COMMUNITY CHANGE GRANTS
Environmental and Climate Justice
U.S. Environmental Protection Agency

EnDyna

Pollution Reduction Strategy 3: Clean Water Infrastructure to Reduce Pollution Exposure and Increase Overall System Resilience

Clean Water Infrastructure 101

A reliable and clean water supply helps ensure that water is safe to drink and that there is enough water for everyone. Reliable wastewater infrastructure protects water bodies for fishing, swimming, other activities, and drinking water supplies. To reduce exposure and improve system resiliency, communities may choose to make small-scale upgrades to infrastructure, prepare and apply for larger and longer-term projects, and/or provide emergency interventions. Here are some useful water systems terms to know:

Drinking water infrastructure: Includes the sources of drinking water; drinking water treatment plants; and the pipes and pumps that that connect these components to each other and to homes and other users.

Lead service lines: Pipes made of lead that connect a building's plumbing to a water main, which can result in lead ending up in drinking water.

Wastewater treatment infrastructure: Includes the network of pipes that collect and carry sewage from homes, businesses, and industries to a wastewater treatment plant; the treatment plant itself; and sewer overflow pipes.

Septic systems: Underground and decentralized systems that treat household wastewater.

EPA State Revolving Funds and Grants: EPA funds grants and loans to communities to pay for projects that improve water infrastructure. This Strategy allows communities to prepare and apply for this funding for applicable activities.

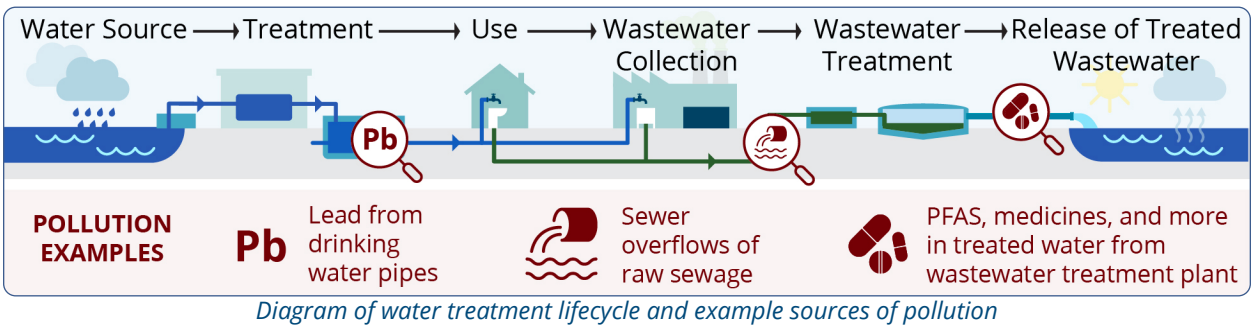

Diagram of water treatment lifecycle and example sources of pollution

Clean Water Infrastructure to Reduce Pollution Exposure and Increase Overall System Resilience

Clean Water Infrastructure Solutions for Community Challenges

Polluted and Unsafe Drinking Water

Community Challenges	Possible Solutions
In some cases, drinking water may have high levels of lead or other harmful pollutants like PFAS that are not removed by the treatment plant. • Disadvantaged communities may have more difficulty funding upgrades to treatment plants or removal of lead pipes. • Members of disadvantaged rural communities may not be able to afford testing and treatment upgrades for private drinking water wells.	• Replace lead service lines in specific neighborhoods and at public buildings such as schools. • Prepare and apply for federal infrastructure funds to upgrade treatment plants, replace all lead service lines, and more. • Provide water filters or alternative water supplies while working on a longer-term solution. • Create plant buffers or purchase land to protect nearby water supply from pollutants.

Water Bodies Polluted with Wastewater

Community Challenges	Possible Solutions
Aging and degraded wastewater infrastructure can pollute water bodies and threaten public health. • Disadvantaged communities often lack access to green spaces. Also, sewer overflows can lead to beach closures, fish advisories, and algal blooms. • Malfunctioning backyard septic systems can lead to standing sewage and may be more common in disadvantaged communities.	• Connect household plumbing to a nearby community wastewater system. • Prepare and apply for federal infrastructure funds to expand treatment plant capacity, upgrade treatment methods, repair or build new sewers, and more. • Carry out public outreach campaigns to educate the public about beach closures and fish advisories.

Clean Water Infrastructure to Reduce Pollution Exposure and Increase Overall System Resilience

Clean Water Infrastructure Solutions for Community Challenges

Service Interruptions from Extreme Weather Events

Community Challenges	Possible Solutions
Extreme weather can cause power outages and damage to equipment, interrupting water utility service. • Buying bottled water is a costly and unplanned expense for members of disadvantaged communities. • Disadvantaged community members may have a hard time temporarily relocating while service is interrupted.	• Adopt procedures and minor system upgrades that allow greater resilience during extreme storm events. • Upgrade the water utility system to make it more resilient during power outages, floods, and other extreme events. Or instead, prepare and apply for federal infrastructure funds for larger-scale improvement projects. • Install green infrastructure to capture and slow the flow of stormwater and prevent untreated wastewater from entering water bodies.

Disclaimer: This document was created to help Community Change Grant applicants think through various potential solutions to the problems their community may be facing. All the listed "Community Challenges" and "Possible Solutions" are only examples. We did not attempt to list all possible challenges or solutions.

For further information on clean water infrastructure, see EPA's Water Infrastructure, Sustainable Water Infrastructure, and Green Infrastructure pages.

For more information on the Clean Water Infrastructure Pollution Reduction Strategy, read Section I.G. and Appendices D and F of the Notice of Funding Opportunity (NOFO).

For further questions regarding technical assistance, please contact EJ_TechAssist@epa.gov or call 1(800) 540-8123.

For questions regarding the Notice of Funding Opportunity (NOFO), please contact CCGP@epa.gov.

http://bit.ly/CCGTA