

The background is a collage of three images. The top left shows a group of people at a protest holding a blue banner with orange text. The top right shows a satellite view of a large hurricane. The bottom left shows an aerial view of a city with significant flooding. The bottom right shows a street-level view of a city with buildings and trees.

STORMWATER MANAGEMENT IN A CHANGING WORLD

JEANEANNE GETTLE, EPA REGION 4

OCTOBER 2021

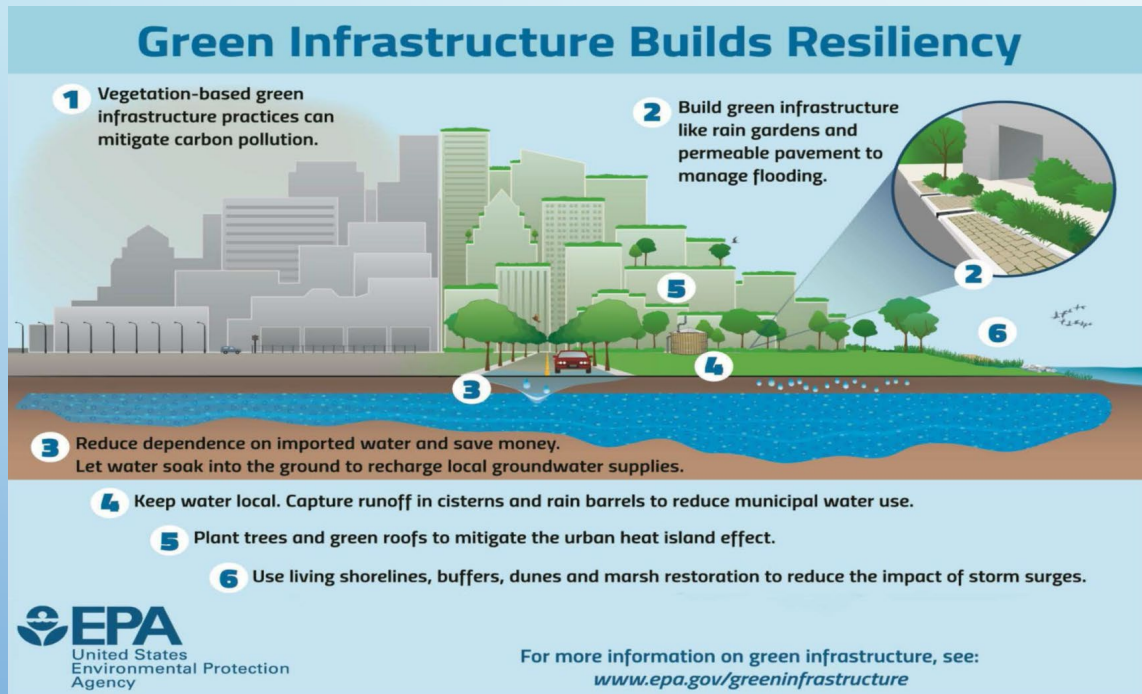
CLIMATE IMPACTS

EPA Programs and Initiatives Addressing Climate Change in the Water Sector

- Creating Resilient Water Utilities (CRWU)
- Effective and Sustainable Water Utility Management
- Emergency Response for Drinking Water and Wastewater Utilities
- Green Infrastructure and Low Impact Development
- Sustainable Infrastructure
- WaterSense
- Climate Ready Estuaries (CRE)
- Healthy Watersheds
- Water Quality Models and Tools



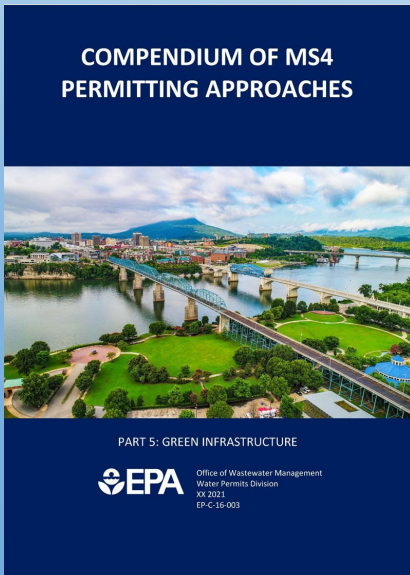
CLIMATE RESILIENCY THROUGH GREEN INFRASTRUCTURE



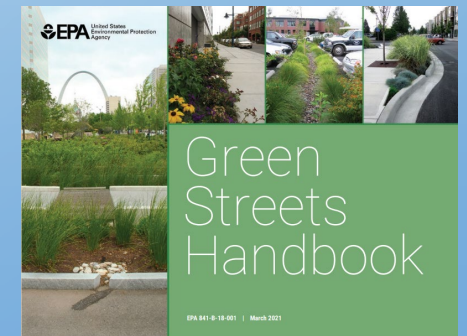
The Water Infrastructure Improvement Act (WIIA) of 2019:

- Promote and coordinate the integration of green infrastructure into permitting and enforcement, planning efforts, research, technical assistance, and funding guidance.
- Defined Green Infrastructure under the Clean Water Act.

