



Division of Drinking and Ground Waters

Asset Management Program – General Template Guidance

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 Guidance
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I. PURPOSE:

This guidance, applicable for use by non-community systems, mobile home parks, and homeowner's associations, acts as a template for the requirements of an Asset Management Program.

II. BACKGROUND:

Asset management has many different definitions; in the end it boils down to getting the most out of your assets at the lowest cost to the system. In other words, a water system should be servicing assets frequently enough that the assets are not falling apart, but are doing what they are meant to, without spending more time or money than is necessary to achieve those results.

The Asset Management Rules in Chapters 3745-87 and 3745-92 of the Ohio Administrative Code (OAC) reflect the statutory change of Ohio Revised Code (ORC) Section 6109.24 which had an effective date of October 6, 2017, along with the existing capability rules to address the managerial, technical, and financial capability of water systems. These rules require all public water systems to have a written asset management program available for on-site inspection, however some water systems may be asked for a demonstration of their asset management program in more detail. A system may be asked for a demonstration in more detail if they are looking to receive a loan, are going through enforcement, or are otherwise struggling with capability issues.

For an asset management program to be effective, it needs to be a dynamic program that is implemented and adequately funded. Metrics will be used to ensure that asset management programs are being implemented. All water systems are required to track and maintain a defined set of metrics. Required metrics are listed throughout the rules.

One customer service-oriented metric will be determined by the water system. The Ohio Environmental Protection Agency (OEPA) will be looking for the water system to continue to improve on its metrics each year.

The purpose of requiring an asset management program is to reduce the number of disruptions in service that are due to lack of maintenance and planning. The asset management rules require an asset management program of all public water systems. The rules include specificity on what is required in an asset management program. OEPA sees asset management as a way to improve the capability of the state's water systems and improve the quality of service they provide. ORC Section 6109.24 required all public water systems to have an asset management program in place by October 1, 2018.

III. PROCEDURE:

The following outlines the contents of an Asset Management Program, acting as a template for systems to use as needed.

Description of System:

Number of service connections

Provide the number of connections the water system serves. Service connections include, but are not limited to, buildings, yard hydrants, and free-standing water fountains. Identify the locations in the schematic of the system.

Population

Provide the number of people who have access to your water daily. Indicate if your population is residential, non-residential, or both.

Source Type

Check the appropriate box to describe your source of water.

Interconnections

List any public water systems to which your system has a connection.

Water system usage

Record your average daily demand, the number of hours per day the system runs, the well capacity and the limiting factor for the well capacity.

Determine if any changes in water demand may occur in the next five years such as changes in the population being served or any plans to grow or decrease the service you are offering. Thinking about the changes in demand beforehand can aid the water system in planning for any shortfalls in revenue or the need to expand service.

Contact Information

Include the name, phone number, email, and current address of the owner, manager, financial contact and operator of the water system as applicable.

Operating Plan

- Attach any applicable cooperative agreements and service contracts. These would include contracts with the operator, maintenance services, sample collection services, etc.
- Describe your succession plan. This should include the plan for replacing individuals that are essential to the operation of the water system.

Table of Organization

This table should be completed for the same people listed in the Contacts Table on page 1 of the template. Include credentials and training of personnel.

- Job duties should clearly describe the responsibilities of the person that holds the position. For example:
 - The owner's job duties may include hiring and firing of personnel, making the final decisions on purchases and providing the funding for such purchases.
 - The operator's job duties may include following the Ohio EPA certified operator rules as they apply to the public water system and reporting any issues to the owner for resolution.
 - If there is a person hired to sample, repair or maintain the water system, include their job duties and the person to whom they report.

Significant Deficiencies

Significant deficiencies are a type of serious violation identified during a sanitary survey, limited scope site visit or a Level 1 or 2 Assessment. The system is required to have an Ohio EPA approved schedule to address any significant deficiencies. List the significant deficiencies and attach a copy of the Ohio EPA letter that includes the approved schedule to resolve the deficiencies.

External Contacts

Provide the contact information as applicable. Include 24-hour phone numbers if available. There may be other contacts specific to the water system that should be added. Include a description of how the contacts will be used. For example: "If an emergency or maintenance need arises, refer to the list to identify the appropriate contact."

Contracting and Purchasing Procedures for Water System Repair and Replacement

Describe or attach purchasing procedures for routine and emergency purchases. The procedures should specify the personnel involved in purchasing decisions, including which personnel can authorize expenditures.

Written Policies

Not all the listed policies are applicable to non-community, mobile home parks and homeowner's association water systems. While a system may not have encountered any issues to date, the procedures will allow the system to quickly address any issues that arise and make it easier for personnel to refer to in handling these issues.

The following is a list of required written policies, with examples of how they may be addressed:

- Billing practices and revenue collection,
- Security,
- Use of system equipment,
- Purchasing authority,

Schematic

Attach a schematic of the system. Systems that developed a lead map may use that as a starting point for distribution.

Additional information should be added to the schematic as it becomes available.

Metrics

Metrics will be used, along with levels of service, to gauge the implementation of a system's asset management program. It is important that the system records the information as accurately as possible. Metrics must be kept onsite and available for review by Ohio EPA representatives.

The required metrics are listed in the template. Complete the table for each year and provide the additional metrics listed below the table.

