

State Capacity Development Program Implementation 2021 Annual Report



The Safe Drinking Water Act requires states to report on their Capacity Development Program implementation annually. Information in this report addresses the U.S. Environmental Protection Agency's criteria for assessing state implementation of the Capacity Development Program.

Contact information if you require additional information or copies of this report.

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September 26, 2022

Ricardi Duvil, Ph.D., P.E.
Drinking Water Unit, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr. Duvil:

For your review and approval, I have enclosed the 2021 State Capacity Development Program Implementation Annual Report, according to the EPA submittals guidelines.

This reporting year has been both challenging and rewarding in several ways:

1. Working remotely was challenging as the pandemic continued. Since the transition to remote work, our agency focused efforts on supporting staff and providing the needed resources, including scanning paper copies to be available electronically. Addressing remote work needs prompted us to become more efficient in our new normal and created rewarding, and time-saving efficiencies, including reduction of travel time, faster communication tools, and reduced hard copy communication.
2. The ongoing state-wide pandemic response resulted in special assignments of some staff to new work tasks outside of our office. The duration of the special assignments varied, and unpredictable timing of some assignments caused uncertainty about when staff would return to their regular work.
3. We had challenges continuing some programs. The staff shortage caused us to pause our [H2Ops](#) and [Water Tap](#) Newsletters. We hired a Training and Outreach Manager in the spring of 2021 and combined our H2Ops and Water Tap newsletters to one electronic-only publication sent by e-mail to those wishing to receive it.
4. We were successful in embracing the new world of virtual trainings. We worked with staff and our vendors to create opportunities for virtual trainings, seminars, and meetings. We also promoted virtual learning to our stakeholders and partners. Although virtual meetings and outreach is not the same as face-to-face

social interactions, the lack of travel and cost resulted in strong attendance for stakeholder and agency organizational meetings.

5. We successfully implemented new work strategies to overcome hurdles caused by operators and partners also working away from traditional offices and buildings. One new example is our Operator Certification program strategy, to call all operators that did not renew their certifications for 2021. This effort serves as a back-up reminder and encourages them to use the late period to submit their renewals.

We look forward to continuing to find improvements and efficiencies in our work to assist water systems with their technical, managerial, and financial capacity. Our continued commitment is to support public water systems to maintain the equitable provision of safe and reliable drinking water for residents of Washington.

Please see the attached report for more information and details. If you have questions, please contact Brad Burnham, Policy and Planning Section Manager, at brad.burnham@doh.wa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Holly Myers", is written over a light gray rectangular background.

Holly Myers
Office of Drinking Water, Director

Enclosures

cc: Rick Green, EPA Region 10
Brad Burnham, Office of Drinking Water
Mike Means, Office of Drinking Water

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Introduction

This report describes Washington State Office of Drinking Water's (ODW's) capacity development program implementation during 2021 for new and existing drinking water systems using the U.S. Environmental Protection Agency's (EPA's) 2005 reporting criteria. It highlights program improvements during the past year and describes our progress and next steps.

Most people take safe drinking water for granted and are unaware of the difficulties communities face in providing it. There are many challenges in providing people with safe and reliable drinking water. We established a capacity development strategy that describes how we help systems acquire and maintain technical, managerial, and financial capabilities to ensure protection of public health.

We regulate public water systems under state law and a formal primacy agreement with the EPA. This agreement delegates authority to the state to implement the Safe Drinking Water Act (SDWA).

In 1974, the SDWA established national drinking water standards aimed at preventing waterborne illness. In 1996, SDWA amendments required each state to develop and carry out a capacity development strategy to:

1. Ensure all newly created systems meet technical, managerial, and financial capacity.
2. Establish a long-term strategy to assist existing systems in acquiring and maintaining technical, managerial, and financial capacity.
3. Ensure all water systems funded through the State Revolving Fund demonstrate technical, managerial, and financial capacity.

Below are tools we currently use to assess and enhance the technical, managerial, and financial capabilities of public water systems. Each one is described in this report.

