

# Supply Chain Resilience: Guide for Water and Wastewater Utilities

## Overview

The water and wastewater systems sector depends on several critical infrastructure sectors to operate, including the chemical and critical manufacturing sectors. A wide range of threats such as natural disasters (e.g., hurricanes, earthquakes), equipment failures, logistics problems (e.g., transportation delays), and malicious acts (e.g., cyberattacks, sabotage), can impact the water sector's ability to receive the chemicals or equipment needed to treat or protect water and wastewater. Assessing supply chain resilience can increase your utility's ability to withstand disruptions and respond as quickly as possible if disruptions do occur. The purpose of this guide is to identify actions for water and wastewater utilities to prepare for or respond to chemical or equipment supply chain disruptions. This information can be found in the following sections:

### Actions to Prepare for a Supply Chain Disruption

#### Federal and State Support

Available resources, including grant and low interest loan opportunities such as the Drinking Water State Revolving Fund (DWSRF), that can be used to build resilience to supply chain challenges.

#### Supplier Management

Best practices for assessing inventory and establishing or maintaining contractual relationships with suppliers and identifying backup suppliers.

#### Partnerships

Suggestions for identifying mutual aid and assistance, interdependent sectors, and emergency responses partners to prepare for supply chain challenges.

#### Operational Flexibilities

Considerations for evaluating operational flexibilities (e.g., different grades of the same chemical, alternate chemicals) that may require more time to prepare for and implement.

### Actions to Respond to a Supply Chain Disruption

#### Federal Support

Federal support that can be used in response to a shortage, such as direct technical assistance and the Safe Drinking Water Act (SDWA) Section 1441.

#### Supplier Communication

Steps utilities can take to coordinate with suppliers during a supply chain emergency.

#### Partner Coordination

Suggestions for coordinating with partners during a supply chain emergency.

## Actions to Prepare for a Supply Chain Disruption

### 1. Federal and State Support

Utilities can become familiar with opportunities and programs to enhance supply chain preparedness. The information below is a starting point for how to take advantage of available state and federal programs and support.

**TOP TIP: Contact your state for information on how existing programs (e.g., DWSRF) can be leveraged to increase operational efficiency and reduce costs.**

#### GOOD PRACTICE SPOTLIGHT:

##### Bulk Sales Agreements in Tremonton, Utah

A water utility in Tremonton, Utah serves just 3,500 customers but is the largest system for 30 miles. The utility became a “chlorine clearinghouse” and buys chemicals in bulk and re-sells to small neighboring systems. This is beneficial for systems that may not be able to purchase the large amount of chemicals needed to be a regular, contracted customer.

#### *DWSRF Program*

Drinking water utilities may use the DWSRF to implement infrastructure and non-infrastructure projects that could mitigate the impacts of a future supply chain challenge. Through DWSRF offerings, water systems may reduce costs, increase operational efficiency, and decrease vulnerability to disaster and emergency situations, including supply chain disruptions. This can be accomplished through the establishment of system partnerships. Partnerships can take a wide variety of forms, including complete merging of two systems, an interconnection in cases of emergency, or sharing equipment or personnel through bulk sales agreements.



Utilities may also use DWSRF for water treatment projects to create new facilities that include on-site generation of disinfectants, provide reserves when power outages and other emergencies occur, and increase on-site storage capacity. Implementing energy efficiency projects can also help to offset the increased costs of water treatment chemicals by lowering a utility's electrical bills. A full list of eligible projects can be found in the [DWSRF Eligibility Handbook](#).

DWSRF assistance is provided directly from state agencies. Contact your state's [DWSRF program](#) for information on how to apply. The [Clean Water State Revolving Fund \(CWSRF\)](#) also funds a wide range of wastewater infrastructure projects that may be used to offset supply chain costs or increase resiliency.

An unprecedented amount of funding through the DWSRF and CWSRF was made available under the [Bipartisan Infrastructure Law](#) (BIL) for updating and upgrading water and wastewater utilities, which includes building resilience to supply chain disruptions.

### ***Domestic Preference Program***

Recipients of EPA's water infrastructure financing programs are subject to domestic preference purchasing requirements, which prioritize American products. This requires Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) assistance recipients to use iron and steel products that are produced in the United States. This requirement applies to projects for the construction, alteration, maintenance, or repair of a public water system or treatment works. In the case that permanently incorporated construction materials may be affected by supply chain concerns, EPA offers free and efficient market research for domestic product alternatives. If a construction product is not ultimately available, EPA's program can assist with other options and with a potential waiver process. Furthermore, EPA's domestic preference requirements apply only to construction products that are permanently incorporated into a project. Therefore, items such as maintenance supplies, treatment chemicals, and temporary equipment are not subject to the requirements. For further information, please see EPA's dedicated [website](#).

