

Stormwater Updates

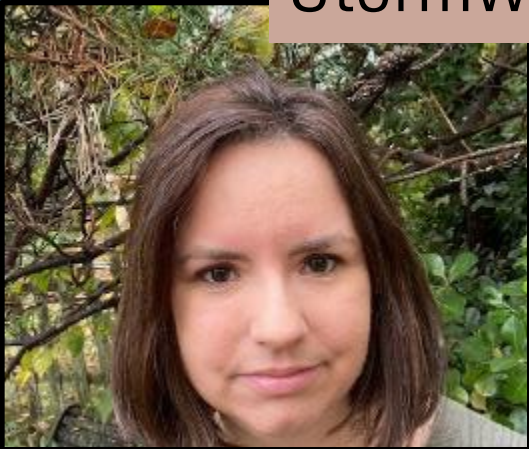
Rachel Urban and Greg Schaner

EPA HQ/Water Permits Division/Stormwater Permits Team

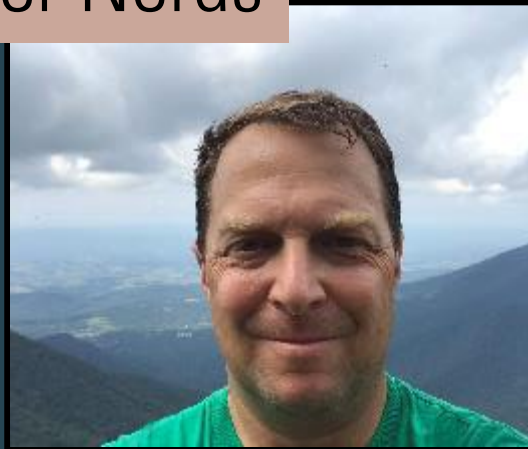


Meet our team

Stormwater Nerds



Rachel Urban
Team Lead



Greg Schaner
Everything Stormwater



Chris Clipper
Construction Stormwater



Alicia Denning
Industrial Stormwater

Meet our team



Heather Goss
Transportation Liaison



Jenelle Hill
Emerging Contaminants,
Environmental Justice



Heather Huddle
Municipal Stormwater,
Integrated Planning, Climate



Lindsay Skovira
RDA, Municipal Stormwater

Agenda



Focus
Overview



Primary
Goals



Recent
Updates



Stay Tuned
Sort of Updates



Discussion

Focus Overview

- ✓ Foster communication and elevate the importance of good stormwater management
- ✓ Elevate how individual and group actions make a difference
- ✓ Focus on long-term solutions
- ✓ Identify new challenges and share solutions




“

Where stormwater flows,
everything goes.

EPA's Stormwater Smart

”

Primary
goals



Stormwater is not a primary source
of waterbody impairment

Stormwater Smart

A collection of communication tools to **promote the value of sound stormwater management** for creating a community where your residents want to live and work.

- ✓ Can be used to support public education and outreach efforts
- ✓ Materials available in English and Spanish
- ✓ Materials are customizable
- ✓ Includes How-to Manual describing how to use the tools in ways that connect with residents and businesses



How we get here: Stormwater is Valued

Increase Awareness

Brochures

Stormwater flow infographic

Social media graphics on:

- ✓ Car washing
- ✓ Oil and grease
- ✓ Cigarettes
- ✓ Pet waste
- ✓ Lawn chemicals
- ✓ Garbage

