



WATER OPERATOR HIRING AND CONTRACTING GUIDE

Responsibilities for Decision Makers and Operators

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Additional State Contacts and Resources	36 (Need help finding information on water system issues?)	7	Web link to the state website or contact information to access more information
	36 (Need help finding information on water system issues?)	1	Documents that may be useful for small systems (e.g., forms used to update information on the operator in responsible charge)

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WATER OPERATOR HIRING AND CONTRACTING GUIDE

Arkansas Department of Health
Engineering Section

Purpose of this Document

Communities depend on drinking water and wastewater operators every day for safe water. This document is a resource that can help public water system decision-makers hire or contract with a licensed/certified water operator. Understanding how to select an operator (either a permanent employee or a contractor) and what to expect from that operator can help you ensure that your public water system complies with all state and federal regulations and delivers safe drinking water to your customers. This document offers suggestions on how to find the right operator for your system, helps you to communicate with your operator about water system responsibilities and assists with your documentation of expectations for operating the water system.

Examples of public water systems that may find this resource useful include:

- Small towns
- Rural water districts
- Manufactured home communities
- Homeowners' associations
- Small, privately-owned water systems

This document includes the following information:

1. How a licensed/certified operator can help ensure the provision of safe drinking water
2. A table of roles and responsibilities of decision-makers and operators that can help you understand what to expect of your operator
3. An interview tool to help you ask the right questions when interviewing potential operators
4. A list of possible topics to include in a written agreement with your operator
5. A list of suggested operator duties that can be included in a written agreement with your operator

What is a public water system?

A public water system provides water for drinking or other purposes (e.g., washing hands, bathing, cooking) to 25 or more persons daily at least 60 days out of the year, or has 15 or more service connections. A public water system can be publicly owned by municipalities, towns or counties or privately owned, such as by homeowners' associations or manufactured home communities.

Am I a decision-maker?

You are a public water system decision-maker if you make financial or management-related decisions for a public water system. These decision-makers can include water system board members, water system owners, water system managers, elected officials, or other municipal officials. Other examples may include homeowners' associations board members and those who own or operate manufactured home communities.

What is a licensed/certified operator?

A licensed/certified operator is an individual who is licensed or certified by the Arkansas Department of Health. A licensed/certified operator can help you operate your water system and maintain compliance with drinking water regulations.

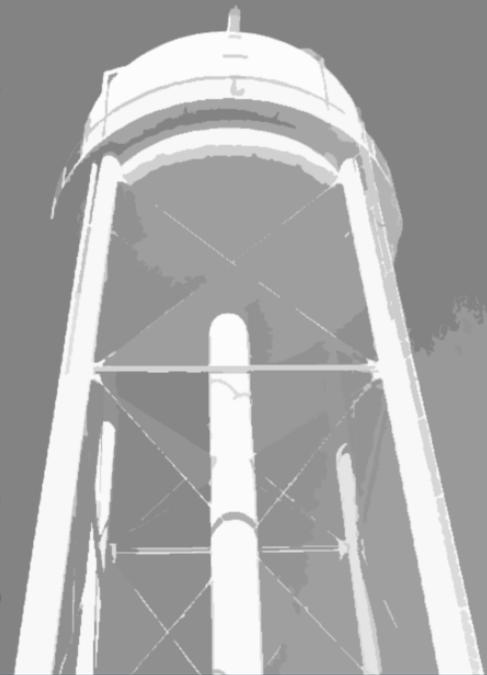
How can a licensed/certified operator help?

Public water system decision-makers are responsible for ensuring that their customers receive safe drinking water that complies with state and federal regulations. These regulations include those that pertain to:

1. Water quality sampling
2. Reporting and recordkeeping
3. Employing properly licensed/certified operators
4. Design, construction and operation of water systems
5. Emergency situations

While hiring a licensed/certified operator will not eliminate a public water system decision-maker's legal responsibilities, a licensed/certified operator can help decision-makers meet legal requirements and ensure that the public water system delivers safe drinking water.

Most public water systems are legally required to have a licensed/certified operator to operate the system. You may also be required to submit paperwork designating an operator in direct responsible charge of your water system. Contact the Arkansas Department of Health to learn what level of licensure or certification is required for an operator working at your public water system and ask how to designate an operator in direct responsible charge of your system.