#### **GOOD PRACTICE SPOTLIGHT:**

##### **System Interconnections in Kentucky**

After a region-wide drought in Kentucky that diminished water quantity and quality, the Logan-Todd Regional Water Commission in Kentucky established system interconnections across 12 systems to help drive economic development. The systems partnered to share water sources and treatment. As a result, state and federal funding agencies supported the partnership by funding above normal levels. This proactive measure helped to support regional economic initiatives and bolster emergency preparedness.

#### **LEARN MORE:**

Control Costs Through System Partnerships

See EPA's [Water System Partnerships Case Studies](#) and [Developing Water System Partnerships with the Drinking Water State Revolving Fund](#) guidance.

## 2. Supplier Management

Establishing and maintaining contractual relationships with suppliers, as well as managing orders and deliveries of supplies, is an important first step in preparing for supply chain challenges. The best practices below will support utilities in taking these actions.

**TOP TIP: Establish contracts to ensure you are prioritized during a disruption.**

**Establish contracts:** Establishing contracts with suppliers can ensure that your orders are prioritized during a shortage. In past supply chain disruptions, those without a contractual relationship are often the first customers to lose supply in favor of customers with a contract. Establishing contracts is also an effective way to confirm a set price. Companies are legally bound to fulfill contracts, unless there is a situation beyond the control of the supplier that prevents the company from fulfilling their contractual obligations. When this happens, a company may issue a force majeure. A force majeure excuses a supplier from performing the orders of the contract, or in some cases, can include cost increases. While a contract may not ensure the set price withstands market disruptions or new contractual agreements, it is more stable than purchasing on an as-needed basis. This may also provide the option to establish a payment plan to help spread purchasing costs over a longer time, which helps with budgeting.

### LEARN MORE:

#### Considerations When Establishing Contracts

- Have a 24/7 point of contact for all contracts
- Use both Emergency Services Contracts and Master Service Agreements
- Consider a Disaster Response Contractor
- Increase Purchase Card limits to support emergency purchases
- Have credit approvals in place
- Consider forming co-operative agreements for purchasing chemicals or other products

Utilities may also form a buying consortium. This has worked well for the [Northeast Merrimack Valley Chemical Consortium](#).

**Identify back up suppliers:** If your utility has established contracts with a primary supplier, identify a secondary or even a tertiary supplier for an item or chemical during a disruption. These may be identified by those who ranked second or third in an open bidding process. When contacting back-up suppliers, determine the logistics of filling an order if your primary supplier is unable to fulfill their order. Identify alternate suppliers that do not depend on the same manufacturers. Consider diverse suppliers that are not located in the vicinity of a recent natural disaster or hazard that could be impacting the supply chain to ensure true supply chain redundancy.

If you are in an area that may not have many suppliers to choose from, create a plan for ordering supplies from a supplier located further away from your utility. For certain utilities, this could mean outside the U.S. (e.g., Canada or Mexico). This may require ordering chemicals or other products ahead of time to accommodate extended lead times or requesting deliveries of higher quantities. Another option for identifying alternate suppliers is connecting with vendors at conferences, trade shows and other water sector events. These events, often held by water sector associations, are a valuable opportunity to network with vendors in your region. When identifying alternate suppliers, ensure you undergo the proper protocol for permitting access and providing credentials to your facility grounds.

**LEARN MORE:**

Not sure how to identify alternate suppliers?

Try EPA's [Water Treatment Chemical Suppliers and Manufacturers Locator Tool](#) for more information.

**Develop and share 24/7 emergency contact lists:** Once you have established contracts and identified alternative suppliers, you can develop an emergency contact list that contains 24/7 contact information for all your suppliers. This can also be developed for your system's vendors. This information should be added to your emergency response plan to ensure all employees are able to access it should there be an issue acquiring products. Provide your vendor with a 24/7 emergency utility contact for notification purposes.

**Work with suppliers to prioritize your utility:** While many suppliers establish priority on a case-by-case basis, form a relationship with your supplier ahead of time and express the criticality of your services in protecting public health and critical infrastructure. If possible, include language in your contract that establishes priority.