Tool	<i>Technical</i>	<i>Managerial</i>	<i>Financial</i>
Annual Operating Permits	X	X	X
Prioritized Compliance Strategy	X		
Comprehensive Planning	X	X	X
Operator Certification	X	X	
Sanitary Surveys (Inspections)	X		
Data Management and Communication		X	
Security and Emergency Response Program	X	X	
Drinking Water State Revolving Fund (DWSRF)			X
Small Communities Initiative		X	X
Rural Community Assistance Corporation		X	X
Training	X	X	X
Local Assistance Set-Aside Funds	X	X	X
Area-Wide Optimization Program (AWOP)	X	X	X
Consolidation	X	X	X

This past year, the COVID-19 pandemic continued to impact our operations, but we followed our COVID field safety guidelines and continued to explore ways to conduct some survey elements remotely. We used new strategies to maximize social distancing, including review of paperwork by phone and

coordinating with the purveyor to utilize video options for observation of water system conditions when available. Going forward, we continue to utilize some of the new strategies adopted during the pandemic for increased efficiency.

EPA Reporting Criteria

The following information addresses the status of new and existing system capacity development strategies Washington developed, adopted, and implemented to ensure newly proposed water systems and existing water systems have the technical, financial, and managerial capacity to achieve and maintain compliance with federal regulations.

A. New Systems Program—Annual Reporting Criteria

1. Has the state’s legal authority (statutes and regulations) to implement the New Systems Program changed in the previous reporting year? (EPA’s definition of a new system “includes both community or nontransient noncommunity (NTNC) water systems being newly constructed as well as systems that do not currently meet the definition of a public water system but that expand their infrastructure and thereby grow to become community water systems or NTNC systems.”)

No.

2. Have there been any modifications to the state’s control points (its implementing authorities to review and verify a newly proposed water system has satisfied all three aspects of capacity before it may be approved)?

No.

3. List new systems in the state within the past three years and indicate whether those systems have, at any point during the first three years of operation, had unaddressed violations that incurred an Enforcement Targeting Tool (ETT) score of greater than or equal to 11 (EPA’s Office of Enforcement and Compliance Assurance generates ETT scores quarterly).

We now use EPA’s ETT Tracker, which shows ETT trends over consecutive quarters. We appreciate the tool’s ability to show trends and filter in various ways, including “by new system.” We used the ETT Tracker to identify if new systems have compliance issues and determine whether they appeared as priority systems on any previous ETT lists.

	Community Water Systems	Nontransient Noncommunity Systems	Total
New in 2021	2	3	5
On ETT List with score \geq 11	0	0	0

4. What are we doing to correct, or what have we done to keep these numbers low?

We incorporated the Enforcement Response Policy and ETT into our compliance process. The ETT allows us to quality check our compliance process. When systems reach ETT priority status, we want them to return to compliance as soon as possible.

All new public water systems are required to plan. Large water systems with 1,000 or more connections and expanding community water systems are required to create a Water System Plan (WSP) and all other systems create a Small Water System Management Program (SWSMP). We developed a [Water System Planning Guidebook](#) to help water system governing bodies, managers, and operators with key technical, managerial, and financial elements important in crafting a good plan. These key elements range from asset and financial management to source water protection. the Guidebook provides many tips to support all parties involved in developing a quality plan.

In addition, to ensure a comprehensive approach in bringing systems into compliance, we explore how to use ETT data through the Capacity Development, DWSRF, and Operator Certification Programs.

We also provide considerable training and educational outreach to struggling systems before resorting to formal enforcement tools. We identify problems and help them find appropriate solutions. Often, systems have performance issues because of improper management. We start support efforts by examining their staffing, policies, rates, record keeping, and communication. This gives systems the opportunity to self-correct and thereby avoid formal enforcement action.

When systems are not able to voluntarily comply, we employ a compliance strategy that:

- Makes protection of public health our top priority.
- Enforces requirements by holding system owners and operators accountable for compliance.
- Provides education to consumers and notifies system owners of requirements, including the consequences of non-compliance.
- Follows-through in a consistent, fair, and timely manner with compliance actions that are appropriate for the violation.

B. Existing System Strategy

1. In referencing the state's approved existing system strategy, which programs, tools, and/or activities were used, and how did each assist existing federally regulated public water systems (PWS) in acquiring and maintaining technical, managerial, and financial (TMF) capacity?

