



**House
Legislative
Analysis
Section**

Manufacturer's Bank Building, 12th Floor
Lansing, Michigan 48909
Phone: 517/373-6466

DAM SAFETY

Senate Bill 242 (Substitute H-2)
Senate Bill 243 as introduced
First Analysis (11-13-89)

RECEIVED

DEC 19 1989

Sponsor: Sen. Vern Ehlers
Senate Committee: Natural Resources and
Environmental Affairs Mich. State Law Library
House Committee: Conservation, Recreation, &
Environment

THE APPARENT PROBLEM:

Public Act 184 of 1963 regulates the construction of dams in Michigan, but many people believe that it is inadequate to protect the health and safety of individuals, the structural integrity of dams, and the preservation of natural resources. They argue that, since Public Act 184 regulates only the construction and reconstruction of dams (and not their repair, maintenance, and operation), does not require specific inspection schedules, and does not adequately protect natural resources, it should be replaced with a comprehensive new statute to regulate dam construction, repair, alteration, removal and operation as well as to provide sufficient regulatory oversight of the operation of dams by requiring inspections, and specifying violations and penalties and financial remedies for damages due to violations.

THE CONTENT OF THE BILLS:

Senate Bill 242 would create the Dam Safety Act to regulate the construction, reconstruction, repair, abandonment and operation of dams and to provide for the protection of the natural resources and the public trust regarding the operation of dams. The bill would also repeal Public Act 184 of 1963 which currently regulates the construction, operation, and inspection of dams. The bill retains portions of the current law; major changes are detailed below.

DNR jurisdiction. The bill would specify that dams and impoundments would be regulated under the jurisdiction of the Department of Natural Resources (DNR). However, it would exclude from regulation projects regulated under the federal Power Act or under the supervision of the United States Army Corps of Engineers and impoundments licensed under the Solid Waste Management Act that contained or were designed to contain type III wastes.

The bill would prohibit the construction, enlargement, repair, reconstruction, alteration, removal or abandonment of any dam except as provided under the bill. However, maintenance that did not affect the structural integrity of the dam would not be restricted under the bill. Preparation of plans and specifications, with the exception of minor projects, would have to be done by licensed professional engineers. The current act does not make exceptions for minor projects.

Nonprofit organizations. Persons other than licensed professional engineers could prepare plans and specifications only for repairs or alterations to a dam if the application was made by a nonprofit organization. This provision would cover nonprofit organizations with assets of less than \$30,000 that were exempt from taxation under section 501(c)(3) of the Internal Revenue Code and were not composed primarily of the owners of property adjacent

to or contiguous to an impoundment. Projects included under this provision could not have a projected total cost of more than \$25,000, and impoundments would have to be open to the public.

Dam Fees. The bill would require a permit for construction, repair, alteration, removal, or abandonment of a dam, reconstruction of a failed dam, or enlargement of a dam or an impoundment. The following fees would be required for permits to construct a new dam, reconstruct a failed dam, or enlarge a dam.

<u>Current fees</u>	<u>Fees under Senate Bill 242</u>
No fee for dams with a head of less than five feet.	No fee for dams with a height of less than six feet.
\$200 for a dam with a head of 5-8 feet.	\$500 for a dam with a height of 6-10 feet.
\$400 for a dam with a head of 8-20 feet.	\$1,000 for a dam with a height of 10-20 feet.
\$600 for a dam with a head of 20 feet or more.	\$3,000 for a dam with a height of 20 feet or more.

The fee for a permit for the repair, alteration, removal, or abandonment of a dam would be \$200, and the fee for a permit for a minor project would be \$100. Permit application fees would be credited to the general fund and would be available for appropriation to the DNR in order to defray the cost of reviewing plans and specifications and field inspections to determine compliance with permits issued under the bill. The department would be required to waive the permit application fees for applications submitted from state agencies, department-sponsored projects located on public lands, and nonprofit organizations.

Notification of pending permits. A person who wanted to receive notification of pending applications for permits could make a written request to the department accompanied by a fee of \$25. The fee would be credited to the general fund. The DNR would give a copy of an impending application to the local unit where the project would be located, the adjacent riparian owners, and a watershed council organized under the Local River Management Act. In addition, upon written request of an applicant, riparian owner, or person or local unit of government who received a copy of the application, the DNR could hold a public hearing regarding a pending application.