**Assess inventory and demand:** Develop an operating picture of your chemical inventory, usage, and resupply. Monitor inventory and assess usage rates on a regular basis. If you are anticipating or are at risk for a specific hazard or seasonal changes, assess usage rates at least every shift and prioritize necessary chemicals or equipment to order accordingly. Consider regional hazards that impact your utility (e.g., hurricanes, flooding). This is another consideration for delivery frequency and volume.

**Develop delivery schedules to accommodate lead times:** Forecasting supply needs into an extended delivery schedule can increase your supplier's awareness of long-term needs and allow time for notification if they are not able to supply a future delivery. Provide this schedule as early as possible, especially if there is a threat of extreme weather.

**Confirm production and shipping forecasts:** Similarly, it is always helpful to maintain communication about lead times with suppliers. This can help set realistic expectations about when an order may be delivered. This information can further be used to prioritize and anticipate potential risks to supply either during contract development or after a contract has been established.

**Be flexible:** There may be factors, like your supplier's dependence on third party delivery services, that could impact order fulfillment. Consider discussing options to alleviate strains on the supply chain, such as ordering smaller amounts at higher frequencies.

#### GOOD PRACTICE SPOTLIGHT:

##### Preparing for Hurricane Season in Escambia County, Alabama

The Poarch Creek Band of Indians Utility Authority in Escambia County, Alabama, is no stranger to the impacts from hurricanes. The Utility Authority implemented supply chain best management practices to combat extreme weather concerns by establishing accounts with their treatment chemical suppliers and identifying two back-up suppliers for each critical chemical. If needed, the Authority is prepared to order critical supplies earlier than usual and may place the next order before the original order arrives to mitigate impacts from delayed orders or partial shipments.



### 3. Partnerships

Coordination with water and wastewater utilities, state and local agencies, and water sector associations can be helpful to be aware of and mitigate the impacts of supply chain disruptions. Specific partners may vary based on location or utility type. However, this section provides initial recommended partners.

**TOP TIP: You are not alone – look to other utilities, your critical customers, and partner response agencies to help improve supply chain resilience.**

#### Join mutual aid and assistance networks before a disruption occurs:

A mutual aid and assistance agreement provides water and wastewater utilities with the opportunity to receive assistance in the form of personnel, equipment, materials, and associated services from utilities that have not been impacted. You can employ a mutual aid and assistance agreement through an informal agreement with neighboring utilities (e.g., larger systems helping nearby smaller systems in need) or by joining your state's [Water and Wastewater Agency Response Network](#) (WARN). Becoming a member before a disaster or supply shortage occurs can provide a timely response, since you know whom to contact and how the group functions. Most states have an active WARN and each are governed by a common mutual aid agreement that allows resources and assistance to be shared quickly. These agreements are available 24/7 and do not require a state or federal disaster declaration to be initiated. Joining your state WARN is voluntary and does not obligate your utility to request assistance or send resources to others in the future.

#### LEARN MORE:

Benefits of a Mutual Aid and Assistance Network

Joining a mutual aid and assistance network can also serve as an information sharing platform. Members can warn each other of issues, such as a delay or force majeure notice, in advance. This can result in better planning by all, such as adjusting purchasing windows. Mutual aid also means easy access to a network of other water operators and an exchange of information on a variety of topics that affect utility operations, not just chemicals and supplies.

Water sector associations, including the National Rural Water Association and its Water Circuit Rider program, the Rural Community Assistance Partnership's (RCAP) on-site assistance offerings, and the Rural Community Assistance Corporation's (RCAC) tribal circuit riders, can also provide direct technical assistance. Forming relationships before a disruption allows for more effective and efficient response.

**Coordinate with your interdependent sectors:** Other critical infrastructure sectors that use the chemical or product that you need could be willing to help supply it in an emergency.

**Establish an interconnection agreement:** If not impacted by the same chemical shortage, an interconnection agreement to receive an emergency water supply is another method to enhance supply chain resilience. Physical interconnections are a significant infrastructure project and need to be planned, engineered, and constructed well before an emergency. However, an interconnection is a way to supplement existing resilience measures and increase redundancy and it is eligible for funding through DWSRF.

**Establish relationships with the state primacy agency and/or Governor's Office:** If a shortage occurs, the state may be helpful in mitigating the disruption and supporting utilities' access to necessary supply. Establishing a connection with the proper points of contact before an emergency occurs will decrease response time during an incident.

