

DOCKET NO. D-2017-013-2

DELAWARE RIVER BASIN COMMISSION

**Merion Golf Club
Ground and Surface Water Withdrawal
Haverford Township, Delaware County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on November 20, 2025 for renewal of an allocation of surface water and approval of a groundwater allocation and review of a groundwater and surface water withdrawal project (Application).

The Application was reviewed for approval under Section 3.8 and for a withdrawal permit under Section 10.3 *Delaware River Basin Compact*. The Delaware 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 6, 2026.

A. DESCRIPTION

1. Purpose. The purpose of this project is to renew the approval of an existing surface water withdrawal and a new groundwater withdrawal with an increase in system allocation from 12.416 million gallons per month (mgm) to 19.85 mgm to irrigate the docket holder's East and West golf courses from existing surface water intakes; 11 Fairway Intake East, and 10 Fairway Intake East, Wet Well West, and Impounded Spring West, which feeds into an unnamed tributary (UNT) of Darby Creek, and new Well TW-1 West. Surface water 13th Hole is being removed from the docket with this approval.

2. Location. Well TW-1 West is completed in the Wissahickon Schist Formation. The withdrawal intakes 11 Fairway Intake East and 10 Fairway Intake East are located on Cobbs Creek and an UNT of Cobbs Creek, respectively, in the Cobbs Creek Watershed. Impounded Spring West feeds a UNT of Darby Creek in the Darby Creek Watershed. All surface water intakes are located in Haverford Township, Delaware County, Pennsylvania. Cobbs Creek in the vicinity of the project is classified by the Pennsylvania Department of Environmental Protection (PADEP) as supporting Warm Water Fishes (WWF) and Migratory Fishes (MF). Darby Creek in the vicinity of the project is classified by the PADEP as supporting Cold Water Fishes (CWF) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. **Area Served.** The project withdrawals will only be used to supply water to the docket holder’s golf course irrigation system. 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.** Surface water withdrawals from Cobbs Creek (11 Fairway Intake East) and the UNT of Cobbs Creek (10 Fairway Intake East) provide irrigation water for the docket holder’s East golf course and withdrawals from the spring that feeds the UNT of Darby Creek (Impounded Spring West), Wet Well West and new Well TW-1 West provide irrigation water for the docket holder’s West golf course. The two (2) golf courses combined consist of approximately 193.02 irrigated acres (287 total acres) including 57 acres of fairways, 5.7 acres of tees, 7.82 acres of greens, and 122.5 other irrigated acres of roughs, landscaping features, etc. The allocation of groundwater and surface water herein will only serve golf course irrigation. Potable water for the clubhouses and other facilities on the golf courses is supplied by Aqua Pennsylvania, Inc. (Aqua PA).

The average and maximum demand is 0.372 million gallons per day (mgd) and 0.631 mgd, respectively. The docket holder projects an average and maximum demand to increase to 0.4575 mgd and 0.7424 mgd, respectively, over the next ten years. The docket holder also has an interconnection with Aqua PA to help supplement the irrigation system as needed. The allocation of 19.85 million gallons per month (mgm) should be sufficient to meet the future demands of the docket holder’s irrigation system.

5. **Facilities.** The docket holder’s new project well and existing surface water intakes have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
TW-1 West	600	18’/ 6”	70	2023

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY (GPM)	7Q10 FLOW AT INTAKE (CFS)	YEAR CONSTRUCTED
11 Fairway Intake East	Cobbs Creek	750	0.37	1912
10 Fairway Intake East	UNT of Cobbs Creek	200	0.16	2018
Wet Well West	UNT of Darby Creek	50	0.005	1912

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY (GPM)	7Q10 FLOW AT INTAKE (CFS)	YEAR CONSTRUCTED
Impounded Spring West	UNT of Darby Creek	700	0.0037	1912

All surface water withdrawals on the East course are metered. Withdrawals from the West course spring are estimated by how much water is withdrawn from the irrigation pond. New Well TW-1 West will be metered.

Prior to entering the irrigation system, the water is filtered to remove suspended solids and may also receive treatment to adjust pH with an acidifier.

The project pump houses are not located within the 100-year flood plain elevation.

The irrigation system is presently interconnected with Aqua PA’s Main System to supplement as needed.

Potable water supply is provided to the docket holder’s facility by Aqua PA’s Main System.

The golf course has a water storage of 1.4 mg which is approximately 2 days of supply.

