



US Army Corps  
of Engineers®  
New England District

Engineering/Planning  
696 Virginia Road  
Concord, MA 01742

# Public Notice

**Date: January 30, 2015**

**Comment Period Ends: February 28, 2015**

**Reply by Mail to: Kirk Bargerhuff; or by email to:  
Kirk.E.Bargerhuff@usace.army.mil**

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## 30 – DAY PUBLIC NOTICE

### **Operations and Maintenance Action to Address Poor Water Quality and Sedimentation Accumulation Northfield Brook Lake Thomaston, Connecticut**

Interested parties are hereby notified under the provisions of the National Environmental Policy Act (NEPA) (Title 33, Part 230 of the Code of Federal Regulations) and Section 404 of the Clean Water Act of 1977 (P.L. 95-17) that the U.S. Army Corps of Engineers (USACE), New England District, plans to perform action to alleviate long-term negative water quality conditions and reduce the ongoing sediment accumulation within the impoundment of the Northfield Brook Dam, Thomaston, Connecticut. Attachment 1 is a project location map and Attachment 2 lists pertinent laws, regulations, and directives.

#### **Description**

The existing impoundment routinely experiences adverse water quality conditions requiring USACE to implement long-term closures of the swimming beach, often during the summer recreational season. USACE believes these compromised water quality conditions are increasing the potential for health concerns from waterborne illnesses as a result of high bacteria levels that exceed the State of Connecticut standards, and through the increasing incidents of cyanobacteria blooms. The lake is on the Connecticut Impaired Waters List because it exceeds the water quality standards for recreational uses from elevated levels of *Escherichia coli* (E. coli) from nonpoint and unknown source pollution. In addition, the sediment trapped behind the dam starves downstream aquatic habitats of needed naturally occurring sediment deposition and increases downstream erosion of the river banks and channel. Increased sedimentation behind the dam reduces the storage capacity of the reservoir and must be removed. USACE has historically needed to drain the lake to remove accumulated sediment.

USACE has the need to address the ongoing sediment buildup and the poor water quality conditions within the impoundment in a manner that will: (1) eliminate the impaired status of the impounded water within the reservoir area, (2) improve sediment management of the area behind the dam and allow a more natural run-of-the-river sediment transport, (3) increase the overall storage capability and eliminate the long term need to remove accumulated sediment, (4) provide

recreational opportunities, and (5) minimize the maintenance costs associated with management of adverse aquatic conditions within the federal flood control project.

The preferred method to alleviate the above described conditions is to eliminate the permanent eight-acre aquatic impoundment (reservoir) behind the dam, and restore about 1,200 feet of the Northfield Brook within the reservoir area to a natural meandering channel. The action would also restore the riverbank to a riparian ecosystem and restore fisheries stream habitats. Following these actions, the remaining reservoir area would be established as recreational space for public use at the project. Under flood conditions, the reservoir would be utilized for its authorized flood control purposes to protect downstream communities from flood damage. USACE would operate the project as a run-of-the-river flood control project during non-flood conditions.

The alternative to permanently eliminating the existing impoundment is to temporarily dewater the area and mechanically remove accumulated sediment on a periodic basis. On completion of the sediment removal the impoundment would be allowed to refill and the project would continue to operate under existing operational conditions. Although this would temporarily improve water quality conditions, sediment would continue to accumulate behind the dam requiring on-going periodic maintenance to ensure proper flood storage capacity and improve environmental conditions. This alternative is feasible but it is not a long-term solution and the lake would continue to act as a sediment trap. The impoundment conditions would deteriorate and the water quality conditions and sediment accumulation would continue to be an ongoing resource management, safety, and recreational issue.

To implement either of the above alternatives, with the mechanical limitation of the dam, there are two options considered as the only practical methods to drawdown the impoundment: (1) High Rain Event (Inflow) Drawdown Option, and (2) Low Outflow Option. They are similar in nature except that the High Rain event Drawdown Option targets a seasonal high rain event to empty the reservoir and the other allows the impoundment to drain under naturally occurring conditions and is not dependent on a high rain event. In each case, the outflow will be adjusted to the extent practical to be slightly higher than the inflow until the dam is emptied. Both options would be implemented during a season of year where cooler temperatures exist. USACE's preferred method to drawdown the reservoir is Option 1, High Rain Event Drawdown Option.

### **Environmental Resources**

The expected results of the proposed action would have short-term impacts to aquatic habitats from temporary increases in suspended sediment loads into the water column as the water levels begin to reach the lower levels; and the eventual transport and deposition of sediment onto fisheries habitat that exist immediately downstream. The long-term impacts would be beneficial and result in re-establishing a naturally occurring flow regime (closer to the original stream structure) and restore the aquatic habitat to a natural riparian/riverine system after several decades of an artificial reservoir condition. It would eliminate the permanent pool behind the dam which is an identified impaired waterbody. The action would result in direct beneficial impacts to river temperatures and dissolved oxygen levels in the Northfield Brook, and indirectly the Naugatuck River system. It facilitates a more natural sediment transport regime and restores habitat and downstream migration for fisheries, while allowing USACE to continue to provide flood storage capabilities and recreational opportunities.

