Capacity Development Strategy for Oregon Public Water Systems

Oregon Health Authority
Drinking Water Services

July 1, 2022

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Executive summary

In early 2000, after extensive public input, the Oregon Drinking Water Advisory Committee (DWAC) recommended adoption of the Oregon Capacity Development Strategy. The strategy was the culmination of three years of effort by the Oregon Health Authority (OHA), the Oregon DWAC and many constituencies around the state. In 2021, in response to new federal requirements related to including asset management in state capacity development strategies, OHA reviewed and revised Oregon's strategy, documenting existing program elements and identifying future program activities. This revision also identifies existing and future asset management efforts.

The Oregon Capacity Development Strategy is designed to help public water systems by focusing on four program elements:

1. Capacity assessment
2. Information and communication services
3. Training
4. Outreach

The Capacity Development Strategy is one phase of Oregon's Water System Capacity Program. The driving concept for developing the Water System Capacity Program is that water systems with full capacity will have few, if any, violations of applicable drinking water standards and will be better able to contend with future requirements.

Results of the Oregon Capacity Development Strategy will be measured using capacity assessments for evaluation purposes, with the long-term measures being the Oregon Benchmarks and water system compliance.

Introduction

Water System Capacity Program requirements were established by the 1996 Safe Drinking Water Act (SDWA) along with the Source Water Assessment Program, the Technical Assistance Program, the Operator Certification Program, and the Drinking Water State Revolving Fund (DWSRF). The requirements for developing the Water System Capacity Program are directly tied to the DWSRF. If Oregon does not develop an approvable program, the state loses 20% of the DWSRF annual capacity grant. The requirements for developing the Water System Capacity Program are not tied to the EPA Primacy Agreement delegating enforcement authority of the SDWA to Oregon.

The Oregon Capacity Development Strategy for existing public water systems is the third of three phases of the Water System Capacity Program. The first phase was the development of the capacity assessment tool used to assess the Technical, Managerial and Financial (TMF) capacity of water systems applying for DWSRF loans. The first phase was completed in 1998. The second phase was the development of the TMF capacity requirements for new public water systems commencing operations on or after October 1, 1999. Plan review requirements addressing new public water system capacity was developed and rules adopted and implemented in July 1999.

The third and final phase of the Water System Capacity Program is the development of the Oregon Capacity Development Strategy for existing water systems, which was initially approved by EPA on August 5, 2000.

The subject of this document is to outline and illustrate the programmatic changes to the Oregon Capacity Development Strategy that will take effect on January 1, 2023.

Oregon Capacity Development Strategy development process

As required by the SDWA, the Oregon Capacity Development Strategy was created by following the five elements outlined below.

1. Identifying systems in need of TMF assistance
2. Identifying factors that enhance or impair water system capacity development
3. Recommending how the state can use its authority and resources to help water systems improve capacity
4. Measuring the success of the Oregon Capacity Development Strategy
5. Eliciting public involvement

All five elements were considered in the development of Oregon's strategy in 2000. OHA, with the assistance of DWAC, carefully reviewed and considered the information contained in the Report of Findings and all comments received.

As a result of extensive public input, the Oregon DWAC recommended adoption of the Oregon Capacity Development Strategy in the spring of 2000. The strategy was the culmination of three years of effort for the OHA, the Oregon DWAC and many constituencies around the state.

The Oregon Capacity Development Strategy is designed to help public water systems by focusing on four program elements:

1. Capacity assessment
2. Information and communication services
3. Training
4. Outreach

In 2021, in response to new federal requirements related to including asset management in state capacity development strategies, OHA reviewed and revised Oregon's strategy, documenting existing program elements and identifying future program activities. This revision also identifies existing and future asset management efforts.

Oregon Capacity Development Strategy revision requirements related to asset management

America's Water Infrastructure Act of 2018 amended Section 1420 subsections (c)(2) and (c)(3) of the SDWA.

- Section 1420(c)(2) was amended to include a sixth item that a state shall consider, solicit public comment on, and include as appropriate in the state's capacity development strategy:

  (i) A description of how the state will, as appropriate, encourage development by public water systems of asset management plans that include best practices for asset management; and

  (ii) assist, including through the provision of technical assistance, public water systems in training operators or other relevant and appropriate persons in implementing such asset management plans.

