

Including Watershed Planning and Green Infrastructure into State Hazard Mitigation Plans

Share the benefits of integrating watershed planning with FEMA hazard mitigation planning.

4 Good Reasons:

- 1. Provides a platform for localities to include natural hazard mitigation in their plans***
- 2. Leverages funds under the Clean Water Act***
- 3. Results in hazard mitigation projects that provide year-round benefits***
- 4. (Possibly) More insurance discounts for Community Rating System (CRS) jurisdictions***

1. Green infrastructure (floodplain and stream restoration, on-site stormwater infiltration, wetlands creation, reforestation, etc.) can help mitigate hazards of droughts, flash floods, urban heat island, landslide, erosion, and harmful algal blooms. FEMA encourages nature-based approaches in hazard mitigation planning and now allows ecosystem benefits in the benefit/cost test for project eligibility. ***The State Hazard Mitigation Plan can provide a platform for encouraging adoption of green infrastructure practices by localities by referencing them in the plan.***
2. ***The Clean Water Act (CWA) Section 319 provides for grants (“319 grants”) for States that have prepared approved Non-Point Source Pollution Management Plans to reduce stormwater runoff volume, reduce pollutants and protect groundwater. The grants are for technical assistance, education, training, demonstration projects and monitoring to support watershed-based planning and projects such as wetlands or infiltration basins. Many of these projects also could provide mitigation of natural hazards. EPA’s CWA 319 program is now working with State Non-Point Source Coordinators to educate them about hazard mitigation planning collaboration benefits.***

The Water Resources Reform and Development Act (WRRDA) provides for loans and other funding under the ***Clean Water State Revolving Loan Fund (CWSRF)***. Mainly used for wastewater and drinking water facilities, the funds can also be used for stormwater projects to treat/manage/reduce stormwater runoff, or for reusing or recycling wastewater or stormwater. Watershed planning and stormwater projects are eligible for CWSRF loans and grants to the extent they facilitate the mitigation of excess runoff and pollution (potential hazards). In addition, CWSRF can provide technical assistance and grants for watershed pilot projects such as watershed partnerships, integrated water resource planning, municipal-wide stormwater management planning, and watershed management of wet weather discharges. Many of these projects also could provide hazard mitigation.

Drinking water authorities are becoming more aware of the risks of not protecting their watersheds, so may be more encouraged to invest in source water protection by conserving forests or reforestation. The Safe Drinking Water Act provides for the ***Safe Drinking Water State Revolving Loan Fund (DWSRF)***, where states may elect to set aside some of their annual allotments to support source water protection like conservation of forest land draining to a drinking water reservoir, which could reduce risk of erosion, wildfire caused by drought or pest damage, water contamination, and urban heat island.

3. Nature-based approaches provide year-round benefits to a community beyond hazard mitigation, such as healthier streams, better fishing, increased recreation, and safer water supplies that will cost less to treat at the water plant. For example, if state and local plans for flood risk and stormwater management can be aligned, a planning partnership of flood risk *with* watershed water quality could create an asset for a community, increasing overall community resilience.
4. FEMA's CRS program continues to expand credits for nature-based approaches to reduce insurance costs. Fact sheets and more information can be found here: <https://www.epa.gov/nps/using-low-impact-development-and-green-infrastructure-get-benefits-fema-programs>

Get started. Meet your State Non-Point Source Program Coordinator (<https://www.epa.gov/nps/state-contacts-nps-programs>) who can tell you about the watershed planning programs underway in your state, and the water quality hazards that exist there, like harmful algal bloom risks to water supplies, bacterial contamination in creeks and rivers that could put swimmers at risk, and other water quality hazards in your state. Your State Floodplain Manager (<https://www.floods.org/index.asp?menuID=274&firstlevelmenuID=185&siteID=1>) may have additional insights on the benefits to communities to integrating flood and watershed planning concepts in the SHMP and in local plans.

Most states have a Federal Interagency team supporting the SHMO or State Floodplain Manager- the "Silver Jackets. This may be a good forum for your non-point source agency contact to meet all the Federal agency staff that assist you. Share the link for Silver Jackets with your water quality colleagues. Invite them to team meetings. <http://silverjackets.nfrmp.us/State-Teams>.

Additional Resources:

How can I contact my State's NPS Coordinator?

<https://www.epa.gov/nps/state-contacts-nps-programs>

FEMA: Hazard Mitigation Assistance Unified Guidance: <https://www.fema.gov/media-library/assets/documents/103279>; Benefit-Cost Analysis Supplement for Ecosystem Services: https://www.fema.gov/media-library-data/1464289310993-d619d562aff0810ba029f42bdf1deb67/Supp_BCA_Guid_Floodwater_Div_Storage_508.pdf; Innovative and Drought Mitigation Projects: <https://www.fema.gov/media-library/assets/documents/129691>
CRS Program
<https://www.fema.gov/national-flood-insurance-program-community-rating-system>

EPA: Fact Sheets on these FEMA programs: <https://www.epa.gov/nps/using-low-impact-development-and-green-infrastructure-get-benefits-fema-programs>; Green Stormwater Infrastructure Sites: <https://www.epa.gov/green-infrastructure>; <https://www.epa.gov/nps/urban-runoff-low-impact-development>; CWSRF and DWSRF Sites: <https://www.epa.gov/sourcewaterprotection/funding-source-water-protection>

All Federal Water Funding Programs: <https://www.epa.gov/waterfinancecenter>