



## Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #474

### Urban Nonpoint and Municipal Flood Control Programs (Natural Resources -- Water Quality)

[LFB 2021-23 Budget Summary: Page 445, #6 and #7]

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#### CURRENT LAW

The Department of Natural Resources (DNR) administers several grant programs to reduce urban nonpoint source water pollution and increase resiliency to flooding events in urban areas. The urban nonpoint source and storm water management (UNPS) grant program provides financial assistance for planning or practices undertaken by urban municipalities to assist in managing discharges of storm water into waters of the state. UNPS grants are provided in two categories: planning and construction. UNPS planning grants support engineering, feasibility studies, public information initiatives, and ordinance drafting and enforcement. UNPS construction grants support stream bank and shoreland stabilization or other structural best management practices for preventing urban runoff; funded practices may include costs of land acquisition, structural removal, and street sweeping equipment. The Department also operates the municipal flood control and riparian restoration (MFC) program, which provides grants to municipalities to conduct planning or mitigation for flood control purposes. MFC grants support practices including: (a) property acquisition and demolition; (b) floodproofing of structures; (c) riparian restoration; and (d) establishment of flood collection and detention structures.

During the 2019-21 biennium, DNR is provided \$500,000 nonpoint SEG each year and \$4,000,000 in additional bonding authority to operate its UNPS and MFC programs. Under current law, funding allocations are made to both programs jointly, and DNR exercises its discretion in allocating funding between the two programs. The Wisconsin Constitution generally requires bonds be used for permanent improvements such as construction projects or property acquisition. Thus, DNR allocates nonpoint SEG funding to non-structural practices such as planning, ordinance drafting, or feasibility studies.

## DISCUSSION POINTS

1. Assembly Bill 68/Senate Bill 111 would provide \$12,000,000 in nonpoint-SEG supported general obligation bonding for the UNPS and MFC programs. The bill would specify that \$8,000,000 is to be allocated for MFC grants. Typically, DNR determines allocation of urban nonpoint bonding authorizations between the two programs, and would retain that flexibility for the remaining \$4,000,000 of the new authorization. Historically, an additional increment of bonding authority is authorized each biennium for UNPS and MFC programs, and DNR allocates the entire authorization each biennium. Under 2019 Wisconsin Act 9, the biennial budget act, DNR was provided an additional \$4,000,000 in bonding for UNPS and MFC. Table 1 shows funding allocations for UNPS and MFC since 2011-13.

**TABLE 1**

### UNPS and MFC Allocations

	<u>Nonpoint SEG</u>	<u>Additional Bonding Authority</u>
2009-11	\$2,695,400	\$6,000,000
2011-13	2,626,400	6,000,000
2013-15	2,626,400	5,000,000
2015-17	1,400,000	3,000,000
2017-19	1,050,000	3,700,000
2019-21	1,150,000	4,000,000
2021-23*	3,000,000	12,000,000

\*AB 68/SB 111 proposed.

2. DNR reports the intended \$8,000,000 increase above the 2019-21 biennial funding level would be intended to support additional demand for grants under MFC. Table 2 shows awards and demand for MFC grants since 2010. DNR notes that severe flooding events in 2018 prompted a surge in applications during the 2020 grant round. DNR reports that it received applications for acquisition or removal at 172 properties, while a typical grant cycle would usually total 20 to 30 properties.

**TABLE 2**

### Municipal Flood Control Allocations

	<u>Requests</u>	<u>Awards</u>
2010	\$5,586,318	\$3,000,000
2012	4,460,405	3,000,000
2014	3,099,350	2,500,000
2016	2,061,439	1,500,000
2018	2,587,038	2,421,408
2020	10,558,937	2,655,000

3. DNR notes that recipients often use Federal Emergency Management Agency (FEMA) funding awarded for mitigation efforts in disaster zones to meet match requirements. Under the federal disaster declaration made in 2018 in response to severe storms and flooding occurring from August 17, 2018, to September 14, 2018, in west central Wisconsin, including Crawford, Dane, Juneau, La Crosse, Marquette, Monroe, Richland, Sauk, and Vernon counties, Wisconsin Emergency Management received \$68 million in requests for relief funding. Of this amount, WEM estimated approximately \$20 million was associated with floodplain acquisition and removal projects. According to FEMA's declared disasters database, there have been 19 major disaster declarations in Wisconsin related to flooding since 1969. Five of these disasters have occurred since October, 2016.

