ARPA Clean Water Infrastructure Fact Sheet

The American Rescue Plan Act (ARPA), signed into law by President Biden on March 11, 2021, provided $350 billion in Coronavirus State and Local Fiscal Recovery Funds to state, local, territorial and Tribal governments. Water and sewer infrastructure investments marked one of the six ways that funds could be used to promote COVID-19 recovery and to address climate change impacts. The U.S. Department of Treasury's ARPA Interim Final Rule, issued on May 10, 2021, identified wastewater infrastructure projects as eligible if they met the U.S. Environmental Protection Agency's Clean Water State Revolving Fund (CWSRF) eligibility criteria.

The CWSRF identifies 15 main project categories, but acknowledges other options are available:

1. Centralized Wastewater Treatment
2. Energy Conservation
3. Water Conservation
4. Stormwater Design and Infrastructure
5. Agricultural Best Management Practices
6. Decentralized Wastewater Treatment
7. Resource Extraction
8. Contaminated Sites
9. Landfills
10. Habitat Protection and Restoration
11. Silviculture
12. Desalination
13. Groundwater Protection and Restoration
14. Surface Water Protection and Restoration
15. Planning/Assessment (i.e., Asset Management)

This fact sheet highlights the CWSRF program, two gateways to addressing wastewater challenges (i.e., gray and green infrastructure), how wastewater infrastructure investments can promote climate resilience, highlighted cases and helpful resources.

Definitions: Gray & Green Infrastructure

Gray Infrastructure

CWSRF eligible projects allow for gray and green infrastructure use. Gray infrastructure is designed to move stormwater away from the built environment and impervious surfaces (e.g., roadways, parking lots, rooftops, etc.) into collection systems (e.g., gutters, curbs, drains, etc.). The CWSRF funds a variety of gray infrastructure stormwater management projects, including projects to upgrade or build wastewater treatment plants.

These methods, however, do not reduce the amount of stormwater runoff, which can lead to flooding and increased levels of pollution in local water bodies. EPA has prioritized and strongly encouraged green infrastructure approaches to manage wet weather, as a result (i.e., shown through the Integrated Planning for Municipal Stormwater and Wastewater framework). Water infrastructure projects often include elements of both gray and green infrastructure, as shown in the *Highlighted CW Cases* section.

Green Infrastructure

Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintain and restore natural hydrology by infiltrating, evapotranspiring and harvesting, and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains, and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed.

– CWSRF Guidance Definition

Green infrastructure (e.g., bioswales, permeable pavement and detention ponds, etc.) captures and filters rainwater where it lands, thereby reducing the total amount of stormwater that wastewater and sewer systems must process. Green infrastructure reduces flood risks and prevents pollution from entering local waterways, both in turn cutting cities' cost burden. Cities with more green infrastructure features flood less frequently, contain more habitat for local biodiversity and provide economic and health benefits for residents. As climate-induced precipitation increases in communities across the country, NLC recommends the use of green infrastructure as a step towards reducing risks and impacts.

Climate Resilience Opportunities

Climate change is heightening extreme weather occurrences and their severity; it is noticeably impacting water quality and availability in communities facing extreme drought and/or flooding. Green infrastructure projects provide tangible opportunities to alleviate the consequences of climate change while strategically mitigating the severity of the climate threats.

Manage Stormwater and Flooding

ARPA-funded stormwater projects must integrate a water quality benefit consistent with the goals of the Clean Water Act. Stormwater exposes water bodies to pollutants (e.g., sediments and heavy metals) and combined sewer overflow. Green infrastructure investments prevent water bodies' exposure to pollutants and impairing overflow, allowing for preserved water quality (i.e., lowered treatment needs). Green infrastructure projects that protect floodplains, in addition to those that reduce stormwater runoff, lower flooding levels. Infiltration system projects (e.g., rain gardens, bioswales and permeable pavements) absorb rainfall and prevent pipe networks from overflowing.

Conserve Water and Energy During Drought Conditions

ARPA-funded projects provide options to prepare for drought, such as measures to conserve and reuse water or reduce the energy consumption of public water treatment facilities. Drought conditions, notably in the west, continue to show record highs. Local governments, in the short term, have asked residents to curb their water and electricity usage during these periods. This could be challenging and pose additional health threats to residents during extreme temperatures. Green infrastructure projects offer alternative means to sustainably conserve water

and maintain water reserves, while also mitigating urban heat island effects. Investments for aquifer storage and recovery, water reclamation and water recycling, for instance, reduce the dependence on potable water by offering other options to access water. Technology investments for leak detection systems, meter replacements and water audits can efficiently alert water staff of water losses.