Promote Practices

Brochures

Stormwater steps infographic

Social media graphics

Stormwater tip sheets for
businesses

Stormwater tip sheets for
residents

Promote Investment

Brochures

Stormwater innovations
infographic

Social media graphics

Presentation for municipal
officials

Case studies

Integrated Planning

Toolkit for
States

Materials for
Permittees

Fact
Sheets

Technical
Assistance

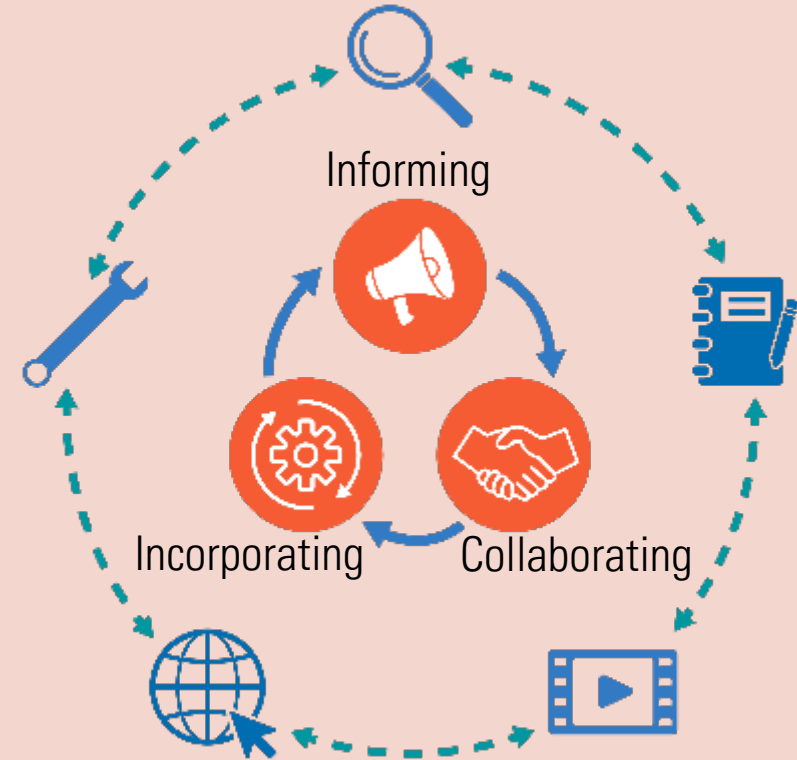
Webcasts &
Examples

More to come in Session 5

Integrated Planning (Cont'd)



The **Integrated Planning in Action Permitting Authority Toolkit** includes three modules, each designed to help the permitting authority promote and support integrated planning for permittees



State Toolkit Modules

Module 1: Informing

- Get informed about integrated planning
- Start to organize within your agency, select a champion and workgroup who will focus on integrated planning
- Strategize mutual goals and which permittees would be the best fit
- Review success stories from other states and permittees

Module 2: Collaborating

- Initiate discussions with the permittee regarding shared goals
- Support the permittee throughout the plan development by providing tools and resources
- Encouragement for permittees to engage stakeholders
- Promote the consideration of resilience for all water infrastructure

Module 3: Incorporating

- Provides a process and considerations to help permitting authorities review and incorporate submitted integrated plans into permits
- Includes example permit language for incorporating Integrated Planning into permits
- Includes a workbook that permitting authorities can use to coordinate activities and review integrated plans

