

DOCKET NO. D-1981-071 CP-5

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

**Borough of Jim Thorpe
Surface Water and Groundwater Withdrawal
Borough of Jim Thorpe, Carbon County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by Entech Engineering, Inc. on behalf of the Borough of Jim Thorpe to the Delaware River Basin Commission (DRBC or Commission) on September 17, 2014 for renewal of an allocation of groundwater and surface water and review of a groundwater and surface water withdrawal project (Application). The Pennsylvania Department of Environmental Protection (PADEP) issued its most recent Public Water Supply Operation Permit No. 3130043 for the groundwater wells on March 16, 2010. Water Allocation Permit No. WA13-69B was issued by PADEP on October 30, 1990 for the surface water supply.

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 Carbon County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on November 10, 2015.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the approval of the docket holder's existing water withdrawal of up to 13.175 million gallons per month (mgm) of surface water from an existing intake on Mauch Chunk Creek for use in the docket holder's West Side Public Water System and up to 12.4 mgm of groundwater from Wells Nos. 1 and 4 for use in the docket holder's East Side Public Water System. This docket combines two previous DRBC approvals with a decrease in groundwater allocation.

2. Location. The existing project intake is located on Mauch Chunk Creek, a tributary to the Lehigh River, approximately 1.5 miles downstream from the Mauch Chunk Reservoir. The Mauch Chunk Creek at the withdrawal site is designated by the PADEP as supporting Cold Water Fishes and Migratory Fishes (CWF-MF). The project wells are completed in the Mauch Chunk Formation and are located in the drainage area of Silkmill Run in the Mauch Chunk Creek-Lehigh River Watershed. Silkmill Run near the project area is designated by PADEP as a CWF-MF waterbody. The intake and wells are located within the drainage area to the Lower Delaware Special Protection Waters (SPW) in the Borough of Jim Thorpe, Carbon County, Pennsylvania. Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder supplies water to two separate non-interconnected service areas, the East Side System and the West Side System. Wells Nos. 1 and 4 serve the eastern half of the Borough of Jim Thorpe (East Side System), which is separated from the western half (West Side System) by the Lehigh River. The western portion of the Borough of Jim Thorpe is served by the Mauch Chunk Creek surface water withdrawal. The service area is shown on maps submitted with the Application. 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 East Side System groundwater supply currently serves water to approximately 2,288 persons on 915 domestic service connections, 47 commercial service connections, one industrial service connection and 8 institutional service connections and records an existing average and maximum daily water demand of 0.236 million gallons per day (mgd) and 0.334 mgd, respectively. The docket holder projects the 10-year average and maximum daily water demand to increase to 0.254 mgd and approximately 0.4 mgd, respectively. The total groundwater allocation of 12.4 mgm should be sufficient to meet the future demands of the East Side System.

The West Side System surface water supply currently serves water to approximately 1,810 persons on 724 domestic service connections, 57 commercial service connections, one industrial service connection and one institutional service connection and records an existing average and maximum daily water demand of 0.231 million gallons per day (mgd) and 0.334 mgd, respectively. The docket holder projects the 10-year average and maximum daily water demand to increase to 0.251 mgd and 0.400 mgd, respectively. The continued surface water allocation of 13.175 mgm should be sufficient to meet the future demands of the West Side System.

b. **Facilities.**

East Side System.

The East Side System is served by wells. The existing project wells have the following characteristics:

WELL NO.	DEPTH	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY	YEAR DRILLED
1	408'	16' / 10"	260 gpm	1913
4	450'	53' / 8"	350 gpm	1980

All Wells are metered

All East Side System service connections are metered

Prior to entering the distribution system, the water is chlorinated.

The project wells and treatment facilities are located outside of the mapped 100-year floodplain of Silkmill Run.

The East Side System is not presently interconnected with any other distribution System.

West Side System

The West side system is served by surface water withdrawn from Mauch Chunk Creek. The existing intake has the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY	7Q10 FLOW AT INTAKE	YEAR CONSTRUCTED
1	Mauch Chunk Creek	0.505 mgd	1.38 cfs ⁽¹⁾ 0.892 mgd	1968

(1) Low flow statistics calculated using USGS Streamstats v.3.0.

