



THE COMMONWEALTH OF MASSACHUSETTS
WATER RESOURCES COMMISSION
100 CAMBRIDGE STREET, BOSTON MA 02114

**Request for Determination of Applicability
Under the Interbasin Transfer Act
MGL Chapter 21 Sections 8B-8D**

Pioneer Valley Energy Center

WRC Decision

September 11, 2008

Decision

On September 11, 2008, the WRC, in a seven to one (7 – 1) vote, determined that the Pioneer Valley Energy Center proposal to transfer two million gallons per day (2.0 mgd) from the Holyoke water supply system was not subject to the Interbasin Transfer Act (ITA), given the conditions outlined in the Staff Recommendation dated September 11, 2008 (as amended). These conditions are outlined at the end of this document.

Background

On July 1, 2008, the Massachusetts Water Resources Commission (WRC) received a Request for Determination of Applicability (RDA) under the ITA (M.G.L. Chapter 21 §§ 8B-8D) from the Pioneer Valley Energy Center (PVEC) for a connection to the Holyoke Water Works pipeline from the Tighe-Carmody Reservoir. The Tighe-Carmody Reservoir is located in the town of Southampton, in the Connecticut River Basin. The Pioneer Valley Energy Center will be developed in the town of Westfield, in the Westfield River Basin. The plant is requesting up to 2.0 million gallons per day (mgd) for cooling water.

On August 21, 2008, the WRC received a Staff Summary and presentation about the project, as it related to the ITA. Representatives from PVEC were present at this meeting and answered questions from Commission members and described the lands adjacent to the Holyoke pipeline.

Facts Pertaining to the Proposal

- PVEC is proposing to develop a 400MW combined-cycle generating facility utilizing primarily natural gas as fuel. Ultra-Low Sulfur Distillate will be used during winter periods when natural gas must be made available for residential and commercial uses.

- The project proposes to use raw water from the Tighe-Carmody Reservoir, part of the Holyoke Water Works system, to provide cooling for the power generation equipment. The water will flow by gravity through one of two existing 20" diameter cast iron pipes that were used to transport water from the Tighe-Carmody Reservoir to the Ashley Reservoir.
- To ensure adequate reliability of the hydraulic system, preventative maintenance will be performed on one of the pipes by installing a 12" HDPE sleeve inside the pipe.
- "Blow-down" water used to flush the system in order to maintain water quality, will be discharged to the Westfield sewer system. Approximately 10% of the water drawn from the Holyoke water supply will be blow-down water; the balance of the water will be evaporated.
- As a condition for purchase of this water, PVEC will agree not to sell or transfer any of the water supplied by Holyoke to any other entity.
- The proposed plant is located approximately one-half of a mile from the existing Holyoke pipelines. Pioneer Valley Energy Center's parent corporation, Westfield Land Development Company, is in the process of purchasing land or rights-of-way to own or occupy lands within 1200 feet of the Holyoke pipeline.

Existing Transfer Facilities

- Chapter 419 of the Acts of 1896 (Chapter 419) authorized the city of Holyoke to construct the Tighe-Carmody Reservoir in the town of Southamptton. Chapter 419 also provided that the town of Southamptton could draw water from this reservoir system.
- The Tighe-Carmody Reservoir is located within the Connecticut River basin and, according to the Holyoke Water Works, the estimated "safe yield" of the Tighe-Carmody Reservoir ranges from 11.3 to 14.4 mgd, (determined by using storage-yield curves developed by the New England Water Works Association). The yield of the Tighe-Carmody Reservoir has not been analyzed using MassDEP's Firm Yield Estimator.
- Two existing 20-inch diameter pipes flow by gravity from the Tighe-Carmody Reservoir to the Ashley Reservoir, located in Holyoke, in the Westfield River basin section of the City.
- When these pipelines were actively used by Holyoke Water Works, both pipes were used in tandem to supply water from the reservoir. The combined capacity of both pipes (used in tandem) was in the range of 6 to 8 MGD: 6 MGD by gravity and 8 MGD with the use of a pump station located at Barnes airport.
- Use of these pipelines was discontinued in 1998, due to filtration issues at the Ashley Reservoir. However, this system was never abandoned under DEP's process.
- Chapter 482 of the Acts of 1898 (Chapter 482) authorizes the town of West Springfield to obtain water from the pipeline from the Tighe-Carmody Reservoir to the Ashley Reservoir. Chapter 482 also allows the City of Holyoke to supply water from the Tighe-Carmody Reservoir to "persons and corporations owning or occupying lands in the town of Westfield within twelve hundred feet of the pipeline".