Our strategy for ensuring adequate water system capacity uses multiple approaches for the 4,159 federally regulated public water systems in Washington. (In addition to the federally regulated water systems, Washington State regulates about 13,515 small water systems that do not meet the federal government's criteria for a public water system. We call these water systems Group B systems. Although they are not subject to federal regulations, they are subject to Washington State Board of Health rules.) Our strategy includes the following:

Annual Operating Permits

The operating permit allows us to evaluate a system's performance in complying with drinking water requirements. We provide a color-coded permit to each water system. We outline the criteria for each

color on our [Enforcing Drinking Water Regulations webpage](#). The colors indicate how well the system is meeting the requirements of its operating permit. It also is a way for us to share water system performance information with customers, lenders, local permittees, and other partners.

We maintain a [Water Systems Operating Under a Red Permit webpage](#) with information about water systems currently with red operating permits. A Red operating permit category indicates that the water system is inadequate. We also share on the webpage that a Red operating permit could result in the water system having difficulty with building permits, on-site sewage disposal permits, food service permits, liquor licenses, and other permits or licenses being denied for properties connected to or intending to connect to the water system. In addition, lending institutions may choose not to finance loans associated with these properties.

Prioritized Compliance Strategy

Our compliance strategy ensures that compliance efforts address the highest public health risks first. We notify water systems when they violate a regulation and inform them of actions to correct the violation and return to compliance. We provide training and outreach to help systems find appropriate solutions, which often include strengthening aspects of their managerial capacity. We use formal enforcement tools for systems that are unwilling or unable to work with us to return to compliance.

Comprehensive Planning

All public water systems are required to plan. Large water systems with 1,000 or more connections and expanding community water systems are required to create a WSP and all other systems create a SWSMP. We have developed a [Water System Planning Guidebook](#) to help water system governing bodies, managers, and operators with key technical, managerial, and financial elements important to crafting a good plan. These key elements range from asset and financial management to source water protection, and the Guidebook provides many tips to support all parties involved develop a quality plan.

We work with the systems to ensure an appropriate level of system need, so that each system gets the most out of its planning process. Our regional planners and regional engineers hold pre-plan meetings with the water systems to discuss and understand the needs of the water system. We have a technical assistance contract with Rural Community Assistance Corporation (RCAC) for smaller water systems that may need additional assistance.

We look at the WSP as the foundation, whereby the water system takes a comprehensive look at its needs and statutory requirements and charts a plan of action for meeting those needs and requirements. Water systems must have current and approved WSPs to apply for DWSRF funds. We use the planning documents as a means of ensuring water systems work to build capacity according to the expectations of the 1996 amendments to the federal SDWA.

Operator Certification

Our certified waterworks operators represent the foundation on which we build our state's economic, social, and environmental vitality. An aging infrastructure, increased water system demands, declining

aquifers, workforce challenges, advancing technologies, and inadequate funding make the job of the certified operator more challenging and important than ever. The Operator Certification and Training (OC&T) Section leads our office to:

- Receive, process, and assist candidates with waterworks certification exam applications.
- Track, assist, and enforce annual certification renewal and tri-annual continuing education requirements.
- Receive, process, assist, and provide practical exams for Backflow Assembly Tester candidates.
- Review training for relevancy toward operator continuing education requirements.
- Evaluate, provide, track, and enforce temporary certifications.
- Identify, assist, and enforce water system operator requirements.
- Work with data management staff to ensure certified operator information remains relevant and easily accessible.
- Provide technical assistance on water system operational issues.
- Receive, investigate, and prosecute complaints against operators.
- Work with our external partners through our Operator Certification Advisory Committee and Training and Technical Assistance Providers Group.
- Provide innovation in workforce development, succession planning, inter- and intra-agency coordination, rule and policy revision, and maintaining a national perspective.

Please see the Waterworks Operator Certification Program Annual Report to EPA for more information. Contact Bill Bernier, Operator Certification and Training Section Manager, at 360-236-3562 or william.bernier@doh.wa.gov if you have any questions.

Sanitary Surveys (Inspections)

State Department of Health (DOH) regional engineers and staff usually survey larger water systems and systems with treatment other than simple disinfection. Local health jurisdiction (LHJ) staff survey the state's numerous small public water systems. LHJ staff conduct more than half of the hundreds of (and sometimes more than 1,000) sanitary surveys performed each year. Without our local health partners, we could not successfully meet our responsibilities to complete effective sanitary surveys within mandated timeframes. Training our local staff and supporting them with contracts to conduct surveys helps ensure local capacity to respond to drinking water emergencies. During a sanitary survey, inspectors review the management and operations of the water system, identify areas for improvement, and identify resources to help them improve. When we find deficiencies, we explain how to correct them. Then, we set compliance deadlines and follow-up to make sure systems address deficiencies.

