

Wastewater Treatment Plant Resilience Planning Grant Program Resources

Resource Name	Description	Link
50001 Ready Navigator	The 50001 Ready Navigator is an online guide for establishing an energy management system to plan, identify, prioritize, and implement projects that will improve your facility's energy performance. Completion of the 50001 Ready Navigator prepares facilities to pursue certification to the international best practice for energy management systems, ISO 50001.	50001 Ready Navigator
Baseline Information on Malevolent Acts for Community Water Systems Version 3.0	This guidance document can help public water system owners and operators to assess the threat that certain malevolent acts pose to their systems and to identify steps that may reduce their risk.	Baseline Information on Malevolent Acts for Community Water Systems Version 3.0 US EPA
Climate Impact Lab	This resource quantifies the impacts and costs of climate change, sector-by-sector and community-by-community around the world. It helps decision-makers understand the risks climate change presents and mitigate those risks through smarter investments and public policy.	Climate Impact Lab
Creating Resilient Water Utilities (CRWU)	This toolkit provides drinking water, wastewater, and stormwater (water sector) utilities with practical tools, training, and technical assistance to increase system resilience to climate change impacts. CRWU helps promote a clear understanding of climate data and helps water sector utilities identify potential adaptation strategies, implementation options, and infrastructure financing.	Creating Resilient Water Utilities (CRWU) US EPA

Cybersecurity Assessments	Cybersecurity assessment resources that are available for drinking water and wastewater systems.	Cybersecurity Assessments US EPA
Cybersecurity for the Water Sector	Resources for Drinking Water and Wastewater Systems focused on cybersecurity.	EPA Cybersecurity for the Water Sector US EPA
Cybersecurity Fundamentals for Water and Wastewater Utilities	This guide contains dozens of best practices, grouped into 12 main categories, that water and wastewater systems can implement to reduce security risks to their IT and OT systems. Each recommendation is accompanied by links to corresponding technical resources, giving you the information and tools you need to take a dive deep into this acutely important issue.	Cybersecurity Fundamentals for Water and Wastewater Utilities WaterISAC
Distributed Generation (DG) for Resilience Planning Guide	This resource provides information and resources on how DG, with a focus on combined heat and power (CHP), can help communities meet resilience goals and ensure critical infrastructure remains operational regardless of external events. If used in combination with a surveying of critical infrastructure at a regional level, this guide also provides tools and analysis capabilities to help decision makers, policy makers, utilities, and organizations determine if DG is a good fit to support resilience goals for critical infrastructure in their specific jurisdiction, territory, or organization.	DG for Resilience Planning Guide - report format.pdf
Effective Utility Management (EUM)	Set of information guide and tools for all sizes of water utility towards providing Sustainable Utility Management Strategies and Resources	Effective Water Utility Management Practices US EPA
Emergency Response for Drinking Water and Wastewater Utilities	This toolkit has a variety of tools and guidance to support drinking water and wastewater utility preparedness and response.	Emergency Response for Drinking Water and Wastewater Utilities US EPA
Energy Use Assessment Tool	An Excel-based tool that small- to medium-sized systems can use to conduct a utility bill and equipment analysis to assess individual baseline energy use and costs.	Energy Efficiency for Water Utilities US EPA

<p>Hazard Mitigation for Natural Disasters: A Starter Guide for Water and Wastewater Utilities</p>	<p>This guide supports water and wastewater utilities to work with their local mitigation planners to implement priority projects using FEMA or other source funding. It provides an overview of the mitigation process, along with practical examples of mitigation projects to address the impacts of earthquakes, tornados, floods, drought, wildfires and power outages.</p>	<p>Hazard Mitigation for Natural Disasters: A Starter Guide for Water and Wastewater Utilities US EPA</p>
<p>MEASUR</p>	<p>This tool is a compilation of key software platforms and more than 70 calculators to help manufacturers improve industrial system efficiency and identify potential savings opportunities.</p>	<p>Power Resilience Guide for Water and Wastewater Utilities US EPA</p>
<p>National Rural Water Association (NRWA) Cybersecurity Center</p>	<p>The NRWA Cybersecurity Center is a hub for cybersecurity information, services, and products. NRWA also posts cyber advisories and news to help the industry stay informed on current events.</p>	<p>National Rural Water Association Cybersecurity Center</p>
<p>Power Resilience Guide for Water and Wastewater Utilities</p>	<p>The Power Resilience Guide provides water and wastewater utilities with information and strategies for strengthening relationships with their electric providers and increasing their resilience to power outages.</p>	<p>Power Resilience Guide for Water and Wastewater Utilities US EPA</p>
<p>REopt: Renewable Energy Integration & Optimization</p>	<p>This tool identifies the optimal mix of renewable energy, conventional generation, storage, and electrification technologies to meet cost savings, resilience, emissions reductions, and energy performance goals.</p>	<p>REopt NREL</p>
<p>Searchable Clearinghouse of Wastewater Technology (SCOWT)</p>	<p>SCOWT is an information-sharing platform that provides resources on the cost-effectiveness and performance of innovative, alternative, and reuse wastewater technologies for both centralized and decentralized systems.</p>	<p>Clean Water Technology Center US EPA</p>
<p>Side by Side Comparison of Funds for Resiliency</p>	<p>Two different tables to compare different types of funds. One table is for grants, and the second table compares loans.</p>	<p>Side by Side Comparison of Funds US EPA</p>
	<p>These recordings provide information and expand the knowledge base of the wastewater sector by bringing</p>	