4. Allocation of MFC funding is dependent on proposed project activities. Under administrative code Chapter NR 199, MFC project priority is ranked by activity in the following manner: (a) acquisition and removal of structures that cannot be rebuilt, or are in the 100-year flood plain; (b) acquisition and removal of repetitive loss structures or other flood-damaged structures; (c) flood proofing, including reinforcement of walls, anchoring, or placement of utilities above flood levels; (d) restoration activities, including removal of dams, and stream bank and habitat restoration; (e) acquisition of vacant land for flood water flowage easements; (f) construction of detention ponds; and (g) flood mapping.

5. Due to these prioritization criteria, the majority of MFC funding since 2002 has been provided for the highest priorities related to acquisition and removal (\$14.3 million, equal to 60%), followed by riparian restoration (\$3.9 million, 16%), floodproofing and elevation of structures (\$3.3 million, 14%), and construction of detention ponds (\$2.4 million, 10%). In instances where limited funding is available, it is common for lower priority activities to receive little to no funding in a grant round. Notably, in 2020, DNR awarded funding only for acquisition and removal of structures. DNR suggests that provision of additional funding for MFC would allow it to fund a wider variety of activities, such as riparian restoration or construction of detention ponds.

6. Alongside proposed additional bonding authority for MFC, AB 68/SB 111 would provide an additional \$1,000,000 nonpoint SEG each year of the biennium in one-time funding for MFC projects related to preparation of flood insurance studies and other flood mapping projects. The bill would direct additional funding to floodplain mapping regardless of existing prioritization under NR 199. DNR reports that since 2002, MFC has not provided funding for floodplain mapping or flood insurance studies. In 2020, DNR received one request for \$33,000 for such activities, but did not award it funding. DNR suggests that such projects likely do not apply for funding because activities are ranked last in prioritization for MFC funding.

7. DNR currently conducts floodplain mapping in collaboration with FEMA for the purpose of maintaining regulatory maps for federal flood insurance programs. FEMA provides DNR federal funding to cover costs of these activities, and directs prioritization of floodplain mapping efforts to areas with outdated maps and where flooding poses a high risk to human safety. Due to this prioritization of limited funding, FEMA-funded mapping efforts often focus in urban areas; thus, rural areas tend to have more outdated maps. However, communities may fund and conduct floodplain mapping outside of existing FEMA program funding, and submit revised maps to FEMA. DNR intends that additional proposed funding of \$1,000,000 each year would support increased mapping

efforts in these communities not served with current federal mapping efforts. DNR contends that improved floodplain maps would allow for residents to better assess need and rates for flood insurance, and improve community planning and development in flood-prone areas.

8. Increased funding for flood mitigation activities would also address increasing instances of severe flooding and rainfall in Wisconsin. The U.S. Global Change Research Program is required to report to Congress and the President at least every four years on effects of climate change on the natural environment, economy and human health, and identify trends for anticipated changes in the next 25 to 100 years. The program's 2018 report identified that precipitation in the Midwest has increased by 5% to 15% during the period of 1986 to 2015, relative to 1901 to 1960. Further, since data began being collected in 1895, four of Wisconsin's five highest precipitation years have occurred since 2010, with the wettest recorded in 2019. Based on conservative climate models, it is anticipated that precipitation levels will continue to increase in Wisconsin throughout the twenty-first century.

9. The Wisconsin Initiative on Climate Change Impacts (WICCI), a partnership between the UW-Madison Nelson Institute for Environmental Studies and the Department of Natural Resources, studies the impact of climate change on Wisconsin. WICCI has compared historical records of precipitation and applied international consensus climate models to Wisconsin conditions to estimate future potential changes in Wisconsin climate. Figure 1 shows historical change in precipitation in Wisconsin by region since 1950. In west, southwest, and south central Wisconsin, total annual precipitation has increased approximately 20% since 1950. Under an intermediate projection of climate change, WICCI estimates annual precipitation would further increase by 5% statewide relative to current levels by the 2041 to 2060 period. Further, Figure 2 shows the projected increase in severe rainfall events across Wisconsin, defined as those exceeding two inches in one day, by the 2041 to 2060 period, relative to the 1981 to 2010 period. 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 existing capacity to absorb rainfall and mitigate flooding.