### **Coordinate with emergency management agencies (EMAs) and law enforcement:**

EMAs and law enforcement are often the first responders to an emergency. During an incident, major roads and other infrastructure could be impassable due to debris or fallen trees. Building relationships with these response partners before an emergency could be key to quickly clearing roads that are used by chemical suppliers or utility staff. EMAs can also keep an open line of communication during an emergency, either through the emergency operations center (EOC) or other forums. This can help your utility stay up to date on transportation delays and water and/or chemical facility closures.

#### **LEARN MORE:**

Public Communication and Messaging

Establishing these connections ahead of time allows for coordinated messaging on water usage reductions, if needed, as well as potential boil water advisory preparation. Prepare communications and outreach for potential phases of the event from notification of the supply shortage to the potential for a boil water notice. Consider translating the information into other languages for distribution on social media. This information can be distributed to the community via press release, bilingual web articles and social media posts, the website, and electronic newsletters. Share communication with partners and other water providers.

For those unsure of where to begin, a good place to start is by reaching out to the county EMA or Local Emergency Planning Committee. Local EMAs often have tabletop exercises and planning groups that can grow your network and enhance preparedness. Being involved at the state level is also encouraged, but if your utility is not conveniently located for this coordination, establish relationships with the local EMA first.





## 4. Operational Flexibilities

Certain planning measures may take more time and resources, as well as approval from the state primacy agency or permitting agency, to implement. This section provides examples of operational flexibilities that can help your utility prepare for a future supply chain disruption.

**TOP TIP: Evaluating and receiving advanced, conditional approval for alternate chemicals ahead of time provides redundancy should a shortage occur.**

**Increase on-site storage for chemicals:** While this option may not be feasible for all systems, those that can expand storage can increase their ability to manage supply disruptions and delayed deliveries. Factors to consider when evaluating increasing storage are: shelf-life of the chemical, worker and community safety concerns, and thresholds for regulatory programs that govern storage and use of hazardous chemicals.

**Consider staff qualifying for a Commercial Driver's License (CDL):** Having a CDL driver with Hazmat Endorsements among utility staff can assist in the delivery of chemicals. This endorsement could be beneficial if the utility or its partners did encounter a supply chain shortage and needed a delivery of product.

**Develop a Water Reduction Contingency Plan:** One way to extend a short supply of a treatment chemical is to decrease the amount of water your utility needs to treat. This can be accomplished if demand can be lowered. Some utilities have implemented drought contingency plans (regardless of drought conditions) to help stretch a limited supply of a chemical. Contingency plans may consider water use reduction goals, water use restrictions, and enforcement provisions.

**Evaluate use of alternate chemicals:** It may be possible to substitute a chemical, chemical grade, or purity level or to reduce dosage of existing chemicals in a process. Wastewater utilities may have a wider range of chemical grades or purities to use than water treatment. However, any adjustment must be made with care due to potential impacts on water quality, some of which could impact the safety of the water supply. It is important that for any modifications, drinking water utilities are advised to work with their state primacy agencies and wastewater utilities should coordinate with their respective permitting agencies to determine if the state would approve of different chemical grades (e.g., Food Grade CO<sub>2</sub> versus NSF-60 Certified CO<sub>2</sub> for drinking water systems), purities, or other substitutions (e.g., alternate coagulants). These regulatory agencies are ultimately responsible for approval.

### GOOD PRACTICE SPOTLIGHT:

#### Supplier-Utility Coordination to Switch Coagulants

During the summer of 2021, many water systems were unable to procure ferric chloride due to shutdowns of chloralkali facilities. Certain systems did advance evaluation tests of alternate coagulants (e.g., performing jar tests) to ensure material compatibility with storage and feed equipment, and secured conditional approval from their primacy agency or permitting agency. These systems were able to make the switch to alternate coagulants quickly and efficiently.

Substitutions can be complex and require varying evaluation processes to ensure they do not interfere with other treatment or water quality objectives. Utilities can also work with their existing supplier to evaluate potential alternate chemicals that could be used if the primary treatment chemical is unavailable.



## Actions to Respond to a Supply Chain Disruption

### 1. Federal Support

If the Preparedness actions outlined above do not resolve the supply issue, utilities can seek technical assistance at the federal level.

