

Decentralized Wastewater Treatment Funding Needs, Challenges, and Solutions

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*This presentation represents my opinions
and does not reflect the opinions of
NOWRA*



The new law allocates \$11.7 billion for wastewater and stormwater projects. Will it get to the impoverished communities who need it most?



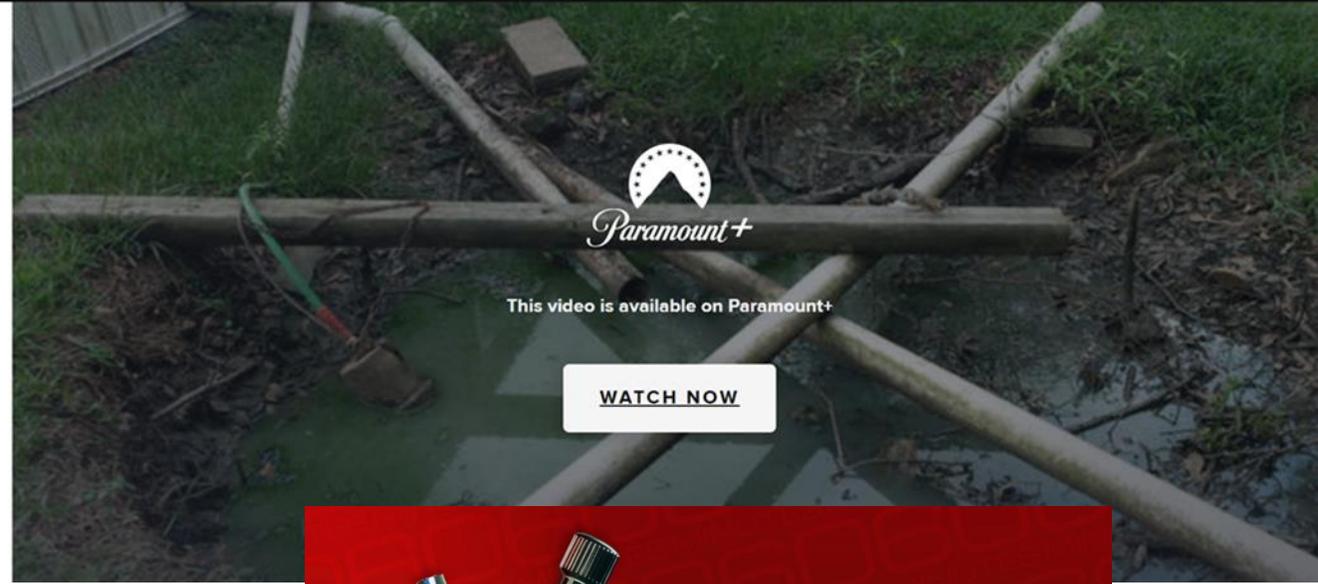
The New York Times

60 Minutes investigates: Americans fighting for access to sewage disposal

60

BY BILL WHITAKER

DECEMBER 19, 2021 / 6:55 PM / CBS NEWS



60
MINUTES

Flushed and Forgotten

Sanitation and Wastewater in
Rural Communities in the United States



The Alabama Center for Rural Enterprise (ACRE)
The Columbia Law School Human Rights Clinic
The Institute for the Study of Human Rights at Columbia University

Flushed and Forgotten (2019)

“In Alabama, I saw various houses in rural areas that were surrounded by cesspools of sewage that flowed out of broken or non-existing septic systems”.

