

DOCKET NO. D-2017-013-1

DELAWARE RIVER BASIN COMMISSION

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

PROCEEDINGS

This docket is issued in response to an Application submitted by Nave Newell, Inc. on behalf of Merion Golf Club (MGC) to the Delaware River Basin Commission (DRBC or Commission) on September 29, 2017 for approval of an allocation of surface water and review of a surface water withdrawal project (Application).

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 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 16, 2018.

A. DESCRIPTION

1. Purpose. The purpose of this project is for approval of an existing surface water withdrawal and to approve a withdrawal allocation to supply up to 12.416 million gallons per month (mgm) of water for irrigation on the docket holder's golf courses (East and West) from existing surface water Intakes 11 Fairway, 13th Hole on Cobbs Creek and an impounded spring which feeds into an unnamed tributary of Darby Creek named Intake West. The approval will also include construction of new surface water Intake 10 Fairway on an unnamed tributary (UNT) of Cobbs Creek to replace Intake 13th Hole.

2. Location. The withdrawal intakes 11 Fairway, 13th Hole and 10 Fairway are located on Cobbs Creek and an UNT of Cobbs Creek, respectively, in the Cobbs Creek Watershed. Withdrawal intake West feeds an UNT of Darby Creek in the Darby Creek Watershed. All four (4) 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 Pennsylvania

Department of Environmental Protection (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 the DECISION section of this docket.

4. **Physical features.**

a. **Design criteria.** Surface water withdrawals from Cobbs Creek (Intakes 11 Fairway and 13th Hole) and the UNT of Cobbs Creek (10 Fairway) provide irrigation water for MGC's East golf course and withdrawals from the spring that feeds the UNT of Darby Creek (Intake West) provide irrigation water for MGC's West golf course. The two (2) golf courses combined consist of approximately 200 irrigated acres (253.76 total acres) including 52.04 acres of fairways, 8.12 acres of tees, 8.86 acres of greens, and 130.98 other irrigated acres of roughs, landscaping features, etc. During the peak irrigation season the MGC records an existing average and maximum water demand of 0.372 million gallons per day (mgd) and 0.631 mgd, respectively. The docket holder projects an average and maximum water demand of 0.390 mgd and 0.664 mgd, respectively, by the year 2027. MGC also has an interconnection with Aqua PA to help supplement the irrigation system as needed. The allocation of 12.416 mgm should be sufficient to meet the future demands of MGC.

The MGC plans on constructing a new surface water intake on an UNT of Cobbs Creek (10 Fairway) to replace intake 13th Hole which will be abandoned. The project also proposes to increase the storage capacity to 0.750 million gallons (mg) by constructing a new geostorage system to replace the existing 0.400 mg open storage pit. A new irrigation distribution system will also be installed. Additionally, a new weir will be constructed along with intake 10 Fairway.

b. **Facilities.** The existing and new project surface water intakes have the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY (GPM)	7Q10 FLOW AT INTAKE (CFS)	YEAR CONSTRUCTED
11 Fairway	Cobbs Creek	750	0.37	1912
13 th Hole (to be abandoned)	Cobbs Creek	700	0.37	1912
10 Fairway (new)	UNT of Cobbs Creek	200	0.16	2018
West	UNT of Darby Creek	700	0.002	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.

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.

Public water supply is provided to the MGC by Aqua PA's Main System.

c. **Other.** Wastewater from the MGC is conveyed to the City of Philadelphia Southwest sewage treatment facility most recently approved by DRBC Docket No. D-1970-053 CP on December 12, 1972. The PADEP issued its most recent NPDES Permit No. PA0026671 on August 15, 2007 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. **Cost.** The overall cost of the new surface water intake (10 Fairway) and geostorage system is estimated to be \$820,000.

B. FINDINGS

Background

The MGC currently operates three (3) intakes (11 Fairway, 13th Hole and West) which all pre-date the formation of the Commission. MGC is planning to construct a new surface water intake (10 Fairway) on an UNT of Cobbs Creek to replace Intake 13th Hole. The MGC consists of two (2) 18-hole golf courses designated as East and West courses which have been in operation since 1912.

Existing Withdrawals

This project consists of an existing withdrawal of surface water from Intake 11 Fairway, 13th Hole and West. Intake 10 Fairway will replace Intake 13th Hole once it is constructed. The docket holder has requested allocations for their existing and new intakes based on existing water use. The docket holder has also requested a temporary two-year increased allocation for the grow in of grass affected by construction activities on the East course. These rates and allocations are provided in Conditions C.I.d. and C.I.e. in the DECISION Section of this docket. As the existing withdrawals have already been realized by the local hydrologic system, there should be no significant impacts from continued withdrawals from the existing system intakes.

Passby Flow

The docket holder's Cobbs Creek surface water withdrawal will be subject to pass-by flow requirements. The estimated contributing drainage area to Cobbs Creek above the MGC surface water intake (11 Fairway and 13th Hole) is approximately 1.12 square miles. The estimated seven-day low flow with a recurrence interval of 10 years (Q_{7-10}) at the point of withdrawal is 0.37 cubic feet per second (cfs) or 0.239 mgd. 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 flow in Cobbs Creek as measured below the intake is above 2.04 cfs for at least a 24-hour period. The docket holder shall continue to monitor the pass-by requirement in accordance with Condition C.I.g. in this docket.