**TOP TIP: Most supply problems are more efficiently resolved at the local level.**

#### Request EPA Direct Technical Assistance:

Despite planning, water and wastewater utilities may experience a shortage or other serious supply chain issues for water treatment chemicals and other critical supplies. EPA can be a resource for direct technical assistance. However, utilities are encouraged to first utilize the steps outlined throughout this guide prior to contacting EPA – supply problems are usually most efficiently resolved at the local level. If you are unable to secure the necessary resources after taking these actions, first contact your EPA regional water division. EPA Headquarters can be reached at [SupplyChainSupport@epa.gov](mailto:SupplyChainSupport@epa.gov) for technical assistance to help resolve the issue further. Technical assistance may take several days to complete.

#### GOOD PRACTICE SPOTLIGHT:

Technical Assistance to the City of Jackson, Mississippi

In April 2021, an electrical fire broke out at the City of Jackson's water treatment plant damaging an electrical controller for their pumps. The treatment plant was on limited operations, impacting customers, while waiting for a replacement part which was not expected to arrive until late April 2022. The City of Jackson worked with EPA (Region 4 and Headquarters), the Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA), and the city's supplier to expedite the delivery of the part. After discussions, it was confirmed that the supplier could expedite the delivery and get the critical component to the city to support their operations and continue serving their customers.

**Utilize the Safe Drinking Water Act (SDWA) Section 1441:** SDWA [Section 1441](#) is a secondary option if direct technical assistance does not resolve the issue. Section 1441 of SDWA provides a mechanism by which EPA can issue a certification of need that authorizes the Department of Commerce to issue an order to a vendor to provide the necessary amount of the chemical or substance to the utility that applied. Depending on the circumstance, the process can take over 30 days to complete. If a utility foresees a situation in which a required chemical or substance will not be available, and other measures described in this guide are unlikely to resolve the issue, consider applying at the earliest opportunity. If a utility has requested technical assistance from EPA to help resolve a supply issue, EPA can advise the utility when to apply for a certification of need (i.e., if technical assistance provided by the state or EPA is unlikely to resolve the issue). For additional information see [Frequently Asked Questions \(FAQs\) about SDWA Section 1441](#).

When applying for a certification of need through EPA, you will need to provide the following information:

- Utility contact information
- Facility information for all facilities impacted by the shortage (i.e., contact information, function of the facility, flow processed by the facility, and population served)
- Treatment chemical or critical supply that is not reasonably available
- Basis for the claim that the treatment chemical or critical supply is not reasonably available
- Information for the supplier and other suppliers of the treatment chemical or critical supply that is not reasonably available
- List of alternative products that could be used in lieu of the treatment chemical or critical supply that is not reasonably available
- Any additional actions taken to mitigate the issue
- Any necessary documentation relevant to this request

#### **GOOD PRACTICE SPOTLIGHT:**

##### **Chlorine Supply Chain Impacts and SDWA Section 1441**

In the Summer of 2021, several water and wastewater systems experienced shortages and other serious supply chain issues for chlorine, sodium hypochlorite, and caustic soda. These systems reached out to EPA for technical assistance and submitted applications for certifications of need under SDWA Section 1441. In response, EPA collaborated with chemical sector partners to:

- Conduct technical assistance with applicants and their chemical repackagers and suppliers to identify causes of the supply disruption and identify potential solutions;
- Recommend alternate treatment chemical suppliers, as appropriate; and
- Transmit a letter to the chemical sector underscoring the need to prioritize treatment chemical deliveries to water systems.

EPA published a Federal Register Notice (FRN) for some of the systems that applied under SDWA Section 1441 but ultimately did not issue certifications of need. While all applicants had appropriate and/or national challenges at the time of their submissions, EPA coordinated with the systems and the chemical suppliers to identify immediate solutions to make the certifications of need no longer necessary.

## 2. Supplier Communication

Maintaining communication with primary and alternate suppliers during a supply chain disruption are important actions in responding to supply chain challenges. The information below provides more detail on how to capitalize on supplier relationships during an emergency.

**TOP TIP: Communicate your need and be flexible – this may mean changing the frequency that orders are placed, or the amount requested.**

**Contact your primary supplier:** If you are made aware of a disruption, assess your current inventory, contact your supplier, and communicate the following:

- Current days of storage
- Consequences of loss or reduction of water and wastewater services

If possible, inquire about the duration and severity of the shortage and the ability for you and the supplier to work outside the existing contract to fulfill your needs. Maintain this contact to obtain duration estimates throughout the disruption.

**Be Flexible:** After discussing options to work outside your existing contract during emergency planning, implement an emergency delivery schedule. This may mean ordering early or at a lower trigger point (e.g., 1/2-full rather than 1/4-full). Another way to be flexible is to accept deliveries outside of normal business hours or work with your supplier to allow deliveries to other utilities more in need.