Sustainable Wastewater Infrastructure of the Future (SWIFt)	attention on four technology tracks: Energy Capture, Energy Efficiency, Resource Recovery, and Advanced Data Management.	Sustainable Wastewater Infrastructure of the Future (SWIFt 2.0) – Better Plants
Tabletop Exercise Tool for Drinking Water and Wastewater Utilities (TTX Tool)	Provides users with the resources to plan, conduct and evaluate tabletop exercises that focus on Water Sector-related incidents and challenges.	Develop and Conduct a Water Resilience Tabletop Exercise with Water Utilities US EPA
U.S. Climate Resilience Toolkit	<p>The U.S. Climate Resilience Toolkit is a website designed to help people find and use tools, information, and subject matter expertise to build climate resilience. The Toolkit offers information from all across the U.S. federal government in one easy-to-use location. The goal is to improve people’s ability to understand and manage their climate-related risks and https://toolkit.climate.gov/ Toolkit NOAA</p> <p>opportunities, and to help them make their communities and businesses more resilient to extreme events.</p>	Home U.S. Climate Resilience Toolkit
U.S. Climate Resilience: Climate Explorer	The Climate Explorer offers climate projections through 2100 for every county in the United States. For the contiguous U.S. and island territories, the tool shows climate projections for temperature, precipitation, and related climate variables for two possible futures—one in which humans make a significant attempt to reduce global emissions of heat-trapping gases (lower emissions), and one in which the rate of global emissions continues rising through 2100 (higher emissions).	Climate Explorer U.S. Climate Resilience Toolkit
Vulnerability Self-Assessment Tool 2.0	Assists utilities in assessing the potential impacts from both man-made and natural disasters in accordance with AWIA requirements and provides actions to enhance security and resilience.	Vulnerability Self-Assessment Tool (VSAT)

<p>Wastewater Energy Management Toolkit</p>	<p>Toolkit resources support best practices and innovative approaches successfully used by wastewater facilities to establish and implement energy management and planning.</p>	<p>Wastewater Energy Management Toolkit Better Buildings Initiative</p>
<p>Wastewater Measure Evaluation</p>	<p>A reference list of 23 energy conservation and resource recovery measures evaluated during SWIFT includes the median facility-wide energy savings associated with each measure.</p>	<p>Wastewater Measure Evaluation Better Buildings Initiative</p>
<p>Water and Wastewater Cybersecurity</p>	<p>This toolkit consolidates key resources for water and wastewater systems at every level of cybersecurity maturity.</p>	<p>Water and Wastewater Cybersecurity CISA</p>
<p>Water and Wastewater Sector-Incident Response Guide</p>	<p>This guide aims to enhance WWS Sector cybersecurity by: Establishing clear guidance for reporting cyber incidents; Connecting utilities with available cybersecurity resources, services, and no-cost trainings; Empowering utilities to build a strong cybersecurity baseline to improve cyber resilience and cyber hygiene; and Encouraging utilities to integrate into their local cyber communities.</p>	<p>Water and Wastewater Systems Sector Federal Roles and Resources for Cyber Incident Response CISA</p>
<p>Water Contaminant Information Tool (WCIT)</p>	<p>The Water Contaminant Information Tool (WCIT) is used by the water sector to prepare for, respond to or recover from drinking water and wastewater contamination incidents. WCIT includes comprehensive information about contaminants that could be introduced into a water system following a natural disaster, vandalism, accident or act of terrorism. There are currently over 800 priority contaminants of concern listed in WCIT.</p>	<p>Water Contaminant Information Tool (WCIT) US EPA</p>

<p>Water infrastructure and Cyber Resilience Division (WICRD)</p> <p>Products and Services List</p>	<p>The U.S. Environmental Protection Agency’s (EPA) Water Infrastructure and Cyber Resilience Division (WICRD) has developed a robust suite of products and services to improve the resilience of the water sector to all types of hazards.</p>	<p>WICRD Products and Services</p>
<p>Water Network Tool for Resilience (WNTR)</p>	<p>An EPANET compatible Python package designed to simulate and analyze resilience of water distribution networks.</p>	<p>Water Network Tool for Resilience (WNTR) — WNTR documentation</p> <p>Please reach out to Sandia National Laboratory if interested in engaging with the Wastewater and Stormwater components of this tool.</p>