What is an operator in direct responsible charge?

An operator in direct responsible charge is the licensed/certified operator at a public water system that has the authority to make operational decisions that affect water quality or quantity.

How do I get started?

The first stop for information is the Arkansas Dept. of Health's Engineering Section.

The state agency can provide advice specific to your public water system, including requirements regarding licensed/certified operators.

Arkansas Department of Health
Engineering Section
Licensing Program

Phone: (501) 661-2623

Email: safewater@arkansas.gov

Website: www.healthy.arkansas.gov/eng

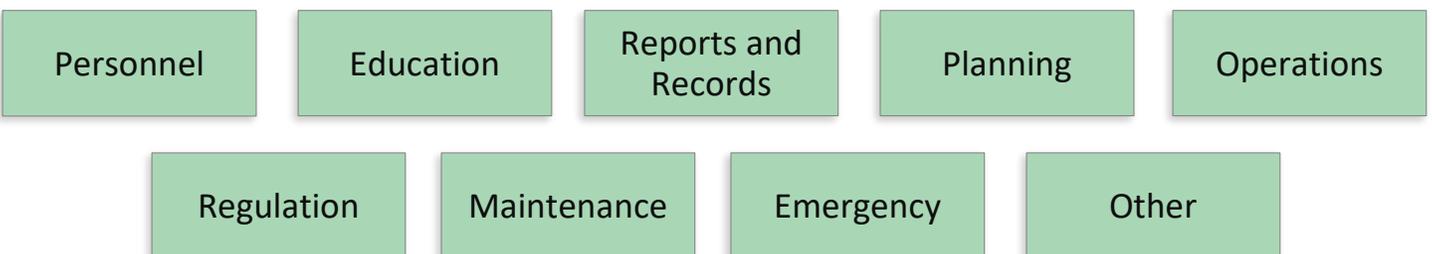
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Water System Decision-Maker and Water System Operator Responsibilities

Delivering safe drinking water to customers is a team effort between the licensed/certified operator and the decision-maker. Clear communication about each person’s responsibilities can help ensure this is achieved. The table below outlines typical responsibilities and best practices of the water system decision-maker and the water system operator. You can use this table to facilitate a conversation between you and your operator to ensure that all aspects of managing and operating your public water system are addressed. You should document the decisions that you make regarding responsibilities and revisit them from time to time to make adjustments or improvements. Note that while some tasks may be interchangeable or shared, others will usually be performed by one person or the other. It should also be noted that delegating specific tasks does not relieve the operator of operational responsibilities, nor does it relieve the decision-maker of legal responsibilities.

If you are using this document in an electronic format, the buttons below can be used to navigate to a specific section.



Water System Decision-Maker Responsibilities and Water System Operator Responsibilities

Water System Decision-Maker Responsibilities	Water System Operator Responsibilities
PERSONNEL	
<p>Summary: Decision-makers should ensure that there are enough qualified staff for proper operation of the public water system.</p>	<p>Summary: Water system operators should communicate with the decision-maker about staff needed to complete particular tasks.</p>
<p>Employ appropriate/qualified staff (e.g., a licensed/certified operator):</p> <ul style="list-style-type: none"> ▪ Understand licensing/certification requirements. ▪ Ensure the operator has appropriate experience and licensing/certification credentials for the type of public water system. 	<p>Recommend appropriate staffing levels to decision-maker.</p>

Water System Decision-Maker Responsibilities	Water System Operator Responsibilities
Ensure appropriate staffing levels and appropriate onsite presence and/or offsite availability.	
Conduct performance evaluations and an exit interview with the operator. Develop procedures for handling terminated employees.	Maintain centrally-located and easily-accessible system information in order to <ul style="list-style-type: none"> ▪ Increase organization and coordination among operators; ▪ Assist in personnel transition; and ▪ Ensure the decision-maker has access to current information. For more information visit EPA's Small Public Water System Knowledge Retention Tool .
Ensure staff training needs are met and provide opportunities for operators and others to attend training.	Train and supervise other water system support staff in the performance of daily activities, if applicable.