**Confirm prioritization:** Since prioritization may depend on the situation, it is important to stay in communication with your supplier and confirm your utility as a priority customer.

### GOOD PRACTICE SPOTLIGHT: Confirming Priority Status

In the summer of 2021, one utility was told by their chemical supplier that they could not have CO<sub>2</sub> as the supply was earmarked for the local hospital. Once the utility explained that the hospital was served by the utility and the utility could not produce safe water without CO<sub>2</sub>, an arrangement was made such that the CO<sub>2</sub> supply was shared by both the hospital and the utility.

**Identify alternate chemicals or reduced dosage options:** After discussing with your state primacy agency or permitting agency, you may be able to work with your supplier to identify available temporary substitutions if the primary chemical is unavailable. Be sure to maintain contact with your state primacy agency or regulatory agency and discuss alternatives with utility engineers and operators before making any switch. These modifications take significant preparation and are best evaluated before an emergency.

**Contact alternate suppliers:** Reach out to alternate suppliers that were identified during emergency planning. It is possible they will not be taking on new customers but establish contact and communicate your needs. While they may fulfill contracted customers first, certain suppliers can prioritize the water and wastewater systems sector if able.

### 3. Partner Coordination

Maintaining communication with primary and alternate suppliers during a supply chain disruption are important actions in responding to supply chain challenges. The information below provides more detail on how to capitalize on supplier relationships during an emergency.

**TOP TIP: Document key information (e.g., name of chemical or equipment, concentration or purity, storage capacity, current inventory) as the disruption is occurring so you are ready to share it with mutual aid partners.**

#### Access mutual aid and assistance:

Contact your [WARN](#), other mutual aid networks and/or nearby water systems directly for assistance with chemicals or other products. You may also contact your local EMA to request supplies. When requesting chemicals, provide the chemical name, any certification requirements, strength, amount needed, type of treatment it is needed for, and type of delivery and offloading method acceptable at your utility.

If there are established relationships with interdependent sectors, this is an opportunity to reach out to the respective contacts for support.

**Notify partners of communication with your supplier:** Contact your local EMA, state primacy agency, and/or permitting agency of communication from your supplier (e.g., force majeure or other alert) on the shortage and share any steps you've taken to remediate the issue. Report the following information:

- Facility Name
- Facility Type (drinking water or wastewater)
- Address
- Contact person and information
- Name of chemical
- Concentration or purity of chemical
- Storage capacity
- Amount of chemical used (annually/monthly)
- Days until impact if allocation is not fulfilled
- Operational flexibility (e.g., can alternate chemicals be used?)
- Name of current supplier
- Point of contact and contact information for the supplier
- Additional suppliers contacted if any

#### LEARN MORE:

Maintaining NSF/ANSI 60 Certification of Water Treatment Chemicals

In many cases, a third-party NSF/ANSI 60 certification of the water utility's chemical handling operation may not be required, provided that each incoming chemical arrives in its original sealed container or bulk delivery vessel from an NSF/ANSI 60 certified chemical vendor, and subsequent chemical handling processes are monitored as part of the regulatory primacy agency's monitoring of the utility operation.

The water utility or governmental regulatory agency may require a separate NSF/ANSI/CAN 60 certification of the utility's chemical production or handling operation. More information can be found at <https://www.nsf.org/knowledge-library/nsf-ansi-can-60-certification-faqs>

**Request technical assistance from response partners:** Work with circuit riders and regional state drinking water offices that may be able to provide local technical assistance for responding to supply issues, especially those at small systems. These entities can assist in exploring options such as identifying an alternate supplier or identifying nearby utilities that could loan the needed chemicals. Consider reaching out to other local organizations or government, such as the mayor or city council.

If needed, the Governor's Office may be able to temporarily suspend state laws or regulations that prescribe driver hours or truck maximum weight should transportation issues be the cause of the supply shortage. Additionally, the state drinking water primacy agency or permitting agency can work with utilities to consider any treatment changes that may be needed based on chemical shortages and grant temporary approval. These connections can elevate the issue, if necessary, or support communication efforts with the community (e.g., when implementing a water reduction contingency plan).

### EPA Wants to Hear from You

EPA is seeking additional tips and good practices for future versions of this guide. If you would like to share your experiences with supply chain challenges, please email your contact and organization information to: [SupplyChainSupport@epa.gov](mailto:SupplyChainSupport@epa.gov). EPA will contact you for more information.