## **Additional Information**

Additional information may be obtained from the Engineering/ Planning Division of the U.S. Army Corps of Engineers, Mr. Vincent Gualtieri, the Project Manager, and Mr. Kirk Bargerhuff, Biologist. These individuals may also be reached by phone or email, Mr. Gualtieri at 978-318-8377 or [Vincent.A.Gualtieri@usace.army.mil](mailto:Vincent.A.Gualtieri@usace.army.mil); Mr. Bargerhuff at 978-318-8029 or [Kirk.E.Bargerhuff@usace.army.mil](mailto:Kirk.E.Bargerhuff@usace.army.mil).

## **Coordination**

The proposed work is being coordinated with the following Federal, State, and local agencies:

### **Federal:**

- U.S. Fish and Wildlife Service
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Environmental Protection Agency, Region 1

### **State:**

- Connecticut Department of Energy & Environmental Protection
- Connecticut Bureau of Natural Resources Inland Fisheries Division
- Connecticut State Historic Preservation Office

### **Local:**

- Town of Thomaston Inland Wetlands and Watercourses Commission

## **Compliance with other Environmental Laws and Regulations**

**Floodplain Management:** In accordance with Executive Order 11988, the U.S. Army Corps of Engineers has determined that the proposed project will not contribute to negative impacts or damages caused by floods.

**Cultural Resources:** The proposed action project is not expected to impact any structures or sites of historic, architectural or archeological significance as defined by the National Historic Preservation Act of 1966 as amended. Coordination is being conducted with the Connecticut State Historic Preservation Officer.

**Endangered Species:** No federally listed threatened and endangered species or rare species habitat is known to occur in the project area. State-listed species in the area of the federal flood damage reduction project will not be adversely affected by the action.

**Clean Water Act Requirements:** A Section 404(b)(1) evaluation, pursuant to Section 404 the Clean Water Act, is provided as an attachment to the Environmental Assessment. An application for Section 401 Water Quality Certification has not yet been submitted to the State of Connecticut. Additional consultation will determine final submittals in accordance with the program requirements of the CT Bureau of Water Protection and Land Reuse's Inland Water Resources Division.

Environmental Impacts: An Environmental Assessment (EA) and Draft Finding of No Significant Impact (DFONSI) of the proposed action has been prepared and is available upon request to either Mr. Gualtieri or Mr. Bargerhuff at the telephone numbers noted above, and can be obtained at the following location;

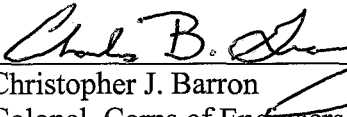
[www.nae.usace.army.mil/Missions/ProjectsTopics/NorthfieldBrookDamConversion.aspx](http://www.nae.usace.army.mil/Missions/ProjectsTopics/NorthfieldBrookDamConversion.aspx)

Additionally, a copy of the EA, DFONSI and Clean Water Act Section 404(b)(1) review is available for review at the Thomaston Public Library, 248 Main Street, Thomaston, CT. I have made a preliminary determination that an Environmental Impact Statement for the action is not required under the provisions of the National Environmental Policy Act of 1969. This determination will be reviewed in light of the facts submitted in response to this notice, and if appropriate, a Finding of No Significant Impact (FONSI) will be issued.

### Comments

Any person who has an interest that may be affected by the proposed action may request a public hearing. The request must be submitted in writing to me within 30 days of the date of this Notice and must clearly set forth the interest that may be affected and the manner in which the interest may be affected by this activity.