CONTINUING EDUCATION/PROFESSIONAL DEVELOPMENT

Summary: Decision-makers should stay informed about best management practices and regulatory information in order to effectively manage their public water systems. This can occur through regular communication with state and local officials.	Summary: Water system operators should stay informed about the latest operational and regulatory information in order to maintain their licenses/certifications, operate the public water system more effectively and ensure water system compliance. This can occur through regular communication with state and local officials.
Stay updated about changes in drinking water regulations and safety regulations.	Maintain required professional license/certification (ensure continuing education units [CEUs] are met).
Increase knowledge about the best practices for managing a public water system.	Stay updated about changes in drinking water treatment processes, public water system best practices, drinking water regulations and safety regulations.

WRITTEN PLANS, REPORTS AND RECORDKEEPING

Summary: Decision-makers oversee the development, maintenance and submission of required reports and plans to the regulatory agency. They also ensure copies of sampling results, inspections and any public notifications for the public water system are kept for the appropriate timeframes.	Summary: Water system operators develop, update and keep plans and reports of public water system activities. They also assist in other administrative recordkeeping.
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Water System Decision-Maker Responsibilities	Water System Operator Responsibilities
Submit any required forms to the regulating agency designating a licensed/certified operator as the operator in responsible charge for the public water system.	Provide information to develop forms designating a licensed/certified operator in responsible charge.
Verify submission of monthly operational reports which capture a variety of information to highlight overall production, water quality (turbidity, pH), chemical usage, operators involved, etc.	Develop and submit monthly operational reports for operational process integrity, as applicable.
Work with the operator to develop Consumer Confidence Report (CCR) and other public notifications. Ensure delivery of the CCR and public notifications.	Compile data and help to prepare information for CCRs and public notifications.
Ensure the development and maintenance of a customer complaint log and responses to customer complaints.	Develop and maintain a customer complaint log and be responsive/identify when/how complaints were addressed.
Ensure the development of monitoring plans and that they are approved by the regulatory agency. Verify monitoring plans are updated appropriately.	Develop and maintain monitoring plans.
Ensure the development of water system schematics and verify the schematics are updated appropriately.	Develop water system schematics.
Ensure copies of sanitary survey/inspections are kept. Oversee the documentation of any follow-up that was required from inspections and document the time period it took to address and complete the required follow-up to sanitary surveys/inspections.	
<p>Maintain and update public water system profile information and keep the regulatory agency informed and updated about items such as:</p> <ul style="list-style-type: none"> ▪ Population served. ▪ Service connections. ▪ Water sources. ▪ Treatment processes. ▪ Legal contacts. ▪ Mailing and physical addresses. ▪ History of operators in direct responsible charge. 	Provide information to the decision-maker in order for him/her to maintain updated public water system profile information (e.g., new service connections, sources, treatment operations, etc.).

Water System Decision-Maker Responsibilities

Water System Operator Responsibilities

WATER SYSTEM PLANNING

Summary: Decision-makers address planning needs related to capital improvements, future maintenance, asset management and contingency plans.

Summary: Water system operators provide input to the decision-maker to address planning needs related to capital improvements, future maintenance, asset management and contingency plans.

Develop a budget and provide adequate funding to properly construct, operate and maintain the public water system and to maintain the delivery of a safe supply of water using information provided by the operator. Review annually.

Provide input and data to the decision-maker to develop a budget for the public water system. Collect and provide information necessary for budget development to ensure the delivery of a safe and adequate supply of drinking water.

Develop and maintain an Asset Management Plan¹ using information provided by the operator. For more information visit [EPA's Asset Management Resources for State and Small Drinking Water Systems](#).

Collect and provide information necessary for the decision-maker to develop and maintain an Asset Management Plan.¹

Ensure the operator develops and maintains an Operations and Maintenance Plan/Manual.²

Develop, update and implement the Operations and Maintenance Plan/Manual.²

Ensure the operator develops and maintains a schedule of required sampling and a regulatory agency sanitary survey/inspection schedule.

Develop and maintain a schedule of required sampling and a regulatory agency sanitary survey/inspection schedule.

Obtain any necessary operation and construction approvals and permits and provide copies to the operator.