The docket holder's UNT to Cobb Creek surface water withdrawals will be subject to pass-by flow requirements. The estimated contributing drainage area to the UNT of Cobbs Creek above the MGC surface water intake (10 Fairway) is approximately 0.49 square miles. The estimated seven-day low flow with a recurrence interval of 10 years (Q_{7-10}) at the point of withdrawal is 0.16 cfs or 0.103 mgd. The project withdrawal must not cause the stream flow in the UNT to 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 flow in the UNT to Cobbs Creek as measured below the intake is above 0.61 cfs for at least a 24-hour period. The docket holder shall continue to monitor the pass-by requirement in accordance with Condition C.I.h. in this docket.

Within six (6) months from the docket issuance date (on or before December 13, 2018), MGC must submit a plan to the DRBC indicating how they intend to measure and manage the pass-by flow from the storage system on the East course including recording compliance with the pass-by flow. The plan will require written approval from the DRBC Executive Director (Condition C.I.i.).

Surface Water Charges

MGC currently reports its monthly water use to the Commission on an annual basis. Information included in the annual water use records indicates that the total pumping capacity of the irrigation system for both golf courses has increased from 1,050 gpm to 2,400 gpm (since 1991) and maximum monthly water use has decreased from 3.11 mgm to 1.96 mgm. MGC was in existence and withdrawing surface water prior to the effective date of the *Compact* from surface water Intakes 11 Fairway, 13th Hole and West. The new intake (10 Fairway) does not pre-date the Commission. Therefore, any water withdrawn for use from Intake 10 Fairway on the MGC is subject to water supply charges. Section 15.1(b) of the *Delaware River Basin Compact*

provides that “no provision of Section 3.7 of the *Compact* shall be deemed to authorize the Commission to impose any charge for water withdrawals or diversions from the basin if such withdrawals or diversions could lawfully have been made without charge on the effective date of the *Compact*; ... “In compliance with this provision: There shall be no charge for water withdrawn or diverted from surface water Intakes 11 Fairway, 13th Hole and West.

Since the docket holder has been operating the project withdrawals since the early 1900s, they appear to be eligible for a Certificate of Entitlement (CoE) in accordance with Article 5.2 of the Commission’s “*Basin Regulations – Water Supply Charges*” for their surface water sources (Intakes 11 Fairway and 13th Hole on Cobbs Creek and West on an UNT of Darby Creek). A CoE exempts the docket holder from paying Commission water supply charges.

DECISION Condition C.I.j. allows the docket holder to contact the Commission’s Operations Section and to apply for a CoE within six (6) months of docket approval. If the docket holder does not apply for a CoE, the docket holder’s surface water withdrawals may be subject to Commission water supply charges for all withdrawals in accordance with *Basin Regulations – Water Supply Charges* 18 CFR Part 420 in the future.

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 18 CFR Part 420.1(d) of the *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

I. 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*, subject to the following conditions:

a. The docket holder shall report to the PADEP all surface water sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

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

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

d. From June 13, 2018 through June 30, 2020, the combined withdrawal from all surface water sources shall not exceed 17.636 mgm, for a temporary grow in period on the East course. No withdrawal shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

INTAKE NO.	MAXIMUM INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MGM)
11 Fairway	750	9.94
13 th Hole	700	4.97
10 Fairway (new)	200	4.42
West	700	5.236

e. After June 30, 2020 (the end of the temporary grow in period), the combined withdrawal from all surface water sources shall not exceed 12.416 million gallons. No withdrawal shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

INTAKE NO.	MAXIMUM INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MGM)
11 Fairway	750	4.97
13 th Hole	700	4.97
10 Fairway (new)	200	2.21
West	700	5.236

f. The docket holder shall pay for surface water use from Intake 10 Fairway in accordance with the provisions of Resolution No. 74-6, as amended.

g. 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 intake 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 flow in Cobbs Creek as measured below the intake is above 2.04 cfs for at least a 24-hour period.

h. The project withdrawal must not cause the stream flow in the UNT to 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 intake 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 flow in the UNT to Cobbs Creek as measured below the intake is above 0.61 cfs for at least a 24-hour period.

i. Within 6 months from the docket issuance date (on or before December 13, 2018), MGC must submit a plan to the DRBC indicating how they intend to measure and manage the pass-by flows on the storage system on the East course including recording compliance with the pass-by flow. The plan will require written approval from the DRBC Executive Director.

j. The docket holder shall contact the Commission's Operations Section and to apply for a CoE within six (6) months of docket approval. If the docket holder does not apply for a CoE, the docket holder's surface water withdrawals may be subject to Commission water supply charges for all withdrawals in accordance with Basin Regulations – Water Supply Charges 18 CFR Part 420 in the future.

k. 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.

l. 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.

m. 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.

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

o. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams from any new facilities or repair related construction.

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. The ownership of 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 investigative report and any long-term repair, replacement or mitigation.

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