- Section 1420(c)(3) was amended with additional content to include in the report that the state must submit to the governor on the efficacy of the strategy and progress made toward improving the capacity of public water systems in the state. This additional report content includes the following:

  Efforts of the state to encourage development by public water systems of asset management plans and to assist public water systems in training relevant and appropriate persons in implementing such asset management plans.

States are expected to revise their strategies to include a description of how asset management will be promoted. The asset management description must include how the state will use the five-core-questions framework, as appropriate, to encourage the development of and assist in the implementation of asset management plans. The framework is composed of the following five core questions:

1. What is the current state of the utility's assets?
2. What is the utility's required "sustainable" level of service?
3. Which assets are critical to sustained performance?
4. What are the utility's best "minimum life-cycle cost" capital improvement plan and operations and maintenance strategies?
5. What is the utility's best long-term financing strategy?

The description requirement may be met with a combination of approaches to address each of the questions.

Asset Management Implementation Plan

Oregon is a cooperative regulatory home rule state with a culture of managing business to maintain public confidence and safety and having regulators assist with providing educational tools, resources, and guidance. If compliance concerns arise, education is the first approach followed by regulatory methods, with each step increasing in severity. With this proven approach, 99% of all Oregon regulated public water systems and 99.7% of community water systems meet EPA health-based standards. Oregon intends to use this same approach to strongly encourage water systems in the use of asset management in their technical, managerial, and financial capacity activities of the water system. With the development and application of the Asset Management Implementation Plan as part of the Capacity Development Program, public water systems will benefit from Asset Management.

Oregon intends to apply the Asset Management Implementation Plan in phases as described below.

Phase 1

- Provide training and education in asset management to OHA staff by using existing training classes such as those provided by Environmental Finance Center Network, EPA and Rural Community Assistance Corporation (RCAC).
- Review Oregon's existing asset management handout to assess whether it appropriately covers EPA's five-core-question framework and revise as appropriate.
- Provide asset management planning and onsite implementation assistance as one of the contracted technical assistance activities that our contracted circuit rider can provide to eligible water systems.
- Provide a customized asset management tool or template that water systems can use to develop an asset management plan.
- Provide guidance for small water systems on asset management.

Phase 2

- Provide education and outreach to OHA partner agencies including local public health authorities, Oregon Department of Agriculture and all Oregon public water systems.
- Provide training on the benefits and methods of asset management planning for public water system managers, administrators and board members.
- Further customize tools and resources for very small and small- to medium-size systems.

Phase 3

- Provide education and outreach for public water systems to self-report their successes and difficulties using available asset management tools.
- Evaluate the addition of awarding additional points in the DWSRF rating process for water systems that use asset management.

Phase 4

- Update the current DWSRF Capacity Assessment Form & New Water System Requirements Capacity Checklist to include questions on asset management. These forms are available in Appendix 2.
- Provide a self-reporting asset management template that can be reviewed by the drinking water system's OHA Drinking Water Services regulator.
- Evaluate revising sanitary survey forms to include identification of asset management plans during surveys

Phase 5

- Apply Capacity Development Program review to evaluate whether regulatory legislative change is necessary for a water system to use asset management. Decisions will be made using EPA health-based standards. The Capacity Development Program review will also consider data from the annual report to the EPA.

A comprehensive review and evaluation of successes and challenges (including stakeholder feedback) at the end of each phase will allow OHA Drinking Water Services to modify processes and make course corrections as needed in a timely fashion. With the results of the feedback, OHA will consider implementing incentives for asset management including designation as Outstanding Performer and reduced annual fees.

Oregon Capacity Development Program contributions to water system capacity development

Focus area 1: Capacity assessment

OHA staff assess water system capacity on water systems applying for funding through the DWSRF and on new water systems during the initial plan review process. These assessments assist water systems with TMF capacity by identifying

deficiencies needing correction and by recommending activities that will help develop or increase capacity.

Existing program elements

1. For DWSRF applicants, OHA staff perform the technical and managerial assessments using a uniform assessment form, and Business Oregon performs a concurrent financial capacity assessment. Capacity-related deficiencies are identified, and staff work with those systems to develop necessary capacity.

2. New public water systems are assessed during the initial plan review and approval process. All public water systems must comply with applicable requirements before serving drinking water to the public.

