COMMONWEALTH of VIRGINIA

Department of Wildlife Resources

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GARDY'S MILLPOND DAM FAILURE
May 2025

Background: Gardy's Millpond is located in Westmoreland and Northumberland counties. It is a 75-acre shallow pond, averaging about 4 feet in depth. Its embankment is reported to have been built approximately 100 years ago and is 10 feet tall and constructed of earth. The dam embankment is about 450 feet long and has a crest width of about 20 feet. The maintenance of Gardy's Millpond Dam was assumed by the Virginia Department of Wildlife Resources (DWR) in 1969 and 1970, and the dam was most recently inspected in September 2024 by a third-party consulting engineering firm. The dam is classified under the Virginia Dam Safety Act and related dam safety regulations as a "low hazard" structure. "Low hazard" dams are ones that, upon failure, would lead to no expected loss of life or significant economic damage. The dam was breached in 1985 during Hurricane Bob, and a new emergency spillway was constructed at that time. In 2005, a piping condition on the west abutment of the spillway was addressed and associated road repairs were made.

2025 Breach: On May 10, DWR was notified of a possible breach of the Gardy's Millpond Dam by VDOT. The dam itself is located in Northumberland County on Hampton Hall Branch, a tributary of Yeocomico River, which flows into the Potomac River. DWR staff were immediately dispatched to the site and observed erosion occurring around a box culvert emergency spillway on the dam. DWR notified the state dam regulatory authority, the Virginia Department of Conservation and Recreation (DCR), and began efforts to lower the upstream reservoir surface elevation below that of the breach to limit further damage to the dam. On May 11, DWR issued emergency declarations for the imminent failure of the dam. DWR also closed the public boat ramp located at the pond and advised the public to stay clear and not recreate on the water.

A VDOT-maintained secondary road, Route 617, passes along the embankment crest and over the two spillways (primary and emergency). The road was closed on May 10 and will remain closed until a long-term solution is implemented. No time estimate regarding the reopening of the road is available currently. DWR is working closely with DCR, VDOT, and local authorities to minimize impacts to the public.

Interim Stabilization: The breach of the Gardy Millpond Dam is a potential risk to public safety and downstream property. Emergency measures have been taken to stabilize the dam and prevent further damage. DWR carefully coordinated work at the dam with its consulting engineering team (Hurt & Proffitt) and the DCR Dam Safety Division. The primary purpose of this emergency work was to stabilize the dam and prevent further breach activity. The emergency stabilization activities involved cutting a channel through the embankment near the auxiliary spillway to relieve hydraulic pressure and prevent additional breaches and sealing the existing piping breach to stop further erosion and seepage.

Long-term Resolution: At present, DWR has evaluated several options regarding rehabilitation of the dam. Importantly, because of its age, the dam spillway does not meet current dam safety requirements for flood passage and would need considerable work to ensure compliance with requirements to pass 100-year storm events. Additionally, modeling efforts completed by DWR and partners have demonstrated that this area of Northumberland County will likely experience sufficient sea level rise over the next 30-50 years that the dam will be regularly overtopped by high tides from the downstream side within that timeframe. As such, elevational changes would be needed to prevent more significant environmental impacts to the structure and the resulting freshwater lake. Very preliminarily, DWR has identified the following:

Option 1: Leave the dam and site in its current state with the previous interim repairs. This option would not involve any additional cost.

Option 2: Leave the dam in its current condition, extend the boat ramp, and add a boardwalk for wildlife viewing or fishing opportunities. This option would cost approximately **$1.8 million** and restore public access to the site in its current state.

Option 3: Rebuild the dam to current Virginia dam safety requirements without the road. This option would refill the pond to full pool and return access to the site but not re-establish the road. This option's cost is estimated at approximately **$6.4 million. ***

Option 4: Rebuild the dam to current Virginia dam safety requirements with the road. This option would return the pond to full pool and return road access across the dam. This option's cost is estimated at approximately **$7.7 million. ***

*These costs are just estimates based on preliminary design parameters. Unknowns such as site conditions, increase in materials cost, historic resource remediation, and land control issues related to the larger footprint of the dam could increase these costs.

At present, DWR has not identified any funding sources to support implementation of a long-term solution.

Next Steps:

Additional comments for the options above will be accepted until **June 15, 2026,** by John Kirk DWR Capital Programs Manager at john.kirk@dwr.virginia.gov