6. Other. Wastewater is conveyed to the City of Philadelphia Southwest sewage treatment facility which received approval most recently under Section 3.8 of the *Compact* by DRBC Docket No. D-1970-053 CP-2 on December 6, 2023. The treatment facility has adequate capacity to receive wastewater from the project. The PADEP issued NPDES Permit No. PA0026671 for this facility. The treatment facility has adequate capacity to receive wastewater from this project.

B. FINDINGS

The increase in allocation from 12.416 mgm to 19.85 mgm is due to the restoration and renovation of Merion Golf Club West to elevate the golf course to modern standards. The proposed improvements will include a new, modern irrigation system which will enable the docket holder to irrigate more efficiently than the existing system so that proper amounts of water are utilized on the different areas of the course. The renovations include supplementing the existing surface water diversions by converting one exploratory well into an irrigation well on the West Course. The docket holder is seeking to withdraw water from the proposed irrigation well and divert that water to the stream that feeds the pond/irrigation system reservoir. Planned long-term improvements to the West Course include retirement of the pond/storage reservoir and construction of an underground geostorage system with a capacity of about 500,000 gallons located on the property.

The need for increased allocation for irrigation to the West Course stems from extensive renovations:

- The area of the Greens will increase from 2 to 3 acres.
- Approaches to the holes will increase in area from 0.6 acres to 2 acres.
- The area of the Tees will increase from 1.1 to 2.2 acres.
- Unlike the old style “push up greens” that were designed to hold water, all greens, approaches, and tees will be rebuilt per United States Golf Association design recommendations using sandy material that increases drainage. After implementing a similar upgrade at the East Course water demand increased for all greens and approaches.
- Fairways currently occupy 22 acres but are planned to increase to 30 to 35 acres.
- Roughs currently are mostly not irrigated. However, due to renovations and expected increased cart traffic, a greater area will be irrigated to prevent erosion and weed encroachment.
- Planned Driving Range Area will consist of a practice facility including range tees, fairway, target greens, practice green, chipping area which will add about 10 to 12 acres of previously unirrigated turf.

The use of water provided by Aqua PA is also expected to increase. During the 2024 season, from March through November, water from Aqua PA was used to supplement the surface water diversions. The month of September 2024 water supplied by Aqua PA was at a yearly maximum of just over 2.5 million gallons. The docket holder would like to minimize water from Aqua PA as much as possible.

Based on immediate and long-term renovations and improvements to the West Course the planned irrigated area will be slightly more than double the current and as such will require additional water supply. Our goal is to responsibly utilize local ground and surface water resources as much as possible while supplementing any shortfall with municipal supply.

1. Surface Water Charges / Entitlement

On December 12, 2018, DRBC issued Certificate of Entitlement No. 397 to the docket holder. The Certificate entitles the docket holder to use, withdraw or divert up to 2.2 mgm of surface water from 11 Fairway Intake and 13th Hole Intake on Cobbs Creek in Haverford Township, Delaware County, Pennsylvania without charge. The 13th Hole Intake has been taken out of operation. The docket holder shall pay for surface water use in excess of the surface water listed in Entitlement No. 397 in accordance with the provisions of 18 C.F.R. Part 420 as described in Section C. DECISION Condition C.4. from Cobbs Creek.

On December 12, 2018, DRBC issued Certificate of Entitlement No. 398 to the docket holder. The Certificate entitles the docket holder to use, withdraw or divert up to 1.5 mgm of surface water from Impounded Spring West on Darby Creek in Haverford Township, Delaware County, Pennsylvania without charge. The docket holder shall pay for surface water use in excess

of the surface water listed in Entitlement No. 398 in accordance with the provisions of 18 C.F.R. Part 420 as described in Section C. DECISION Condition C.5. from Darby Creek.

10 Fairway Intake East does not pre-date the Commission. Therefore, any water withdrawn from 10 Fairway Intake East on the docket holder's golf course is subject to water supply charges.

