RECOMMENDATIONS TO IMPROVE THE STORMWATER PROGRAM IN THE U.S.

2022

wef Stormwater Institute

nmsa National Municipal Stormwater Alliance

Recommendations to Improve the Stormwater Program in the United States

Municipalities are faced with funding needs to fix aging stormwater infrastructure, reduce flood risk, and comply with Clean Water Act requirements. This fact sheet outlines the federal assistance local communities and utilities require to protect surface water resources in the US and ensure public safety. Addressing long-term issues of funding, providing effective pollution control tools, environmental data to make good decisions and a coordinated effort on pollution source control are reasonable, practical, and beneficial for Congress and the Executive Branch to support.

1. Advance Stormwater Provision in Bipartisan Infrastructure Framework

Request: Fund the recently authorized stormwater programs for the construction, rehabilitation, and advancement of stormwater infrastructure and technologies.

The Infrastructure Investment and Jobs Act (IIJA) included the establishment of new programs for stormwater infrastructure and innovative technologies. This is the federal government's most significant commitment yet to assist communities nationwide with their stormwater management challenges. The authorization of these new programs now necessitates Congress to provide appropriations. Specifically, Congress should include in the Fiscal Year 2023 budget:

- $5 million for the establishment of 5 Centers of Excellence for Stormwater Control Infrastructure Technologies (CESCITs) (IIJA Sect. 50217)
- $100 million for the Healthy Streets program, which includes a focus on high albedo road surfaces and porous pavements (IIJA Sect. 11406)
- $10 million for community planning and implementation grants for stormwater or watershed-based planning investments (IIJA Sect. 50217)
- $280 million for Sewer Overflow and Stormwater Reuse Municipal Grants (OSG) program (IIJA Sect. 50204)
- $125 million for Clean Water Infrastructure Resiliency and Sustainability Grant (IIJA Sect. 50205)
- $125 million for the Alternative Source Water Pilot program, including stormwater capture (IIJA Sect. 50203)
- $10 million for the Small & Medium POTW Circuit Riders Technical Assistance, including stormwater management (IIJA Sect. 50206)
- $50 million WIFIA (IIJA Sect. 50215)
- $5 million to complete the Clean Watersheds Needs Survey, including more data on municipal stormwater infrastructure needs (IIJA Sect. 50220)
- Funding to establish the EPA Rural and Low-Income Water Assistance Pilot Program (IIJA Sect. 50109)
- 2.75 billion for the Clean Water State Revolving Fund, as it is authorized to receive in FY23 (IIJA Sec. 50210)
- $225 million for emerging contaminants grants through the Clean Water State Revolving Fund ((IIJA pg. 2589)

We recommend that Congress fully fund these provisions due to their positive impact on the stormwater sector. An example of particular significance is funding at a level of $5M annually to establish and support of 5 national centers of excellence to drive research into the performance of new and emerging, as well as existing, stormwater control infrastructure technologies and practices, as well as in innovations to fund, finance, plan and implement stormwater infrastructure. These centers will support regionalized research activities that would be coordinated at the national level for the benefit of the 7,550 Municipal Separate Storm Sewer Systems (MS4s) permittees across the country. The centers could also support efforts to maximize the value of stormwater infrastructure investments, such as stormwater technology performance verification programs that can ensure federal funding and ratepayer revenues are being spent on verifiably successful stormwater control technologies.

2. Stormwater Infrastructure Funding Tools

Request: Develop new and improve existing funding programs to drive needed stormwater infrastructure investment across the country.

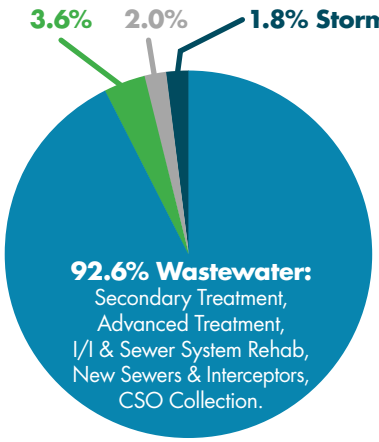
As identified in the 2020 Water Environment Federation MS4 Needs Assessment Survey and supported by the conclusions in the report of the US EPA Environmental Finance Advisory Board (EFAB), the highest need for stormwater programs across the country is funding. The reason for this is that stormwater infrastructure has historically not received support from either the federal government or ratepayers. For instance, only approximately 25% of regulated stormwater communities have a dedicated revenue source (i.e., stormwater utility), and only 1.8% of Clean Water SRF loans have gone to stormwater infrastructure investments over the

A recent study suggests that over

100,000 jobs

can be created when meeting the $8.5 billon funding gap in the stormwater sector.

