



DAM SAFETY
POLICY MEMORANDUM #11

TO: Dam Owners, Operators, and Engineers

FROM: Sediment, Stormwater, and Dam Safety Program
Water and Science Administration

DATE: July 29, 2019

SUBJECT: Activities Not Requiring a Dam Safety Permit

Policy Statement

It is the policy of the Maryland Department of the Environment (the Department) that normal maintenance activities at dams, reservoirs and their appurtenant works is encouraged and demonstrates responsible ownership of said structures. Accordingly, certain maintenance activities as described in this document are considered exempt from the requirement to obtain a permit from the Department's Dam Safety Division. This exemption does not relieve the dam owner from the requirement of obtaining any other necessary local, State, or federal permits. This policy supplements all other design requirements for construction of dams and impoundments.

Background

In accordance with the Annotated Code of Maryland, Environment Article, §5-503:

“A person shall obtain a permit from the Department to construct, reconstruct, or repair any reservoir, dam, or waterway obstruction, to make, construct, or permit to be made or constructed any change or addition to any reservoir, dam, or waterway obstruction, to make or permit to be made any change in, addition to, or repair of any existing waterway obstruction, or in any manner to change in whole or part the course, current, or cross section of any stream or body of water within the State, except tidal waters. The permit is obtained upon written application to the Department.

A Waterway Construction Permit issued by the Department's Dam Safety Division is required when repairing a dam. The purpose of this memorandum is to distinguish normal maintenance that does not require a permit from repairs.

The local soil conservation districts and other approval authority may elect to also adopt this policy, when the proposed activities apply to small ponds (as provided in COMAR 26.17.04.05G).

Eligible Maintenance Activities

The following activities may be performed without the need for a dam permit/approval. Note that earth disturbance in excess of 5,000 square feet or 100 cubic yards requires sediment control approval from the sediment control approval authority:

- 1) **Removing debris blocking spillways, intake areas, and channels** by manual or mechanical means. Debris includes woody materials such as branches and tree trunks, floating objects, beaver dams, and similar materials that can block spillway discharges. Access to the site by mechanical construction equipment shall be limited to traveling on existing access roads, on the dam itself, or through uplands as much as is possible. Access through wetlands may require prior approval or permitting. Debris shall be disposed of properly.
- 2) **Removal (in the dry) of accumulated sediment from forebays and areas near low-flow orifices.** The removal of sediment is necessary to maintain the normal function of the dam. This does not include flushing accumulated sediment downstream through outlets or large scale pond dredging. Access to the site by mechanical construction equipment shall be limited to traveling on existing access roads, on the dam itself, or through uplands as much as is possible. Access through wetlands may require prior approval or permitting. Debris shall be disposed of properly.
- 3) **Replacement of elastomeric sealant in construction joints.** Work includes removal and proper disposal of old sealant and replacement with appropriate material designed for use within construction joints in concrete portions of the dam.
- 4) **Maintenance of existing internal drain systems and repairing or installing seepage measurement devices.** Maintenance of toe drains includes flushing, clearing, and removal of materials clogging the drains. This includes installing seepage measurement weirs or outfalls that facilitate seepage flow rate measurement at outlets of existing toe drains. This does not authorize installation of new toe drain systems.
- 5) **Exercising and maintenance of gates and valves** including applying grease to mechanical parts, and adjusting bushings, brackets, stems, and operators. The exercising procedure should be limited to opening the valve followed by closing it shortly afterwards to minimize the flushing of excess amounts of sediments downstream, to prevent lowering of the impoundment, and to prevent unannounced high flow conditions downstream. This does not authorize removal and installation of gates and valves.
- 6) **Replacing up to ten (10) square yards of missing and storm scoured riprap** on dams, along embankments, and within spillway discharge channels. Authorization includes adding new riprap only in areas where riprap already exists and includes moving displaced riprap back to its original location. Replacement riprap shall not be smaller in size than the existing riprap. This does not authorize placing riprap in new areas. Authorization does not include restoration of undersized or improperly installed riprap that is displaced by more frequent high flow events, occurring more than once per year. Access to the site by mechanical construction equipment shall be limited to traveling on existing access roads, on the dam itself, or through uplands as much as is possible. Access through wetlands may require prior approval or permitting. Debris shall be disposed of properly.