Integrated Planning: Long-Term Stormwater Planning

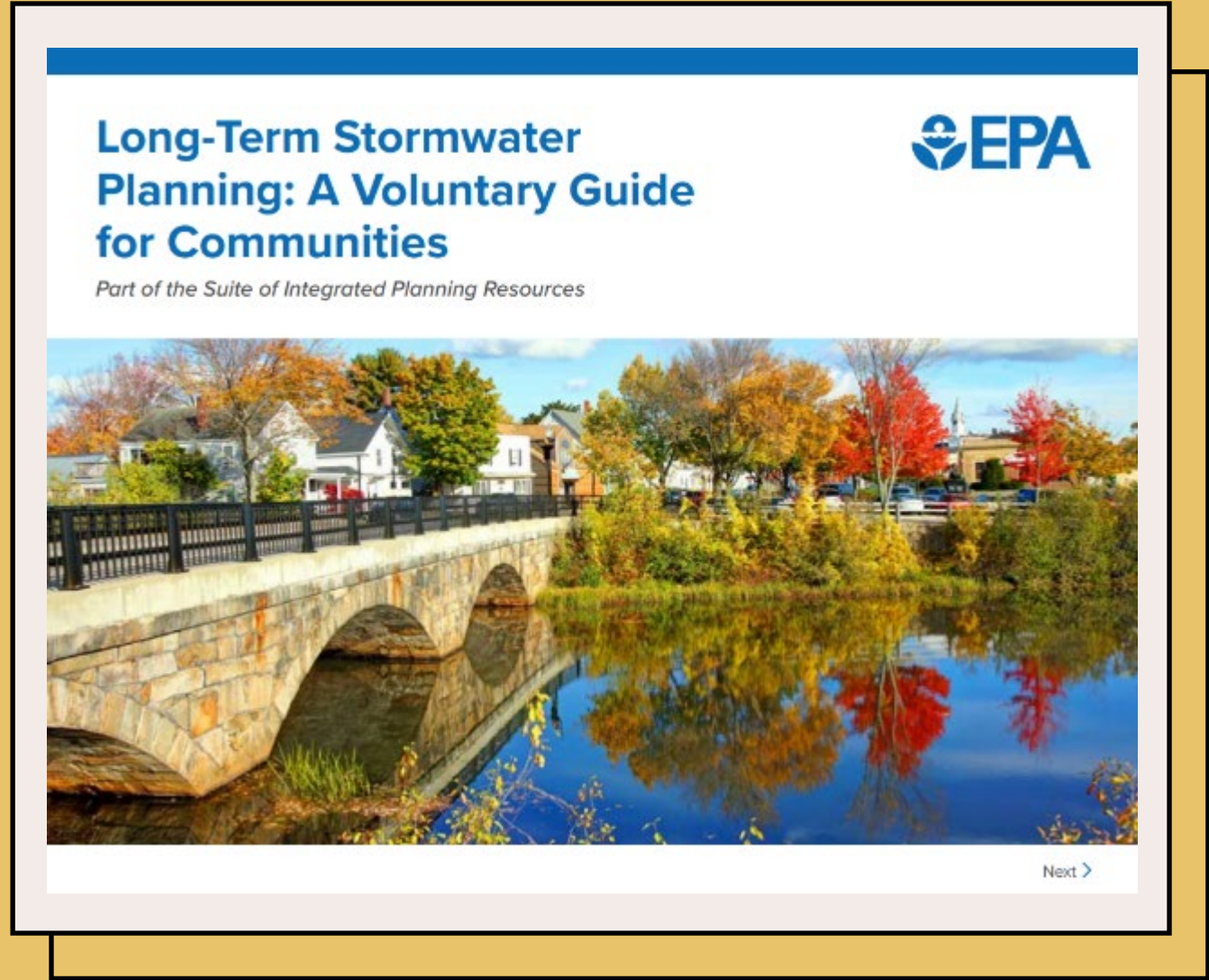


Applies the integrated planning approach specifically to stormwater assets, concepts, and resources.





Integrated Planning: *Long-Term Stormwater Planning*



Integrated Planning: *Long-Term Stormwater Planning*

Explore the pages below to learn more about long-term stormwater planning.



About

The benefits of integrated planning/long-term stormwater planning, approach, and materials to get started.

[Start](#)



Common Topics

Asset management, funding, engagement, infrastructure, development policies, and roadway projects.

[Learn](#)



Community Pilot Projects

Four communities pursue long-term stormwater planning.

[Explore](#)

Community Pilots

Topics Covered

- 1 Asset management
- 2 Stormwater infrastructure opportunities
- 3 Stakeholder involvement
- 4 Financing/funding
- 5 Development and redevelopment policies

Burlington, Iowa

Explored Topics 2 3



Hattiesburg, Mississippi

Explored 1 2 3 4



Rochester, New Hampshire

Explored Topics 1 2 3 4 5

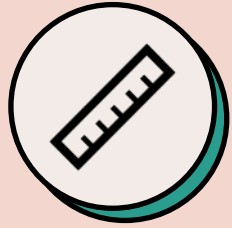


Santa Fe, New Mexico

Explored Topics 1 2 3 4 5

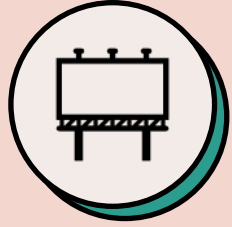


Asset Management



Data-Driven

Focuses on data-driven actions, procedures, and metrics



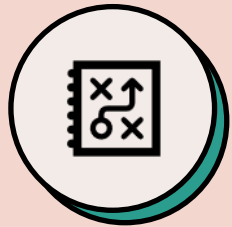
Proactive

Takes a proactive approach to managing stormwater infrastructure



Leverages Resources

Needs are better tracked to ensure adequate operation and maintenance



Identify and Address Issues Faster

Keeps better track of expected pollutant reductions and other relevant data



Accountability

Provides accountability for taxpayers to see improvements

Contaminants of Emerging Concern

Stormwater dischargers may:

- Manufacture substances that are considered contaminants of emerging concern
- Use products or materials that contain contaminants of emerging concern or substances that break down to become contaminants of emerging concern; or
- Manage stormwater from areas where products or materials containing contaminants of emerging concern or substances that break down into contaminants of emerging concern are used or stored

Per- and Polyfluoroalkyl Substances (PFAS)

Polycyclic Aromatic Hydrocarbons (PAHs)

Microplastics

6PPD and 6PPD-quinone

Pharmaceuticals and Personal Care Products (PPCPs)

<https://www.epa.gov/npdes/stormwater-pollutants-emerging-concern>

More to come in Session 12



Contaminants of Emerging Concern (Cont'd)

