



# SUSQUEHANNA RIVER BASIN COMMISSION

1721 North Front Street • Harrisburg, Pennsylvania 17102-2391

Phone (717) 238-0423 • Fax (717) 238-2436

Web <http://www.srbc.net>

**Docket No. 20020613**

**Approval Date: June 12, 2002**

## **PINE MEADOWS GOLF COMPLEX**

Surface-Water Withdrawal of up to 0.265 mgd, when available, from Little Swatara Creek, and a Consumptive Water Use of up to 0.265 mgd, for Golf Course Irrigation, Bethel Township, Lebanon County, Pennsylvania

### **Review Authority**

This project is subject to review pursuant to Article 3, Section 3.10 of the Susquehanna River Basin Compact, P.L. 91-575, and Commission Regulations §803.4, relating to projects requiring review and approval, §803.42, relating to the consumptive use of water, and §803.44, relating to surface-water withdrawals. The Commission received the application for the consumptive use of water on August 18, 2000, and the application for the surface-water withdrawal on March 21, 2002.

### **Description**

**Purpose.** The purpose of the application is to request approval for a surface-water withdrawal and the consumptive use of that water for irrigation of greens, tees, and fairways at an existing 18-hole golf course.

**Location.** The project is located in the Lower Susquehanna Subbasin, Little Swatara Creek watershed, HUC 02050305, Bethel Township, Lebanon County, Pennsylvania.

**Project Features.** The project sponsor has requested approval for a maximum daily withdrawal of 0.265 million gallons per day (mgd) of water from Little Swatara Creek, when available, and the consumptive use of water of up to 0.265 mgd. The project sponsor calculates the project's maximum average 30-day consumptive water use to be 0.150 mgd and current peak day consumptive water use to be 0.253 mgd. The primary water source is an existing surface-water withdrawal from Little Swatara Creek.

The project was constructed in 1960 as a nine-hole golf course and was expanded to its current configuration in 1999. As part of the expansion project, the project sponsor constructed five off-stream ponds that provide for water storage on-site. The project sponsor is currently constructing a sixth pond to increase water storage capabilities for the project. The total acreage of the storage ponds (the irrigation pond, the new storage pond and Pond Nos. 1, 10, 11 and 12) is approximately 3.03 acres with a total estimated capacity of 23.145 million gallons of water when full. The project sponsor has sufficient storage on-site to meet the project's irrigation demands for 154 days, based on the maximum 30-day average use of 0.150 mgd.

The storage pond system is filled with water primarily from Little Swatara Creek. Surface runoff from the adjacent upland area is a secondary source of water for the ponds. The surface-water withdrawal from the Little Swatara is accomplished via an intake pipe located in the streambed and water is pumped to the main irrigation pond.

Portions of the former irrigation system remain on-site including three wells and several ponds that are either no longer used for irrigation or currently are being removed from the system.

### **Findings**

The project's consumptive water use and surface-water withdrawal are subject to Commission approval and reporting requirements as per Commission Regulations §803.42 and §803.44, respectively.

All water evaporated from the six storage ponds (the irrigation pond, the new pond and Pond Nos. 1, 10, 11 and 12), as well as all water used for golf course irrigation, is considered to be used consumptively. Water evaporation from the ponds will be calculated by the project sponsor employing a methodology acceptable to the Commission. The irrigation system is equipped with a meter that measures the quantity of water pumped to the system.

The project sponsor has requested a consumptive water use approval of up to 0.265 mgd. Based on an analysis of irrigation records supplied by the project sponsor, Commission staff is recommending approval of the requested amount, which represents an increase of approximately 5 percent above the current peak day use of 0.253 mgd. This will allow for an anticipated increase in water usage over the 25-year duration of this approval. Should the project's future consumptive water use exceed or be expected to exceed 0.265 mgd, the project sponsor must apply for a modification to this docket at that time.

Irrigation of the nine-hole golf course began in 1960. Commission staff has determined that the pre-1971 consumptive water use by the project sponsor is 0.042 mgd.

The project's consumptive use of water in excess of the grandfathered quantity is subject to water compensation requirements, as per Commission Regulation §803.42. To satisfy these requirements, the project sponsor proposes to use its own storage during low flow periods. Staff has determined that the quantity of storage is sufficient to supply the golf course during drought conditions. In order for this storage to be an acceptable method of compliance with Commission Regulation §803.42, the project sponsor must cease withdrawals from the stream and be limited to using water stored in the on-site ponds during periods of low flow and upon notice by the Commission.

The irrigation ponds collectively store an estimated 23.145 million gallons of water when at full capacity. This volume should provide approximately 154 days of irrigation based on the maximum 30-day average use of 0.150 mgd. The project sponsor will need to maintain sufficient water storage in order to meet the project's demand for irrigation water. Staff recommends that the

project sponsor submit documentation to Commission staff of the available on-site storage every five years.

The project's primary source of water for irrigation is an unmetered withdrawal from Little Swatara Creek, which is classified as a warm-water fishery. Commission staff has calculated the 7-day 10-year low flow (Q7-10 flow) of the Little Swatara to be 14.63 cubic feet per second (cfs) or 6,566 gallons per minute (gpm) at the point of taking.