2. Passby Flow

The docket holder's Cobbs Creek surface water withdrawal will continue to be subject to seasonal passby flow requirements. The estimated contributing drainage area to Cobbs Creek above the docket holder's surface water intake (11 Fairway Intake East) is approximately 1.12 square miles. The estimated seven-day low flow with a recurrence interval of 10 years (Q7-10) at the point of withdrawal is 0.37 cubic feet per second (cfs) or 0.239 million gallons per day (mgd). These values were calculated using Pennsylvania Streamstats. The project withdrawal must not cause the stream flow in Cobbs Creek to be less than 0.37 cfs at the point of taking and daily withdrawal rates shall be reduced as appropriate to ensure that a minimum of 0.37 cfs passes by the intake. Withdrawals shall cease entirely if the 24-hour average flow as measured below the intake, less the withdrawal, is 0.37 cfs or less. Whenever the stream flow below the intakes is less than 0.37 cfs, no withdrawal from the creek shall be made and the entire natural stream flow must be allowed to pass. No withdrawals shall be made until the flow in Cobbs Creek, as measured below the intake is at least 0.87 cfs for at least a 24-hour period.

The docket holder shall continue to monitor the pass-by requirement in accordance with Section C. DECISION Condition C.11. in this docket.

The docket holder's UNT to Cobbs Creek surface water withdrawal will continue to be subject to seasonal passby flow requirements. The estimated contributing drainage area to the UNT to Cobbs Creek above the docket holder's surface water intake (10 Fairway Intake East) is approximately 0.49 square miles. The estimated seven-day low flow with a recurrence interval of 10 years (Q7-10) at the point of withdrawal is 0.16 cfs or 0.103 mgd. These values were calculated using Pennsylvania Streamstats. The project withdrawal must not cause the stream flow in Cobbs Creek to be less than 0.16 cfs at the point of taking and daily withdrawal rates shall be reduced as appropriate to ensure that a minimum of 0.16 cfs passes by the intake. Withdrawals shall cease entirely if the 24-hour average flow as measured below the intake, less the withdrawal, is 0.16 cfs or less. Whenever the stream flow below the intakes is less than 0.16 cfs, no withdrawal from the creek shall be made and the entire natural stream flow must be allowed to pass. No withdrawals shall be made until the flow in the UNT to Cobbs Creek as measured below the intake is at least 0.27 cfs for at least a 24-hour period.

The docket holder shall continue to monitor the pass-by requirement in accordance with Section C. DECISION Condition C.12. in this docket.

3. Well TW-1 West Hydrogeologic Evaluation

On September 9 through September 11, 2025, a 48-hour pumping test was conducted to assess groundwater withdrawal capabilities of Well TW-1 West and the underlying aquifer characteristics and potential impacts to the local hydrologic system. The 48-hour testing of TW-1 West was done concurrently with Well TW-4B to align with their intended concurrent use as irrigation supply wells. It was later determined that Well TW-4B would not meet the golf courses needs so was taken off the approval. Well TW-4B was pumped at an average rate of 6 gallons per minute (gpm) during the 48- hour test. The average pumping rate of the test on Well TW-1 West was 70 gpm. The test started at an initial pumping rate of 80 gpm at Well TW-1 and 15 gpm at TW-4B and the pumping rates were adjusted several times with the average rates for Wells TW-1 West and TW-4B being 70 gpm and 6 gpm, respectively. Wells TW-1 West and TW-4B were pumped for a total period of 2,880 minutes.

Groundwater response monitoring was conducted in the pumping wells (Well TW-1 West and TW-4B) and Monitoring Wells TW-2, Merion IW and TW-3. All wells were monitored electronically and manually. Monitoring Wells TW-2, Merion IW and TW-3 are located approximately 1,350 feet, 200 feet and 965 feet from the pumping well, respectively.

Surface water monitoring was also conducted at two (2) locations; SM-1 and SM-2. All surface water monitoring points were monitored. Surface water monitoring points were located at the following distances from pumping well TW-1; SM-1 (330 feet) and SM-2 (20 feet).

Prior to the start of the pumping test, the water level in Well TW-1 West was 5.98 feet btoc. The maximum drawdown observed at the pumping well, after approximately 48 hours of pumping at an average rate of 70 gpm and a rate of 6 gpm at Well TW-4B, was 227.07 feet (water level of 233.05 feet btoc).

During the 48-hour aquifer test at an average rate of 70 gpm and 6 gpm from Wells TW-1 West and TW-4B respectively, interference from pumping occurred Well TW-3. Well TW-3 was estimated to experience approximately 42.94 feet of drawdown from the pumping at Wells TW-1 West and TW-4B. No discernable drawdown was observed in any of the other monitoring wells or surface water monitoring points due to the pumping of Wells TW-1 West and TW-4B.