3. OHA and county partners conduct routine surveys of public water systems as part of the primacy program. During these surveys, deficiencies are identified and corrective action required.

Future program activities

1. Review, update and redesign the Public Water System Capacity Assessment Form to reflect current requirements. OHA staff will receive training on completing the new form.

2. Incorporate asset management questions on the current DWSRF Capacity Assessment Form for loan applicants. This is referred to in the Asset Management Implementation Plan, Phase 4.

3. Develop a capacity self-assessment report form and guidance manual for use by water systems.

4. Evaluate the use of a priority list of water systems needing capacity assessments based on regulatory status.

Focus area 2: Information and communication services

OHA continually strives to better communicate with water system operators and managers and provide the essential information water systems need to maintain

compliance. OHA uses a robust website to provide extensive water-system-related information, routinely issues the ePipeline newsletter and conducts special mailings.

Existing program elements

1. The OHA website provides water-system-specific information and includes public access to the state Safe Drinking Water Information System (SDWIS) database.

2. The OHA website provides many educational and resource materials, including technical-assistance handouts, health-effects factsheets, training guides and contacts for outside technical-assistance providers.

3. OHA uses a capacity-development-specific web page to provide capacity-related resources for water system managers and operators. The Financial Capacity web page includes links to two series of financial capacity handouts (Planning and Budgeting Series) and comprehensive resources in the areas of budgeting, rate setting, capital improvement planning and asset management.

4. OHA created and uses an educational handout promoting asset management that includes simple steps for starting an asset management plan. As a result, public water systems benefit from asset management.

5. OHA issues the ePipeline newsletter two or three times per year, which provides information regarding upcoming rules and deadlines, as well as operations and maintenance issues.

6. OHA conducts special mailings to inform drinking water systems about new rules and upcoming regulatory deadlines.

7. OHA and county partners provide technical assistance, advice and rule interpretation by phone.

8. OHA has an Outstanding Performer award program connected to its sanitary survey process. Systems with no identified deficiencies receive the Outstanding Performer designation.

9. OHA continually simplifies access to sources of information and resources (factsheets, newsletters, website, rules, etc.).

Future program activities

1. Review and update the Capacity Development web page to provide more robust managerial resources for water system managers and operators.

2. Include additional asset management resources on the Capacity Development web page, including an appropriate asset management planning tool. This is referred to in the Asset Management Implementation Plan, Phase 2.

3. Review Oregon's existing asset-management handout to assess whether it appropriately covers EPA's five-core-question framework. This is referred to the Asset Management Implementation Plan, Phase 1

4. Provide an educational handout specifically targeted at a broader understanding of the five-core-question framework for asset management.

5. Increase the use of the government email delivery system (GovDelivery) to send capacity development information to water systems.

6. Expand the Outstanding Performer award program for public water systems by increasing visibility on the website.

7. Develop public water system capacity development information kits for distribution by the circuit rider program.

Focus area 3: Training

OHA strives to provide training opportunities at all levels for water system operators. The training is targeted, convenient and cost effective. Training guides, manuals and factsheets are continually identified, developed and made available.

Existing program elements

1. The following training courses are provided by OHA on a recurring basis. Detailed course descriptions are in Appendix 1.
    - Basics for Small Water Systems Training Course
    - Basics for Small Water Systems Training Webinar
    - Surface Water Treatment Training Classes
        - Essentials of Surface Water Treatment
        - Conventional and Direct Filtration
        - Slow Sand Filtration.

2. OHA has developed training manuals and class information handouts to accompany each of the above training classes.

3. The OHA Training Opportunities web page provides a one-stop-shopping site for water system operators and managers where they can view a list of free training classes and webinars offered by outside training providers. Links to other training providers are also posted on this web page.

Future program activities

1. Develop or make available training modules for public water system managers, administrators and board members in the area of managerial and financial capacity. Training will include management responsibilities, policies, financial budget awareness and the importance of implementing asset management policies to inform budget decisions.

2. In coordination with item 1 above, develop or make available a training module on the benefits and methods of asset management planning (referred to in the Asset Management Implementation Plan, Phase 2, above).