Green Infrastructure for 6PPD-quinone

- Green infrastructure (like rain gardens and bioswales) is one potential mitigation option for toxicity from 6PPD-quinone
- By strategically placing bioinfiltration across the landscape, we may also address many other contaminants that comprise stormwater pollution
- EPA is supporting strategies for bioinfiltration to mitigate stormwater pollution, where appropriate
 - The Bipartisan Infrastructure Law (BIL) appropriates \$1 billion over 5 years to the Clean Water State Revolving Fund (CWSRF) specifically to address emerging contaminants, including 6PPD-quinone
 - BIL appropriates an additional \$965 million over 5 years to address tribal water and wastewater infrastructure needs and respond to challenges. This includes \$20 million to address emerging contaminants, including 6PPD-quinone



Contaminants of Emerging Concern (Cont'd)

EPA Tools for 6PPD-quinone

Analytical methods: EPA published a draft 6PPD-quinone analytical method for surface water/stormwater (EPA Method 1634) in January, 2024

Screening values: EPA published screening values for 6PPD-q and 6PPD to protect sensitive salmon and other aquatic life in June 2024

Convenings:

- EPA Region 10 convenes state, tribal, federal 6PPD-quinone methods development roundtables to share progress across agencies each month
- EPA HQ convenes stormwater staff from west coast states' DEPs and DOTs for quarterly updates and peer sharing on work related to managing 6PPD-quinone in MS4s



Contaminants of Emerging Concern (Cont'd)

Planned EPA and EPA-Funded Research Relevant to 6PPD-quinone in Stormwater

Office of Research and Development, FY23-26

- The fate, transport, and treatment of tire-derived pollutants in stormwater
- Remediation of tire-related pollutants in stormwater
- Development of metrics, models, and monitoring techniques to determine optimal green infrastructure placement and size for urban stormwater control for Municipal Separate Storm Sewer Systems (MS4) and combined sewer communities
- Other projects relevant to 6PPD-q
 - Urban green infrastructure design and assessment resource to promote public health, climate, and equity benefits for air quality and other ecosystem services
 - Designing and implementing green infrastructure for communities with environmental justice concerns to mitigate air pollution, health, and climate impacts

EPA Puget Sound Geographic Program Stormwater Strategic Initiative projects

EPA Funding Programs Support Stormwater Infrastructure and Planning

Technical Assistance

EPA WaterTA Programs

TA providers (funded by EPA grants)

External TA Program Partnerships

Funding

Clean Water State Revolving Funds (CWSRF)

Sewer Overflow and Stormwater Reuse
Municipal Grants (OSG)

Water Infrastructure Finance and Innovation
Act (WIFIA)

Clean Water Indian Set Aside (CWISA)



More to come in Session 4

Water Finance Clearinghouse

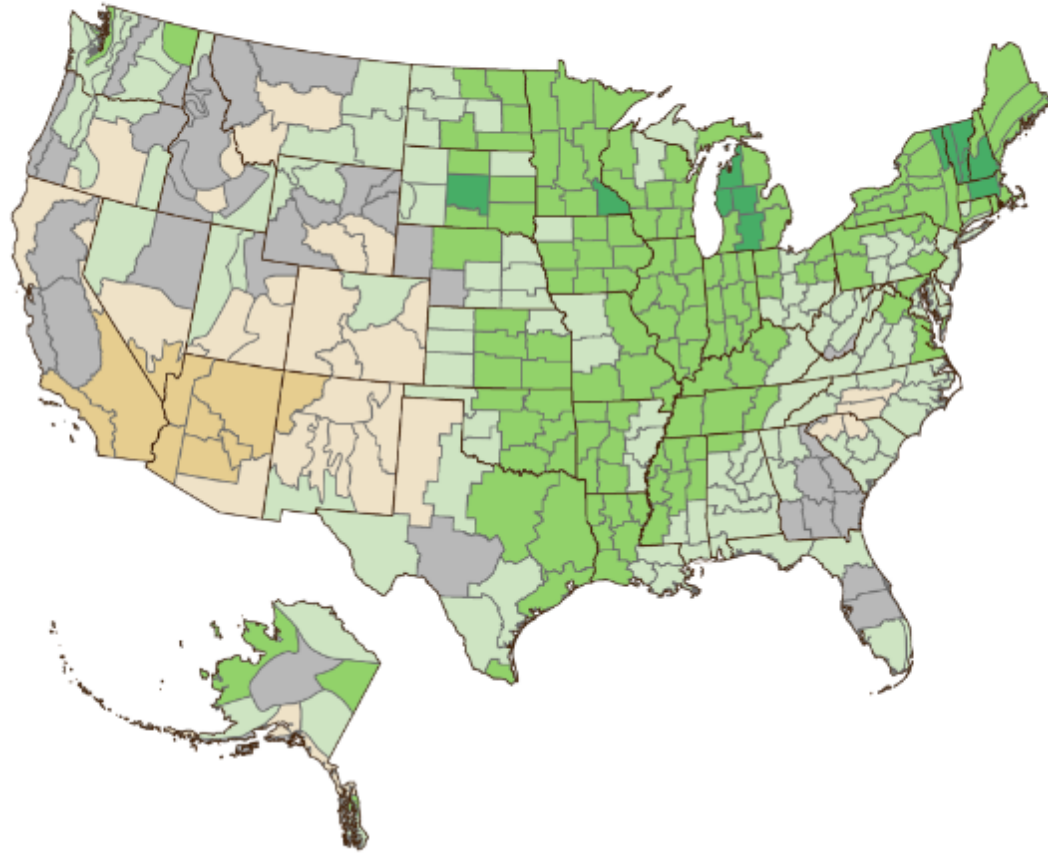
Quickly filter for **stormwater** and **green infrastructure** resources using the bottom navigation bar