CWSRF Funding 1988-2020 – Project Types



"Other" mostly includes Water Conservation, Energy Conservation, Desalination, and Planning & Assessment projects.

30-year duration of the Clean Water SRF program. The recently released EFAB report concluded that "current stormwater funding mechanisms and publication initiatives are not sufficient to confront the significant needs across the nation." In addition, this report provided a number of recommendations, several of which are described below. Congress should consider implementing new or enhancing funding programs for the stormwater sector based upon these recommendations.

Establishment of a Stormwater Construction Grant Program (SCGP) that would transition into a Stormwater State Revolving Fund (SSRF) program

- A SCGP will provide the investment needed in the stormwater sector to make the major investments needed. This approach is similar to the program that helped kick-start the level of investment in the drinking water and wastewater sectors. These funds can help to establish stormwater utilities that would enable financing of investments in stormwater programs to a greater degree. By transitioning this program from being grant-based to being loan-based, and by giving adequate time (15-20 years) for this transition to occur, many states and jurisdictions will likely accelerate the establishment of stormwater utilities – especially if incentives are included in this SCGP/SSRF program. Roughly $9B annually over 20 years would be needed to bring a level of parity in funding between the wastewater and stormwater sectors.

Establishment of a program to promote, fund, and incentivize the formation of local stormwater utilities

- An incentive-based funding program to spur the establishment of stormwater utilities would change the landscape of investment in stormwater across the country. This fund should be integrated into the Stormwater Construction Grants Program.

Adjust the recently established Overflow and Stormwater Grants (OSG) program state allocation formula

- The current state allocation formula for the OSG program relies most significantly on needs identified in Intended Use Plan (IUP) lists developed by states. Unfortunately, there are very few stormwater projects included in IUP lists. The allocation formula also weights towards states with relatively higher annual rainfall; however, the nature of stormwater programs is that runoff drainage conveyance and treatment systems are driven most significantly by urbanized area and associated impervious cover, and less so by overall precipitation. These facts create a disparity between high rainfall states with high numbers of combined sewer overflows (CSOs) and arid states with no/few CSOs – even though the needs are just as significant (if not more) for the arid states for stormwater investments. This allocation formula should be re-visited for better equity emphasizing need.

Revise the CWA Section 319 program to allow projects by MS4 permittees – create a separate stormwater sub-program with the Section 319 program

- The CWA Section 319 program does not allow for funds to be used by communities to meet NPDES regulatory requirements. In 2004 a change was made to enable the use of Section 319 funds by Phase II MS4 programs, but this change was eliminated shortly thereafter. We recommend the expansion of Section 319 activities to include those of regulated communities. Note that this concept was included in recommendations generated by the Environmental Finance Advisory Board (EFAB) report on needs for federal funding in the stormwater sector.

Create a national Extended Producer Responsibility (EPR) fund to support trash/plastics reduction/capture investments for communities across the country

- Over 80% of trash and plastics in the ocean are from land-based sources. Trash is exceptionally difficult to remove at the end of the pipe. A Federal EPR program could provide the leadership to assist communities to avoid/capture/reduce trash and plastics.

3. Fund Atlas 14 Country-wide Implementation

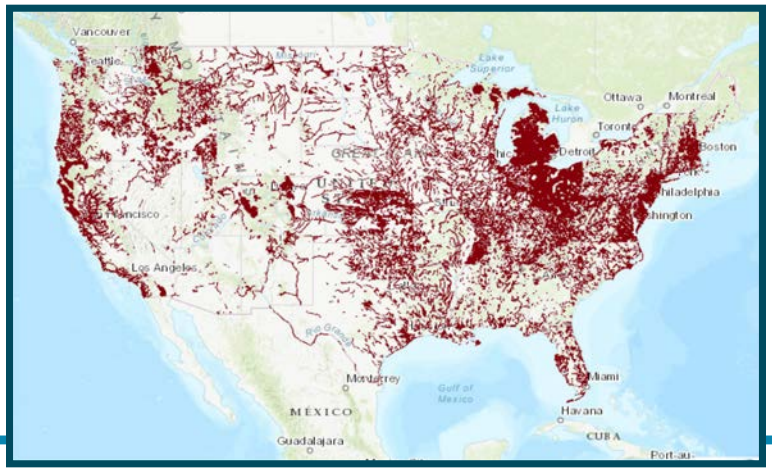
Request: Provide funding to NOAA to improve and unify precipitation frequency estimates across multiple Federal agencies to provide a single set of authoritative products that will be used and recognized by all practitioners and local authorities.