UN Special Rapporteur on extreme poverty and human rights (2017)

Flushed and Forgotten

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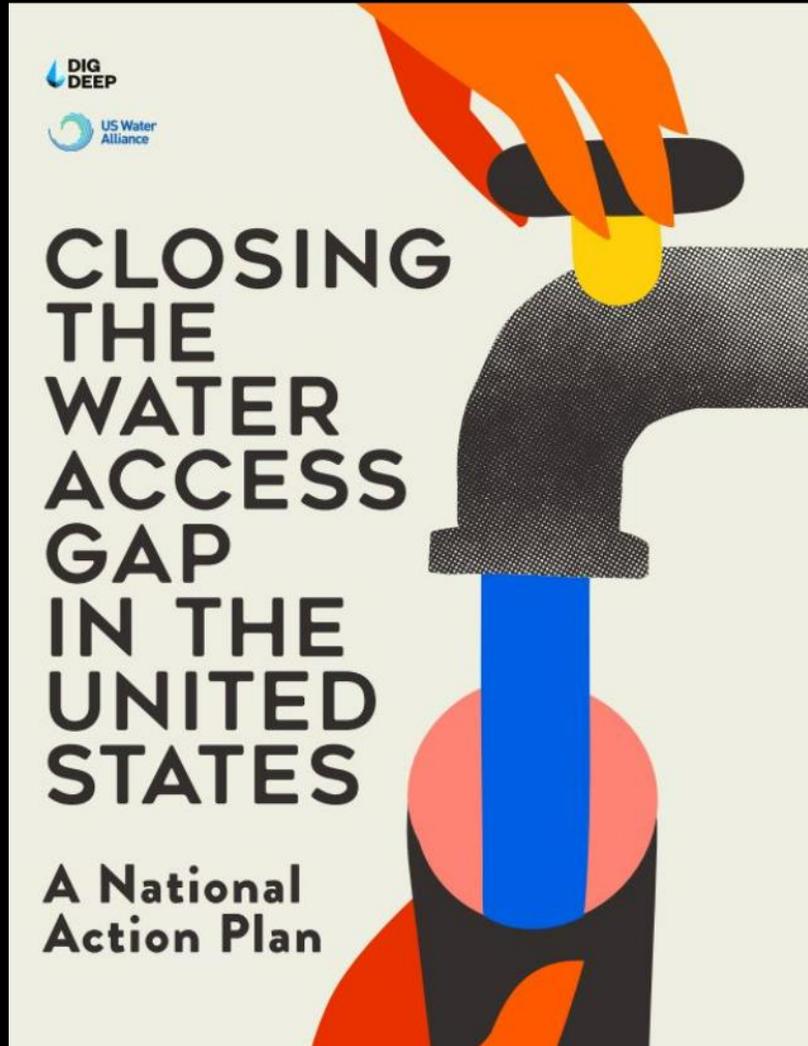
Flushed and Forgotten (2019)

“While majority of people flush and forget, many rural communities lack access to the one of the most basic services: sanitation.”

Report highlights inadequate and unaffordable sanitation issues in:

Alabama
Alaska
California
Kentucky
Louisiana
Michigan
Mississippi
Navajo Nation
North Carolina
Ohio
Tennessee
Texas
Virginia
West Virginia
Puerto Rico

How Many Americans in Lack Adequate Decentralized Sanitation?