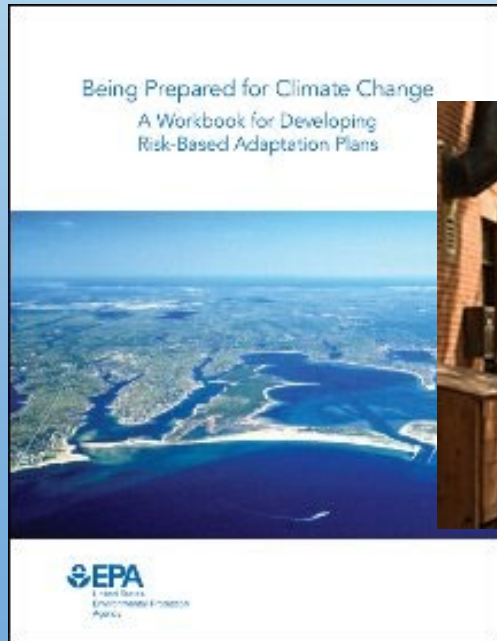
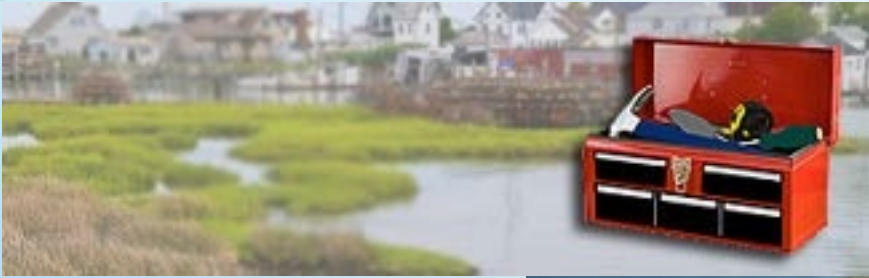
RECENT EPA GREEN INFRASTRUCTURE RESOURCES



- Green Infrastructure Webcast Series – continually updated
 - <http://www.epa.gov/green-infrastructure/green-infrastructure-webcast-series>
- Greening Congregations, released May 2020
- Green Streets Handbook, released May 2021
- Community-Enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC) Tool, Released April 2021
 - <https://www.epa.gov/water-research/green-infrastructure-modeling-toolkit#clasic>
- Compendium of MS4 Permitting Approaches: Part 5, Green Infrastructure



CLIMATE RESILIENCY THROUGH PLANNING



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Creating Resilient Water Utilities (CRWU)

The CRWU initiative provides drinking water, wastewater and stormwater utilities with the practical tools, training, and technical assistance needed to increase resilience to extreme weather events. Through a comprehensive planning process, CRWU assists water sector utilities by promoting a clear understanding of potential long-term adaptation options



Adaptation Act

- [Fredericktown, OH](#)
- [Camden, NJ](#)
- [Harrisburg, PA](#)
- [Manchester, NH](#)
- [Faribault, MN](#)
- [Waynesboro, VA](#)

Plan for Extreme Weather



- [Learn about utility adaptation strategies](#)
- [Conduct a planning workshop](#)
- [Explore and share adaptation case studies](#)

