

Finding of No Significant Impact

East Branch Dam Elk County, Pennsylvania Interim Risk Reduction Measures

In February 2008, the United States, acting by and through the U. S. Army Corps of Engineers, Pittsburgh District, lowered the summer and winter operating pools of the East Branch Clarion River Lake as an interim emergency measure to reduce the potential risk of a catastrophic failure of East Branch Dam. The lowered pool was deemed necessary by a series of studies completed on the dam in January 2008 by the Bureau of Reclamation and the Corps that determined the dam had potential structural deficiencies that could cause it to unexpectedly fail.

To protect public safety, which is the Corp's primary concern in mission execution, the District evaluated a number of alternatives in January/February 2008 that would reduce the risk of dam failure to acceptable levels and minimize attendant environmental, social and economic impacts. Alternatives considered included lowering the summer/winter pools to various elevations to reduce static loading on the dam and other more extreme actions, such as doing nothing ("No Action") and its converse, completely draining the lake. The alternative selected and implemented in February 2008 lowered the normal maximum summer pool elevation from 1670 to 1650 and lowered the maximum winter pool elevation from 1651 to 1623. The District also considered and implemented a number of other "non-structural" risk reduction measures, including updating the emergency action plan, enhancing monitoring and surveillance of the dam, cross training dam operating personnel, pre-positioning response resources at the dam site to deal with unexpected dam failure, and updating a communications plan.

Pursuant to the National Environmental Policy Act (NEPA), the District prepared an environmental assessment (EA) that analyzed the environmental, social and economic impacts associated with alternative interim operating pools, including the alternative of "No Action." The emergency action taken in February 2008 to change the operation of the dam did not allow the District sufficient time to prepare and circulate an EA that would have evaluated the impacts of a lower pool. Therefore, to comply with NEPA, the District prepared an "after-the-fact" EA for the implemented emergency action as well as alternative interim actions. During the intervening time period between the emergency decision to lower the pool and the preparation of the EA the Corps, the Pennsylvania Fish and Boat Commission, and the Pennsylvania Department of Environmental Resources conducted critical model studies to better identify potential impacts of the lower interim operating pool.

In addition to the "No Action" alternative, four alternative lower interim pools were extensively evaluated for the EA. They are shown in the table below:

	Maximum Summer Pool	Maximum Winter Pool
Authorized Water Control Plan	1670	1651
Alternative 1	1650	1623
Alternative 2	1640	1623
Alternative 3	1630	1623
Alternative 4	1610	1610

The analysis concluded that Alternative 1 (the implemented plan) would not cause any significant impacts either within the lake or downstream. The other alternatives would cause potentially significant fishery and recreation/economic-related impacts if they were to be implemented. This analysis is described in detail in the EA.

The District coordinated extensively with Federal, state, and local agencies and the general public as the EA was being prepared. Several public dam tours and public meetings were held in local communities in 2008 to inform interested agencies and the public about the District's actions. Moreover the District set up a specific WEB site to inform the public on late breaking items of interest and help control rumors.

During preparation of the EA, the District discovered that East Branch Lake warmed to higher than normal temperatures in the late summer of 2008. This was caused primarily by a smaller lake volume and the configuration of the outlet gates in the control tower, which at a lower operating pool did not permit the degree of temperature control available under normal operating conditions. To maximize water temperature control of the pool and reservoir releases during interim pool operations, the District designed a structural modification to the control tower and installed it in October 2008. The modification allows the District to more effectively blend the lake's warmer upper level water with cooler bottom water during the late summer when the lake is usually lower and when temperature control is most critical to downstream users and the lake and river fisheries. The control tower modification will help ensure that the temperatures of the lake's lower strata and downstream releases under the conditions imposed by the interim operating pool will be comparable to temperatures encountered under normal pool operating conditions during the late summer/early fall.

In early May 2009, copies of the EA and draft FONSI were sent to a large number of interested federal, state and local agencies and private citizens for a requisite 30-day review period. The only comment that the District received during the review period was from the Meadville office of the Pennsylvania Department of Environmental Protection. Their comment was that the Clarion Borough Sewage Treatment Plant is now owned and operated by the Pennsylvania American Water Company. The EA was revised to reflect this change in ownership. No other comments on the EA were submitted by reviewers. The EA and this FONSI will be posted on the District's internet site at <http://www.lrp.usace.army.mil> for public information.

After having carefully evaluated and balanced all beneficial and detrimental aspects of the emergency action described in this EA, including all regulatory agency input, I have reasonably concluded that the emergency action to lower the operating pool at East Branch Dam does not constitute major Federal action significantly affecting the quality of the human environment because, in accordance with 40 C.F.R. § 1508.13 (1) these actions will only cause limited, temporary impacts to the aquatic habitat and wetlands within Clarion River Lake, the East Branch Clarion River and the Clarion River; there will be no long term, significant adverse impacts to riparian habitat, wild and scenic rivers, geology, soils, socio-economic conditions, recreation, aesthetics or air quality, cultural resources or noise. Consequently, for this emergency action, the preparation of an environmental impact statement under NEPA is not warranted. The public interest has been best served by modifying the operation of the lake on an interim basis by lowering the maximum summer pool from elevation 1670 to 1650 and lowering the maximum winter pool elevation from 1651 to 1623. The interim operating schedule will be in effect until permanent dam repairs are completed. The proposed work is in compliance with all applicable Federal, State, and local laws and regulations. There are no unresolved issues regarding environmental compliance and coordination, and there are no unresolved environmental issues associated with the emergency action to lower the pool at East Branch Lake.

13 June 09

Date



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District Engineer