

FAIRFIELD & LICKING COUNTIES

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at:

<http://www.epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St. P.O. Box 1049, Columbus, Ohio 43216. Ph: 614-644-3037 email: HClerk@epa.ohio.gov

Final Issuance of Certification

Ohio Dept of Natural Resources

Buckeye Lake Village & Millersport, OH

Facility Description: 401 Certification

Receiving Water: Buckeye Lake

ID #: DSW401175310

Date of Action: 11/13/2017

This final action not preceded by proposed action and is appealable to ERAC.

Grant of Section 401 Water Quality Certification Buckeye Lake Dam Rehabilitation.



## Division of Surface Water Response to Comments

**Project: Buckeye Lake Dam Rehabilitation/401 Water Quality Certification  
Ohio EPA ID #: 175310**

### Agency Contacts for this Project

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Ohio EPA held a public hearing and/or comment period on June 26, 2017, regarding a 401 Certification for the Buckeye Lake Dam rehabilitation. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended on July 3, 2017.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

**Comment 1:** Many commenters expressed concern that Buckeye Lake is nutrient-enriched and has problems with siltation, algal blooms (sometimes harmful) and *E. coli* and that the lower lake levels that were appropriate for construction caused increased water quality problems and health issues. Additionally, concerns were raised by the diversion of storm water that will now be directed away from the lake and that this will cause lower water levels and higher levels of pollution during the summer months. Commenters also expressed concern about

**additional water volume losses due to the placement of the dam materials and also due to the proposed fish habitat.**

**Response 1:** Water levels were lowered for safety reasons and for construction of the dam. It is expected that following construction, the restoration of lake levels will provide relief and some dilution of the water quality issues.

**Comment 2:** **Many commenters expressed concern that the fish habitat that will be used for mitigation is being placed in areas that will be silted over very quickly, that is, near feeder canals that are main sources of sedimentation coming into the lake. Commenters were also concerned that the material will just sink into the silt at the bottom of the lake wherever it would be placed. Concern was also expressed about the possible hazards to boating in the fish enhancement habitat during low lake levels.**

**Response 2:** The proposed fish habitat at Fairfield Beach and Brooks Park was removed from the mitigation proposal due to the publicly expressed concerns about the fish habitat being incompatible with the boat traffic. Fish habitat is now planned for Liebs Island, Mud Island, Sellers Point and the North Shore Marina.

**Comment 3:** **Nearly all commenters wanted to see the mitigation plan changed to include bank stabilization along the feeder canals, especially the main feeder canal in order to address water quality issues.**

**Response 3:** In order to address the concerns regarding the water quality at Buckeye Lake that were expressed during the public hearing, the Ohio Department of Natural Resources (ODNR) amended its mitigation proposal by modifying the locations of two of the proposed fish habitat enhancement areas, and by including approximately 1,176 linear feet (LF) of bank stabilization along the Kirkersville Feeder Canal, from downstream of the Millersburg Water Treatment Plant to just upstream of the of the canal's confluence with Buckeye Lake.

The canal will be stabilized by contouring both banks to a 2:1 slope, which will then be stabilized with riprap underlain with geotextile fabric. As space and access allows, the newly stabilized banks will be supplemented with native plantings.

The additional mitigation in the feeder canal includes dredging of the sediment along the stream channel, resulting in a slightly deeper channel. The deeper stream channel will allow for the installation of a series of staggered check dams/sediment traps that will provide additional water quality benefits, including (1) oxygenating water flowing into the lake, (2) additional habitat for invertebrate species and cover for fish and (3) reduction of sediment from upstream sources, thus reducing nutrient loading from upstream agricultural runoff.

**Comment 4:** **One person testified in support of the project and fish habitat enhancement areas to be placed into the lake. This person said the 4.1 miles of riprap placed along the face of the dam will increase fish habitat and angling opportunities and will help water quality by lessening the effects of wave action and providing erosion protection. Enhancement areas and riprap will provide hard surfaces for the fish to spawn and hiding areas for the young.**

**Response 4:** Noted.

**Comment 5:** **One person expressed concern that wetland areas are being filled and developed and therefore lost around the lake.**

**Response 5:** Wetland fill activities are regulated by Sections 404 (federal) and 401 (state) of the Clean Water Act. All fills must be mitigated and this usually occurs within the same watershed as where the impacts occur. No wetland fill is occurring as a result of this project.