Proposed Transfer Facilities

- PVEC will obtain water supply from Holyoke through one of two existing 20" diameter cast iron pipes that were used to transport water from the Tighe-Carmody Reservoir to the Ashley Reservoir.
- This water will flow by gravity. No pump will be installed.
- To ensure adequate reliability of the hydraulic system, preventative maintenance will be performed on one of the pipes by installing a 12" HDPE sleeve inside the pipe. The pipe will be lined only as far as the connection to the facility.
- PVEC has estimated the capacity of the pipe lined with a 12-inch HDPE sleeve at 2.2 mgd, delivering water to the PVEC site at a pressure of approximately 39 psi. Only one pipeline will be used at a time to serve PVEC. The second pipeline will serve as a back-up supply should the first pipeline be out of service.
- This water supply connection will only be used to serve PVEC and cannot be used by any other entity in the Westfield River basin to obtain water supply from the Tighe-Carmody Reservoir.

Issues Considered in Evaluating this Request

WRC, with advice from its Staff and Legal staff from the Executive Office of Energy and Environmental Affairs and the Department of Conservation and Recreation, considered the ITA and its regulations, WRC policies and guidance, as well as decisions the WRC had made on previous requests concerning the applicability of the ITA. Specific guidance included A Guide to the Application of the Interbasin Transfer Act and Regulations (2003 Update, page 9), where the WRC set forth a policy that exempts from ITA review:

- Expansion within an existing water supply or wastewater system, originally designed and constructed to accommodate larger flows than currently being experienced; and
- Enlargement of the receiving area, providing this does not increase the existing hydraulic capacity to transfer water out of basin.

In addition, the WRC considered Chapter 482, including Section 6, which allows the City of Holyoke to supply water from the Tighe-Carmody Reservoir to “persons and corporations owning or occupying lands in the town of Westfield within twelve hundred feet of the pipeline”.

Conditions of the Decision

Based on the information provided concerning this project through the Request for Determination of Applicability, responses to questions from the WRC through its Staff, and at the August 21, 2008 WRC meeting, the WRC finds that the Interbasin Transfer Act will not apply to the Pioneer Valley Energy Center’s use of water supply from the City of Holyoke, provided that:

- The project will be implemented as described in the proponent's Request for Determination of Applicability under the Interbasin Transfer Act and associated information provided to the Commission.
- The entity receiving water from the Holyoke water supply, Westfield Land Development Company, LLC (dba Pioneer Valley Energy Center), or its successor(s), owns or occupies lands in the Town of Westfield within 1200 feet of the Holyoke Water Works pipeline. Verification of ownership or occupation must be provided to the WRC before PVEC can receive water from Holyoke.
- The Holyoke Water Commission determines that the Project meets the requirements of Chapter 482 and fully authorizes the supply of raw water in a Supply Agreement with the Project, and the Westfield Water Commission approves the supply agreement. PVEC must provide documentation to the WRC that these requirements have been met before it can receive water from the Holyoke supply.
- The Westfield Land Development Company includes a stipulation in the Supply Agreement which provides that the PVEC cannot sell or transfer any of the water supplied by Holyoke to any other entity, other than the required blowdown to the Westfield sewer system. This provision was offered voluntarily by the Westfield Land Development Company.
- PVEC must not expand the hydraulic capacity of the system. Water from the Tighe-Carmody Reservoir will flow by gravity to PVEC. Modifications to the hydraulic capacity of the system will be limited to those described in the RDA. No pump will be installed or operated to facilitate the flow.

The rationale for this recommendation is that this proposal is consistent with WRC Policy and is similar to Commission precedent. PVEC's use of the Holyoke Water Supply, as described in its Request for Determination of Applicability under the Interbasin Transfer Act, can be considered an expansion within an existing water supply system, originally designed and constructed to accommodate larger flows than currently being experienced. The enlargement of the receiving area appears to neither increase the existing hydraulic capacity to transfer water out of basin nor change the system's operating rules as established by the Special Acts of 1898, Chapter 482, Section 6. Connection to the existing pipeline from the Tighe-Carmody Reservoir by PVEC does not increase the hydraulic capacity of the pipelines that facilitate the interbasin transfer.

If the conditions of the proposed transfer change as this project goes through the permitting and development phases, or after the project is finalized, the ITA may be triggered. PVEC must keep the WRC informed of any changes before they occur so that the implications under the ITA may be considered.