- 7) **Cutting and removing grass and limited woody vegetation on dams**, including brush and trees, from the top, the upstream and downstream embankment slopes, and around the embankment and spillway as indicated in Policy Memorandum #1 “Maintenance and Repair: Trees and Woody Vegetation.” This does not authorize excavations to remove rootballs of trees removed in accordance with Policy Memorandum #1, only flush cutting and debris removal. Access to the site by mechanical construction equipment shall be limited to traveling on existing access roads, on the dam itself, or through uplands as much as is possible. Access through wetlands may require prior approval or permitting. Debris shall be disposed of properly.
- 8) **Restoration of grass cover** where appropriate, on the top of a dam, the upstream and downstream embankment slopes, the dam abutments, and to within 25 feet of the downstream toe of the dam and abutments. This includes placing topsoil, seed, and hay mulch to repair tire ruts, footpaths, and bare areas. Authorization to restore erosion caused by overtopping of the dam’s earthen embankment or to fill a sinkhole or depression in the embankment is not included, as these anomalies must be properly investigated by a professional engineer.
- 9) **Filling of animal burrows in downstream slopes only** where the burrow is dry and vacated by the animal. A maximum of ten (10) burrows annually may be filled. The maximum burrow depth allowed to be filled under this authorization is three (3) feet. The burrow must be refilled with properly compacted suitable embankment fill of similar particle size gradation to the soil of the embankment in the area of the burrow, or with a mudpack mixture (slurry of soil, cement, and water). The filling may be done by hand only, without use of heavy excavation equipment. The work must include topsoil and establishing grass cover or bedding and matching size riprap if the area was riprapped.
- 10) **Limited Repairs to concrete and masonry allowed each year.** Repair amounts that exceed the limits specified herein must obtain a permit. The following repair activities may be conducted each year to the limits and extents indicated:
 - a) **Patching of spalling on and sealing of concrete surfaces done by hand.** A maximum of ten (10) square feet of repairs not requiring reinforcing steel is allowed annually. The maximum repair depth allowed under this authorization is one (1) inch.
 - b) **Repair of cracks in concrete.** Filling of cracks occurring in concrete portions of the dam with an appropriate repair material. Total crack length repaired annually shall not exceed ten (10) feet. This shall not include pressure grouting or epoxy injection.
 - d) **Repointing** voids and repairing masonry including brick work on the dam’s upstream face, downstream face, crest, and appurtenant structures such as training walls, wing walls, headwalls, and endwalls. This does not authorize demolition and re-construction. Repointing and repairing masonry located on the downstream face of the dam is authorized only where the downstream masonry of the dam or spillway is already mortared and the masonry is not discharging seepage, or where a system to safely discharge seepage reaching the downstream masonry face of the dam is in place and is maintained. A maximum of 1/8 cubic yard of mortar is allowed for the dam per year.

Oversight and Reporting Requirements

The dam owner shall document the areas of the dam where the proposed maintenance activities will be taking place. Photographs taken of the conditions before, during, and after the maintenance activity and which include the time and date stamp can often satisfy this requirement. Sketches and diagrams showing dimensions and computations may also be required to properly quantify and document the activities. This documentation should be retained in the owner's permanent file for the dam.

Within 30 days of the completion of activities authorized, the dam owner shall provide a concise report of the completed work to the dam to the Dam Safety Division. This report also responds to maintenance recommendations contained in inspection reports issued by the Dam Safety Division. The report shall include appropriate narrative descriptions, sketches and diagrams, and photographs taken of the work.

Conditions of this Policy Memorandum

Persons undertaking activities authorized in this policy memorandum shall assure that those activities are conducted in accordance with the following conditions:

- 1) The bed and banks of the waterway shall be disturbed as little as possible. Following initial soil disturbance or redistribution, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading. Should construction be interrupted or delayed for more than seven (7) days implement temporary measures to prevent soil erosion during that period.
- 2) Install and maintain in optimal condition erosion and sediment controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. All erosion and sediment control practices used during construction shall be designed and constructed in accordance with the 2011 Maryland Standards and Specifications for Erosion and Sediment Control or an approved equivalent. The discharge of untreated sediment laden waters is strictly prohibited.
- 3) Instream construction in Use I waters is prohibited between the dates of March 1st and June 15th, inclusive, of each calendar year.
- 4) Instream construction in Use II waters is prohibited between the dates of February 15th and June 15th, inclusive, of each calendar year.
- 5) Instream construction in Use III waters is prohibited between the dates of October 1st and April 30th, inclusive, of each calendar year.
- 6) Instream construction in Use IV waters is prohibited between the dates of March 1st and May 31st, inclusive, of each calendar year.

- 7) Spoil material/debris shall be disposed of outside the floodplain. All material and solid waste generated during any construction associated with such activity shall be staged and managed in accordance with applicable Federal, State and local laws.
- 8) Any temporary excavation or filling within the stream channel or floodplain shall be restored to the elevation existing prior to construction.

Additional Information

Questions about this policy or other items relating to ponds and dams can be directed to the Chief of the Dam Safety Division at 410-537-3538.