Focus area 4: Outreach

Outreach activities are performed daily through a variety of programs carried out by OHA. These efforts include using Oregon's DWSRF to help water systems maintain capacity, contracting with outside technical service providers to assist water systems with identified problems, and integrating capacity-building outreach into day-to-day primacy program activities.

Existing program elements

1. OHA promotes the DWSRF infrastructure loan program through a variety of methods, including industry presentations, one-stop meetings, ePipeline articles, postcard mailings, GovDelivery email bulletins and routine updates to the DWSRF web page. Water systems can use the circuit rider program to assist with completion of funding program letters of interest.

2. Through the DWSRF, planning activities that promote sustainable water infrastructure can receive 100% forgivable loan funding up to $20,000 for the following project categories: feasibility studies, asset management planning, system partnership studies, water rate analysis, leak detection

studies, water system master planning for water systems with fewer than 300 connections, and seismic risk assessment and mitigation planning. Priority is given to systems that serve fewer than 300 service connections.

3. The DWSRF technical assistance set-aside is used to contract with outside technical service providers to assist water systems with identified problems and to develop capacity. Circuit riders provide free onsite technical services for short-term operational problems. They perform one-on-one technical assistance in the field to individual water systems, providing quick response services.

4. OHA staff provide direct assistance to water systems during sanitary survey activities, water treatment plant visits, water quality investigations and associated technical consultation and outreach. Staff use a wide variety of tools and resources to help systems address identified capacity deficiencies, including direct technical assistance in person or over the phone; providing handouts, factsheets and training guides; referral to resources on the OHA Drinking Water Services website; and referral to funding partners and outside technical assistance and training providers.

5. OHA coordinates with RCAC to provide input on small water system capacity needs as part of their federal grant work. OHA identifies training needs and water systems in need of direct assistance.

6. OHA participates with EPA and Region X states to implement Oregon's Area Wide Optimization Program (AWOP). This program works toward increasing operator technical capacity at surface water plants, while also promoting managerial capacity. Current activities include one-day training classes for surface water plant operators, implementation of Oregon's Comprehensive Performance Evaluation process for identified system issues, and implementation of AWOP "strike team" tools to assist systems with immediate needs as they arise.

7. OHA and the Oregon Department of Environmental Quality provide timely technical assistance to community water systems that ultimately result in voluntary implementation of source water protection strategies. The goal is to increase the technical and managerial capacity of water system operators and decision makers by providing technical information, assistance and resources needed as they plan for activities and funds to develop or maintain protection of their drinking water sources.

Future program activities

1. Evaluate adding asset management planning and onsite implementation assistance as one of the contracted technical assistance activities that our contracted circuit rider can provide to eligible water systems. This is referred to in the Asset Management Implementation Plan, Phase 1.

2. Add non-federal funds to circuit rider contract to allow circuit rider outreach to include non-DWSRF eligible systems.

3. Evaluate contracting with outside service providers (for example, RCAC) that are knowledgeable about best practices in water system management to provide free onsite assistance in the areas of managerial and financial capacity. Examples of assistance include consultation with water system staff and decision makers to determine best business management practices and the development of essential operational policies and procedures.

4. Evaluate revising sanitary survey forms to include identification of asset management plans during surveys. Provide educational material that can be provided to the public water system. This activity is referred to in the Asset Management Implementation Plan, Phase 4, above.

Oregon Capacity Development Program staffing

Unit Manager

This position will supervise the Capacity Development Program and provide oversight for the circuit rider, training and partner contracts. This is a 0.35 full-time equivalent (FTE) Principal Executive Manager D position at salary range 31.

Capacity Development Coordinator

This position will have the primary responsibility for developing and implementing the Capacity Development Program. This position will oversee and track the progress of the program, conduct evaluations, develop reports and assist in the delivery of information services and training programs. This is a 0.5 FTE Natural Resource Specialist 3 position at salary range 28.

DWSRF Coordinator

The DWSRF Coordinator manages the DWSRF capitalization grant application process for this cross-agency program and manages the quarterly review, rating and ranking processes for all drinking water projects seeking DWSRF funding. This position prepares the budget and tracks expenditures for DWSRF grants and coordinates responses to annual EPA DWSRF program review. The coordinator also manages, coordinates, compiles and incorporates public participation and comments for DWSRF intended-use plans. This is a 1.0 FTE Program Analyst 3 position at salary range 29.