Confirm that any necessary operation and construction approvals and permits have been obtained prior to the start of construction/operation and prior to making any changes in operations. Collect and provide information necessary for permits.

¹ **Asset management** is the practice of managing infrastructure capital assets (e.g., pumps, other equipment and buildings) to minimize the total cost of owning and operating them, while delivering the service level customers desire. An asset management plan serves as a tool to record all of a system's asset management practices and strategies. Contact the Engineering Section's Capacity Development Program for more information on asset management.

² An **Operations & Maintenance (O&M) Manual** contains a discussion of a public water system's components and other information explaining how a public water system is to be operated and maintained on a daily basis to ensure the provision of safe drinking water and compliance with regulations. Contact the Licensing Program at the Arkansas Department of Health for more information on O&M manuals.

Water System Decision-Maker Responsibilities	Water System Operator Responsibilities
Request regular reports on subjects such as modifications, repairs and maintenance that have been conducted and/or about the short-, mid- and long-term schedule for these activities, and appropriately communicate the status of these activities with operator.	Ensure decision-maker is fully informed about modifications, repairs and maintenance.
Obtain additional supply of water or implement drought contingency plans when there is a shortage, emergency, and/or issue with source water quality.	<p>Provide options to decision-maker about alternative sources of water to assist the decision-maker in obtaining additional supply of water when there is a shortage and/or issue with source water quality. (This can include providing options to drill a new well, purchasing water from another public water system, proposing water conservation strategies, etc.).</p> <p>Carry out duties to bring new water source online, if necessary.</p>

WATER SYSTEM OPERATIONS AND WATER QUALITY ASSURANCE

<p>Summary: Decision-makers should be knowledgeable about the fundamental aspects of water system operations and what is needed to maintain day-to-day operational and process integrity of the public water system to deliver a safe and adequate supply of water. They should also be aware of all sample results and take appropriate follow-up actions, as necessary.</p>	<p>Summary: Water system operators should be knowledgeable about all operational aspects of the water system and maintain day-to-day operational and process integrity of the public water system to deliver a safe and adequate supply of water. Operators should implement practices to ensure water quality, including using a certified laboratory to analyze samples and taking appropriate actions in response to sample results, as necessary.</p>
Verify that the operator has performed operational monitoring requirements.	Analyze operational data to determine changes and improvements for more efficient operation.
Ensure that appropriate testing equipment and materials are available to maintain operational and process integrity of the public water system.	<p>Conduct sampling:</p> <ul style="list-style-type: none"> ▪ Conduct operational and process integrity sampling. ▪ Conduct compliance sampling at approved locations and frequencies. Be responsible for the setting, measurement and recording of all chemical additions: <ul style="list-style-type: none"> – Creating and mixing chemical solutions. – Adding chemicals as necessary. – Ordering chemicals. – Calculating disinfection and disinfectant levels. – Maintaining and calibrating testing equipment and other water treatment instruments.

Water System Decision-Maker Responsibilities	Water System Operator Responsibilities
Ensure the use of a certified laboratory. Verify collection and reporting of sample results to state agency.	Collect samples and ensure that all samples are analyzed by a certified laboratory for the appropriate contaminant(s) and delivered to the laboratory to allow sufficient time for testing. Report or verify reporting to state agency.
Verify that water quality/quantity problems are investigated and corrective measures are taken, as needed.	Investigate water quality/quantity problems and take corrective measures, as needed.

REGULATORY RESPONSIBILITIES

Summary: Decision-makers should ensure that the water system is in compliance with all federal and state requirements. They should regularly communicate with the operator to ensure compliance with public water system requirements.	Summary: Water system operators should maintain communication with the decision-maker and regulatory agency to ensure compliance with all public water system requirements.
Ensure that the regulatory agency is notified within regulatory specified timeframes (e.g., boil order issued, maximum contaminant level [MCL] exceeded, emergency).	Notify the regulatory agency within regulatory specified timeframes (e.g., boil order issued, MCL exceeded, emergency).
Ensure sampling and follow-up are conducted when necessary (e.g., public notification, emergency disinfection).	Conduct additional sampling and follow-up when necessary (e.g., public notification, emergency disinfection).
Attend all inspections/sanitary surveys conducted by the regulatory agency.	Attend all inspections/sanitary surveys conducted by the regulatory agency. Provide any existing information that will enable the regulatory agency to conduct a sanitary survey. Promptly report deficiencies to the decision-maker.
Ensure that any required follow-up is conducted by the operator after the regulatory agency performs a sanitary survey/inspection.	Correct deficiencies and address areas of concern within regulatory timeframes after the regulatory agency performs a sanitary survey/inspection.