10. Provision of additional bonding authority for urban nonpoint prevention and flood control efforts would increase resiliency of urban areas and limit property loss associated with severe rainfall events. Further, improved floodplain mapping may improve municipal planning, development, and mitigation efforts, and reduce overall property damage and resulting need for financial assistance in response to flooding events. Given the observed increases in annual rainfall in Wisconsin since 1950, and anticipated further increases in rainfall in coming decades, it could be considered appropriate to allocate additional funding for flood control and mapping efforts.

FIGURE 1

### Historical Change in Annual PRECIP (%) from 1950 to 2018

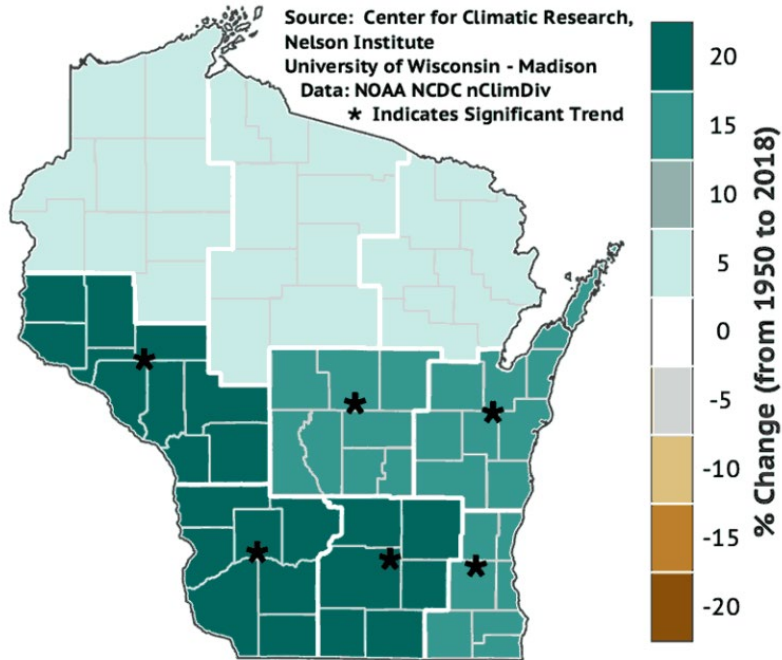
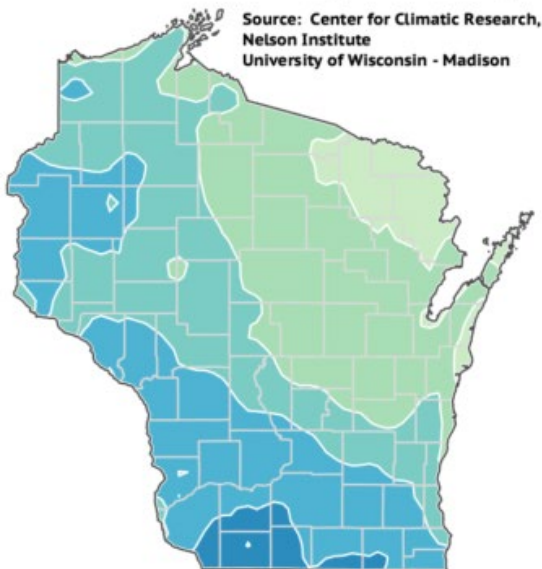
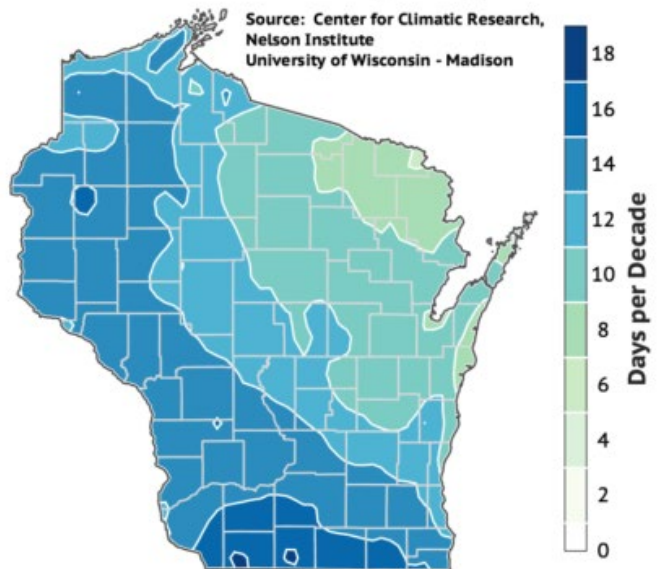