Technical Assistance

Resource Name	Description	Link
Better Plants Program	Better Plants works with leading U.S. manufacturers and wastewater treatment agencies to set energy, water, and waste reduction goals, and commit to reducing energy intensity by 25% over a 10-year period across all U.S. operations. In return, partners receive support in the form of the technical assistance, tools, resources, and national recognition.	Better Plants Better Buildings Initiative

<p>Circuit Rider Program- Technical Assistance for Rural Water Systems</p>	<p>This program provides technical assistance to rural water systems that are experiencing day-to-day operational, financial or managerial issues. Rural water system officials may request assistance from the National Rural Water Association State Association or the local Rural Utilities Service office. Rural Utilities Service staff may also request assistance on behalf of the system.</p>	<p>Circuit Rider Program - Technical Assistance for Rural Water Systems Rural Development</p>
<p>Cybersecurity Technical Assistance Program for the Water Sector</p>	<p>Cybersecurity Technical Assistance offered by EPA.</p>	<p>Cybersecurity Technical Assistance Program for the Water Sector US EPA</p>
<p>Energy Efficiency Program</p>	<p>NRWA's Energy Efficiency Technical Assistance Program is designed to promote energy efficient practices in small water and wastewater systems. Funded through a grant from the U.S. Department of Agriculture Rural Utilities Service, the program performs energy assessments, recommends energy efficient practices and technologies, and provides support in following recommendations. Technical support includes assisting with presentations to governing boards, accessing financing, training, and developing documentation.</p>	<p>Energy Efficiency Program NRWA</p>

<p>Illinois Rural Water Association</p>	<p>National support for: Circuit Rider and Wastewater Technicians, Source Water Protection Program, Energy Efficiency Program, Training Specialist, Apprenticeship Program, EPA Wastewater Training and Technical Assistance Illinois-specific programs: State Circuit Rider In House Program: Compliance Assistance Program</p>	<p>Program Contact List: https://www.ilrwa.org/IRWA%20Staff.html</p>
<p>Industrial Training Assessment Centers (ITACs)</p>	<p>Small- and medium-sized manufacturers (SMMs) may be eligible to receive a no-cost energy assessment provided by more than 50 Industrial Training and Assessment Centers around the country. ITAC assessments are in-depth evaluations of a facility conducted by engineering faculty with upper class and graduate students from a participating university.</p>	<p>Industrial Assessment Centers</p>
<p>Industrial training and Assessment Centers (ITACs): Implementation Grants</p>	<p>Small- to medium-sized manufacturers that receive a qualified energy assessment can apply for grants of up to \$300,000 anytime throughout the year; applications will be reviewed quarterly.</p>	<p>ITAC - Industrial Training & Assessment Centers Implementation Grants</p>
<p>National Rural Water Association</p>	<p>The National Rural Water Association is a non-profit organization dedicated to training, supporting, and promoting the water and wastewater professionals that serve small communities across the United States.</p>	<p>Technical Assistance Request Form NRWA</p>

	The mission of NRWA is to strengthen State Associations.	
Onsite Technical Assistance Partnership (TAPs)	The Onsite Energy Technical Assistance Partnerships (TAPs) provide direct technical assistance to industrial facilities and other large energy users with identifying and implementing technology options for achieving site-specific energy objectives.	Onsite Energy Technical Assistance Partnerships (TAPs) Better Buildings Initiative
Rural Community Assistance Partnership (RCAP)	TAPs help communities by providing practical guidance and capacity-building expertise – from financial advice, to environmental services like helping communities comply with federal and state regulations, and more.	Get Assistance - The Rural Community Assistance Partnership (RCAP)
Waste-To-Energy (WTE) Technical Assistance for State, Local, and Tribal Governments	This technical assistance addresses knowledge gaps, specific challenges, decision-making considerations, planning, and project implementation strategies related to WTE. The WTE resources considered include organic waste such as food waste, wastewater sludge, animal manure, and fats, oils, and greases, as well as other municipal solid waste streams such as paper, cardboard, wood, yard waste, and plastic waste.	Waste-to-Energy Technical Assistance for State, Local, and Tribal Governments Bioenergy and Bioeconomy NREL
WaterTA	EPA Water Technical Assistance (WaterTA) connects communities to experts who help assess and	Water Technical Assistance (WaterTA) US EPA

	implement solutions for their drinking water, sewage, and stormwater needs.	
Water and Wastewater Agency Response Networks (WARNs)	<p>A mutual aid and assistance network provides water and wastewater utilities with the means to quickly obtain help in the form of personnel, equipment, materials and associated services from other utilities to restore critical operations impacted during any type of emergency, big or small. Becoming a member of a mutual aid and assistance network before an emergency occurs can make all the difference when your community's water or wastewater system needs help. Use the resources below to ensure you have an effective support system in place.</p>	<p><u>Mutual Aid and Assistance for Drinking Water and Wastewater Utilities US EPA</u></p>