dublin Borough interconnections are used on a regular basis. The Telford Borough and Perkasio Borough Authority interconnections are used for emergency purposes only.

c. Other. Wastewater is conveyed to the Hilltown Township Water and Sewer Authority's Highland Park sewage treatment facility most recently approved by DRBC Docket No. D-2001-019 CP on September 13, 2001. The PADEP issued its most recent NPDES Permit No. PA0058271 on September 5, 2017 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

Wastewater is also conveyed to the Pennridge Wastewater Treatment Authority sewage treatment facility most recently approved by DRBC Docket No. D-2001-001 CP on May 31, 2002. The PADEP issued its most recent NPDES Permit No. PA0020460 on August 13, 2013 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. Relationship to the Comprehensive Plan. The docket holder's wells were previously included in the Comprehensive Plan by the dockets listed in the following table:

Docket No.	Date Approved	Approved Wells
D-1985-061 CP	November 26, 1985	Well 1
D-1986-060 CP	Feb 25, 1987	Well 2
D-1986-030 CP	June 27, 1990	Wells 1, 2, and 5
D-1992-020 CP	November 4, 1992	Wells 1, 2, and 5
D-1992-020 CP RENEWAL	March 7, 2000	Wells 1, 2, and 5
D-1992-020 CP-3	May 5, 2010	Wells 1A, 2, and 5

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

B. FINDINGS

HTWSA requested an increase in allocation from 16.0 mg/30 days to 21.52 mgm to meet an expected increase in water demand over the next 10 years. HTWSA will be supplying water to the Reserve at Hilltown development, which is currently under construction with buildout expected in 2019. The expansion of the HTWSA water distribution system to serve the Regency

development will allow for the connection of other existing commercial and residential developments along Routes 113 and 313. The docket holder has submitted annual monitoring reports for over 25 years and no well interference have been reported during this time. The annual reports also do not indicate any adverse impacts on the water levels in the monitoring wells.

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. The project is designed to conform to the requirements of the *Water Code*, *Water Quality Regulations* 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 found infeasible.
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 approval of this renewal project. 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*.

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. HTWSA submitted their most recent Water Audit on April 5, 2017.

The HTWSA system is located in the East Branch Perkiomen-Morris Run subbasin (GWPA Subbasin No. 46), where total net annual groundwater withdrawal (298.1 mgd) is less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,619 mgd). The applicant is requesting a monthly allocation of 21.52 mgd, which equates to 306.24 million gallons per year (mgd) a fraction of which will be returned to groundwater. However, even if no water from this project were returned to ground water, 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 project wells, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

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

- I. Effective on the approval date for Docket No. D-1992-020 CP-4 below:
 - a. The project described in Docket No. D-1992-020 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1992-020 CP-4; and
 - b. Docket No. D-1992-020 CP-3 is terminated and replaced by Docket No. D-1992-020 CP-4.
 - c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.
- II. The project as described in the Section A “Physical features” is approved pursuant to Section 3.8 of the *Compact* and is granted this withdrawal permit pursuant to Section 10.3 of the *Compact* and *GWPAR*, subject to the following conditions:
 - a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its Water Supply Permits. The wells and operational records shall be available at all times for inspection by the DRBC.

b. The wells shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.00

c. During any month, the combined withdrawal from all well sources shall not exceed 21.52 million gallons (306.24 mgd). No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

WELL I.D.	INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MILLION GALLONS)
1A	350	15.12
2	230	5.2
5	35	1.2

d. 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.

e. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

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

g. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement ("Statement") signed by the docket holder's professional engineer for the project. The Statement must (a) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; (b) report the project's final construction cost as such cost is defined by the project review fee schedule in effect at the time application was made; and (c) indicate the date on which the project was (or is to be) placed in operation. In the event that the final project cost exceeds the estimated cost used by the applicant to calculate the DRBC project review fee, the statement must also include (d) the amount of any outstanding balance owed for DRBC review. Such outstanding balance will equal the difference between the fee paid to the Commission and the fee calculated on the basis of the project's final cost, using the formula and definition of "project cost" set forth in the DRBC's project review fee schedule in effect at the time application was made.

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

i. In accordance with DRBC Resolution No. 2009-1 and Section 2.1.8 of the Water Code, the docket holder shall implement an annual calendar year water audit program conforming to IWA/AWWA Water Audit Methodology (AWWA Water Loss Control Committee (WLCC) Water Audit Software) and corresponding guidance. Water audits shall be submitted annually to the Commission by March 31.

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

k. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

l. A long-term monitoring program is required to obtain data on ground water hydrologic conditions in the project area. The docket holder shall implement the long-term monitoring program as submitted by Intex Environmental Group on behalf of the docket holder in a letter dated July 6, 2010. This program will include the following:

1. **Groundwater Level Monitoring** – HTWSA shall monitor ten (10) wells identified in the above referenced letter to estimate annual ground water 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 area of the HTWSA production wells.

2. **Surface Water Monitoring** – The seven (7) stream gaging stations, identified in the above referenced letter located on Pleasant Spring Creek and its tributary shall continue to be monitored to determine possible effects of the groundwater withdrawal and/or changes in runoff characteristics.

3. **Reports** - All monitoring data, including records required in Conditions “e.” and “l.” 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.

4. 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.

m. The docket holder shall 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.

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

o. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the Water Quality Regulations of the Commission.

p. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

q. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the Compact.

r. 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.

s. 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).

t. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket

will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

u. 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 401.43).

v. 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.

w. If the monitoring required herein or any other relevant data or information demonstrates that the operation of this project is interfering with or otherwise impairing existing uses of ground or surface water, or if the permit holder receives a complaint from an existing ground or surface water user within the zone of influence of the withdrawal alleging such interference or impairment, the permit holder shall immediately notify the Executive Director, and unless excused by the Executive Director, shall investigate the demonstrated or alleged impacts. For purposes of this condition, notification shall mean either (a) electronic transmittal of written notice to the Executive Director via email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director and a telephone call to the Project Review Section at 609-883-9500, ext. 216. (Oral notification must always be accompanied by immediate written notification directed to the Executive Director.) In addition, the permit holder shall provide written notice to all potentially affected water users of the permit holder's responsibilities under this condition. Any well or surface water supply that is impaired as a result of the permit holder's project withdrawal shall be repaired, replaced or mitigated at the permit holder's expense. The scope of the options to consider for repair, replacement and/or mitigation shall not be limited solely to those that are owned, operated, or controlled by the project sponsor. An investigation report and/or mitigation plan prepared and certified by a licensed professional engineer and/or a licensed professional geologist shall be submitted to the Executive Director as soon as practicable following notice of the demonstrated or alleged impairment consistent with this paragraph. The Executive Director shall make the final determination regarding the scope and sufficiency of the investigation and the extent of any mitigation measures that may be required. Where ground and surface waters are rendered unavailable, unusable, or unsuitable for the pre-existing use, the Executive Director may direct the permit holder to take interim actions to mitigate such impacts, pending completion of the

x. 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.

y. 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 13, 2028

DRAFT