Water System Decision-Maker Responsibilities

Water System Operator Responsibilities

WATER SYSTEM MAINTENANCE

Summary: Decision-makers should ensure that repairs and improvements are performed properly and in a timely manner. This includes communicating with the operator or maintenance workers to schedule regular maintenance of the system.

Summary: Water system operators oversee operation and maintenance to maintain the safety and reliability of water service by ensuring that repairs and improvements are performed properly and in a timely manner. They also notify the decision-maker or responsible person about any repair and improvement needs and inform the decision-maker about the timeline for repairs and improvements.

Ensure the public water system's infrastructure is in good working order.

Perform or direct preventative routine maintenance including, but not limited to, treatment facilities, distribution systems, storage tanks, booster stations, pumps and pump stations.

- Conduct routine inspections, correct deficiencies and address areas of concern for the public water system.
- Conduct routine visual inspections and follow-up of the system's source(s), source water protection area, storage tanks and chemical feed systems.
- Ensure the accuracy of water meters and other flow measuring devices, including maintaining and testing customer meters on a regular basis.
- Exercise all hydrants and valves on a regular basis.
- Clean, flush, disinfect and test the distribution system and storage tanks, as needed.
- Disinfect ground water wells, as needed.

For more information visit [EPA's Preventative Maintenance Tasks](#).

Ensure that appropriate equipment and materials are available for routine maintenance of the public water system.

Oversee and monitor all repairs performed on the public water system:

- Maintain spare parts inventories.
- Secure labor and ordering materials for correcting any maintenance or operational problems.
- Repair broken mains or equipment quickly and efficiently to restore the normal level of service.
- Replace mains or equipment involved with treatment or distribution, as needed.
- Ensure storage tanks, well pumps and well pads are in good working order.

Oversee wellhead protection, watershed protection and other activities associated with chemical monitoring waivers, as applicable.

Water System Decision-Maker Responsibilities

Water System Operator Responsibilities

Ensure the development and implementation of a cross-connection control program.

Be responsible for protecting the distribution system against cross-connection contamination.

EMERGENCY/SECURITY

Summary: Decision-makers should work closely with the operator to prepare for and respond to emergencies in the short-term and support returning the system to normal operating status. They should also ensure that the facility is secure from vandalism.

Summary: Operators should work closely with the decision-maker to prepare for and respond to emergencies in the short-term and support returning the system to normal operating status. They should also conduct activities to help ensure that the facility is secure from vandalism.

Be fully informed about any emergencies.

Ensure decision-maker and regulatory agency are fully informed about any emergencies.

Ensure emergency maintenance is conducted and, if necessary, implement the Emergency Response Plan.

Conduct emergency maintenance and implement the Emergency Response Plan.

After an emergency event, support short-, mid- and long-term strategies to return the public water system to normal operating status. Work with federal, state or local agencies until the problem is resolved and normal operation resumes.

Work with operator to create and update the Emergency Plan and Emergency Communications Plan, including a list of emergency contacts.

Work with decision-maker to create and update Emergency Plan and Emergency Communications Plan, including a list of emergency contacts.

Practice implementing the Emergency Plan.

Ensure facility is secure and invest in any necessary upgrades (e.g., fences around system facilities, closed-circuit television). Ensure that proper security practices are followed.

Practice proper security procedures, such as storing chemicals in locked areas and using proper safety equipment.

ADMINISTRATIVE/OTHER

Summary: Decision-makers should perform other duties to keep relevant stakeholders informed about the public water system and provide a safe working environment for the operator and other staff.

Summary: Operators should support decision-makers in keeping relevant stakeholders informed about the public water system and providing a safe working environment.

Regularly attend scheduled Water Board meetings.

Regularly attend scheduled Water Board meetings.

Provide a safe working environment.