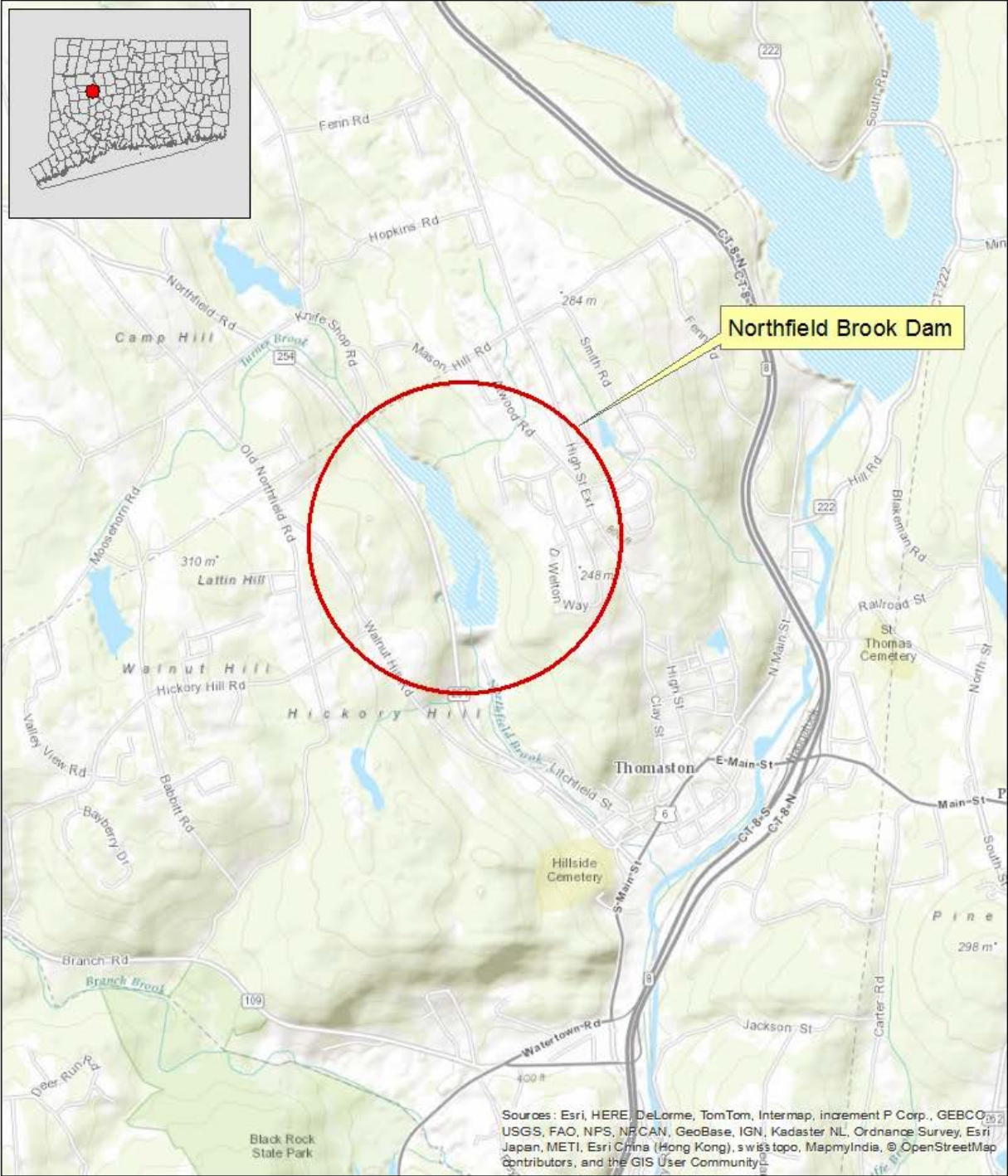
Please bring this Notice to the attention of anyone you know to be interested in this project. Comments are invited from all interested parties and should be directed to me at, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts, 01742-2751, ATTN: Engineering-Planning Division, within 30 days of this notice. The comment period ends on February 28, 2015.

  
For: Christopher J. Barron  
Colonel, Corps of Engineers  
District Engineer

02 February 2015  
Date

# ATTACHMENT 1

## LOCATION MAP



**Northfield Brook Dam Study Area  
Thomaston, CT**



## ATTACHMENT 2

### PERTINENT LAWS, REGULATIONS AND DIRECTIVES

American Indian Religious Freedom Act of 1978, 42 U.S.C. 1996.

Archaeological Resources Protection Act of 1979, as amended, 16 U.S.C. 470 et seq.

Clean Air Act, as amended (42 U.S.C. 7401 et. seq.)

Clean Water Act, as amended (33 U.S.C. 1251 et. seq.)

Endangered Species Act of 1973 as amended (16 U.S.C. 1531 et seq)

Federal Water Project Recreation Act, as amended (16 U.S.C. 460L-12 et. seq.)

Fish and Wildlife Act of 1956 (16 U.S.C. 472a et. seq.)

Fish and Wildlife Coordination Act (16 U.S.C. 661-667e)

Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 460L-4 et. seq.)

Magnuson-Stevens Fishery Conservation and Management Act, (16 U.S.C. 1801 et. seq.)

National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347)

National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.)

Preservation of Historic and Archaeological Data Act of 1974, as amended, 16 U.S.C. 469 et seq. This amends the Reservoir Salvage Act of 1960 (16 U.S.C. 469).

Watershed Protection and Flood Prevention Act, as amended, 16 U.S.C. 1001 et seq.

The Wild and Scenic Rivers Act (16 U.S.C. 1271 et. seq.)

Executive Order 11988, Floodplain Management, 24 May 1977

Executive Order 11990, Protection of Wetlands, May 24, 1977

Executive Order 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971

Executive Order 13007, Accommodations of Sacred Sites, 24 May 1996.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 11 February 1994.

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, 21 April 1997.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, 6 November 2000.

White House Memorandum, Government-to-Government Relations with Native American Tribal Governments, 29 April 1994.