FIGURE 2

### Days per Decade with PRCPDays > 2in 1981-2010 Conditions (HISTORICAL)



### Days per Decade with PRCPDays > 2in 2041-2060 Conditions (RCP45)



11. Provision of additional nonpoint SEG and nonpoint SEG-supported bonding authority for UNPS and MFC is dependent on availability of funding in the nonpoint account of the environmental fund. Based on Committee action to date, the nonpoint account is anticipated to have a June 30, 2023, available balance of \$8.8 million, equal to an increase of approximately \$3.4 million during the 2021-23 biennium. Thus, across all budget items related to nonpoint programs, the Committee could consider providing an additional approximately \$1.7 million nonpoint SEG each year in ongoing expenditures while still maintaining the balance with available revenues. Further, the Committee could consider allocating a portion of the fund balance as one-time funding, although any ongoing funding allocations that exceed available annual revenues could limit future availability of funding for nonpoint programs.

12. Given the increasing demand and potential future increased need for flood control and planning activities, the Committee could consider providing an additional \$12,000,000 in nonpoint SEG-supported bonding authority for UNPS and MFC during the 2021-23 biennium [Alternative A1], and an additional \$1,000,000 nonpoint SEG each year on a one-time basis for floodplain mapping [Alternative B1]. The Committee could also consider providing an additional \$6,000,000 in bonding authority [Alternative A2], or an additional \$500,000 nonpoint SEG each year [Alternative B2].

13. To conserve nonpoint SEG funding, the Committee could continue current bond-funded programs at the same level as 2019-21 and authorize an additional \$4,000,000 in bonding for urban nonpoint programs [Alternative A3], and take no action related to additional nonpoint SEG funding [Alternative B4]. The Committee could also take no action related to additional bonding authority [Alternative A4].

14. If the Committee wished to improve availability of existing funding for floodplain mapping efforts, it could consider modifying the MFC program to require DNR to prioritize allocation of 20% of available nonpoint SEG funding for UNPS and MFC programs for use in floodplain mapping efforts [Alternative B3]. This set-aside would allow DNR to support floodplain mapping efforts with existing MFC funding, and make available \$100,000 each year for floodplain mapping. However, availability of funding for existing nonpoint SEG-funded non-structural practices under UNPS planning and MFC programs would be decreased.

## ALTERNATIVES

### A. Bonding Authority

1. Provide an additional \$12,000,000 in nonpoint SEG-supported bonding authority for UNPS and MFC programs during the 2021-23 biennium. Require DNR to allocate \$8,000,000 of this funding for the MFC program.

ALT A1	Change to Base
BR	\$12,000,000

2. Provide an additional \$6,000,000 in nonpoint SEG-supported bonding authority for UNPS and MFC programs during the 2021-23 biennium.

ALT A2	Change to Base
BR	\$6,000,000

3. Provide an additional \$4,000,000 in nonpoint SEG-supported bonding authority for UNPS and MFC programs during the 2021-23 biennium.

ALT A3	Change to Base
BR	\$4,000,000

4. Take no action.

**B. Nonpoint SEG Funding**

1. Provide an additional \$1,000,000 nonpoint SEG each year of the 2021-23 biennium on a one-time basis for flood insurance studies and flood mapping.

ALT B1	Change to Base
SEG	\$2,000,000

2. Provide an additional \$500,000 nonpoint SEG each year of the 2021-23 biennium on a one-time basis for flood insurance studies and flood mapping.

ALT B2	Change to Base
SEG	\$1,000,000

3. Require DNR to prioritize allocation of 20% of nonpoint SEG funding for UNPS and MFC programs for use in flood insurance studies and flood mapping.

4. Take no action.

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