

Department of Legislative Services
Maryland General Assembly
2017 Session

FISCAL AND POLICY NOTE
Enrolled - Revised

House Bill 125

(Chair, Environment and Transportation Committee)(By
Request - Departmental - Environment)

Environment and Transportation

Education, Health, and Environmental Affairs

Environment - Emergency Action Plans for Dams

This emergency departmental bill requires an owner of an existing dam, except as specified, to submit an emergency action plan (EAP) to the Maryland Department of the Environment (MDE) for approval by August 1, 2017, if the dam (1) has the potential to cause the loss of human life or substantial property damage in the event of a structural failure and (2) has been designated or verified by MDE as a high hazard or significant hazard dam (as defined in regulations). A person proposing to construct a dam must submit an EAP with an application for a permit to construct the dam, except as specified. The bill (1) establishes the required contents of an EAP; (2) establishes additional requirements for affected dam owners; and (3) authorizes MDE to adopt implementing regulations. The bill also establishes an exemption to the current requirement that MDE charge an owner of any reservoir, dam, or similar waterway construction for any repairs that MDE makes on the owner's behalf for an owner who demonstrates an inability to pay. The bill establishes the intent of the General Assembly that MDE work with an owner who is unable to pay for the needed work to pursue cost-effective market-based solutions that address needed work and consider establishing a dam safety repair and removal program.

Fiscal Summary

State Effect: Potential minimal increase in special fund revenues from the application of existing penalties to violations of the bill. MDE can likely implement the bill's requirements with existing budgeted staff and resources, as discussed below.

Local Effect: Potential significant increase in expenditures for any local jurisdiction that owns a dam and must develop and maintain an EAP as a result of the bill. Local revenues are not affected. **This bill may impose a mandate on a unit of local government.**

Small Business Effect: MDE has determined that this bill has minimal or no impact on small business (attached). The Department of Legislative Services (DLS) disagrees with this assessment as discussed below. (The attached assessment does not reflect amendments to the bill.)

Analysis

Bill Summary: An EAP must contain (1) a description of the dam, including its hazard classification; (2) maps of areas downstream that may be affected by a structural failure or other emergency; (3) a list of agencies and individuals responsible for monitoring weather and operating conditions at the dam during emergencies; (4) detailed operating procedures relating to an emergency; (5) notification procedures to alert jurisdictions, businesses, and people who may be affected by a dam failure or other emergency; (6) a list of emergency management resources and equipment that may be needed in the event of an emergency; and (7) any another additional information required by MDE.

An EAP must be updated annually and submitted to MDE for approval by May 1 of each year. On approval by MDE, the dam owner must provide copies of the EAP to appropriate State and local emergency management agencies. In addition, a dam owner must (1) conduct a functional exercise or test of the approved EAP at least once every five years and (2) report the results in the annual EAP update submitted in that year.

The bill does not apply to a dam licensed by, and subject to the jurisdiction of, the Federal Energy Regulatory Commission (FERC) if the owner (1) submits a copy of the existing EAP to MDE by August 1, 2017, and (2) sends MDE a copy of any update to the EAP within 30 days after filing the update with FERC.

Under current law, MDE may have work completed at the expense of an owner of a reservoir, dam, or similar waterway construction to address safety concerns. MDE is required under current law to charge the owner for these expenses. Under the bill, MDE is not required to charge the owner if the owner demonstrates an inability to pay, as determined by MDE.

It is the intent of the General Assembly that, if MDE determines that a reservoir, dam, or similar waterway is unsafe, needs repair, or should be removed for safety reasons, and the owner is unable to pay for the required repairs or removal, MDE must (1) work with the owner to pursue cost-effective market-based solutions such as nutrient and sediment credit generation that address the needed work and (2) consider establishing a dam safety repair and removal program to assist an owner in funding the needed work.

Current Law/Background: MDE's Dam Safety Program is responsible for regulating the design, construction, operation, and maintenance of dams in Maryland to prevent dam failures and the consequences of failure. MDE conducts inspections based on hazard classes of dams; issues permits for construction, repairs, and modifications; conducts construction inspections; and works with dam owners and emergency management professionals to develop and exercise an EAP in the event of a dam failure.

MDE has the authority to issue an injunction against a person who violates Title 5, Subtitle 5 of the Environment Article (Appropriation or Use of Waters, Reservoirs, and Dams), and a violator is liable for a civil penalty of up to \$5,000 per violation; each day is a separate violation. Before bringing a civil action against a local government, MDE must meet and consult with the local government to seek an alternative resolution to the contested issue. Criminal penalties also apply. All funds collected by MDE under these enforcement provisions are deposited into the Maryland Clean Water Fund. Under specified circumstances, MDE also has the authority to conduct work, completed at the expense of an owner of a reservoir, dam, or similar waterway construction, for public safety reasons. MDE must charge an owner for this expense and may bring an action in the proper court to recover any expenses if repayment is not made in a timely manner.

Although MDE has broad authority regarding permitting for construction, repairs, and dam modifications, MDE only has statutory authority to compel development and maintenance of an EAP for those dams that require a permit from MDE. MDE provides online models of EAPs and urges all dam owners to develop and maintain EAPs, but, according to MDE, owners who are not required to create an EAP often do not do so. Further, many of the owners who voluntarily create a plan do not maintain it over time. MDE notes that the Federal Emergency Management Agency (FEMA) published national guidelines for dam safety in 2007 and recommended that states establish statutory requirements for dam owners to develop and periodically update EAPs. MDE advises that the bill fulfills FEMA's recommendation.