Data Management and Communication

We track, store, and share public water system data with systems and the public at [Drinking Water System Data](#). Our website provides customers with information about their water system, including water quality history, operating permit, and compliance status. Current advisories can be found by county and system name on our [Active Drinking Water Alerts](#) webpage. Our main [ODW website](#) together with annual consumer confidence reports, keep customers informed about the overall performance of their water system.

Security and Emergency Response Program

We work with water systems and others to plan, prevent, and prepare to respond to security breaches and emergencies. We coordinate with our Executive Office of Resiliency and Health Security (ORHS), which is the central location for information gathering, analysis, and response coordination during an emergency. Our LHJs represent us at local Emergency Operation Centers (EOCs) during emergencies. Our mutual aid network, Washington Water/Wastewater Agency Resource Network (WAWARN), has at least 190 members and is coordinated by water systems within the network. They created a WAWARN website with information for members and nonmembers (wawarn.org).

Drinking Water State Revolving Fund (DWSRF)

We provide construction loans and financing for improvements to protect public health. In November 2021, we received 28 applications requesting about \$73 million. Overall, we awarded \$69 million to 18 applicants for new construction, consolidation, and preconstruction projects to improve water system infrastructure and protect public health. We continue to work toward system consolidations, and we grant up to 50 percent subsidies to construction projects that include consolidations.

To date, the consolidation grants have resulted in the elimination of at least 68 water systems now served and/or owned by another viable entity.

DWSRF continues to promote asset management and awards bonus points on construction loan applications if the applicant has:

- Attended asset management training (1 point).
- Developed an asset inventory with expected life assigned (5 points).

DWSRF also offers funding to recipients to develop an asset management program. DWSRF applicants that do not have an existing asset management program must develop an asset inventory, including expected life of assets and replacement costs for each asset. Applicants with an existing asset management program are provided the ability to improve their asset management program. Up to \$40,000 of additional funding will be awarded per jurisdiction for asset management efforts.

Additional information about the DWSRF program can be found in the DWSRF annual report.

Small Communities Initiative

This program is a collaborative effort among the departments of Health, Ecology, and Commerce. The Small Communities Initiative (SCI) DWSRF Set-Aside Contract Development Program works with small utilities across the state to help them plan for and finance their infrastructural needs. Over forty-five water and wastewater systems directly benefitted from their efforts in the past year.

In August 2021, the program expanded its capacity by one additional staff person. In addition to helping small communities with project management, SCI also participates in multiple inter-agency efforts to provide technical assistance and funding to water systems. Examples include:

- Planning and facilitating the Infrastructure Assistance Coordinating Council (IACC) conference, including sessions and technical teams. This year's conference was held online and offered twenty-four sessions and had approximately 207 people registered.
- Convening and facilitating quarterly meetings of state and federal funding program staff, including DWSRF, Ecology Water Quality funding, Public Works Board, Community Development Block Grant, USDA Rural Development, Washington State Department of Transportation, and the Transportation Improvement Board.

Rural Community Assistance Corporation

We use part of our local assistance set-aside in an agreement with the Rural Community Assistance Corporation (RCAC) to provide technical assistance to small communities across the state. RCAC assists systems with financial and managerial capacity building projects, such as rate studies, board training, and WSP development. In 2021, RCAC continued to help public water systems improve their capacity to provide safe and reliable drinking water into the future, or to review the feasibility of consolidating water systems. RCAC provided 350 hours of project coordination, delivered 683 training hours, and provided 191 hours of active technical assistance.

Training

We provide training to complement the work of our technical assistance providers. This includes one-on-one training for water systems, speaking at conferences and public meetings, offering regulatory insight at various venues, and facilitating comprehensive performance evaluations and performance-based training. In addition, our asset management work group identified several training needs for ensuring asset management programs in all our drinking water utilities. As a result, we created an asset-management training program appropriate to system size and complexity. It includes such things as our assessment management spreadsheet tool for smaller systems.