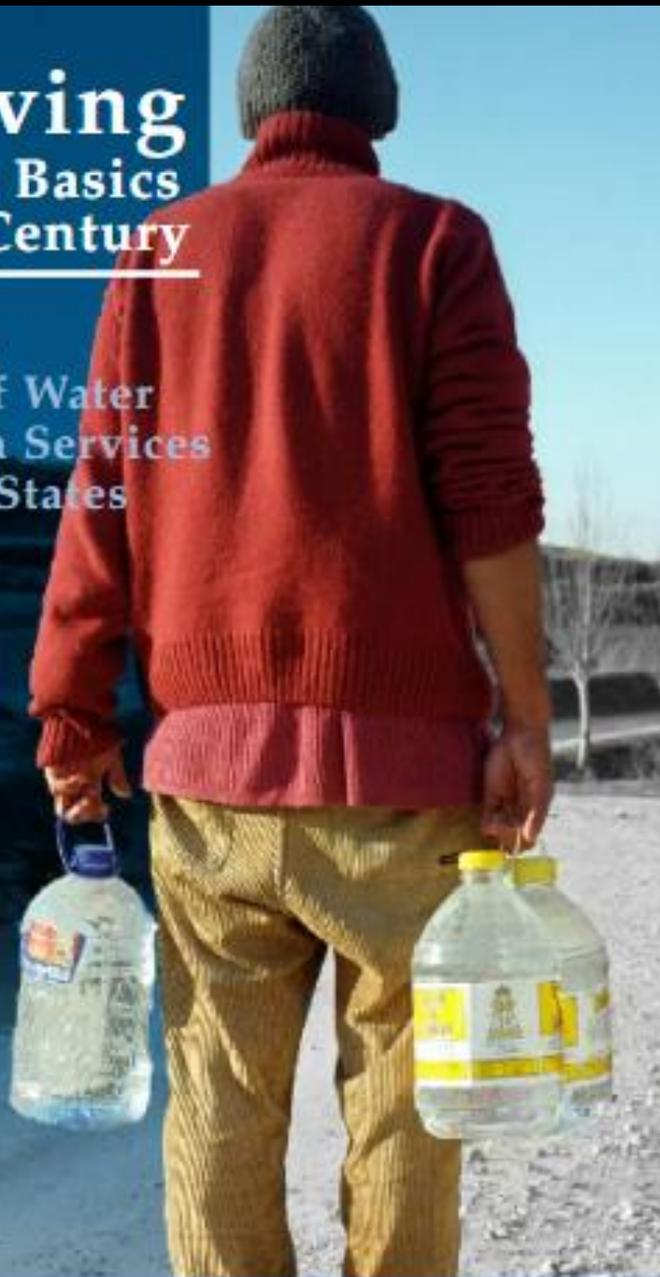
CLOSING THE WATER ACCESS GAP (2019)

“Today, more than two million Americans live without running water and basic indoor plumbing, and many more without sanitation.”*

*Estimate based on US Census data on households with **“incomplete plumbing”** + an estimate of the US homeless population.

Still Living Without the Basics in the 21st Century

Analyzing the
Availability of Water
and Sanitation Services
in the United States



Rural Community Assistance Partnership

Earlier RCAP Work
Also Evaluated
Complete Plumbing
Based on 2000
Census Data

How Many Americans Lack Adequate Decentralized Sanitation?

US CENSUS American Community Survey (ACS) – a source for data

Census ACS 2015 Form

8 Does this house, apartment, or mobile home have –

	Yes	No
a. hot and cold running water?	<input type="checkbox"/>	<input type="checkbox"/>
b. a flush toilet?	<input type="checkbox"/>	<input type="checkbox"/>
c. a bathtub or shower?	<input type="checkbox"/>	<input type="checkbox"/>
d. a sink with a faucet?	<input type="checkbox"/>	<input type="checkbox"/>
e. a stove or range?	<input type="checkbox"/>	<input type="checkbox"/>
f. a refrigerator?	<input type="checkbox"/>	<input type="checkbox"/>
g. telephone service from which you can both make and receive calls? <i>Include cell phones.</i>	<input type="checkbox"/>	<input type="checkbox"/>

Census ACS 2016 Form

7 Does this house, apartment, or mobile home have –

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“Incomplete Plumbing” – missing at least one item (a-d in 2015)

2015 Data Summary (can't use 2016)

Total Housing Units – 118,290,000 (2015 Census AHS)

Housing Units with Incomplete Plumbing – 505,442 (0.4%)

Housing Units with Incomplete Plumbing reporting Sewer –
400,188

Housing Units with Incomplete Plumbing reporting
septic/cesspool/other/none/not reported – **105,255**

2015 Data Summary (can't use 2016)

Of these 105,255 housing units with septic/cesspool/none/not reported, **49,470** households reported not having a flush toilet

This equates to approximately **124,000 people** (based on 2.5 people/house) not served by sewer without adequate decentralized sanitation in 2015

(using the 2015 “toilet ratio” and applying it to most current 2019 data yields **90,000** not served by sewer without adequate sanitation)

How Many Americans Lack Adequate Decentralized Sanitation?