Withdrawals from the intake are metered.

All West Side System water service connections are metered.

Prior to entering the distribution system, the water is treated as described below.

The water treatment plant is located along the Mauch Chunk Creek, but is located outside its mapped 100-year floodplain.

The West Side system is not presently interconnected with any other distribution system.

The Borough of Jim Thorpe Westside System obtains its water supply from a small intake dam on Mauch Chunk Creek, about 1 miles downstream of the Mauch Chunk Creek Reservoir owned by the Carbon County Commissioners. The Mauch Chunk Creek Reservoir, constructed in May of 1968, is a multipurpose reservoir and makes releases to control low flow in Mauch Chunk Creek. The Mauch Chunk Reservoir has a normal surface area pool of 320 acres and a storage of 1.36 billion gallons. The DRBC Comprehensive Plan has recorded a water supply storage of 375 acre-feet of water supply capacity or 122 million gallons. PADEP previously determined that a minimum continuous flow of 0.58 mgd is assured downstream of the dam through an orifice in the sluice gate on the downstream pond drain discharge. In addition, a gated 8-inch orifice (18 inches below the normal pool) can be used for releasing 122 million gallons of water supply storage for the Borough of Jim Thorpe when required.

At the small intake dam on Mauch Chunk Creek, raw water is withdrawn through an 8" pipe equipped with a top mounted wedge wire intake screen and is treated at the existing 0.5-mgd capacity Borough of Jim Thorpe water treatment plant located about ½ mile east of the intake. Water from Mauch Chunk Creek enters the treatment plant where it is pre-screened and chemical additions of sodium permanganate, soda ash, chlorine and polyaluminum chloride are mixed with the water prior to entering one of two Roberts inline filter units each with a capacity of 350 gpm. The filters have an upflow adsorption clarifier section and a downflow mixed media filter section. The filter units are backwashed to a backwash tank and then discharged to the Jim Thorpe sanitary sewer system. Following filtration, the water is treated for pH adjustment and corrosion control and chlorinated prior to discharging into the clearwell and then the 1.0 mg concrete storage tank.

c. **Other.** Wastewater from both the East and West Side Systems is conveyed to the Borough of Jim Thorpe Wastewater Treatment Plant most recently approved by DRBC Docket No. D-1996-019 CP-2 on December 4, 2014. The PADEP issued its most recent NPDES Permit No. PA0021873 on August 8, 2013 for this treatment facility. The treatment facility has adequate capacity to continue to receive wastewater from the existing project.

d. **Cost.** There are no construction costs associated with this docket renewal.

e. **Relationship to the Comprehensive Plan.** Existing Wells Nos. 1 and 4 and the Mauch Chunk surface water withdrawal were previously included in the Comprehensive Plan by the Commission in Docket No. D-81-71 CP on August 5, 1982 and Docket No. D-90-22 CP on October 24, 1990, respectively. The Mauch Chunk Watershed Project was included in the Comprehensive Plan for conservation measures, flood control, water supply and recreation by DRBC Docket No. D-65-108 on December 29, 1965.

B. FINDINGS

Special Protection Waters

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations* (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower

Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The docket holder's wells and surface water intake providing water supply to the Jim Thorpe Borough are located within in the drainage area to the Special Protection Waters. Since this project does not entail additional construction and expansion of facilities or service areas and there are not any new or increased non-point source loads associated with this approval, the non-point source pollution control plan requirement is not applicable at this time. Accordingly, Special Condition C.II.v. has been included in the Decision section of this docket.

PADEP Water Allocation Permit and Passby Requirements

PADEP Water Allocation Permit No. WA 13-69B issued to Jim Thorpe Municipal Authority on October 30, 1990 and transferred to the Borough of Jim Thorpe on September 16, 1998, granted the right to withdraw up to a maximum of 425,000 gpd from Mauch Chunk Creek for use in the West Side System. The Water Allocation Permit requires the Borough of Jim Thorpe to allow a minimum passby flow of 746,000 gpd (1.155 cfs) at the Mauch Chunk Creek intake. When streamflow below the intake is less than this amount, no water may be withdrawn and the entire natural flow must be allowed to pass the intake. The PADEP Water Allocation Permit expires on October 30, 2015.