Resident Opportunities

Climate resilience initiatives foster social, economic and health benefits to residents. Streets and open spaces become more accessible to the public when flooding, urban heat and other extreme weather aftereffects are alleviated. These open, safe spaces can offer residents opportunities to engage with others and foster relationships, in turn framing climate resilience investments as a social cohesion mechanism that associates with mental health and wellbeing benefits. Parks, wetlands and recreational spaces formed and preserved from climate resilience efforts can also produce physical health benefits. Research shows that residents are more likely to exercise if they live near nature, open and green spaces. Cities across the country have found success in integrating green infrastructure into recreational spaces to attract users and for its climate resilience benefits.

> **Green Infrastructure for Schools Guidance**
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> The Department of Treasury's ARPA guidance includes information on promoting healthy childhood environments, such as through "investments in parks, public plazas, and other public outdoor recreation spaces." The Cities Connecting Children to Nature (CCCN), a partnership between NLC and Children & Nature Network, released the Initial Guidance on Using American Rescue Plan Act Funds to Bring Nature's Benefits to Children. CCCN recommends city leaders and their partners pursue green schoolyards as a form of green infrastructure and stormwater management. Green schoolyards are nature-filled outdoor spaces that offer students, teachers, parents and community members places to play, learn, explore and grow. Designs include but are not limited to outdoor classrooms, native gardens, stormwater capture, traditional playground equipment, nature play areas, vegetable gardens, trails, trees, water features and more.

Highlighted CW Cases

Rain Check Green Infrastructure Program (Buffalo, NY)

The City of Buffalo's Sewer Authority made a legal commitment to use green infrastructure to manage the runoff from at least 1,315 acres of impervious surfaces. It launched its Rain Check program in 2015 to protect and restore Buffalo's waterways through green infrastructure. Called "the first generation of public green infrastructure investments," the program sought to address stormwater challenges in the city's public domain spaces. Rain Check 1.0 focused on four main investments:

1. Green Streets: streetscape projects, such as integrating green landscaping and potting
2. Green Parking Lots: reconfigured parking lots to collect and soak up rain and snowmelt
3. Demolitions and Vacant Lot Restoration: greening vacant lots after demolitions
4. Rain Barrels and Downspout Disconnections: engaging residents to disconnect their downspouts and install rain barrels

Rain Check 2.0, launched in 2018, aimed to expand beyond the public domain. The city completed a mapping analysis of Rain Check 1.0's work to determine where to focus large-scale efforts. The city collaborated with consultants to identify projects, and it leveraged computer modeling technology to simulate how rainfall enters and moves through the sewer system. The analyses identified six sewer basins that encompassed 500 acres of impervious surfaces. This 2.0 phase seeks to expand partnerships beyond local government departments to include large and small property owners, local colleges and schools, non-profit agencies, housing authorities, and residents to explore how the Buffalo Sewer Authority's investments can help further community revitalization. The City of Buffalo's ARPA Spending Blueprint included $40 million to water and sewer projects, with part of the funds going to these green infrastructure investments and lead service line replacements.

Central Green Streamway (Lenexa, KS)

The City of Lenexa leveraged green infrastructure values to create a space that addressed four goals: flood prevention, water protection, habitat restoration and educational recreation. Seven step pools were installed, allowing water flow to move slower and to increase the water's oxygen levels; the step pools drain 65 acres of rainwater. The water is guided into a wetland, where native plant species further treat the stormwater and filter out pollutants. (i.e., bioremediation). The streamway was connected to existing trails and three park systems, making it an attractive public destination.

Lawncrest Neighborhood Green and Gray Infrastructure Upgrades (Philadelphia, PA)

Governor Wolf announced earlier this year nearly $180 million in water infrastructure to its infrastructure investment fund (PENNVEST), which funds sewer, stormwater and drinking water projects. About $100 million of the fund would be used to create a new preliminary treatment plant located in the Lawncrest neighborhood, an Environmental Justice area, to treat wastewater and mitigate combined sewer overflows. The plant will incorporate a green roof, grit removal systems, underground water storage basins, rain gardens and more.