2,000,000+ or 90,000?

We need data!

- 2M+ includes those served by sewer (80%) with incomplete plumbing (at least one item missing) but it doesn't specifically count malfunctions
- Good News! The US Census is testing additional "sewer or septic" questions that will be added to the American Community Survey (ACS) – possibly as early as 2025

How Many Americans Lack Adequate Decentralized Sanitation?

2,000,000+ or 90,000?

Based on “incomplete plumbing”

Using 2019 US Census American Housing Survey (AHS) Data

	Urban	Urban Cluster (Suburban)	Rural
Total Housing Units	87.6M	11.6M	24.9M
Total Housing Units No Wastewater Service (None/Not Reported)	99k	13k	28k
	41k decentralized households = 103k Americans		

The Cost to Replace Inadequate Decentralized Sanitation System

Assume **200,000+** homes have no sanitary systems or a malfunctioning system (out of a pool of 25M homes)
- this lines up roughly with state permit data on repairs of septic systems – about 0.7% replaced each year

At \$ 15,000 per system.....

\$ 3+ Billion Needed

(accessing Federal \$ has been a challenge)

FINANCING DECENTRALIZED WASTEWATER TREATMENT SYSTEMS

Pathways to Success with the Clean Water State Revolving Fund Program

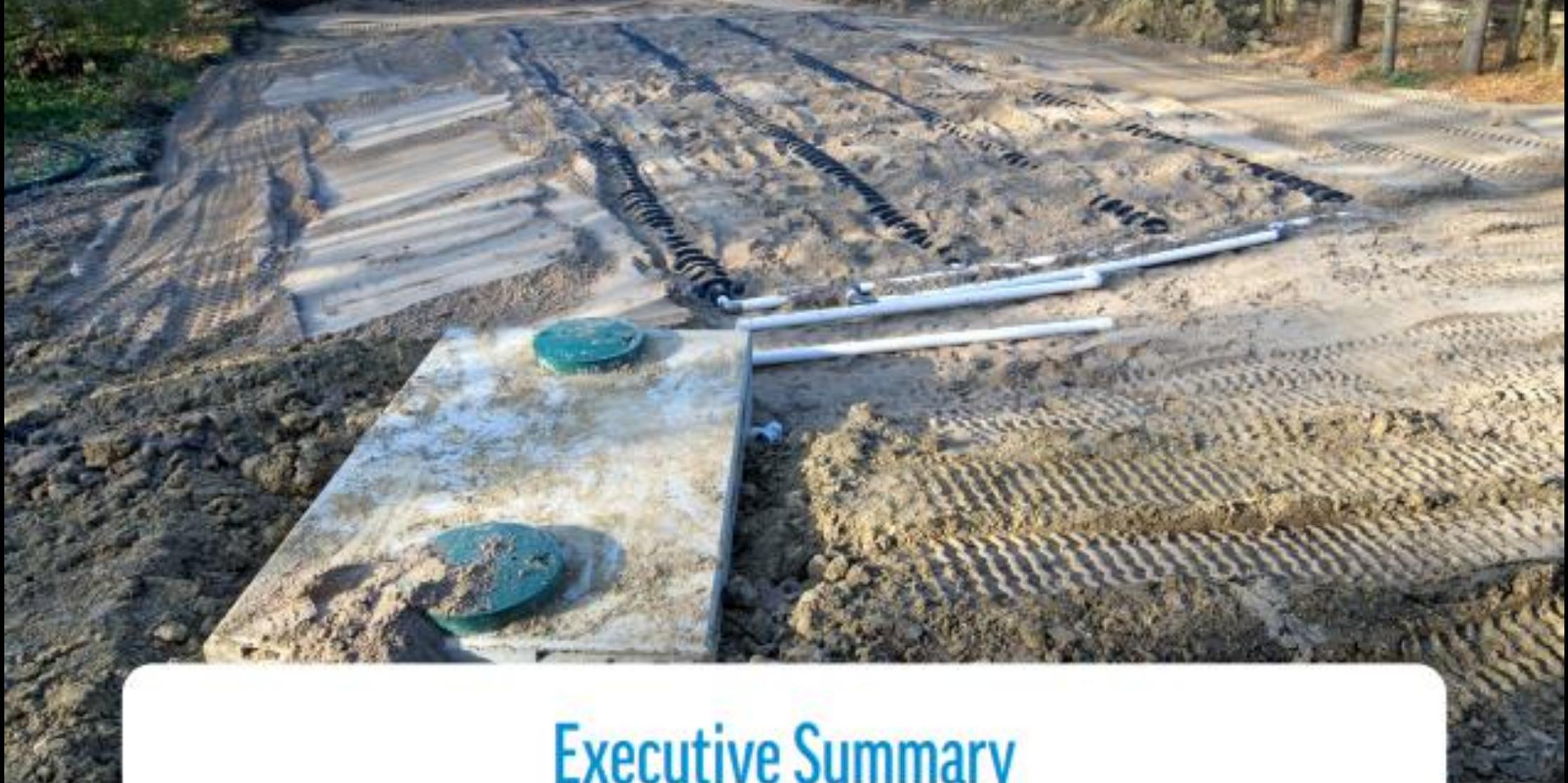


Clean Water State Revolving Fund (CWSRF) Program - Loans

51 Programs in the U.S.
(one/state + Puerto Rico)

Since 1988....

- \$ 153 billion to borrowers
- Approximately 0.5% - 2% of CWSRF to Decentralized



Executive Summary

The Environmental Protection Agency (EPA) is providing this guide for community leaders, local and state onsite wastewater programs, and Clean Water State Revolving Fund (CWSRF) programs on how to utilize the CWSRF for decentralized wastewater treatment system projects (i.e., decentralized systems).

CWSRF Financing Fundamentals



Is my project eligible for CWSRF funding?

- Planning and design
- Construction
- CWSRF CANNOT pay for operations and maintenance

Your state's CWSRF staff can help you understand what costs may/may not be included in a CWSRF loan.



What kinds of projects are eligible?⁸

- New septic system installation
- Repair/replacement projects
- Converting cesspools to septics
- Cluster systems or community package plants
- Certain fees associated with setting up a special district or a Responsible Management Entity



Am I eligible to apply?

The CWSRF may lend to:

- Communities, municipalities, townships, counties, political subdivisions
- Individual homeowners
- Citizen groups
- Non-profit organizations
- Public utility companies



