



Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #612

Dam Safety Bonding (Natural Resources -- Water Quality)

[LFB 2023-25 Budget Summary: Page 466, #11]

CURRENT LAW

The Department of Natural Resources (DNR) administers the municipal dam safety grant program under s. 31.385 of the statutes. The program provides matching grants to counties, cities, villages, towns and public inland lake protection and rehabilitation districts for the repair, reconstruction, or removal of municipal dams. To qualify for a grant, the locality must own a dam that has been inspected by DNR and be under a DNR directive to repair or remove the dam. DNR is required to keep an inventory of all dams requiring a dam safety project and provide notice to the owner of a dam that is included in the inventory, and DNR is required to establish a notice and hearing process for a dam owner to object to the inclusion of the owner's dam on the inventory list. Dam safety grants may also be awarded to remove abandoned dams or to a private dam owner to voluntarily remove their dam.

A total of \$46.1 million in bonding revenues for dam safety grants has been authorized by the Legislature for this program, including \$4 million in each biennium since 2009-11 and \$10 million in 2021-23. Debt retirement costs on \$39.5 million (86%) of program bonds are funded with general purpose revenues (GPR). The debt service on the remaining \$6.6 million (14%) is funded from the water resources account of the segregated (SEG) conservation fund. Beginning in 2021-22, grants for dam repair and reconstruction were provided for up to 50% of the first \$1,000,000 in project costs and up to 25% of the remaining project costs, up to a \$1,000,000 maximum grant award.

DISCUSSION POINTS

1. Assembly Bill 43/Senate Bill 70 would provide \$10,000,000 in GPR-supported general

obligation bonding authority for dam safety grants. No specific estimate of debt service payments is made for the program during the biennium. However, principal and interest on \$10 million in general obligation bonds could be expected to total approximately \$800,000 annually, assuming all bonds were issued for 20 years. The following table shows allocations, applications, and project values for dam safety project grants in recent biennia.

Dam Safety Bonding Allocations

<u>Biennium</u>	<u>Authorized Funding</u>	<u>Applications</u>	<u>Project Value</u>
2013-15	\$4,000,000	41	\$12,300,000
2015-17	4,000,000	21	6,500,000
2017-19	4,000,000	28	7,400,000
2019-21	4,000,000	32	10,500,000
2021-23	10,000,000	24	10,300,000

2. 2021 Wisconsin Act 58 provided \$10 million in GPR-supported general obligation bonding authority for dam safety grants. DNR reports demand aligned closely with the allocation. DNR received 24 qualified municipal dam grant applications with a total project value of \$10.3 million. State funding totaled \$7 million after statutory matching fund limitations were applied. Of the remaining \$3 million, DNR is directed by 2021 Act 58 to provide \$1 million to the Sheboygan Marsh dam. A remaining \$1.25 million is reserved for dam removal grant funding to support ongoing applications received in the 2021-23 biennium for privately-owned dam removals. The sum of total allocated funds in the 2021-23 biennium is \$9.25 million.

3. Over the last 10 years, applications for dam safety projects have averaged \$9.4 million each biennium. DNR contends that it is likely that demand will remain consistent in upcoming cycles, especially due to stronger interest in the previous two cycles than in preceding biennia.

4. DNR issues directives to dam owners regarding maintenance, repair, and removal following dam safety inspections. DNR-issued directives ensure that dams are in compliance with administrative code and can range from minor maintenance concerns to major repair or reconstruction orders. As of May, 2023, DNR reports there are 700 dams under directives following inspection that have not yet completed the required work. DNR also issues administrative orders in cases when a dam is deemed very unsafe, often due to flood damage or neglect. Administrative orders often include requirements to draw down an impoundment and to remove or repair the dam. DNR reports there are approximately 35 dams that have been issued administrative orders that have not yet been repaired or removed.

5. The Wisconsin Initiative on Climate Change Impacts (WICCI), a partnership between the UW-Madison Nelson Institute for Environmental Studies and DNR, has compared historical records of precipitation and applied international consensus models to Wisconsin conditions to estimate future potential changes in Wisconsin precipitation. In central and southern Wisconsin, total annual precipitation has increased approximately 20% since 1950. Additionally, WICCI reports that extreme participation events have become more frequent from 2010 to 2019, and anticipates that this

trend will continue in future decades. While increasing precipitation overall may not necessarily be indicative of increased flooding events, increased occurrences of days with significant rainfall can demonstrate the potential for adverse flooding events that overwhelm the existing capacity of failure-vulnerable dams to withstand such rainfall events.

6. The Federal Emergency Management Agency (FEMA) maintains a declared disasters database, including information about major disaster declarations and emergency declarations. According to FEMA, there have been 19 major disaster declarations in Wisconsin related to flooding since 1969. Five of these disasters have occurred since October, 2016, suggesting that severe precipitation events are increasing in frequency. FEMA also maintains the National Dam Inventory for classification of dams in each state. As of May, 2023, 39 dams in Wisconsin are classified as poor and 17 are classified as unsatisfactory.

7. The Infrastructure, Investment and Jobs Act (IIJA) provided additional funding to FEMA for dam safety programs. Funding includes \$585 million for the Rehabilitation of High Hazard Potential Dams (HHPD) grant program and \$148 million for the National Dam Safety Program (NDSP) state assistance grant program. Since federal fiscal year 2019, Wisconsin has received \$460,100 from the NDSP state assistance grant program. Wisconsin has not received any awards from HHPD to date.

8. In the event of heavy rainfall, the amount of water flowing downstream can increase rapidly, causing flooding in low-lying areas. Dams can store some excess water and release it slowly over time, reducing the peak flow downstream and helping to prevent or mitigate flooding. Dam repair and reconstruction can improve public safety and avert property losses in the event of major flooding. Given the potential benefits of dam repair and reconstruction, the demonstrated demand for the program in recent biennia, and the recent inflationary trends affecting engineering and construction projects, the Committee could consider providing \$10,000,000 in GPR-supported general obligation bonding authority for dam safety grants in the 2023-25 biennium [Alternative 1].

9. The Committee could instead consider providing \$4,000,000 in GPR-supported general obligation bonding authority for dam safety grants in the 2023-25 biennium, consistent with what had been provided each biennium from 2009-11 to 2019-21 [Alternative 2]. The Committee could also choose to take no action. Additional dam safety bonding would not be provided in the 2023-25 biennium [Alternative 3].

ALTERNATIVES

1. Provide \$10,000,000 in GPR-supported general obligation bonding authority for dam safety grants in 2023-25.

ALT 1	Change to Base
BR	\$10,000,000

2. Provide \$4,000,000 in GPR-supported general obligation bonding authority for dam

safety grants in 2023-25.

ALT 2	Change to Base
BR	\$4,000,000

3. Take no action.

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