



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

July 12, 2018

Geauga County Board of Commissioners
470 Center Street, Building 4
Chardon, OH 44024

Division of Water Resources
Rodney J. Tornes, Acting Chief
2045 Morse Road/Building B-3
Columbus, Ohio 43229
614-265-6620
dswc@dnr.state.oh.us

Certified Mail: 9489 0090 0027 6020 5426 32

RE: Burton Lake Dam
File Number: 1311-021
Geauga County

Dear Commissioners:

The Ohio Department of Natural Resources' Division of Water Resources has regulatory authority over dam safety in Ohio. Ohio Revised Code Section 1521.062 requires the owner of a dam to monitor, maintain, and operate the structure and its appurtenances safely in accordance with Ohio's dam safety laws. This section also allows the Chief of the Division to order the owner of any dam that is not safely maintained to perform such modifications, operational measures, or other actions necessary to safeguard life, health, or property.

Enclosed you will find Chief's Order Number 2018-102 ordering you to breach Burton Lake Dam due to serious safety concerns with the integrity of the dam's spillway. Should you fail to comply with the enclosed Chief's Order, please be advised that an enforcement action may be brought against you including, but not limited to, an action for injunction and civil penalties to enforce the Order and for violation of Ohio's dam safety laws.

The impoundment of Burton Lake Dam must be lowered and the dam must be breached to protect downstream areas from a potentially catastrophic dam failure. If you should have any questions regarding this Order or about dam safety in general, please contact Mia Kannik of the Division of Water Resources at 614-265-6404.

Sincerely,

A handwritten signature in blue ink that reads "Rodney J. Tornes".

Rodney J. Tornes, P.E.
Acting Chief
Division of Water Resources

RJT:tmg

CC: Gerard Morgan, P.E., Geauga County Water Resources
Cindy Frazzini, Deputy Legal Counsel, Ohio Department of Natural Resources
Brad Bales, Chief, Legislative Services, Ohio Department of Natural Resources
Mia Kannik, P.E., Program Manager, Division of Water Resources

Enclosure

ORDER
BY THE CHIEF
OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RESOURCES

Order Number 2018-102

TO: Geauga County Board of Commissioners
470 Center Street, Building 4
Chardon, OH 44024

RE: Burton Lake Dam
File Number: 1311-021
Gauga County

July 12, 2018

Pursuant to Ohio Revised Code (O.R.C.) Section 1521.062, the Chief of the Division of Water Resources (“the Division”) makes the following findings and issues the following Order to Judith D. Hook, Trustee.

FINDINGS

1. Geauga County Board of Commissioners (“the Owner”) is the owner of Burton Lake Dam (“the Dam”) located on a tributary to Bridge Creek in Geauga County, Burton Township, Ohio.
2. The Dam is a Class II structure pursuant to Ohio Administrative Code (O.A.C.) Rule 1501:21-13-01 based on the potential downstream hazard. Sudden failure of the Dam would result in flooding of high value property downstream of the Dam.
3. The Dam was originally constructed in 1952. The Dam failed due to overtopping erosion in 1976.
4. The Dam was inventoried by the Division on May 1, 1989. The first periodic inspection of the Dam was performed by the Division on June 6, 1990. The inspection found that the Dam was in very poor condition, lacked proper maintenance, and was not in compliance with Ohio dam safety laws. The report required the Owner to clear the embankment of trees and brush, hire a professional engineer to develop plans and specifications to increase the discharge/storage capacity, and to install a lake drain. No action was taken by the Owner.
5. On September 6, 1991, the Division was contacted by the Geauga County Soil and Water Conservation District to report severe seepage and undermining of the principal spillway. Division staff made a site visit on September 16, 1991, and found the dam in very poor condition. The Division issued an inspection report on September 23, 1991, requiring the Owner to hire a professional engineer to develop plans and specifications for the rehabilitation of the principal spillway or to render the dam non-hazardous by breach or modification. No action was taken by the Owner.