OVER

Permits, plans and specifications. The department would grant or deny a permit within 60 days after the submission of a complete application, or within 120 days if a public hearing was held. The department would have to provide written reasons for denial of a permit and, where applicable, minor modifications that would result in the granting of the permit. When immediate action was necessary to protect the structural integrity of a dam, the department could issue a permit before a public hearing was held about the pending application. In addition, an owner could take action necessary to mitigate emergency conditions if imminent danger of failure existed.

Persons applying for a permit to reconstruct a failed dam would have to complete the application within one year after the date of failure. If such an application was filed more than one year after the failure date, the department would consider it as an application to construct a new dam.

The department could not issue a permit to construct a new dam, or to enlarge the surface of an impoundment by more than ten percent unless it determined that the proposal would not have a significant adverse effect on public health, safety, welfare, property, or natural resources or the public trust in the natural resources.

The bill would require the department to approve or reject plans and specifications developed under a permit within 60 days after receipt of the plans and specifications. The permitted activity would have to be completed no later than two years after the date of issuance of the permit. However, the department could provide an extension if good cause were shown. A change in plans and specifications would not be implemented unless the department gave its prior approval. The department could approve or reject changes in plans and specifications within 30 days after the request for the changes. The department could renew a permit.

Permits to alter, repair, or construct a new dam, reconstruct a failed dam, or enlarge the surface area of an impoundment by more than ten percent could specify the terms and conditions under which the work was to be performed. The terms and conditions of a permit would be effective for the life of the project. The department could make recommendations as to fish passage.

Within ten days after the completion of new, reconstructed, enlarged, repaired, or altered dam, the owner of a project would notify the department of the project's completion. Within 20 days after submitting notice of completion, an owner would file the plans for the project as the project was built, including a statement signed by a licensed professional engineer certifying that the project was constructed in conformance with plans and specifications approved by the department. The department would inspect the project and would provide the owner with written notice of final approval if the project was determined to have been completed in accordance with approved plans, specifications, and permit conditions. If the project was not in compliance, the department would provide reasons for its determination that the project was not in compliance and could then take enforcement action as provided in the bill.

Inspection reports. An owner of a dam would be required submit inspection reports to the DNR that were prepared by a licensed professional engineer who evaluated the condition of a dam. An inspection report would be submitted at least once every three years for high hazard potential dams, at least once every four years for

significant hazard potential dams, and at least once every five years for low hazard potential dams.

The DNR would determine the hazard potential classification of all dams and would establish an inspection schedule as detailed in the bill. Inspection reports would include an evaluation of a dam's condition, spillway capacity, operational adequacy, and structural integrity. They would also include a determination of whether deficiencies existed that could lead to the failure of the dam and recommendations for maintenance, repair, and alterations of a dam as were necessary to eliminate any deficiencies.

Local units of government and nonprofit organizations could request the department to conduct a visual inspection of a dam and prepare a report on the condition of a dam owned by the local unit instead of engaging a licensed professional engineer to prepare an inspection report. The DNR could also order a detailed investigation or evaluation at the expense of the owner if needed. If an owner did not submit an inspection report or additional investigations, any person or agency could cause such a report to be prepared and recover the costs of preparing the report in a civil action commenced in a court of competent jurisdiction. If the department found that a condition existed which endangered a dam, it would order the owner to take actions that the department considered necessary to alleviate the danger.

Performance bonds. A permit to construct a new dam or reconstruct a failed dam could require a performance bond to assure completion of the project or to provide for complete or partial restoration of the project site.

Minor projects. The department would develop rules to establish minor project categories for alterations and repairs that had minimal effect on the structural integrity of a dam. The department could act upon an application and grant a permit for an activity or project within a minor project category after an on-site inspection of the dam without providing public notice. All other provisions of the bill would be applicable to minor projects except that a final inspection by the department or certification of the project by a licensed professional engineer would not be required.

Suspensions and revocations of permits. A permit could be suspended, revoked, annulled, withdrawn, recalled, canceled, or amended after a hearing for a violation of any of the permit's provisions, a violation of the bill, a violation of rules under the bill or any misrepresentation contained in the application for the permit.

