



OREGON Clean Water State Revolving Fund



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State of Oregon
Department of
Environmental
Quality

Value engineering: Save money and resources

In times of economic uncertainty, it is especially important to be sure public dollars are wisely spent. Value engineering does just that.

This process is a systematic and creative approach to identify and to focus on unnecessarily high costs in a project in order to arrive at a cost saving without sacrificing the reliability or efficiency of the project. Research shows that communities can save a lot of money through this process. The U.S. Government Accountability Office found that multimillions of dollars could be saved annually if more communities undertook value engineering. Large agencies like the U.S. Army and the Army Corps of Engineers use value engineering to maximize savings, project efficiency and show good

stewardship of public dollars.

Here in Oregon, many communities are also realizing large savings by using value engineering. CWSRF-funded projects of \$10 million or more are required to include this process but participation is recommended for all projects.

How much money can a community save through value engineering?

One Oregon CWSRF loan recipient paid \$30,000 for the study and as a result identified \$1 million in savings. Another paid \$87,521 and gained \$1.9 million in savings.

EPA provides guidance on implementing [value engineering](#) for wastewater treatment works. You can also contact your [project officer](#) for more information.

Rulemaking update

The CWSRF is updating administrative rules in response to Oregon Senate Bill 884, which passed in 2019. The bill addresses nonpoint source pollution caused by privately owned failing septic systems, a leading cause of water quality contamination across the state. The bill expands the definition of eligible borrowers to include non-profit Community Development Financial Institutions, certified by the U. S. Department of Treasury,

for the specific purpose of lending to individual homeowners for:

- Septic repair
- Septic replacement
- Connection to a public sewer system

The Environmental Quality Commission approved the new rules in July and staff will publish updated applications and related forms in early fall. [Details on the process](#) are available on the rulemaking webpage.

The rewards of building “green”

What do the Roman Colosseum, Portland’s reservoirs and sidewalks have in common? High carbon emissions. While concrete is a useful building material, producing it generates significant greenhouse gases. How significant? Approximately 887,000 million metric tons globally in 2015 – the equivalent emissions from 190,000 cars on the road for a year, according to [Oregon’s Consumption Based Emissions Inventory](#), making the cement sector the third largest industrial source of pollution.

With that in mind, the DEQ is working with cities and industry leaders to cut greenhouse gas emissions by using low carbon concrete. A recent [pilot project](#) in Portland showed that by using alternative concrete mixes, the carbon footprint of an average sidewalk ramp was reduced by 23-34 percent without increased cost or loss of structural integrity. Low carbon concrete uses less cement, which would be reflected as a lower Global Warming Potential value in a product declaration, which is akin to a nutritional label. By selecting the lowest cement



Workers at one of the Portland test sites moving wet, low carbon concrete.

mix that still meets the structural and finishing requirements of the concrete, an engineer can significantly lower the embodied carbon in a project.

Low carbon concrete can help reduce Global Warming Potential, a benchmark used to determine the impact of products on the environment. DEQ’s Clean Water State Revolving Fund can offer principal forgiveness on loans of up to 50 percent, but not exceeding \$500,000, of the project costs associated with using low carbon concrete or other “green” materials used to construct wastewater and

stormwater projects. In wastewater and stormwater projects. With current interest rates dipping below 1 percent on some loans, cities can invest in their infrastructure, reduce greenhouse gas emissions and save taxpayers a lot of money. And low carbon concrete is just one of the ways a “green” project may qualify for principal forgiveness.

To learn more about low carbon concrete contact Jordan.Palmeri@deg.state.or.us. Check with your regional DEQ [project officer](#) to see if your project may qualify for principal forgiveness.

Supporting disadvantaged communities

According to Business Oregon, more than half of the counties in the state are economically distressed. The designation considers factors such as employment and income. This matters for a lot of reasons, but certainly affects a community’s ability to update or replace infrastructure. The CWSRF recognizes that critical services like wastewater and stormwater treatment must be maintained. The loan program, which deliberately keeps interest rates well below market rate, also offers principal forgiveness for economically disadvantaged communities. This means that eligible projects get to write off 50 percent of their loan or \$500,000, whichever is less. Additional free resources include technical assistance for:

- Project planning
- Financial readiness
- Asset management
- Stormwater treatment options
- Understanding federal and state requirements
- Co-funding
- And more!