Environmental Review Coordinator

The Environmental Review Coordinator oversees and coordinates the DWSRF environmental review process for loan fund projects. This position serves as the responsible official for environmental review projects and will make exclusion and environmental impact findings. The coordinator consults and provides technical assistance to water system personnel, project engineers and state and federal agencies. They track the environmental process for loan fund projects to completion and update and maintain the DWSRF Environmental Review Handbook, as well as coordinate the assignment and tracking of required DWSRF capacity assessment completion. This is a 1.0 FTE Environmental Engineer 3 position at salary range 32.

Technical Services Staff

These staff members provide onsite capacity development outreach and educational activities while performing their normal field duties, including conducting water system surveys of public water system facilities, identifying sanitary hazards and recommending corrections, determining conformance with regulations, and preparing water system survey reports and findings, then entering these findings into the SDWIS database. Additionally, these positions follow up with water systems to ensure that identified deficiencies are corrected, determine monitoring schedules for public water systems based on survey findings and establish those schedules in the SDWIS database. These are Natural Resource Specialist 3 positions at salary range 28 or Environmental Engineer 3 positions at salary range 32.

Capacity Development Program evaluation

The success of the Capacity Development Program can be measured or evaluated to some extent in the following ways:

1. Oregon Benchmarks, which currently include the following:
    - Percentage of population served by water systems meeting the drinking water standards
    - Percentage of population served by water systems with adequately treated surface water supplies
    - Percentage of population served by water systems with drinking water protection programs in place

2. Priority noncompliance
    - Listing of water systems as priority noncompliers

3. Annual compliance reports
4. Number of certified operators
5. Other TMF measures
    - Sanitary surveys and Comprehensive Performance Evaluations
    - Technical assistance site visits
    - Capacity assessments

Of the above, the Oregon Benchmarks and the priority noncomplier list are currently the primary measures that will be used for evaluation over the long term. The percentages in the Oregon Benchmarks will increase and the significant noncomplier list should grow shorter over the long term at an increasing rate.

Reporting to EPA and to the governor

As required by the SDWA, OHA prepares and submits reports to EPA annually and to Oregon's governor triennially. The reports to the governor and to EPA provide the status and highlights of Oregon's Capacity Development Program.

Revisions to the Capacity Development Strategy

Revisions to the Capacity Development Strategy will occur through the public process using the DWAC. Since the DWAC represents the constituencies and was instrumental in designing the Capacity Development Strategy, any proposed revisions as a result of program evaluations will be presented to the DWAC for review and consideration. The stakeholder process is described in Appendix 3.

Appendix 1: Training course descriptions

Free training opportunities provided by Oregon Health Authority–Drinking Water Services.

Small Water System Training Course
Designed for drinking water system operators, this one-day course covers the basics of water system operation and maintenance, water testing and other regulations, waterborne disease, water treatment for small systems and recordkeeping. The class also reviews the 1996 Safe Drinking Water Act Amendments, the State Drinking Water Revolving Loan Fund, and water system security issues. Upon course completion, attendees receive 0.6 continuing education units (CEUs).

Surface Water Treatment Training Courses

Conventional and Direct Filtration
This one-day class offers an introduction to rapid rate filtration — optimized performance goals and recommended practices. This class is designed for operators new to rapid rate filtration as well as experienced operators. Participants are eligible to receive up to 0.6 CEUs.

Essentials of Surface Water Treatment
This class includes an introduction to various surface water treatment processes, disinfection practices and regulatory requirements. Exercises will augment instruction by covering how to develop a chemical feed pump calibration curve, determine adequate disinfection and gain a better understanding of disinfection contact tracer studies. This course is designed for operators new to surface water treatment as well as experienced operators. Participants of this one-day training are eligible to receive up to 0.6 CEUs.

Slow Sand Filtration
Slow Sand Filtration: A Timeless Technology includes an introduction to the slow sand treatment process, optimized performance goals and recommended practices. This class is designed for operators new to slow sand filtration as well as experienced operators. Participants of this one-day training are eligible to receive up to 0.6 CEUs.

See the descriptions online at https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/OPERATORCERTIFICATION/Pages/training.aspx.