Although the project's requested surface-water withdrawal of 0.265 mgd is less than 10 percent of the Q7-10 flow at the point of taking, the project sponsor has operated its surface-water intake on Little Swatara Creek without any controls in place to ensure a passby flow is maintained at the site. In order to protect downstream users, habitat, and aquatic resources, Commission staff recommends that the project sponsor maintain a minimum passby flow of 20 percent annual average daily flow (ADF) and be limited to the use of water stored on site until streamflow is greater than 20 percent (ADF). Commission staff recommends that the U.S. Geological Survey's stream gage 01573000, located on the Swatara Creek at Harper Tavern, Pa., be used as the reference gage and has calculated the 20 percent ADF at this gage to be 115 cfs.

The project is subject to water conservation requirements, as per Commission Regulation §804.20(b).

The project sponsor has paid the appropriate application fee pursuant to Commission Regulation §803.28 and in accordance with Commission Resolution 98-19, as amended by Commission Resolution 2000-06. The project sponsor has provided all proofs of notification as called for in Commission Regulation §803.25.

The project is physically feasible, does not conflict with or adversely affect the Commission's Comprehensive Plan, and does not adversely influence the present or future use and development of the water resources of the basin.

### **Compliance Incentive Program**

Commission staff has determined that the project sponsor is eligible to participate in the Commission's Compliance Incentive Program (CIP). Therefore, the project sponsor would not be subject to penalties for water withdrawn and consumed in violation of Commission Regulations §803.42 and §803.44 prior to January 1, 2001.

### **Decision**

The project's surface-water withdrawal from Little Swatara Creek of up to 0.265 mgd, when available, and the consumptive use of water up to 0.265 mgd are approved pursuant to Article 3, Section 3.10 of the Compact subject to the following conditions:

a. The project sponsor shall comply with all Commission regulations, including consumptive water use reporting requirements as per Commission Regulation §803.42 and surface-water withdrawal reporting requirements as per Commission Regulation §803.44.

b. The project sponsor shall keep daily records of the project's consumptive water use, and shall provide the results to the Commission quarterly, and as otherwise required. The daily quantity of water consumptively used shall be the quantity of evaporative losses from the six storage ponds plus the quantity pumped to the irrigation system. The project sponsor shall maintain metering on the irrigation system, accurate to within five percent. Commission staff shall review and approve of the method of calculation of evaporative loss from the pond system.

c. Within 60 days of the date of this approval, the project sponsor shall install and maintain metering on the surface-water intake, accurate to within five percent. The project sponsor may propose alternative monitoring to the Commission for staff review and approval. The Commission reserves the right to inspect all measurement equipment and audit all measurement records.

d. The project sponsor shall keep daily records of the project's surface-water withdrawal and shall provide the results to the Commission quarterly, and as otherwise required. The project sponsor also shall keep daily records of readings from the U.S. Geological Survey's stream gage 01573000, located on the Swatara Creek at Harper Tavern, Pa., during the irrigation season, and shall provide the results to the Commission quarterly, and as otherwise required.

e. The project sponsor shall limit its use of water to that stored on-site and cease all withdrawals from Little Swatara Creek when the streamflow as measured at the U.S. Geological Survey's stream gage 01573000, located on the Swatara Creek at Harper Tavern, Pa., is less than 74.3 mgd or 115 cfs.

f. Upon notice from the Commission during periods of low flow, to satisfy the Commission's current compensation requirements for consumptive water use set forth in Commission Regulation §803.42, the project sponsor shall use water stored in the on-site ponds and shall cease withdrawals from the stream. The project sponsor shall provide the Commission with documentation every five years certifying that sufficient water storage exists in its storage pond.

g. The project sponsor shall comply with Commission water conservation requirements, as per Commission Regulation §804.20(b).

h. The project sponsor is eligible to participate in the Commission's Compliance Incentive Program. Therefore, the project sponsor is not subject to penalties for its prior noncompliance.

i. Commission approval shall not be construed to exempt the project sponsor from obtaining all necessary permits and/or approvals required for the project from other federal, state or local government agencies having jurisdiction over the project. The Commission reserves the right to modify, suspend or revoke this action if the project sponsor fails to obtain or maintain such approvals.

j. If the project sponsor fails to comply with any term or condition of this docket, the Commission may suspend, modify or revoke its approval of same. Upon written notice by the Commission, the project sponsor shall have thirty (30) days to correct such noncompliance, unless an alternate period is specified in the notice. Failure to comply within thirty (30) days, or within the alternate period identified in the notice, shall result in a ninety (90) day suspension of approval of

this docket. If the project sponsor fails to address the noncompliance to the satisfaction of the Commission within the suspension period, this approval may be revoked. Nothing herein shall preclude the Commission from exercising its authority to immediately modify, suspend or revoke this approval where it determines exigent circumstances warrant such action.

k. The Commission reserves the right to reopen any project docket and make additional orders that may be necessary to mitigate or avoid adverse impacts or otherwise to protect the public health, safety, welfare or the environment.

l. Commission approval confers no property rights upon the project sponsor. The securing of all rights necessary and incident to the project sponsor's development and operation of the project shall be the sole and exclusive responsibility of the project sponsor, and this approval shall be subject thereto.

m. This approval is effective until June 12, 2027. The project sponsor shall submit a renewal application by December 12, 2026 and obtain Commission approval prior to continuing operation beyond June 12, 2027.

n. If the project is discontinued for such a period of time and under such circumstances that an abandonment of the project may reasonably be inferred, the Commission may rescind the approval of the project unless a renewal is requested by the project sponsor and approved by the Commission.

By the Commission:

Dated: June 12, 2002

  
\_\_\_\_\_  
John T. Hicks  
Chairman