There are nearly 500 active dams in Maryland. Of those active dams, 82 are classified as a Category I, or a high hazard. According to MDE, failure of a Category I dam would likely result in loss of human life and extensive property damage or cause flooding of major highways and roads. Additionally, 122 dams are classified as Category II, or significant hazard. Failure of a Category II dam could possibly result in loss of human life and cause significant flood risks to downstream buildings and roads.

FERC's Office of Energy Projects regulates both the construction and operational phases of dams used in hydropower projects. Before a project is constructed, FERC reviews and approves the designs, plans, and specifications of dams, powerhouses, and other structures. During construction, FERC frequently inspects a project, and FERC continues to inspect projects on a regular basis after construction is complete. Additionally, FERC conducts

engineering evaluations and studies, independent consultant report reviews, EAP development and testing, engineering guidelines development, and participation in interagency and industry committees. Hydropower projects under FERC's jurisdiction are required to develop an EAP and update the plans annually. Once notified of a significant discrepancy in an EAP that would have an adverse impact on the emergency response to a dam-safety incident, a licensee is required to make the necessary changes and update the EAP within 30 days.

State Fiscal Effect: Although the bill creates an exemption for repayment of specified work completed by MDE on behalf of the owner of a reservoir, dam, or similar waterway construction, this exemption is not anticipated to have a material fiscal effect on MDE because (1) even under current law, not all owners are able to pay and MDE is not fully reimbursed for all of the work it undertakes and (2) the bill requires MDE to work with affected owners to pursue cost-effective market-based solutions that address the needed work. However, the bill could result in a decrease in reimbursements provided to MDE.

The Department of Legislative Services also notes that the bill requires MDE to *consider* establishing a dam safety repair and removal program to assist an owner of a reservoir, dam, or similar waterway construction who is unable to pay for needed work in funding the needed work. MDE advises that it does not have immediate plans to establish such a program. Because the bill does not require MDE to establish a dam safety repair and removal program, and because it is unknown whether or not MDE ultimately chooses to establish such a program, any costs to do so have not been accounted for in this analysis. It is assumed that any such program would be funded through the capital budget.

Local Expenditures: MDE advises that the costs associated with developing an EAP can range from minimal to tens of thousands of dollars, depending on a dam's size and the number of residents, buildings, and other infrastructure downstream. To the extent that a local government owns an affected dam and does not have a qualifying EAP already in place, there is a potential significant increase in expenditures to develop and maintain a plan.

Although the bill establishes a statutory exemption to the requirement to pay for work conducted on MDE's behalf due to inability to pay, this occurs in practice even under current law. Thus, this provision is not anticipated to have a meaningful effect on local governments. However, to the extent that a local government is able to take advantage of the bill's exemption, local expenditures may decrease.

Small Business Effect: As stated in MDE's analysis of economic impact on small businesses, the costs associated with developing an EAP can range from minimal to tens of thousands of dollars. MDE also reports that small businesses that conduct engineering and modeling services to support the development of EAPs may benefit from an increase in the

demand for their services. While DLS concurs with the potential impacts that MDE notes, DLS disagrees with MDE's rating of "minimal or no economic impact on Maryland small businesses." To the extent that a small business owns an affected dam and does not have a qualifying EAP already in place, there is a potential meaningful increase in expenditures to develop and maintain a plan.

Although the bill establishes a statutory exemption to the requirement to pay for work conducted on MDE's behalf due to inability to pay, this occurs in practice even under current law. Thus, this provision is not anticipated to have a meaningful effect on small businesses in the State. However, to the extent that a small business owner is able to take advantage of the bill's exemption, expenditures may decrease.

Additional Comments: DLS advises that, to the extent the bill reduces the chances of dam failures in the future, the bill may reduce future costs that otherwise would be incurred by the State, local governments, and other entities. While any such impact is unknown, MDE reports that the consequences of dam failure can result in tens of millions of dollars in costs.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland Department of the Environment; Department of Natural Resources; Federal Energy Regulatory Commission; Department of Legislative Services

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ANALYSIS OF ECONOMIC IMPACT ON SMALL BUSINESSES

TITLE OF BILL: Environment-Emergency Action Plans for Dams

BILL NUMBER: HB 125

PREPARED BY: Department of the Environment

PART A. ECONOMIC IMPACT RATING

This agency estimates that the proposed bill:

WILL HAVE MINIMAL OR NO ECONOMIC IMPACT ON MARYLAND SMALL BUSINESS

OR

WILL HAVE MEANINGFUL ECONOMIC IMPACT ON MARYLAND SMALL BUSINESSES

PART B. ECONOMIC IMPACT ANALYSIS

Some small businesses that own dams will be affected by this bill. Companies which own “high” or “significant” hazard dams will either use existing staff to develop and update Emergency Action Plans (EAPs), or hire consultant services to do so. Depending on a structure’s size and the number of residents, buildings, and other infrastructure downstream, costs associated with EAPs can range from minimal if existing staff are used to tens of thousands of dollars. These costs are not nearly as significant as those that can result from a dam failure, which can result in tens of millions of dollars of costs.

Small engineering businesses will benefit from this bill. A major component of all EAPs is a “danger reach” map or a graphic depiction of the area of inundation during dam failures caused by various intensity storm events. This requires engineering judgment and modeling. Small consulting engineering firms may see an increase in business.