Also search and filter for stormwater-related:

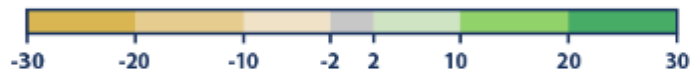
- funding opportunities
- case studies
- webinars and videos
- learning modules
- and more



Change in Precipitation in the United States, 1901–2023



Percent change in precipitation:



Alaska data start in 1925.

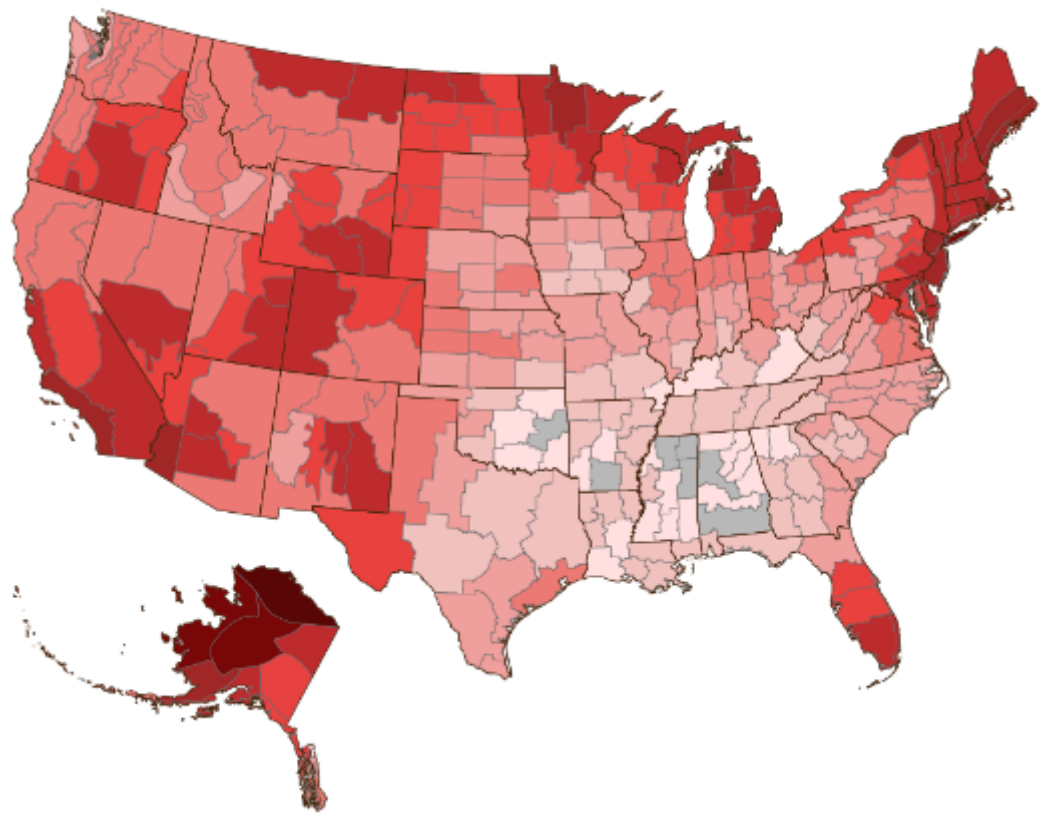
Data source: NOAA (National Oceanic and Atmospheric Administration). (2024). *Climate at a glance*. Retrieved March 25, 2024, from www.ncei.noaa.gov/access/monitoring/climate-at-a-glance

For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at www.epa.gov/climate-indicators.