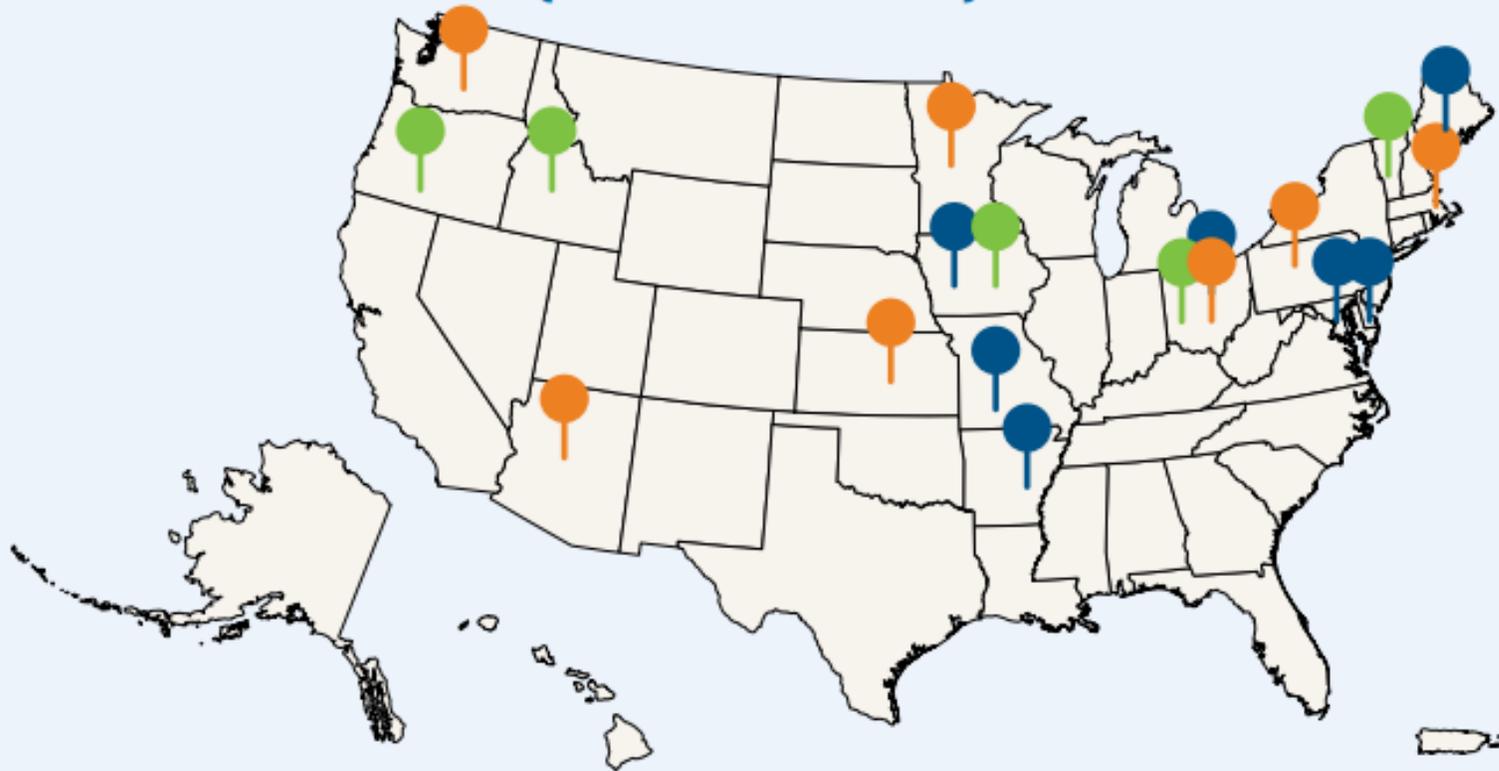
What terms are available?

Within statutory limits, state CWSRF programs have a great deal of flexibility to offer borrowers, including leeway with:

- Interest rate and repayment terms
- Limited amounts of loan forgiveness
- Sculpted repayment structures to accommodate borrower cash flows

Check with staff in your state about how a CWSRF loan can be customized to fit your needs.

A National Picture of Conduit Lending and Sponsorship in the CWSRF Program (as of October 2020)



Examples by
Type


SPONSORSHIP


PASS-THROUGH


LINKED DEPOSIT

Specific Examples

Septic Loan Rehabilitation Program (SLRP)

20-year loans at 3 or 6% interest, depending on income. Monthly payments paid to the CWSRF.