Limited operation and removal orders. The department could order an owner to limit dam operations in order to protect public health, safety, welfare, property, and natural resources or public trust in those resources. When issuing these orders, the department would take into account social, economic, and public trust values.

The department could order the removal of a dam if significant damage to persons, property, natural resources or the public trust in those natural resources occurred as a result of the condition or existence of the dam. In issuing a removal order, the department could take into account social and economic values and the natural resources and the public trust in those natural resources and would not issue a removal order when those factors exceeded adverse impacts on natural resources or danger to persons or property. The department could not issue removal orders involving a dam regulated under the Michigan Public

Service Commission or the Federal Energy Regulatory Commission, unless the commission concurred in writing.

Notice of Potential Hazards. The owner, or agent of a dam owner, would advise the department and affected off-site public authorities and safety agencies of any sudden or unprecedented flood or unusual or alarming circumstance or occurrence existing or anticipated that could affect the safety of the dam within 24 hours of the occurrence. Owners would also be required to notify the DNR of any necessary emergency drawdowns, repairs, breaching, or other action taken in response to an emergency.

Emergency orders. The DNR director could issue emergency orders requiring a dam owner to immediately repair, draw down, breach, or cease operation of a dam where a dam was in imminent danger of failure and was causing or threatening to cause harm to public health, safety, welfare, property or the natural resources or the public trust in those natural resources. If an owner failed to comply with an order or was unavailable or unable to be contacted, the department could undertake action necessary to alleviate the danger and could recover the costs incurred from the owner in a civil action. The director could terminate an emergency order upon a determination in writing that all necessary emergency actions had been complied with by the owner and that the emergency no longer existed. If the department issued an emergency order, the department would have to provide the owner of the dam an administrative hearing within 15 days of the date of its issuance.

Owners of dams would have to prepare, and keep current, emergency action plans for all high and significant hazard potential dams. The emergency action plans would be submitted to the department and would be consistent with the applicable county or local emergency operations plan and the Michigan Emergency Preparedness Plan. The plans would include personal information about the person responsible for operation of the dam, the name and telephone number of the local emergency management coordinators, and a listing of occupied facilities, buildings, and residences which could be threatened with flooding due to a failure of the dam.

Compliance orders and civil actions. The department could issue an order requiring compliance with the bill, its rules, or conditions set forth in a permit issued under the bill if it determined that a person was in violation of the bill. An order would state the nature of the violation, the required remedial action, and would specify a time for compliance which the department determined was reasonable, taking into account the seriousness of the violation and the nature of any threat to public health, safety, welfare, property, or natural resources, or the public trust in those natural resources that might be involved. The department could suspend, modify, or revoke a permit if it determined that a person was in violation of the bill, its rules, an order issued by the director of the department, or a permit issued under the bill. The bill's remedies would be cumulative and would not prevent the DNR from imposing other penalties. In addition, the DNR could bring civil suit in response to a violation. The court could impose a civil fine of up to \$10,000 for each day of violation. A person found guilty of contempt for violating a court order would be subject to an additional civil fine of up to \$10,000 for each day of violation.

Violations and penalties. Willful or reckless violation of the bill, its rules, an order issued by the director or a condition of a permit, that placed a person in imminent danger of

death or serious bodily injury, or that could cause serious damage to property or resources, would be a misdemeanor, punishable by imprisonment for not more than one year or a fine of not less than \$2,500 nor more than \$25,000 for each day of the violation, or both. A person who committed a second offense would be guilty of a felony, punishable by imprisonment for not more than two years or a minimum fine of \$10,000 for each day of violation, or both. Failure to obtain a permit for activity regulated under the bill would be punishable by a fine of at least twice the fee charged for the appropriate permit application. In addition to the orders of compliance and penalties provided under the bill, the court could order a person who violated the bill, its rules, or a permit issued under the bill to restore the site affected by the violation to its original condition. The department could establish a schedule of administrative monetary penalties for minor violations of the bill.

Grievance Hearings. A person aggrieved by any action or inaction of the department under the bill or its rules could request a hearing on the matter involved. The hearing would be conducted by the DNR according to the Administrative Procedures Act.