Resiliency and Climate Change

More to come in Session 5

Rate of Temperature Change in the United States, 1901–2023



Rate of temperature change (°F per century):



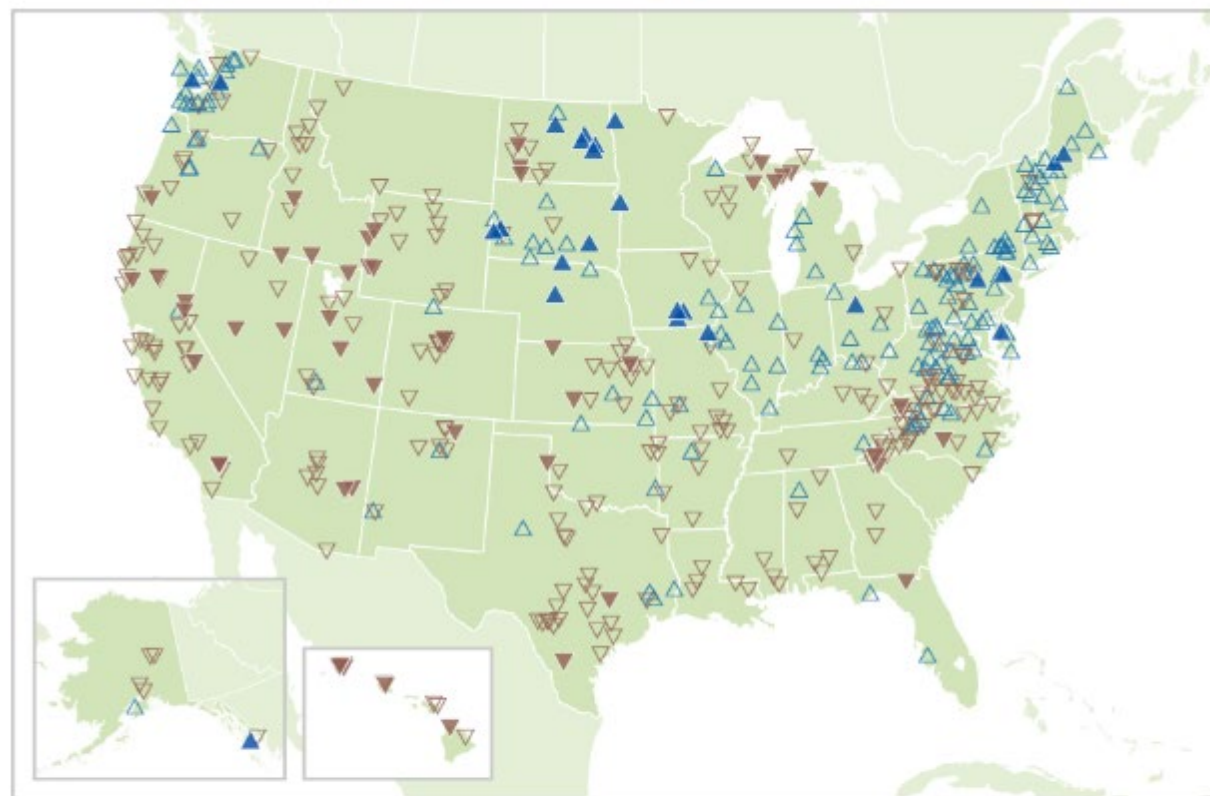
Gray interval: -0.1 to 0.1°F

Alaska data start in 1925.

Data source: NOAA (National Oceanic and Atmospheric Administration), (2024). *Climate at a glance*. Retrieved March 25, 2024, from www.ncei.noaa.gov/access/monitoring/climate-at-a-glance

For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at www.epa.gov/climate-indicators.

Change in the Frequency of River Flooding in the United States, 1965–2015



Data source: Slater, L., and G. Villarini. 2016 update and expansion to data originally published in: Mallakpour, I., G. Villarini. 2015. The changing nature of flooding across the central United States. *Nature Climate Change* 5:250–254.

For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at www.epa.gov/climate-indicators.

Technological Advances/Innovations

Real-time control systems

Sensors

Unmanned Aerial Vehicles or Drones

Artificial Intelligence Machine Learning





EPA MSGP Reissuance

2026 MSGP

- EPA is in the process of reissuing the Multi-Sector General Permit (MSGP) for stormwater discharges from industrial activities
 - The current MSGP expires in February 2026
- Potential modifications:
 - Clarifications to improve readability and improve compliance
 - Updates to select monitoring requirements
- Next steps:
 - Draft permit is in internal review
 - Target for proposal is December 2024
 - Target for final permit issuance is end of 2025

**National Pollutant Discharge Elimination System (NPDES)
Construction General Permit (CGP) for Stormwater Discharges from
Construction Activities**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA), as amended by the Water Quality Act of 1987, P.L. 100-4, "operators" of construction activities (defined in Appendix A) that meet the requirements of Part 1.1 of this National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP), are authorized to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of construction activities" (see Appendix A) until one of the conditions for terminating CGP coverage has been met (see Part B.2).