Assess Your Risk and Find Resources

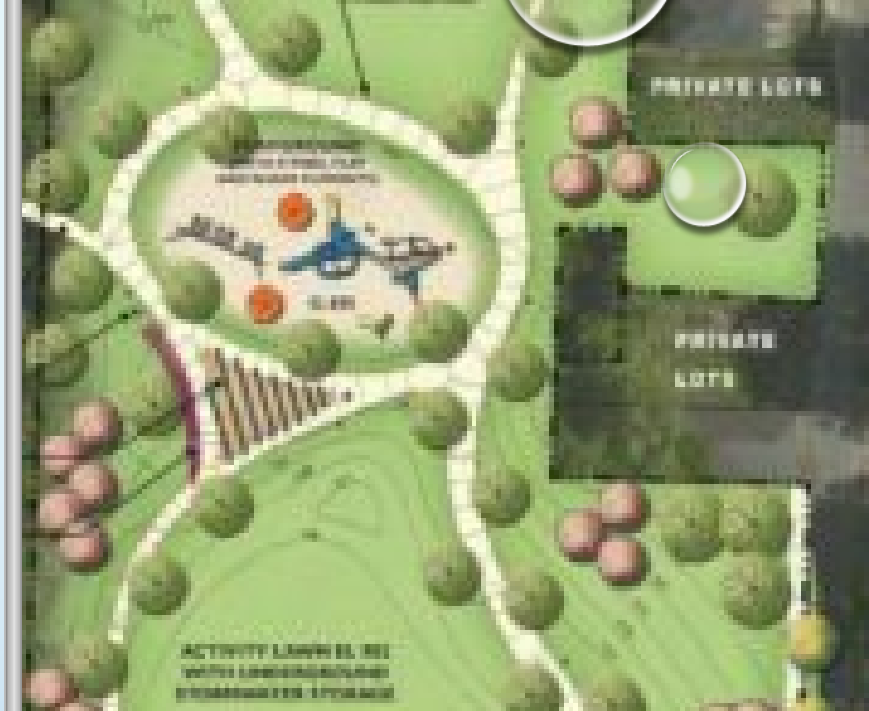


- [Conduct a risk assessment](#)
- [See coastal storm surge scenarios](#)
- [View resources](#)

CRWU Toolkit Resource

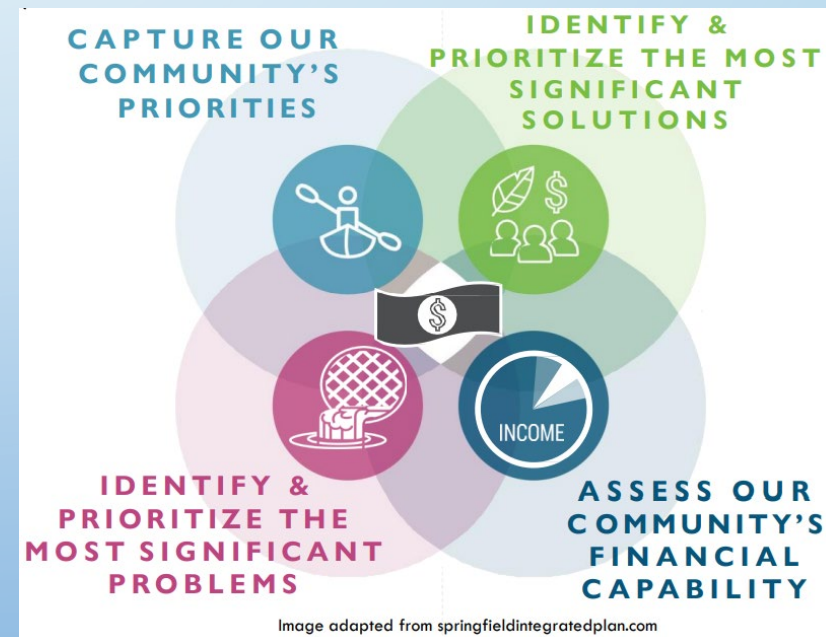
Adapt and plan for weather impacts using EPA's CRWU Toolkit

ENVIRONMENTAL JUSTICE AND STORMWATER



INTEGRATED STORMWATER AND WASTEWATER PLANNING

- Integrated planning is a voluntary opportunity for municipalities to meet CWA obligations by sequencing stormwater and wastewater projects.
- Integrated planning may also consider other environmental and community objectives, including:
 - Water conservation and reuse
 - Biosolids waste management
 - Resiliency and flooding
 - Environmental justice
 - Safe drinking water
 - Green infrastructure, including land conservation
 - Other public health priorities such as air quality



LONG-TERM STORMWATER PLANNING FOR MS4S



- Communities can develop a comprehensive long-term stormwater plan that integrates stormwater management with communities' broader plans for economic development, infrastructure investment and environmental compliance.
- Some benefits:
 - Saves money by aligning stormwater upgrades with other infrastructure and development projects.
 - Reduce flooding and pollution with reliable infrastructure in order to attract and sustain businesses to the community.
 - Build an attractive community for residents to eat, live, work, play, fish and canoe in their own backyard.
 - Provide certainty and predictability to developers and opens up new opportunities for financing.

