

ROY COOPER  
Governor

ELIZABETH S. BISER  
Secretary

DOUGLAS R. ANSEL  
Interim Director



## **NOTICE OF INSPECTION**

January 25, 2023

Joyce Hennings Ross, Ashley Gaye and Other Hennings  
6403 Olympic Court  
Greensboro, NC 27410

RE: McNeil Pond Dam  
Moore-181  
Moore County, North Carolina  
Lumber River Basin

Dear Madam(s) and/or Sir(s):

The Dam Safety Law of 1967, as amended, provides for the certification and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of such dams; to prevent injuries to persons, damage to property; and to insure the maintenance of stream flows.

Our records indicate you are the owner of the referenced dam, which is located off State Road 2175. This dam was inspected on January 24, 2023, by personnel of the Division of Energy, Mineral and Land Resources (DEMLR). This inspection revealed the conditions outlined below:

1. Trees, bushes and cut debris were observed on the dam. This type of growth and/or debris can cause problems and even failure of the dam by creating holes when trees are uprooted due to wind or ice; by creating habitat for burrowing wildlife; by leaving possible seepage holes when trees die and their roots decay; and by causing erosion of the dam around this growth should the dam overtop during heavy rains. Therefore, we recommend that this type of growth be removed to a distance of about one-half the dam height beyond the downstream toe and a good grass cover be established.



North Carolina Department of Environmental Quality | Division of Energy, Mineral and Land Resources  
Fayetteville Regional Office | 225 Green Street, Suite 714 | Fayetteville, North Carolina 28301  
910.433.3300

All trees, brush debris and woody vegetation must be removed from the slopes and crest of the dam embankments and the emergency spillway areas. All trees and/or brush less than six inches in diameter at breast height may be removed either by excavation or cutting flush to the ground. All trees larger than six inches in diameter at breast height must be completely removed by excavation, including roots, and the resulting excavations properly backfilled with select fill. All disturbed areas must be immediately revegetated with a good cover of grass adequate to prevent surface erosion. Excavation and backfilling required for tree removal will require engineered plans to be submitted to Dam Safety for review and approval before removal may proceed. FEMA 534 "Technical Manual for Dam Owners, Impacts of Plants on Earthen Dams" should be used as guidance.

2. Portions of the principal spillway riser/barrel conduit have deteriorated and a large depression/void has been previously observed at the location of the riser remnants which was submerged during our recent site visit. The impoundment appears to drain through remnants of the remaining barrel section and typically is operated in a lowered condition. The siphon system was not active and appeared to have been dismantled. The dam was impounding about two (2) feet above the typical lowered operating/base flow levels previously observed.

We recommend you retain the services of licensed professional engineer. Any repairs, controlled breaches, or modifications to the dam must be performed under the supervision of licensed engineer and approved by our office prior to initiating any work on the dam.

3. We have not identified a current EAP in our records for this dam. An updated emergency action plan (EAP) is required for intermediate- and high-hazard dams that includes checking the downstream hazards and verifying all contact information. Two copies of the EAP shall be submitted to DEMLR and a copy shall be provided to the local emergency management office. North Carolina has recently completed and adopted an EAP template for owners of high hazard dams. The template and associated guidance can be obtained by visiting the Dam Safety Programs website at <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/dam-safety>.

The following items pertinent to maintenance and operation are also recommended as may be or become applicable to this dam.

1. Maintain a ground cover sufficient to restrain accelerated erosion on all earthen portions of the structure.
2. Periodically remove trees less than about six inches in diameter and thick undergrowth from the slopes and crest of the dam. This will serve to (A) prevent the formation of a root system which might significantly increase seepage through the dam which could ultimately result in failure of the structure, (B) reduce the possibility of damage to the dam due to the uprooting of trees by wind or other

natural causes, and (C) facilitate ease of inspection and increase the likelihood of early detection of more serious problems connected with the dam.