Appendix 2: Capacity assessment forms for DWSRF applicants and new systems

DWSRF Capacity Assessment Report

OHA-Drinking Water Services

System Name:		PWS # 41:	
Project Name:		SRF LOI SD#:	
PWS Representative and Title:		Phone #:	
Last Survey Date:		Capacity Assessment Conducted by:	

Capacity Assessment Summary Results

	Passed				Failed
Section 1: Technical Capacity	No Issues	With Project	Short Term Issues	Loan Conditions	Major Issues
a) Water Source Construction & Protection	☐	☐	☐	☐	☐
b) Water Source Capacity	☐	☐	☐	☐	☐
c) Water Treatment Facility Construction & Treatment Performance Standards	☐	☐	☐	☐	☐
d) Distr. System Construction, Capacity & Leakage	☐	☐	☐	☐	☐
e) Engineered Plans & Infrastructure Planning	☐	☐	☐	☐	☐
f) Water Quality & Monitoring Compliance	☐	☐	☐	☐	☐
g) Physical Security	☐	☐	☐	☐	☐
Section 2: Managerial Capacity					
h) Operator Certification	☐	☐	☐	☐	☐
i) Organizational Structure & Communication	☐	☐	☐	☐	☐
j) Water System Policies & Programs	☐	☐	☐	☐	☐
k) Public Communication	☐	☐	☐	☐	☐

Assessment summary:

Items to include as DWSRF loan conditions: _____

Other Short-Term items to correct: _____

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Section 1: Technical Capacity

a) Water Source Construction and Protection

Issues: *Are existing water sources constructed and protected according to the requirements of the Oregon Drinking Water Rules? Will this system likely meet water source construction and protection requirements that are reasonably expected to be enacted within five years?* ***Please answer the following questions:***

1) Plan review requirements met? _____

2) List source problems identified in water system survey that have not been corrected: _____

3) Regular maintenance performed? _____

4) List planned future projects: _____

5) Are these projects identified in Master Plan? _____

6) Does the current DWSRF project address any identified issues? _____

7) Source Water Assessment completed?_____

8) Does the system have a state approved Drinking Water Protection Plan? _____

Identified issues or deficiencies: _____

b) Water Source Capacity

Issues: *Is water source capacity adequate to meet normal and peak demands? Is this system likely to meet future water demands expected within five years?* ***Please answer the following questions:***

Historical Usage of each source:

Source	Peak Demand (gpm or cfs)	Water Right (cfs)	Exceed water right (Y/N)

1) How was the peak usage determined? _____

2) Does the water system have water rights for all sources? _____
Are they adequate? _____

3) Will the DWSRF project result in exceeding water right(s) or will the project require acquisition of additional water right(s)? _____

4) Is future source capacity identified as an issue in the master plan? _____

5) Does the current DWSRF project address any identified issues? _____

Identified issues or deficiencies: _____

c) Water Treatment Facility Construction and Treatment Performance Standards

Issues: *Do the necessary water treatment facilities exist and are they functional? Do they meet the construction and treatment performance standards? Will this system likely meet water treatment facility requirements that are expected to be enacted within five years?* ***Please answer the following questions:***

1) Minimum treatment requirements met? _____

2) Minimum treatment performance monitoring requirements met? _____

3) Plan review requirements met? _____

4) List problems identified in water system survey that have not been corrected: _____

5) Regular maintenance performed? _____

6) List planned future projects: _____

7) Are these projects identified in master plan? _____

8) Does the current DWSRF project address any identified issues?_____

Identified issues or deficiencies: _____

d) Distribution Facility Construction, Capacity & Leakage

Issues: *Are existing water storage, pumping, and distribution facilities structurally sound and meet the construction requirements. Do water storage, pumping, and distribution facilities have adequate capacity to meet normal and peak demands? Is water distribution system leakage excessive?* ***Please answer the following questions:***

1) Plan review requirements met? _____

2) List problems identified in water system survey that have not been corrected: _____

3) Regular maintenance performed?_____

4) List planned future projects:_____

5) Are these projects identified in master plan? _____

6) Current storage capacity sufficient during peak demand? _____

7) Minimum pressure of 20 psi maintained? _____

8) What is the current water distribution system leakage?_____

9) Does the current DWSRF project address any identified issues? _____

Identified issues or deficiencies: _____

e) Engineering Drawings and Infrastructure Planning:

Issue: *Does the system have current as-built engineering drawings of the distribution system? Does the system engage in appropriate infrastructure planning?* ***Please answer the following questions:***

1) Does the water system have engineering drawings of the facilities? _____

2) Are the engineering drawings kept up-to-date? _____

3) Does the system have a master plan (not required if <300 connections)? _____
Date of the most current revision:_____

4) Does the system have any engineering feasibility studies? _____

5) Does the current DWSRF project address any identified issues?_____

Identified issues or deficiencies: _____

f) Water Quality Monitoring and Compliance

Issue: *Has the water system been in compliance with water quality standards and monitoring requirements over the last twelve months?* ***Please answer the following questions:***

1) Is Water quality monitoring up-to-date? _____

2) Describe any water quality or monitoring violations, or open enforcement actions, within the last 12 months: _____

3) Does the water system have a written coliform sample plan and site map? _____

4) Does the water system have a chemical monitoring plan? _____

Identified issues or deficiencies: _____

g) Physical Security

Issue: *Are facilities secure and potential security threats identified and addressed?* ***Please answer the following questions:***

1) Does the system have basic physical security components (e.g. door locks, fencing)? _____

2) Does the system have policies & procedures that address security related issues? _____

3) Are critical facilities inspected as part of the operator's daily routine? _____

Identified issues or deficiencies: _____

Section 2: Managerial Capacity

h) Operator Certification

Issue**: Does the water system meet the operator certification requirements?* ***Please answer the following questions:

1) Is DRC identified and certified at the appropriate level? _____

2) Is there written operating protocols for other operators? _____

3) Is there planned coverage during the DRC's time off (describe)? _____

4) Is there a contingency plan in case the operator in responsible charge quits (describe)? _____

Certified Operators Operator Name	Water Distribution Level	Water Treatment Level	Small WS Operator?	FE	Meets Minimum?[1]	DRC WT	DRC WD	Xconn specialist[2]
	WD-	WT-	☐	☐	☐	☐	☐	☐
	WD-	WT-	☐	☐	☐	☐	☐	☐
	WD-	WT-	☐	☐	☐	☐	☐	☐
	WD-	WT-	☐	☐	☐	☐	☐	☐
	WD-	WT-	☐	☐	☐	☐	☐	☐
	WD-	WT-	☐	☐	☐	☐	☐	☐
	WD-	WT-	☐	☐	☐	☐	☐	☐

1) **Meets minimum required certification level for water system**
2) **Cross Connection Control Specialist. Required for community systems with >300 connections.**

Identified issues or deficiencies: _____

i) Organizational Structure and Communication

Issue**: Does the water system's organizational structure contribute to good communication?* ***Please answer the following questions:

1) Describe organizational Structure: _____

2) How often are organizational meetings held? _____

3) How are public works needs or issues communicated between the organization (board or council)

and the operators? _____

Identified issues or deficiencies: _____

j) Water System Policies & Programs

Issue: *Does the water system have sufficient policies & programs to facilitate delivery of safe drinking water?* ***Please answer the following questions:***

1) Organization policy - Does the water system have a city charter, organization by-laws, or board governance policy? _____

2) Written personnel policy - Does the water system have a written personnel policy? _____

3) Written emergency response plan - Does the water system have a written emergency response plan? _____

4) Water system operations manual or policy - Does the water system have a written system operations manual or policy? _____

5) Cross Connection Program - Does the water system have a cross connection program? _____

List Cross Connection Control problems identified in water system survey that have not been corrected: _____

Do they have a written program plan (for CWS >300 connections)? _____

6) Are water system correspondence, operating records, and water quality test records kept?