Septic Extended Funding Option (SEFO)

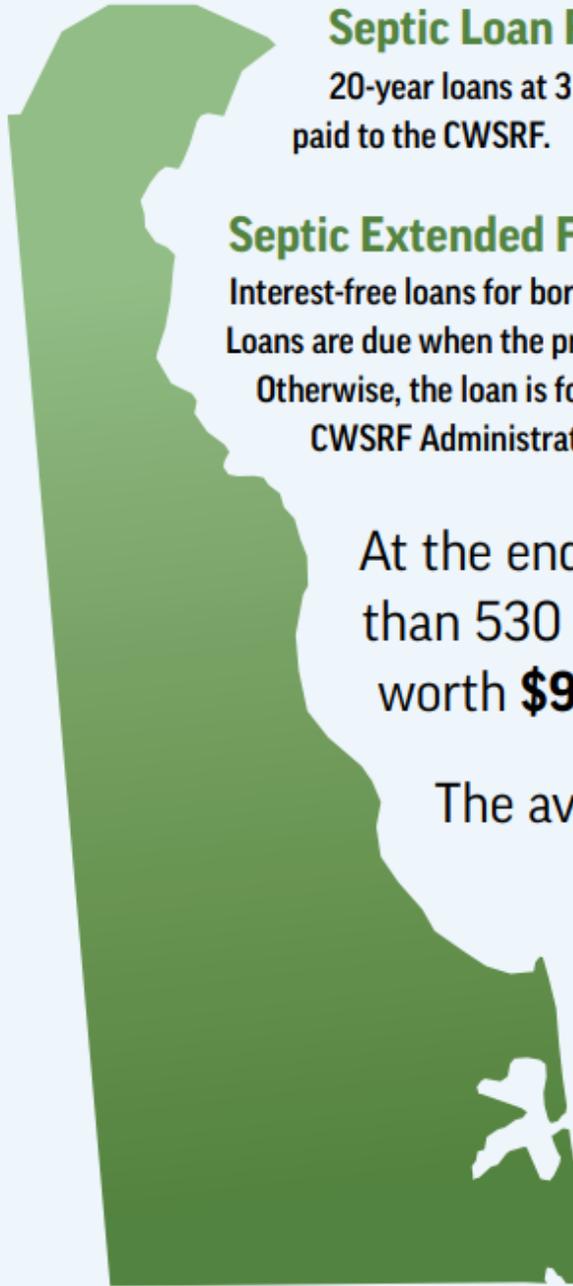
Interest-free loans for borrowers that do not qualify for SLRP. No monthly payments. Loans are due when the property is sold or transferred, or the mortgage is refinanced. Otherwise, the loan is forgiven at maturity. SEFO loans are financed from the CWSRF Administrative Fund.

At the end of FY 2020, Delaware had more than 530 SLRP and SEFO loans outstanding worth **\$9.3 million**.

The average loan is **\$18,000**.

The delinquency rate is **less than 2%**.

The loans pay for **planning, design, and construction costs**.





Advice on how
to do use
CWSRF funding
where you live

Initiating a Financing Program for Decentralized
Wastewater Systems with the CWSRF



The Infrastructure Investment and Jobs Act

• is a **\$1.2 Trillion** •
Bipartisan Infrastructure Bill



The Infrastructure Investment and Jobs Act

The IJA fully appropriates \$11.7B [above normal funding] between FY22 and FY26 to be disbursed to the states through the **CWSRF**.

Biden Administration Launches USDA-EPA Partnership to Provide Wastewater Sanitation to Underserved Communities

Historic Funding from President Biden's Bipartisan Infrastructure Law Will Help Address Lack of Basic Wastewater Infrastructure in Rural America

WASHINGTON, Aug. 2, 2022 – Today, at an event in Lowndes County, Alabama, where a significant number of residents lack access to wastewater infrastructure, the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency (EPA) announced *the Closing America's Wastewater Access Gap Community Initiative*. The new initiative will be piloted in 11 communities across the country where residents lack basic wastewater management that is essential to protecting their health and the environment. EPA and USDA will jointly leverage technical assistance resources to help historically underserved communities identify and pursue federal funding

