

**WRRDA 7001 Submissions Package**  
**U.S. Army Corps of Engineers**

Proposal Name: Waterbury Dam Spillway Replacement

Submission Date: 09/13/2016

Proposal ID Number: 0eabef0e-b325-4fdf-b4fe-075f4c553dcd

Purpose of Proposal: Replacement of the Waterbury Dam spillway addresses the following deficiencies identified in the March 2006 U.S. Army Corps of Engineers report titled "Waterbury Dam Waterbury, Vermont"Design Documentation Report for Spillway Replacement": -The current Tainter gates have a binding problem which is the result of expansive concrete. The problem has been temporarily relieved with a 2005 project to replace seals and guides, however these repairs had a projected life of 10-15 years. REPLACING THE SPILLWAY AND GATES INVOLVES FLOOD AND STORM DAMAGE REDUCTION. -The existing steel gates are structurally deficient and cannot operate safely at the full design loading. The regulation manual has been revised requiring gate operations that result in reduced flood storage. 7400 acre-feet of storage (1.34 inches of runoff) are lost due to the gate structural deficiencies. REPLACING THE SPILLWAY AND GATES INVOLVES FLOOD AND STORM DAMAGE REDUCTION. -Replacement of the spillway and gates will improve the hydraulics and for the maximum probable flood. REPLACING THE SPILLWAY AND GATES INVOLVES FLOOD AND STORM DAMAGE REDUCTION.

Replacement of the spillway and Tainter gates would improve the quality of water in Waterbury Reservoir, which is currently classified as impaired due to sedimentation and turbidity caused by winter drawdowns. The winter drawdown cannot end until the spillway and tainter gates are replaced. REPLACING THE SPILLWAY AND GATES INVOLVES AQUATIC ECOSYSTEM RESTORATION.

*1. Administrative Details*

**Proposal Name: Waterbury Dam Spillway Replacement**

**by Agency: Vermont Agency of Natural Resources**

**Locations: VT**

**Date Submitted: 09/13/2016**

**Confirmation Number: 0eabef0e-b325-4fdf-b4fe-075f4c553dcd**

*Supporting Documents*

<b>File Name</b>	<b>Date Uploaded</b>
planview.pdf	09/13/2016
20140307WaterburyLetterOfSupport.pdf	09/13/2016

**2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.**

Sponsor	Letter of Support
State of Vermont, Agency of Natural Resources(Primary)	Attached

**3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.**

[x] Modification to an Authorized USACE Project : Waterbury Dam and Reservoir (authorized by the Director, Emergency Conseravtion Work on 2 June 1933)

***4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.***

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5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	Non-Federal	Total
<b>Study</b>	\$0	\$0	\$0
<b>Construction</b>	\$29,900,000	\$16,100,000	\$46,000,000

**Explanation (if necessary)**

Assumes a 65% Federal share/35% Nonfederal share

***6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.***

Loss of the use of the Tainter gates/spillway could result in an annual damage of \$3,971,000 due to increased downstream flooding. Failure to replace the Tainter gates/spillway will result in a permanent lowering of the reservoir, thereby perpetuating the impaired water classification. Failure to replace the Tainter gates/spillway will result in reduction of shoreland recreation, including 2 State Parks and 4 State boat accesses.

**7. Does local support exist? If 'Yes', describe the local support for the proposal.**

Yes

### **Local Support Description**

The Town of Waterbury supports a project that insures the proper operation, maintenance, and longevity of Waterbury Dam.

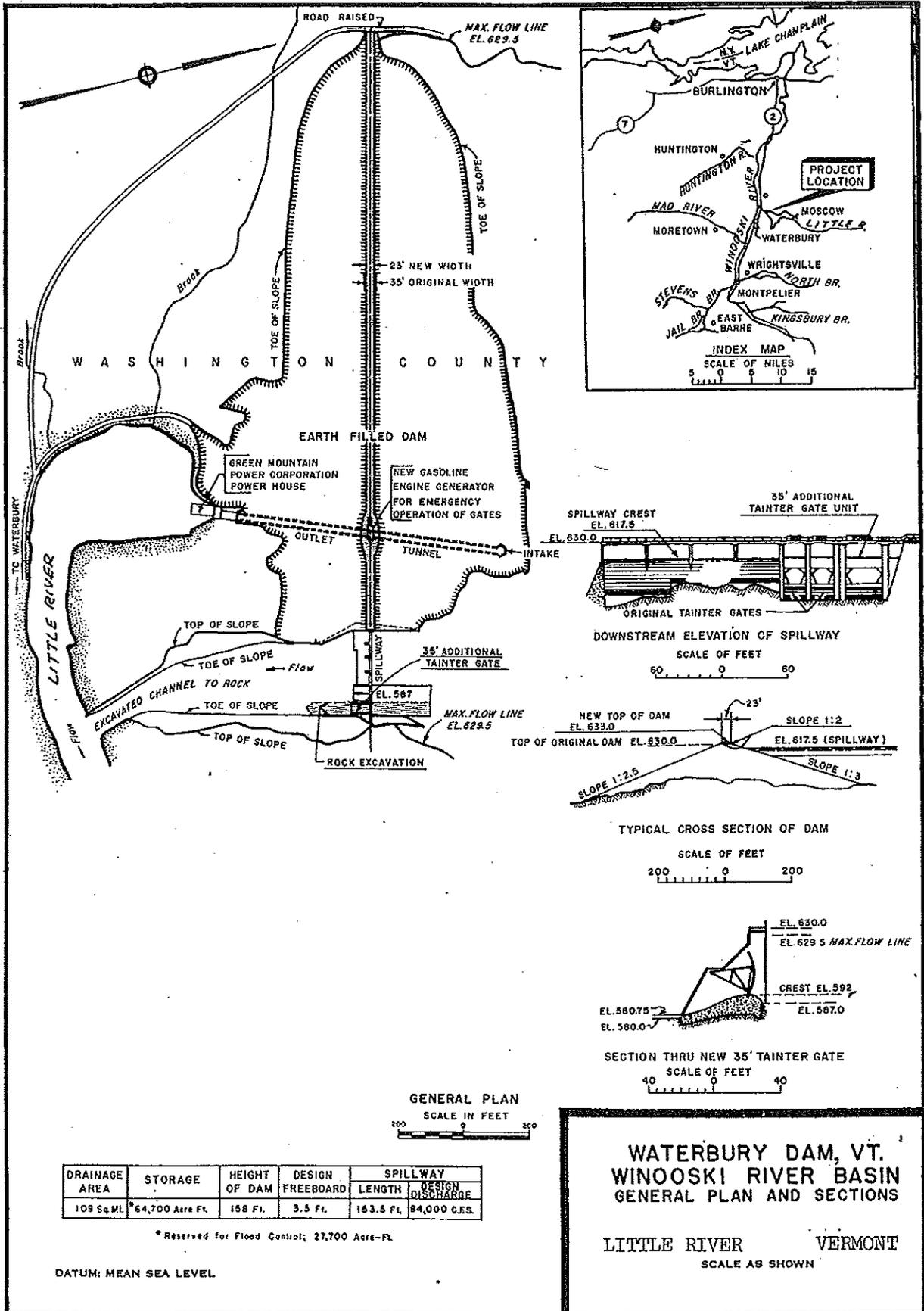
**8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?**