Does your community have a water quality concern?

We can help!

Resources for preparedness and recovery

Governor Kate Brown [declared drought emergencies](#) in 19 counties the first week of July, but with soaring temperatures people across the state already knew what kind of summer it was going to be. And the high-profile chlorine shortage in June had already exposed the vulnerability of our water treatment systems. Meanwhile, the devastation of last summer’s wildfires is still being felt. Fortunately, technical and financial assistance are available to help communities protect critical water infrastructure for whatever the next natural disaster is, and to repair damage already done.

While the Clean Water State Revolving Fund cannot provide immediate funding following a disaster, the program offers the most affordable loans to finance

emergency preparedness planning, as well as the design and construction of waste and stormwater treatment systems. In addition, CWSRF offers eligible public agencies:

- Interim financing - for pending federal funding
- Match funding - for federal grants
- Co-funding
- Loans to prepare for future events
- Free technical assistance for financial readiness and project planning
- Up to \$500,000 principal forgiveness per eligible project
- 5, 10, 15, 20 and 30-year loan terms

Drought resilience

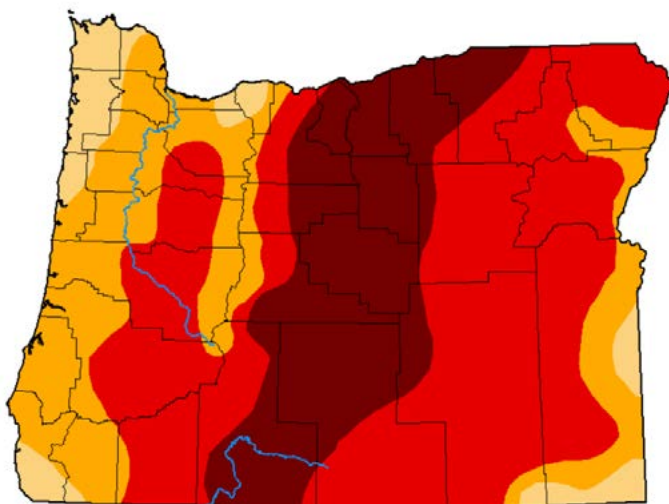
Periods of drought have become a way of life in many states. Across the west, wastewater utilities are drafting plans to ensure their systems can continue to operate despite water shortages. In the report, [Managing Wastewater in a Changing Climate](#), the Public Policy Institute of California says, “Of the multiple climate pressures that are likely to affect wastewater management, drought poses the biggest challenge for the sector. The unusually hot drought of 2012–16 provided a vivid

demonstration of conditions that may become more common as the climate warms, and was a wake-up call for wastewater agencies.”

The wastewater treatment process is a complex system affected by many factors. Seemingly helpful measures like using less water at home can cause operational problems and damage equipment that was designed to operate with a certain amount of water flow. Toxic algal blooms can occur when warm water mixes with treated

wastewater, such as in a lagoon or effluent released into rivers and streams. Planning for hotter, drier summers means considering the entire network of treatment processes, water users and uses.

Recycling water and wastewater drought plans are two ways that utilities can protect their critical functions. DEQ is here to help! With free technical assistance, planning loans and guaranteed below market interest rates for design and construction, the CWSRF can



Map released: Thurs. July 29, 2021

Data valid: July 27, 2021 at 8 a.m. EDT

Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

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Pacific Islands and Virgin Islands Author(s):
Richard Heim, NOAA/NCEI

help communities to prepare their water infrastructure for whatever comes. Smaller, economically distressed borrowers may also qualify for principal forgiveness of 50 percent, or \$500,000, whichever is less.

“The wastewater sector must adapt to changing water use patterns, a growing population, new regulations, and a range of climate pressures in decades to come,” according to the Public Policy Institute of California. “Preparing for these changes now will help the sector build resilience under today’s conditions and adapt to what lies ahead.”