3. Periodically remove all trees from the emergency spillway. This will reduce the possibility of its capacity being reduced by the entrapment of debris, should it become active.
4. Periodically check the operation of all drain valve facilities. This will insure satisfactory operation of the drains should an emergency situation arise.
5. Periodically monitor the subject dam and appurtenant works with respect to elements affecting its safety and maintain the dam in a drained condition. This is in light of the legal duties, obligations, and liabilities arising from the ownership and/or operation of a dam.

During this inspection we also investigated the potential for property damage and loss of life in the event that your dam fails. This investigation determined that failure of your dam could result in severe property damage and/or possible loss of life downstream. Therefore, we are listing your dam in the "High Hazard" category.

We understand that you and/or the previous owner(s) have been coordinating with engineer(s) regarding the repair and/or breach of the dam. We are requesting that you provide written correspondence to our office regarding the status of these activities by March 31, 2023. The reservoir should be operated in a drained condition until authorization to impound has been provided by this office. The engineer selected should be able to demonstrate a history of successful projects involving dam construction or repair and have had experience in gaining approval from DEMLR for such projects. For assistance, feel free to contact a member of the Dam Safety Program at (919) 707-9220.

Please note that any repair, modification, or permanent breach of your dam will require prior approval from the Division of Energy, Mineral, and Land Resources (DEMLR) under the Dam Safety Law of 1967 (NCGS §143-215.23). Essentially, the Dam Safety Law requires dam owners to submit plans prepared by a legally qualified professional engineer for review and approval by DEMLR. The engineer's design and application submittal must meet the requirements of Title 15A Subchapter 2K of the North Carolina Administrative Code, which sets out minimum design standards for dams under the jurisdiction of the Dam Safety Law to protect the downstream public from the consequences of dam failure.

Please be advised that though we make every reasonable effort to determine the safety of your dam, our resources limit us to surficial inspection. There is no certainty regarding the internal stability of the dam. Dams, and especially their spillways and conduits, deteriorate with age. Therefore, you are advised to keep a close watch on your dam and to notify us if you detect any changes, especially cracks, ground movements, or changes in seepage rate or color.

**Tropical Storm Season Dam Safety Preparedness Guidance**

As a result of previous historic tropical storm activity and severe flooding experienced in North Carolina, we are recommending that dam owners lower normal operating levels (NOL) of their impoundments between June and November. Lowering of operating levels is typically accomplished by operating drain, pump and/or siphon systems. Drawdown rates should not exceed one (1) vertical foot per day unless otherwise approved by this office and/or the dam's current engineer(s) of record. Your efforts are intended to assist in providing storage capacity as well as additional protection against your dam overtopping. As suggested guidance, we recommend the following schedule of minimum drawdown levels:

**By August:** NOL lowered by at least one (1) foot  
**By September:** NOL lowered by at least two (2) feet

Notification and coordination efforts should be conducted in advance with all potentially affected upstream and downstream parties. To the maximum extent practical, discharges from separate facilities located on the same flooding source should not be concurrent, but rather staggered, in an effort to minimize potential cumulative downstream impacts. Reservoir releases should target periods of dry weather and be conducted prior to peak tropical storm season (i.e., August through September) to the extent practical.

Additional site-specific measures, including adjustment of the impoundment operating level(s), should be coordinated with the engineer(s) of record and/or local emergency response/regulatory personnel based on current and/or anticipated conditions. Please note that lowering of impoundment levels also offers an opportunity to perform lake edge and dock/spillway maintenance. On behalf of the State of North Carolina, we sincerely appreciate your efforts toward tropical storm season preparedness.

Your cooperation and consideration toward maintaining a safe dam is appreciated. If ownership of the dam has changed, or if you are not responsible for the dam, please notify us so that we can update our records. Please be sure to provide the requested correspondence regarding a status update pertaining to the dam by March 31, 2023. If we do not hear from you, additional enforcement measures may be pursued. Should you have any questions concerning our inspection, please contact Mr. Nick Mills at (910) 433-3300.

Sincerely,



Timothy L. LaBounty, P.E.  
Regional Engineer  
DEMLR

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CC: Fayetteville Regional Office File