**Comment 6:** **A few commenters wanted to see the lake dredged to make the water deeper and get rid of the silt that causes many water quality problems.**

**Response 6:** All dredging work would be conducted by ODNR and this was not proposed in the application for this project.

**Comment 7:** **A couple of commenters were concerned with the material and riprap that would be put into the lake, and that this was to be done more as a convenience rather than for fish habitat.**

- Response 7:** Excess material from the construction will be used for the fish habitat areas within specifications for the design.
- Comment 8:** **One commenter was concerned that Mud Island was to be relocated north by as much as 300 feet.**
- Response 8:** No relocation of Mud Island was included in the application; however, a fishing pier is to be constructed at Mud Island.
- Comment 9:** **One commenter was concerned about the loss of shade from the trees being removed from the dam.**
- Response 9:** While shade is important to lower water temperature, dam safety and construction issues required the removal of trees from the old dam.
- Comment 10:** **One commenter was concerned with the storm water going into an area of 100-year floodplain where there are sanitary tank effluent pumping (STEP) system tanks. If the runoff mixes with the raw sewage that will affect the water quality downstream of the dam.**
- Response 10:** ODNR does not believe that the re-directed runoff will have an effect on the area such that the lift stations would be significantly more affected than usual.
- Comment 11:** **One commenter mentioned that the placement of the dam material into the lake caused accumulated silt on the lake bottom to be displaced to the surface which in turn fed the algae. A couple of commenters mentioned that the silt pile in front of the dam should be dredged for water quality and navigational safety concerns.**
- Response 11:** Dredging in front of the dam has been on-going from late spring of 2017 and will continue until November of 2017. Dredging will begin again in spring of 2018.
- Comment 12:** **One commenter provided a video of mud running into Buckeye Lake from neighboring farms and has a concern that chemicals are draining into the lake. Most commenters feel that fixing the water quality issues are more important than fish beds.**
- Response 12:** Noted. Please see the response for Comments Nos. 3 and 14.

- Comment 13:** One commenter was also concerned about the Portland cement and additives that were used in the dam construction.
- Response 13:** Materials that were used in the slurry wall are confined within the berm and should not affect water quality.
- Comment 14:** Since ODNR has taken further action since the (public) meeting, specifically redirecting millions of gallons of ground and surface water from Buckeye Lake annually, we feel (Ohio EPA) should either have another meeting or open this up for additional comment. ODNR earlier this week confirmed that they will be cutting all pipes over the 4-plus-mile dam area that allow water to flow into the lake. One pump alone from Parrish's farm pond pumps millions of gallons into the Lake annually, both ground and surface water. Depriving the lake of this water source will have a negative effect on water quality. This is one of the only sources of water we have in the summer months. Taking this source of water away will lead to more evaporation, less water, higher water temperatures, more stagnation in the summer and all of this will cause algae bloom and increased bacteria production in the Lake.
- Response:** ODNR's decision to no longer allow private storm water penetrations of the dam is not a recent or new decision. The U.S. Army Corps of Engineers (USACE) issued a report on March 11, 2015, following a year-long study of the Buckeye Lake Dam that identified serious problems with the dam that pose a significant risk to the public. The Report cites "unprecedented" man-made defects that led USACE to find a high likelihood of dam failure. These defects include more than 370 homes, pools, patios, utilities, drainage systems, and other structures that have been dug into the 4.1-mile earthen dam. The combined effect of these penetrations was a weakening of the dam that undermined its stability, increasing the likelihood that it would no longer be strong enough to hold back the pressure of the water behind it.
- It is ODNR's understanding that the private storm water runoff that was previously routed through the old dam from the West Bank Homeowners Association, Ballard Lane, and the Parrish property referenced in Mr. Baumann's comments would be re-directed to the Kirkersville feeder canal under a plan now being developed by Fairfield County officials. The

Kirkersville Feeder canal flows into Buckeye Lake. Therefore, under this locally initiated plan, the private stormwater from these sources previously routed to Buckeye Lake through the old dam would continue to be routed to Buckeye Lake via the Kirkersville feeder canal. This concept has the support of ODNR.

**End of Response to Comments**