Source Water

A source water assessment is the written report documenting a public water system's drinking water source protection area, the potential contaminant sources within this area and the source water's susceptibility to contamination.

A drinking water source protection plan or checklist documents the activities undertaken by the public water system and its partners to minimize the risk of contaminating the systems source water through source control strategies, information sharing, contingency planning and water quality monitoring.

Source Water Assessment review are required to be reviewed annually and evaluated every 5 years for revisions in consultation with Ohio EPA.

For public water systems with an Endorsed Drinking Water Source Protection Plan with a review schedule, review the plan as stated in the review schedule in the plan.

For public water systems with an Endorsed Drinking Water Protection Plan without a review schedule, review the plan every 3 years.

For public water systems that have a Drinking Water Source Protection Checklist that has been accepted by Ohio EPA, review and update the checklist every 5 years.

NOTE: Revised Drinking Water Source Protection Plans and Checklists must be submitted to Ohio EPA within 60 days of any revisions.

Emergency and Contingency Planning

Non-community water systems must complete the non-community emergency and contingency planning template or develop a contingency plan that meets the requirements of OAC Rule 3745-87-03(B)(5)(b).

For MHP/Homeowners' Associations

To comply with the emergency and contingency planning requirements of the asset management program, mobile home parks and homeowners' associations, must have a contingency plan that meets the requirements of OAC Chapter 3745-85.

Inventory of Assets

Water system assets include, but are not limited to: wells, pressure tanks, softeners, other treatment, and/or distribution pipe. Determine the major assets to include in your inventory. Attention should be given to those assets which are essential for running the water system. Record the following information for each asset:

- Asset Name,
- Date of purchase or installation,
- Life expectancy,
- Estimated age,
- Remaining useful life,
- Status of asset,
- Criticality,
- Ranking based on criticality,
- Location,
- Condition of the asset.

Complete the information to the best of your knowledge. Additional information should be added as it becomes available. An example table is shown below.

Asset Name	Purchase Date/ Installation	Life Expectancy	Estimated Age	Remaining Useful Life (Life expectancy -estimated age)	Status of Asset (in use, available or needs repair)	Criticality	Rank based on criticality*	Location	Condition (very poor, poor, fair, good, excellent)
Well 1	Installed 1998	About 35 years	20 years	About 15 years	In use	5	15	North of the building and east of the parking lot. (See map for more detail).	Good

Operation and Maintenance Programs

The template contains a list of potential assets that, if included in your system, should

have operation and maintenance programs. These assets include: wells, reservoirs, intakes, electrical equipment and controls, water storage tanks, distribution system components, water treatment facilities, auxiliary power, and pump station.

For each of these assets, the following documents and/or procedures must be available for inspection by an Ohio EPA representative:

- Standard operating procedures (SOP) for daily operations
- Maintenance schedule
- Maintenance log

Maintenance schedules should be based on manufacturers recommendations. If these are not available, they shall be based on standards for the water works industry such as AWWA recommendations. If neither of these are available, you will determine an acceptable basis for operation and maintenance schedules. The following is a sample Maintenance Schedule:

System Component	Scheduled Maintenance	Vendor	Estimated Annual Cost	Priority	Capital, Maintenance, Operations
South water storage tank inspection	3 to 5 years	External	\$3,000	2	Maintenance
Place exposed wiring in conduit in well houses	One-time event	Internal	Minimal	2	Maintenance
Repair backwash pump	One-time event	External	\$6,000	1	Capital
Valve exercising program within the WTP	Open and close daily	Internal	Minimal	1	Operations

The system may already have operation and maintenance programs in place for its assets. If that is the case, they should record that information and include it with their asset management program. If not, they should at least record the following information about their assets:

- Date of most recent repair,
- Description of the repair,
- Date of previous repairs,
- Descriptions of previous repairs, and
- How often does routine maintenance occur.

Asset	Date of most recent repair	Description	Date of previous repairs	Descriptions	How often does routine maintenance occur?
Well	1/3/18	Well was professionally cleaned.	12/15/17, 11/15/17	Well was inspected for any issues.	Well is inspected visually monthly by staff. It is professionally cleaned every five years.

Criteria and Timeline for Rehabilitation and Replacement

Water systems must develop criteria which will be used to prioritize the asset for repair, rehabilitation, replacement, or expansion. Based on the prioritized list, develop a schedule to complete these improvements.

Capital Improvement Planning (CIP)

Use the information from the timeline of rehabilitation and replacement, along with other system knowledge, such as history of maintenance and repairs, to determine a schedule in which specific projects will be completed. A CIP will include annual projections in three to five-year, planning horizons with detailed expenditures in each of those time frames. It will also include a description and estimated cost of significant projected projects for the next 10 to 20 years.

The CIP projects must include a name, a description, need for and benefits of the project, cost estimate, and funding sources

Long Term Funding

The system will need to record how much water system debt they have, how much they have in a reserve account for water system needs, and the months of operating monies on hand for the water system.

The system must identify sources and amounts of funds to finance the needed repair, rehabilitation, replacement or expansion of assets, including debt service and to provide for emergencies for each of the following ten years.

Attach a pro forma statement to the template which addresses all of the requirements of OAC Rule 3745-87-03(C)(4).

IV. HISTORY:

The Division of Drinking and Ground Waters first issued this document on November 8th, 2018. This document was revised on November 9th, 2018