Liability or Legal Remedies. The bill could not be construed to relieve an owner of any legal duty, obligation, or liability incident to the ownership or operation of a dam or impoundment. In addition, it could not be construed to deprive an owner of any legal remedy to which he or she would be entitled under the laws of the state.

Spillways. The bill would require that "freeboard" be considered when determining spillway capacity. (The term "freeboard" would refer to the vertical distance between the design flood elevation and the lowest point of the top of the dam.) Spillway capacity would have to meet the minimum criteria designated in the bill.

Compliance. The bill would not abrogate requirements of any of the following acts:

- the Inland Lakes and Streams Act;
- the Wetland Protection Act;
- the Inland Lake Level Act;
- the Natural River Act;
- the Soil Erosion and Sedimentation Control Act;
- the water resources commission act; and
- Public Act 123 of 1929, which regulates the free passage of fish.

The bill would take effect June 1, 1990.

Senate Bill 243 would amend current law to remove a county board's authority to permit or prohibit the construction of a dam, although the county board of commissioners would continue to have such authority over the construction of a bridge. The bill also would repeal a section of the law requiring the county board's approval before the construction of a dam begins.

The bill is tie-barred to Senate Bill 242 and would take effect January 1, 1990.

MCL 46.21

OVER

HOUSE COMMITTEE ACTION:

The House Conservation, Recreation and Environment Committee adopted Substitute H-2 for Senate Bill 242. It would exempt nonprofit organizations from provisions requiring plans to be prepared by licensed professional engineers and from permit fee provisions. The substitute also requires application to reconstruct a failed dam to be submitted within a year after the date of the failure in order for the application to be viewed as a reconstruction permit instead of a new construction permit. In addition, the substitute addresses enlargement of the surface areas of impoundments by more than ten percent.

BACKGROUND INFORMATION:

In his 1987 State of the State message, the governor proposed new dam safety legislation. According to the Department of Natural Resources, the Great Lakes and Water Resources Planning Commission recommended new dam safety legislation that included some of the provisions provided by the bill.

FISCAL IMPLICATIONS:

According to the Department of Natural Resources, the bill would have no fiscal implications for the state. (11-9-89)

ARGUMENTS:

For:

Senate Bill 242 would provide for comprehensive regulation of all construction and repair activities related to dams in the state. Public Act 184 of 1963 which currently regulates dam construction is inadequate to protect the public, the state's natural resources, and the dams themselves. Reportedly, there have been 68 dam failures in Michigan since 1980 and many attribute that alarming statistic to inadequate (or even nonexistent) inspection of dams for safety and structural integrity. By requiring specific construction criteria and inspection schedules, the bill would ensure that the building, repair, and operation of dams received adequate oversight to protect the public, natural resources, and private and public property from damage that could be caused by dam failures.

For:

By removing counties' authority to permit or prohibit dam construction, Senate Bill 243 would avoid confusion over which public entity had such authority. In addition, Senate Bill 242 specifies that the DNR would have jurisdiction over all dams and impoundments in the state, with the exception of those specifically exempted from DNR regulation by the bill.

Against:

Senate Bill 242 should address the problems caused by the proliferation of beaver dams in Michigan's rivers and streams. Such dams reportedly ruin some of the state's finest trout streams by causing sediment and silt to build up in waters that the dams hold back. In addition, when beaver dams fail, the flooding can cause extensive damage to surrounding forest lands and nearby roads — one such failure of a 26-foot tall dam in the western Upper Peninsula reportedly washed out a 1/4 mile stretch of road. An adequate and comprehensive legislative proposal to protect against dam failures should not ignore these problems.

Response: The presence of beaver dams and potential damage that could be caused by them is a wildlife issue and does not deserve inclusion in a dam regulatory bill.

Against:

Senate Bill 242's definition of "dam" should not include an "embankment." This is a broad term that could be interpreted to include roadway embankments, thereby requiring some road construction projects to gain dam construction permits. The bill should specifically exempt such embankments.

POSITIONS:

The Department of Natural Resources supports the bills. (11-7-89)

The Michigan Association of Counties supports the bills. (11-9-89)

The Michigan United Conservation Clubs supports the bills. (11-13-89)