6. On July 21, 1997, the Division was again contacted by the Geauga County Soil and Water Conservation District to report severe seepage and undermining of the principal spillway. Division staff made an immediate site visit. The Owner was sent a site visit report on July 28, 1997, detailing the observations from the site visit and required remedial measures. The required items included lowering the lake water level and hiring a professional engineer to perform a geotechnical investigation of the dam and to develop plans and specifications to repair the damage. It also instructed the Owner to complete the repair and maintenance items listed in the 1991 Dam Safety Inspection Report.
7. The Owner hired MS Consultants who completed a geotechnical investigation on November 13, 1997, and issued a draft report on November 20, 1997. Included in the report were observations, remediation alternatives, and cost estimates. The report recommended clearing the embankment of trees and brush, installing an inverted rock filter downstream of the principal spillway, installing a lake drain, and altering the dam to meet the required discharge/storage capacity. In order to meet the required discharge/storage capacity, the report suggested raising the dam crest, installing overtopping protection on the dam, or breaching the dam.
8. An inverted rock filter was installed downstream of the principal spillway in April 1998.
9. On August 22, 2000, the Division performed a periodic inspection of the Dam. The report required the Owner to clear the dam of trees and brush; investigate the integrity of the principal spillway and submit plans and specifications to repair the spillway; bring the dam's discharge/storage capacity into compliance with Ohio's dam safety laws; and install a lake drain. No action was taken by the Owner.
10. On July 13, 2006, the Owner submitted an Emergency Action Plan. The Emergency Action Plan was approved by the Division on December 8, 2006.
11. The Division received a phone call from the Geauga County Sanitary Engineer on February 28, 2011, informing that the Dam was overtopping and that the Emergency Action Plan had been activated. Division staff made a site visit on March 1, 2011 to survey the damage. It was noted at this site visit that the dam had been cleared of trees and brush.
12. On April 24, 2012, the Division performed a periodic inspection of the Dam. The report required the Owner to hire a professional engineer to prepare plans and specifications to increase the discharge/storage capacity, investigate the integrity of the principal spillway system and prepare plans and specifications for the repair or replacement of the spillway, and install a lake drain.
13. On March 26, 2013, the Owner approved a proposal from Hess & Associates Engineering Inc. to perform a preliminary study and prepare a cost estimate for necessary improvements to the dam. The preliminary report submitted to the Division in June 2014 included a hydrologic and hydraulic study. A revised hydrologic and hydraulic study was approved by the Division on December 9, 2014. A report detailing the necessary improvements and the associated costs was never received by Division. No action was taken by the Owner.

Burton Lake Dam
July 12, 2018

14. On May 3, 2017, the Division performed a periodic inspection of the Dam. The report required the Owner to hire a professional engineer to prepare plans and specifications to increase the discharge/storage capacity, investigate the integrity of the principal spillway system and prepare plans and specifications for the repair or replacement of the spillway, and install a lake drain device.
15. On June 27, 2018, the Division received a call from a downstream home owner reporting cloudy flow in the channel at the principal spillway outlet. Division staff made a site visit on June 28, 2018. The Division recommended the Owner install an inverted rock filter downstream of the principal spillway outlet over the area of cloudy flow and monitor the outlet channel every six hours. The Owner installed the inverted rock filter on June 29, 2018.
16. On July 2, 2018, the downstream home owner again called the Division to report cloudy flow in the channel at the principal spillway outlet where the inverted rock filter had been placed.

ORDER

The Owner shall perform the following remedial measures judged by the Chief as necessary to safeguard life, health, and property:

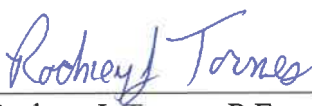
The Owner shall breach the Dam by performing the following measures:

1. By July 16, 2018, retain the services of an Ohio registered professional engineer.
2. By July 23, 2018, submit an acceptable schedule for the permanent breach of the Dam.
3. By August 6, 2018, submit engineered plans for the permanent breach of the Dam.
4. By August 27, 2018, complete construction to permanently breach the Dam.

It is so Ordered.

This Order is issued under the authority granted to me by O.R.C. Section 1521.062.

7-12-18
Issue Date



Rodney J. Tormes, P.E.
Acting Chief
Division of Water Resources

NOTICE OF APPEAL RIGHTS

Pursuant to Chapter 119 of the Ohio Revised Code, you are hereby notified that you may request an administrative hearing regarding this Order. Any such request must be submitted in writing within thirty (30) days of the mailing date of this Order. Please note that this Order is being mailed to you on July 12, 2018. Requests for a hearing must be addressed to:

Chief, Division of Water Resources
Ohio Department of Natural Resources
2045 Morse Road, Building B-3
Columbus, Ohio 43229-6693

In the event that a request is made, at the hearing you may appear in person, be represented by your attorney, or be represented by such other representatives as are permitted to practice before the agency, or you may present your position, arguments or contentions in writing. At the hearing, you may present evidence and examine witnesses appearing for and against you.