Identified issues or deficiencies: _____

k) Public Communication

Issue: *Does the water system communicate periodically with its water users and is there a mechanism for public involvement in water system issues?* ***Please answer the following questions:***

1) How do water users remain informed about water system issues (water bill or other)? _____

2) Is an annual CCR sent to the water users as required? _____

3) Can the public participate in city council or board meetings? _____

4) How are customer complaints handled and are complaint records kept? _____

Identified issues or deficiencies: _____

New Water System Capacity Requirements
Check List

Water System Name: _____ Plan Review # _____
County: _____ PWS ID# 41: _____

Control Point	Application	Yes	No	Not Required
(1) Plan Review completed – plans approved or conditionally approved. Cannot use water until #7	Community, NTNC, TNC	☐	☐	☐
(a) Land Use Compatibility Statement signed and dated by local land use authority – approved	Community, NTNC, TNC	☐	☐	☐
(b) Copy of water right permit	Community, NTNC, TNC	☐	☐	☐
(c) Required water quality testing completed and reviewed by DWP- meet MCLs, treatment, performance requirements	Community, NTNC, TNC	☐	☐	☐
(d) Water use meters included in the construction plans and specifications- installed	Community	☐	☐	☐
(2) Engineering master plan/feasibility study initiated by the new water system – engineer identified	Community	☐	☐	☐
(3) Designated operator meets minimum certification requirements. Management/ownership identified	Community, NTNC, TNC	☐	☐	☐
(4) Water management and conservation plan submitted for inspection, or a statement from the new water system that the water management and conservation is not required – OWRD concurrence	Community	☐	☐	☐
(5) Copy of water rate structure and financial plan reviewed by OECD or PUC – meet minimum requirements	Community	☐	☐	☐
(6) On site construction review completed – no deficiencies or deficiencies noted	Community, NTNC, TNC	☐	☐	☐
(7) Capacity Assessment report of deficiencies completed – report sent to water system, w/final plan review approval	Community, NTNC, TNC	☐	☐	☐

Completed by: _____ Date Completed: _____

OHA Drinking Water Services

Capacity Assessment Report of Deficiencies

Water System Name: _____ PWS ID#: 41_____

Plan Review Deficiencies

_____
_____
_____
_____
_____

Master Plan/Feasibility Study Deficiencies

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_____
_____
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Operator Certification/Management/Ownership Deficiencies

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Water Management and Conservation Plan Deficiencies

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Water Rate Structure and Financial Plan Deficiencies

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Sanitary Survey Deficiencies

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Completed by: _____ Date Completed:_____

OHA Drinking Water Services

Appendix 3: Stakeholder description

OHA–Drinking Water Services routinely engages with stakeholders as required. Stakeholder groups include the Drinking Water Advisory Committee and the Oregon Environmental Services Advisory Council.

Drinking Water Advisory Committee (DWAC)

Enacted by Senate Bill 156 in 2007, the Drinking Water Advisory Committee (DWAC) was created to advise and assist OHA–Drinking Water Services on policies related to the protection, safety and regulation of public drinking water in Oregon. Among the policies developed are best management practices for water systems and suppliers. According to Oregon Revised Statute 448.153, DWAC consists of 15 members (appointed by the State Public Health Officer) that serve three-year terms, meet at least four times annually, and represent served communities, advocacy groups and professional organizations.

Represented groups include the following:

- Public water systems of cities with populations greater than 100,000 (i.e., large water systems)
- Privately owned water systems
- Environmental advocacy groups
- American Council of Engineering Companies of Oregon
- Conference of Local Health Officials
- League of Oregon Cities
- League of Women Voters of Oregon
- Oregon Association of Water Utilities
- Oregon Environmental Health Association
- Oregon Environmental Laboratory Association
- Pacific Northwest Section of the American Water Works Association
- Special Districts Association of Oregon
- Organizations representing plumbers and backflow testers
- Water consumers
- Watershed councils

For additional information about DWAC, go to https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/Pages/members.aspx.

Oregon Environmental Services Advisory Council (OESAC)

OESAC regularly reviews conferences and training classes, and awards CEUs to those offerings that are suitable for our profession. A list of these classes with pre-

approved CEUs is maintained at the OESAC website. OESAC works to further technology education in the State of Oregon, particularly in known environmental arenas such a water supply operators, wastewater operators, hazardous wastes technicians and other environmental media technicians as needs arise. Their mission is to accomplish this through cooperative efforts among community colleges, professional organizations, adjacent States, public entities and private training units.

- Operators are encouraged to select training with CEUs pre-assigned by OESAC to ensure the training selected will result in creditable CEUs for the operator.
- If the training you are interested in has not been pre-reviewed by OESAC, DWS recommends that you submit the course description, agenda, and related materials to the Op Cert program for review prior to attending. While you are not required to do so, CEUs will not be awarded for attending a training class that does not meet Oregon's CEU standards.