Yes

# Map Document

(This is as uploaded, a blank page will show if nothing was submitted)

**planview.pdf**



Reference: US Army Corps of Engineers, New York District Waterbury Dam and Reservoir Regulation Manual, June 1970

Figure A-2

# Primary Sponsor Letter of Support

(As uploaded)

**20140307WaterburyLetterOfSupport.pdf**



WATERBURY MUNICIPAL OFFICE

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51 SOUTH MAIN STREET

WATERBURY, VT 05676

WATERBURYVT.COM

March 7, 2014

Ms. Alyssa Schuren, Deputy Commissioner  
Department of Environmental Conservation  
One National Life Dr.  
Montpelier, VT 05620-3901

Dear Deputy Commissioner Schuren:

In December 2013, the Waterbury select board met with you and Steve Bushman, Dam Safety Engineer from the DEC, to discuss day-to-day operations and future maintenance needs at the Waterbury Dam. The dam provides critical flood control for Waterbury and neighboring communities in the Winooski River Valley, downstream of our town. In addition, the dam and its impoundment allows for clean generation of electricity for GMP and its rate payers and wonderful recreation opportunities for the entire Central Vermont Region. It is an important facility.

Given its importance, especially for flood control purposes, it is in Waterbury's interest that the operations and maintenance of the dam be conducted in a manner that will insure its safety and durability over the long-term. We understand from our recent conversation that the seepage control system that was put in place a number of years ago, while very effective, comes with a high annual operating cost. That cost alone, at \$100,000 per year, is more than twice the annual dam maintenance budget the Vermont DEC has available for all dams the department is responsible for across the state. We understand that the department fills the gap using some of its annual appropriation for capital expenditures. This formula does not seem to be a viable solution over time.

In addition, we discussed the fact that the flood control Tainter gates will need to be replaced when the spillway is next rehabilitated, five to ten years from now. The cost of the project you described to us is estimated to be about \$40 million. Given the identified costs of necessary improvements to infrastructure across all state agencies, saying nothing of those for the DEC alone, it appears to us unlikely that the state can afford to maintain the Waterbury Dam to the degree necessary to protect public safety.

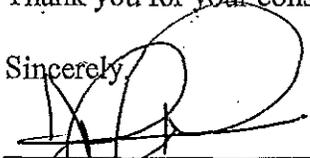
During our conversation, a suggestion was offered that it might make sense to consider turning over to the Army Corps of Engineers the day to day operation and long-term maintenance responsibilities of this critical facility. The federal government, through the Army Corps of Engineers, is responsible already for numerous similar facilities in Vermont and in their New York and New England regions. We believe it is prudent to turn this responsibility over to the federal government as soon as practicable.

The Corps of Engineers has the expertise necessary to do the required day to day work and they have the capacity to insure that engineering, planning, programing and financing of long-term maintenance, repairs and replacement of the facilities they are responsible for occurs on schedule. Most importantly, the federal government will be able to make appropriations for the upkeep of this facility within their own budgeting process, in coordination with their own planning and programming processes. The operations and maintenance needs of the facility will no longer be dependent upon the willingness of the state legislature to appropriate sufficient operating funds and capital resources to do the required work in a timely manner.

It is important to the Waterbury Select Board and to the community as a whole that the State of Vermont continues to own the dam and all its adjacent land. Having said that, however, and taking everything into consideration that we discussed with Mr. Bushman and you back in December, we urge Governor Shumlin and Commissioner Mears to work with the Vermont's congressional delegation to work toward the complete transfer of operational responsibility for this facility to the Army Corps of Engineers to insure its proper operation, maintenance and its longevity.

Thank you for your consideration.

Sincerely,



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John Grenier, Chair  
Waterbury Select Board