The variable nature of precipitation creates a new set of challenges that should be met at the national level. Precipitation frequency estimates are used to design and review all forms of construction and operate and maintain local stormwater systems. Infrastructure systems have future service lives of at least 30-50 years. Project designers and local stormwater system managers need precipitation frequency estimates that are based on expected rainfall within this timeframe. The estimates must come from an authoritative and noncontroversial Federal source and be expressed in a form that is useful for stormwater modelers, project designers, and local program managers.

Localized flooding caused by intense rainstorms has become a significant and dramatic problem in multiple regions of the United States. Local stormwater programs serve important water quantity and quality functions to address and manage these storms. These functions include:

- setting local stormwater design standards for new development and redevelopment projects (public and private),

588,000 miles of streams and **13 million acres of lakes** have been identified as impaired (polluted) by the EPA.



- reviewing stormwater designs and calculations for these projects,
- evaluating cumulative impacts, and
- addressing predicted failure points in local stormwater systems.

Local stormwater programs depend on precipitation frequency estimates derived by Federal agencies, including Technical Paper 40 and Atlas 14 developed by NOAA. These estimates, specifically Atlas 14, need:

- national, consistent, long-term funding,
- execution at the national scale,
- a regular updating schedule,
- revised design storms,
- areal and point estimates, and
- translation of future climate scenarios into products that are useful for stormwater modelers.

Precipitation frequency estimating should be integrated and unified across NOAA, USACE, FEMA, US EPA, USGS, USFS, and other Federal agencies. A single set of applicable products needs be provided by NOAA that is sufficiently authoritative to be accepted and used by all practitioners and local authorities.

4. Provide for Comprehensive Source Control of Stormwater Pollution

Request: Direct the US EPA to establish a permanent program within the Office of Wastewater Management and provide funding to be dedicated to developing a pollutant source control program for the environment and specifically stormwater.

It is technically infeasible to remove many pollutants once they are released into the environment and become entrained in stormwater. Product substitution, green chemistry, and discontinuing the use of some chemicals are tools that can ensure a safe water supply in the US. Source control is by far the most effective and cost-efficient approach for the control of many chemical pollutants. This is an approach with documented success: EPA's use restriction of several organophosphate pesticides is an example of the application of source control. Newly discovered toxic pollutants in the environment include PFAS (per-and polyfluoroalkyl substances and variants), microplastics, and tire wear derivatives, such as 6PPD, which all would most effectively be controlled through source control. Ultimately, we must evaluate the fate of chemicals in the environment proactively if we are to achieve clean water goals economically. A complementary approach is to develop incentives for private companies to adopt environmentally friendly products and practices, working in concert with requirements to track chemical fate and impacts in the environment and restrictions on use.

There are far too many chemicals for municipalities to track, test for, and develop effective methods to remove them from stormwater. Local communities need help from the US EPA and the private sector to accomplish this task. There are more than 85,000 chemicals listed under the Toxic Substances Control Act, and there are over 175,000,000 organic and inorganic substances commercially available. Federal leadership is needed to help the marketplace include clean water in business decisions.

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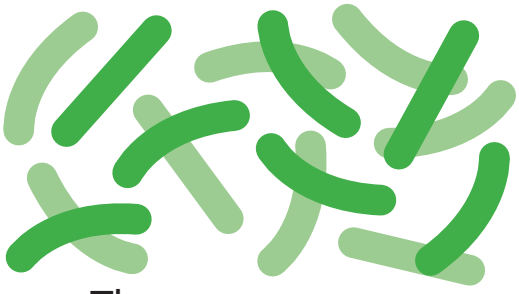
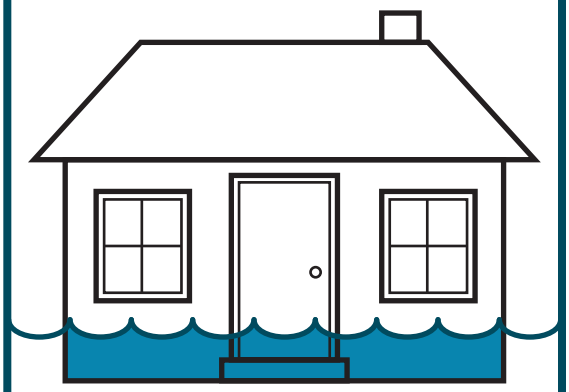


The most common pollutant in the U.S. is **pathogens,** compromising the sanitary quality of surface waters.



On average, the annual cost of damage from inland and coastal floods is higher than any other natural disaster event.

MS4

Municipal Separate Storm Sewer System

The EPA estimates that more than 7,550 MS4 permittees (cities, towns and agencies) must comply with the MS4 stormwater provisions of the Clean Water Act.