Supporting cybersecurity measures

An un-natural disaster communities must prepare for is the threat of a cyber-attack. EPA provides [resources](#) for this as well, including:

- **Water Sector Cybersecurity Brief for States:**
This guide can assist state technical assistance providers with assessing cybersecurity practices at water and wastewater systems and developing an improvement plan to reduce cyber risks.
- **Cybersecurity Incident Action Checklist:**
This guide provides steps for water and wastewater systems to prepare for, respond to, and recover from a cybersecurity incident.

Not sure if your utility is protected? Answer [these questions](#) to find out.

Oregon’s CWSRF provides financing for a variety of security updates. Not sure where to start? Contact your [regional project officer](#) or submit a [Clean Water Project Assistance](#) information request.

“The CWSRF program supports communities and improves water quality statewide.”

- CWSRF Program Charter

EPA Resources

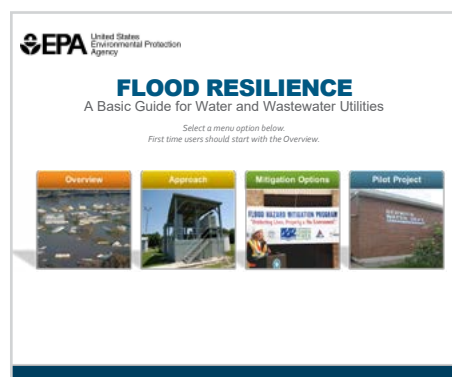
The U.S. Environmental Protection Agency provides numerous free resources to help communities of all sizes prepare for disasters and respond when they happen. EPA recommends following a process of Plan, Train, Respond, Recover and Assess.



Graphic courtesy of the Environmental Protection Agency

EPA provides free emergency preparation resource guides, [online templates](#) and [training](#) specifically for water utilities, including:

- [Emergency Response Plans](#)
- [Actions to Prepare for a Drought](#)
- [Drought Response and Recovery](#)
- [Earthquake Resilience](#)
- [Supply Chain Chemical Shortages](#)
- [Emergency Messaging](#)
- [Flood Resilience](#)



Communities can support each other through mutual aid agreements coordinated by the national Water/Wastewater Agency Response Network. Help includes personnel and equipment. [Oregon’s chapter](#) has 157 members and offers a variety of resources.





Clean Water State Revolving Fund

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CWSRFinfo@deq.state.or.us

MISSION STATEMENT

Oregon's Clean Water State Revolving Fund program supports communities by funding projects that improve water quality and environmental outcomes for the State of Oregon. The program is dedicated to working with small communities and on projects that increase financial and environmental sustainability, climate resiliency and water and energy efficiency.

- Program Charter

Clean Water State Revolving Fund Contacts

Northwest Region

Covering the counties of: Clackamas, Clatsop, Columbia, Multnomah, Washington and Tillamook

PROJECT OFFICER

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Western Region

Covering the counties of: Benton, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Polk, and Yamhill

PROJECT OFFICER

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Eugene, OR 97401

Eastern Region

Covering the counties of: Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Wasco, Sherman, Malheur, Morrow, Umatilla, Union, Wallowa, and Wheeler

PROJECT OFFICER

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STATEWIDE TECHNICAL ASSISTANCE

Ransom Horner-Richardson, 541-633-2080

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Upcoming events

Rural Community Assistance Corporation

AUGUST 23 [Assisting Your Community to Prepare and Recover from Disasters](#) (part 1), online

The Oregon Association of Water Utilities

AUGUST 23-26 [Summer Classic](#), Seaside

Northwest Environmental Business Council

SEPTEMBER 13-14 [Oregon Infrastructure Summit](#)

Upcoming deadlines for receiving applications at DEQ

By 11:59 p.m. (PST) on the due date:

- Aug. 13, 2021
- Dec. 10, 2021
- April 8, 2022

**Unless five or more applications are received between reviews.*

Accessibility

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.