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. The Jim Thorpe Borough submitted their most recent Water Audit for the combined East and West Side Systems on March 31, 2015. Because the East and West Side Systems are not interconnected, the docket holder shall submit separate water audits for the East and West Side Systems beginning in 2016.

DRBC Surface Water Charges

DRBC Certificate of Entitlement No. 309, entitles the Borough of Jim Thorpe to withdrawal up to 12.2 million gallons per month (1.22 mgm consumptive use and 10.98 mgm non-consumptive use) from the Mauch Chunk Creek Intake without surface water charges. The docket holder shall pay for surface water use in excess of 1.22 mgm consumptive use and 10.98

mgm non-consumptive use from the water diversion in accordance with Administrative Manual – Part III Basin Regulations – Water Supply Charges as described in Condition II.C.f. in the DECISION section.

The docket holder's East Side System was previously supplied by reservoirs on Ruddles Run. These reservoirs were taken out of service in 1993. The DRBC Certificate of Entitlement No. 303 previously issued for the Ruddles Run Intake was rescinded by the Executive Director on November 14, 2005.

Other

In its Application, the Borough of Jim Thorpe requested to retain the surface water allocation of 12.75 mg/30 days (0.425 mgd) approved in Docket No. D-90-22 CP and the groundwater allocation of 14.1 mg/30 days approved in Docket No. D-81-71 CP RENEWAL 3. The estimated ten-year projected maximum daily surface water demand and maximum daily groundwater demand as stated in the Application are 0.400 mgd (12.4 mgm) each. As the Commission generally bases water allocations on ten-year projected maximum demand estimates, the continued surface water allocation of 13.175 mgm (0.425 mgd) and groundwater allocation of 12.4 mgm approved herein satisfies the docket holder's ten year projected maximum surface water and groundwater demands.

This project consists of an existing withdrawal of surface water from Intake No. 1 on the Mauch Chunk Creek and existing groundwater withdrawals from Well Nos. 1 and 4. Withdrawal rates and allocations are provided in Decision Condition II.d. in the Decision Section of this docket. There should be no significant impacts from continued withdrawals from the existing system wells.

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

I. Effective on the approval date for Docket No. D-1981-071 CP-5 below:

a. The projects described in Docket Nos. D-81-71 CP RENEWAL 3 and D-90-22 CP are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1981-071 CP-5; and

b. Docket Nos. D-81-71 CP RENEWAL 3 and D-90-22 CP are terminated and replaced by Docket No. D-1981-071 CP-5.

c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A “Physical features” are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its Water Allocation Permit and Water Supply Permits, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s. The docket holder shall register with and report to the PADEP all surface and ground 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 wells, intake and operational records shall be available at all times for inspection by the DRBC.

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

d. Withdrawals from the Mauch Chunk Creek Intake No. 1 shall not exceed 0.425 mgd or 13.175 million gallons per month. During any month, the combined withdrawal from all well sources shall not exceed 12.4 million gallons. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM INSTANTANEOUS RATE	MONTHLY ALLOCATION
1	260 gpm	7.3 mgm
4	350 gpm	7.4 mgm

e. The wells 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.

f. The docket holder shall pay for surface water use in excess of 1.22 mgm consumptive use and 10.98 mgm non-consumptive use from the water diversion in accordance with Administrative Manual – Part III Basin Regulations – Water Supply Charges.

g. 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.

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

i. 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.

j. 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. Separate water audits for the East and West Side Systems shall be submitted annually to the Commission by March 31.

k. 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.

l. 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).

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

n. 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.

o. 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.

p. 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*.

q. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges 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 (or the later date established by an extension that has been timely requested and approved), 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.

r. 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.

s. 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 docket 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 certified mail or email (using addresses posted on the DRBC website); or (b) written notice in accordance with the preceding clause 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.

t. 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.

u. For the duration of any drought emergency declared by either Pennsylvania or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of Pennsylvania, the Pennsylvania Emergency Management Council, PADEP, or the Commonwealth Drought Coordinator to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

v. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

w. 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: December 9, 2015

EXPIRATION DATE: December 9, 2025