A way to pilot
accessing CWSRF
Funding for
Decentralized

An estimated 2.2 million people in the United States lack basic running water and indoor plumbing. Many more live with wastewater infrastructure that is ineffective and puts people's health at risk. The *Closing America's Wastewater Access Gap Community Initiative* will help communities access financing and technical assistance to improve wastewater infrastructure to "close the gap" with wealthier communities. EPA and USDA—in partnership with state, Tribal, and local partners—are launching the initiative in:

- Bolivar County, Mississippi;
- Doña Ana County and Santo Domingo Pueblo, New Mexico;
- Duplin County, North Carolina;
- Greene County, Alabama;
- Halifax County, North Carolina;
- Harlan County, Kentucky;
- Lowndes County, Alabama;
- McDowell County, West Virginia;
- Raleigh County, West Virginia; and,
- San Carlos Apache Tribe, Arizona.

“(b) GRANT PROGRAM.—

“(1) IN GENERAL.—Subject to the availability of appropriations, the Administrator shall establish a program under which the Administrator shall provide grants to private nonprofit organizations for the purpose of improving general welfare by providing assistance to eligible individuals—

“(A) for the construction, repair, or replacement of an individual household decentralized wastewater treatment system; or

“(B) for the installation of a larger decentralized wastewater system designed to provide treatment for 2 or more households in which eligible individuals reside, if—

Section 50208 of IJA

GRANTS FOR
CONSTRUCTION AND
REFURBISHING OF
INDIVIDUAL HOUSEHOLD
DECENTRALIZED
WASTEWATER SYSTEMS
FOR INDIVIDUALS WITH
LOW OR MODERATE
INCOME

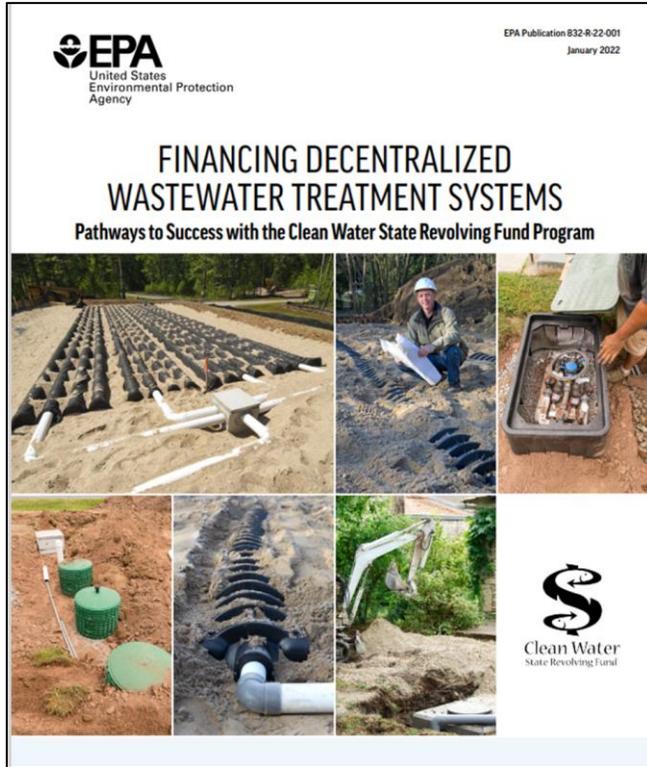
IIJA Decentralized Grant Program

Authorized for \$ 50 Million in Grants/Year for
5 Years (\$250M total) for
Repair/Replacement

NOT Appropriated Yet for FY22

Homework





Homework

It's OK to get out your phone and take a picture of this assignment.....

1. Download the EPA “Pathways” document on using CWRSF and approach your state about tapping into this funding.
2. EMAIL your two US Senators and ask them to fully fund the Decentralized Grant part (Section 50208) of the IJA (\$ 50 Million/year)



The Infrastructure
Investment and Jobs Act

THANK YOU
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