This permit becomes effective on 12:00 am, February 17, 2022.

This permit and the authorization to discharge expire at 11:59pm, February 16, 2027.

Signed and issued this 18 day of January 2022

DEBORAH SZARO
Digitally signed by DEBORAH SZARO
Date: 2022.01.18
08:31:14 -0500

Deborah Szaro,
Acting Regional Administrator, EPA Region 1.

Signed and issued this 18 day of January 2022

JAVIER LAUREANO
Digitally signed by JAVIER LAUREANO
Date: 2022.01.18
11:21:16 -0500

Javier Laureano,
Director, Water Division, EPA Region 2.

Signed and issued this 18 day of January 2022

CARMEN GUERRERO PEREZ
Digitally signed by CARMEN GUERRERO PEREZ
Date: 2022.01.18 10:18:01 -0500

Carmen Guerrero-Perez,
Director, Caribbean Environmental Protection Division, EPA Region 2.

Signed and issued this 18 day of January 2022

CATHERINE LIBERTZ
Digitally signed by CATHERINE LIBERTZ
Date: 2022.01.18
12:05:24 -0500

Catherine A. Libertz,
Director, Water Division, EPA Region 3.

Signed and issued this 18 day of January 2022

JEANEANNE GETTLE
Digitally signed by JEANEANNE GETTLE
Date: 2022.01.18
13:09:48 -0500

Jeanneanne Gettle,
Director, Water Division, EPA Region 4.

Signed and issued this 18 day of January 2022

TERA
Digitally signed by TERA
Date: 2022.01.18
15:10:30 -0500

Signed and issued this 18 day of January 2022

CHARLES MAGUIRE
Digitally signed by CHARLES MAGUIRE
Date: 2022.01.18
08:31:14 -0500

Charles W. Maguire,
Director, Water Division, EPA Region 6.

Signed and issued this 18 day of January 2022

JEFFERY ROBICHAUD
Digitally signed by JEFFERY ROBICHAUD
Date: 2022.01.18
14:41:37 -0500

Jeffery Robichaud,
Director, Water Division, EPA Region 7.

Signed and issued this 18 day of January 2022

DARCY OCONNOR
Digitally signed by DARCY OCONNOR
Date: 2022.01.18
14:50:05 -0700

Darcy O'Connor,
Director, Water Division, EPA Region 8.

Signed and issued this 18 day of January 2022

TOMAS TORRES
Digitally signed by TOMAS TORRES
Date: 2022.01.18
13:30:16 -0500

Tomás Torres,
Director, Water Division, EPA Region 9.

Signed and issued this 18 day of January 2022

DANIEL OPALSKI
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Date: 2022.01.18
15:10:30 -0500

Daniel D. Opalski,
Director, Water Division, EPA Region 10.