The observed drawdown data was used to calculate aquifer parameters to characterize the underlying aquifer. The median Transmissivity value for the Well TW-1 West test data was 47 ft²/day from Well TW-1 and the monitoring wells data using the Cooper-Jacob drawdown and Theis Recovery method at an average test rate of 70 gpm.

Commission staff have reviewed the Hydrogeologic Report for the Well TW-1 pumping test. No adverse impacts are expected to occur to the local hydrologic system due to the pumping from Well TW-1 at a decrease rate of 55 gpm and no withdrawal from Well TW-4B. The docket holder will monitor the withdrawal rate and water levels in Well TW-1 for a full season of operation and then will submit to the Commission a letter report with their findings.

4. Other Findings

The DRBC estimates that the project withdrawals, used for the purpose of golf course irrigation, result in a consumptive use of 90 percent of the total water use. The DRBC definition of consumptive use is defined in Basin Regulations-Water Supply Charges 18 C.F.R. 420.1(d).

The project is designed to conform to the requirements of the *Water Code (WC)*, *Water Quality Regulations (WQR)* and *Ground Water Protected Area Regulations (GWPARG)* 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-2017-013-2 below, Docket No. D-2017-013-1 is terminated and replaced by Docket No. D-2017-013-2. 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. When Well TW-1 is in operation, the docket holder shall monitor withdraw rates and water levels in this well for one full season of operation. A letter report shall be submitted to the Commission with the findings of the well from the first full irrigation season by December 1st of that year.
4. The docket holder shall pay for surface water use in excess of 2.2 mgm as shown in the Certificate of Entitlement No. 397, from 11 Fairway Intake on Cobbs Creek in accordance with *Basin Regulations – Water Supply Charges 18 C.F.R. Part 420*.
5. The docket holder shall pay for surface water use in excess of 1.5 mgm as shown in the Certificate of Entitlement No. 398, from Impounded Spring West on Darby Creek in accordance with *Basin Regulations – Water Supply Charges 18 C.F.R. Part 420*.

6. The docket holder shall pay for surface water use from 10 Fairway Intake East in accordance with *Basin Regulations – Water Supply Charges 18 C.F.R. Part 420*. 10 Fairway Intake East does not pre-date the Commission, therefore, any water withdrawn for use from it is subject to water supply charges.

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

Other Conditions

8. During any month, the combined withdrawal from all sources shall not exceed 19.85 mgm. No source shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL OR INTAKE NO.	MAXIMUM RATE (GPM)*	MONTHLY ALLOCATION (MGM)
11 Fairway Intake East	750	9.94
10 Fairway Intake East	200	2.21
Wet Well West	50	2.617
Impounded Spring West	50	2.617
TW-1 West	55	2.46

* Based on a 24-Hour Average

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. 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 C.F.R. 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application whether DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. If the docket holder has not applied to renew the docket or the DRBC is unable to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable pending the renewal of the docket.

11. The project withdrawal must not cause the average daily streamflow to be less than 0.37 cfs at the point of taking on Cobbs Creek. Whenever the average daily streamflow, less the withdrawal, is below the intake is less than this amount, no withdrawal shall be made, and the entire natural streamflow must be allowed to pass. Within four months of the date of approval of this Docket, the docket holder shall submit an Operation Plan, subject to approval by the Executive Director of the DRBC, which shall include a means to monitor and report the passby flow. No

withdrawals shall be made until the flow in Cobbs Creek, as measured below the intake is at least 0.87 cfs for at least a 24-hour period.

12. The project withdrawal must not cause the average daily streamflow to be less than 0.16 cfs at the point of taking on the UNT of Cobbs Creek. Whenever the average daily streamflow, less the withdrawal, is below the intake is less than this amount, no withdrawal shall be made, and the entire natural streamflow must be allowed to pass. Within four months of the date of approval of this Docket, the docket holder shall submit an Operation Plan, subject to approval by the Executive Director of the DRBC, which shall include a means to monitor and report the passby flow. No withdrawals shall be made until the flow in the UNT to Cobbs Creek as measured below the intake is at least 0.27 cfs for at least a 24-hour period.

13. The well, intakes and facility and operational records shall be available at all times for inspection by the DRBC.

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

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

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 PADEP, 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 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*.

22. 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).

23. 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).
24. 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 C.F.R. 401.43).
25. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder to ensure the proper control, use and management of the water resources of the Basin.
26. 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.
27. 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.

28. 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 10, 2036

DRAFT