Multi-Area Streambank Restoration (Hendersonville, NC)

Approximately 1,000 linear feet of the City of Hendersonville's sewer line were threatened by streambank erosion. The local Mud Creek also became an impaired, turbid water body. The city plans to restore 13 urban section streams (i.e., 11,000 linear feet of urban streambank), rehabilitate the 1,000 linear feet of threatened sewer line, install educational features about Mud Creek at an adjacent park and modify the stormwater pond into a wetland. The project is expected to reduce streambank erosion, improve Mud Creek's water quality to meet water standards and amplify community engagement about Mud Creek's purpose and wastewater education in general. The project received a 2020 recognition by the EPA.

West Washington Street Stormwater Upgrade *(Champaign, IL)*

The City of Champaign sought funding for one of its first green stormwater projects to address severe flooding. The city constructed a detention basin to connect storm sewers to an existing basin. A rain garden/bioretention system was installed as well, along with streetscape features, such as native species, curb cuts that drain into bioswales, and green spaces surrounding the detention basins. The project is expected to improve a variety of safe mobility options around West Washington Street and promote drainage in flood-prone areas. The project received a 2019 honorable in the PISCES program.

States & Local Governments Proposing Initiatives

Several states and local governments are currently performing resident engagement, community and stakeholder meetings, and studies to determine how to spend the ARPA funding, in what areas and on what types of projects. The following highlights a few cases:

- ***City of Hoboken, NJ***: The city is receiving $73 million in state revolving funds to execute its $150 million comprehensive strategic green infrastructure plan. The city collaborated with regional partners to formulate this plan that will add more place-based green space and permeable surfaces throughout the city designed to capture more stormwater where it falls before it reaches the combined sewer system.
- ***City of Edmonds, WA***: The city plans to use approximately $4.8 million in ARPA funds to reimburse city capital expenditures associated with green infrastructure projects through 2026. The projects will specifically address stormwater entering the Puget Sound, including flood control for Edmonds Marsh, water diversion for Perrinville Creek, as well as creating green streets and rain gardens.
- ***Columbia City, MO***: The city will spend $25 million in ARPA funds over the next two years. The city council solicited the public for ideas on how to spend the funds and shared ideas from the mayor's office. One of the mayor's recommendations included $2.5 million for stormwater diversion along Business Loop 70 with detention ponds and trail features.

Helpful Resources

NLC staff provides guidance and support on how to approach local water infrastructure priorities. NLC's COVID-19 Pandemic Response & Relief Hub offers articles, recorded webinars, fact sheets and other resources for local governments on using ARPA funds. The **Local COVID-19 Action Tracker** is a searchable dashboard of how cities are spending their ARPA State and Local Fiscal Recovery Funds. NLC also partners with expert organizations that can provide support on navigating wastewater and stormwater infrastructure goals.

- **WaterNow Alliance** is a network of local water leaders advancing sustainable, affordable, equitable and climate resilient water strategies in their communities.
- **Association of Clean Water Administrators** is the professional association for state, interstate and Territorial officials who are responsible for the implementation of surface water protection programs throughout the nation.
- **US Water Alliance** brings together stakeholders to co-create and leverage solutions to advance policies and programs that build a sustainable water future for all.

See the following resources for more information on CWSRF background and the ARPA guidance on approaching water and sewer infrastructure projects.

ARPA

- U.S. Department of Treasury's "FACT SHEET: The Coronavirus State and Local Fiscal Recovery Funds Will Deliver $350 Billion for State, Local, Territorial, and Tribal Governments to Respond to the COVID-19 Emergency and Bring Back Jobs" (March 10, 2021)
- U.S. Department of Treasury's "Coronavirus State and Local Fiscal Recovery Funds Frequently Asked Questions" (2021)
- U.S. Department of Treasury's, "Interim Final Rule: Coronavirus State and Local Fiscal Recovery Funds" (May 17, 2021)

EPA

- CWSRF Overview of Clean Water State Revolving Fund Eligibilities (2016)
- Fact Sheet: Protecting Public Health and Water Quality with the Clean Water State Revolving Fund (2016)
- Fact Sheet: Supporting Cybersecurity Measures with the Clean Water State Revolving Fund (2019)
- Report: Green Infrastructure Opportunities that Arise During Municipal Operations (2015)
- Technical Brief: Drought Resilience and Water Conservation Efforts (2016)
- Water Infrastructure and Resiliency Finance Center is an information and assistance center, identifying water infrastructure financing approaches that help communities reach their public health and environmental goals.

If you have general questions about the Coronavirus State and Local Fiscal Recovery Funds, please email the U.S. Department of Treasury at SLFRP@treasury.gov or call 844-529-9527.

The information contained here is not legal advice. It will be subject to change based on updates from the U.S. Department of the Treasury, and any recipients should confirm applicability to their specific situation.