EPA CGP Modification

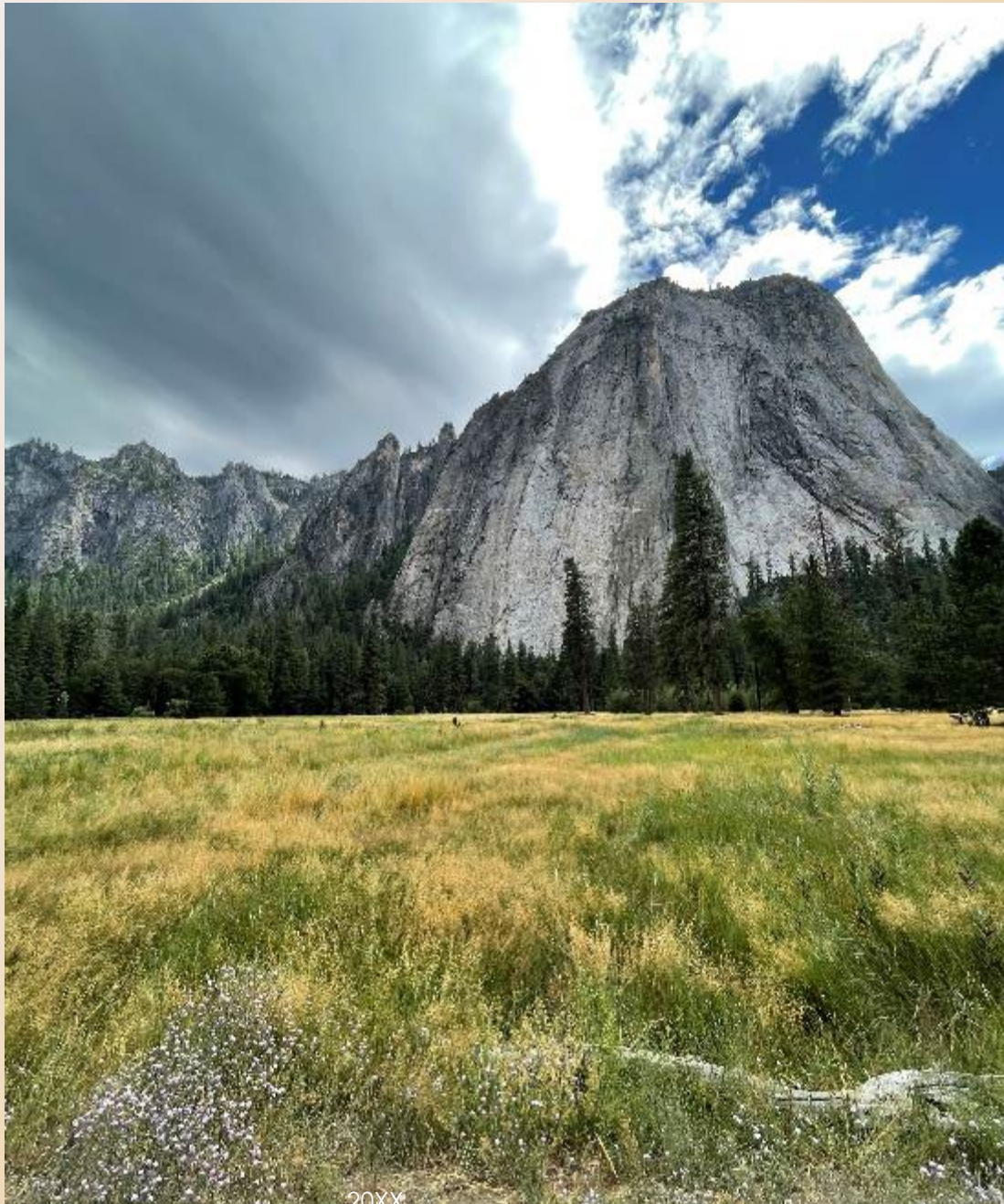
EPA CGP Modification

- What: EPA will be proposing a narrow modification to its 2022 CGP
- Purpose of modification: To expand the areas eligible for CGP coverage to include all “Land of Exclusive Federal Jurisdiction” or “LEFJ”
- Why: The proposed modification would correct the error in the 2022 CGP in not including coverage for LEFJs when first issued
- Schedule:
 - Proposal in Nov./Dec. 2024
 - Final in March 2025

LEFJ Background

- LEFJs include lands in the U.S. where the federal government retains exclusive federal jurisdiction (in relative respects).
- Exclusive federal jurisdiction is established only under limited circumstances pursuant to the Enclave Clause of the U.S. Constitution, art. 1, section 8, clause 17)
 1. Where the federal government purchase land with state consent to jurisdiction;
 2. Where a state chooses to cede jurisdiction to the federal government; and
 3. Where the federal government reserved jurisdiction upon granting statehood.





Location of LEFJs

- Responsibility for maintaining list of LEFJ locations rests with individual federal departments
- EPA does not maintain a comprehensive list or map of LEFJ locations
- Examples of LEFJs include certain national parks, such as Denali, Mount Rainier, Yellowstone, Yosemite, Acadia.

Possible Upcoming Regulatory Actions



NPDES Market-Based Approaches

- Proposed rule would clarify CWA authority for use of market-based approaches, such as trading and off-site stormwater management, to meet water quality-based permit requirements
- Schedule: Interagency review to be initiated potentially late 2024

Minor Corrections to NPDES Regs

- Planned direct final rule would address:
 - Typos
 - Obsolete citations
 - Inadvertent deletions
 - Other non-controversial updates (e.g., removing “Trust Territories” from “State” definition)
- Stormwater examples:
 - Correcting citations related to permit MS4 application deadlines (in §122.26(e)(9)) and small MS4 reporting requirements (§122.35(h)(2)(vi))
- Schedule: Publish potentially end of 2024



Future Focus

I need the most help to address...

I am getting stuck on...

I don't know practices or controls to reduce/eliminate...

Thank you

Greg Schaner

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Rachel Urban

urban.rachel@epa.gov