FUNDING

Sewer Overflow and Stormwater Reuse Municipal Grants Program (OSG)

- Background:

- America's Water Infrastructure Act (AWIA) of 2018 reauthorized and expanded section 221 of the Clean Water Act which initiated the start of the OSG program.
- OSG received an appropriation of \$28M in FY2020 and \$40M in FY2021.
- EPA will provide grants to states, DC, and the U.S. territories to make sub-awards for planning, design and construction of:
 - treatment works to intercept, transport, control, treat, or reuse municipal combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), or stormwater; and
 - any other measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water.

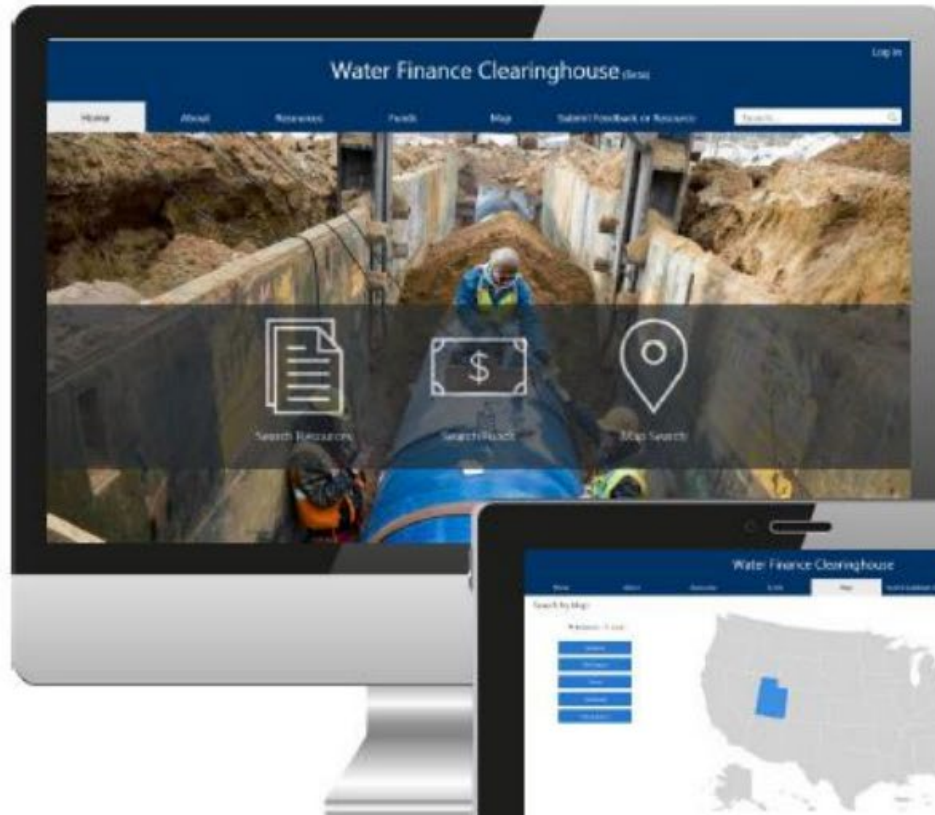
FUNDING

OSG grants can support:

- Ongoing overflow or stormwater work
- Cover planning and design costs to help get a project started
- Can support disadvantaged communities and Environmental Justice initiatives
- May be paired with a Clean Water State Revolving Fund project to reduce the project costs for the community

- <https://www.epa.gov/cwsrf/sewer-overflow-and-stormwater-reuse-municipal-grants-program>

FUNDING



WATER FINANCE CLEARINGHOUSE

Meeting the Needs of Stakeholders

The Water Finance Clearinghouse is an **easily navigable web-based portal** that helps communities locate **information and resources** for all things water finance.

FUNDING

Stormwater Infrastructure Finance Workgroup Activities

Report featuring recommendations on
stormwater funding and financing

Detailed descriptions of stormwater funding
and financing mechanisms that are being used
with examples

Case studies on how stormwater is being
funded across the country

Database on stormwater funding options by
state

OTHER STORMWATER ACTIVITIES

- EPA's 2021 Multi-Sector General Permit
- Updated industrial stormwater templates and guides
 - <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-fact-sheets-and-guidance>
 - SWPPP Template
 - SWPPP Guide
 - Monitoring and Sampling Guide
 - Documentation Templates
 - Coming Soon: Spreadsheet to help identify if exceedance of benchmark occurs
- EPA's Construction General Permit
- Census Rulemaking



THANK YOU

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