Area-Wide Optimization Program (AWOP)

As a participant in EPA's Area Wide Optimization Program (AWOP), our vision is to protect public health by assuring that surface water treatment facilities are properly designed, constructed, staffed, operated, and maintained. The training, tools, and networking we receive through AWOP participation has yielded enormous benefits to our staff, utility operators, and drinking water consumers. The 2021 AWOP workshops on harmful algal blooms helped guide our response when anatoxin-a was detected in the Columbia River, the drinking water source for nearly a quarter-million Washington residents.

We also recognize water utilities that meet voluntary turbidity goals. Low turbidity means better water treatment and better public health protection. We review turbidity data submitted by all fifty-nine rapid

rate treatment plants and present bronze, silver, gold, and platinum certificates or plaques to systems the first time they meet the turbidity goals for three, five, ten, and fifteen consecutive years. Over the years, we have presented nearly one hundred awards and recognized over thirty individual systems.

Consolidation

Small water systems struggle financially because there are fewer households to pay for the overall cost of maintaining and improving their water system. These costs include the capital financing to periodically replace physical assets such as wells, pumps, distribution mains, and reservoirs when they reach the end of their useful life. In addition, maintenance, monitoring, and personnel costs also tend to be much higher per household for small systems.

As a result of these challenges, DOH works to support the consolidation of small water systems in urban and peri-urban areas with larger water systems that have great technical, managerial, and financial capacity to sustain the safe and reliable provision of drinking water. At the same time, consolidation is not a feasible option for many small and more rural water systems.

2. Based on the existing system strategy, how has the state continued to identify systems in need of capacity development assistance?

We use compliance data, sanitary surveys, and planning documents to identify systems that need capacity development assistance. We continue to work with our regional offices to identify systems that need technical, managerial, and financial assistance through sanitary surveys, special purpose investigations, routine contact, and emergency response work. We target assistance to these systems through our technical assistance providers and regional office and headquarters staff. We are researching the ability of our available data management systems to track system capacity. It includes such things as our assessment management spreadsheet tool for smaller systems. The RCAC trainings have been held virtually and have been well attended.

3. During the reporting period, if the state has identified any PWS capacity concerns or capacity development needs (technical, managerial, or financial), what was the state's approach in offering and/or providing assistance?

Local Assistance Set-Aside Funds

We use local assistance set-aside funds from our annual capitalization grant to help address the capacity development needs we identify. Over the past year, we provided sanitary surveys and related technical assistance to help fix problems identified during the survey, including:

- Training to third-party sanitary surveyors.
- Support during coliform and health advisory situations, including developing action plans with water systems and communicating with labs, LHJs, and the media.
- Technical assistance to small water systems on water quality, source water protection, cross-connection control, and engineering issues.

- Source water protection technical assistance through conference training sessions and direct assistance from our source water protection program.
- A wellhead protection interactive [GIS website](#).
- Managerial and financial capacity assistance through contracts with RCAC, and SCI.
- Targeted financial technical assistance to improve small systems' financial capacity and position them to apply successfully for funding opportunities.
- Capacity information to water systems through our website, publications—including our ODW Now newsletter—and other media channels.
- More specific capacity development projects are described in detail in the [Report to the Governor—Water System Capacity 2017-2019](#) posted on our [Capacity Development webpage](#)

4. If the state performed a review of implementation of the existing system strategy during the previous year, discuss the review and how findings have been or may be addressed.

The state has continued the review of the existing system strategy that was started in 2020. We plan to finalize the review and modify the strategy on EPA's timeline for inclusion of asset management elements required by America's Water Infrastructure Act of 2018 (AWIA).

5. Did the state make any modifications to the existing system strategy?

No.

Successes and Challenges

In the past year, we modified our office vision to be broader and more inclusive of the challenges water systems now face. Our vision is “The Office of Drinking Water supports our communities to address competing water challenges, such as climate change, water resources, aging infrastructure, and economic development. We ensure and promote the value of safe and reliable drinking water to all people of Washington, now and for generations to come.”

This section describes some program accomplishments and challenges from the past year and outlines the strategic planning efforts that shape much of our work as we move forward. For many programs, we had both successes and challenges, so you will see descriptions of both in the summaries below. The challenges were mostly related to staffing. During last year, some of our staff were still involved with special assignments related to the COVID-19 pandemic response. In addition, it was more challenging to recruit and hire for vacant positions. The year was a transition for us as the demand for special pandemic-related assignments reduced and funding became available to fill vacancies. We look forward to continuing the transition to a new normal with fewer vacancies and increased capacity within our team.

A. Asset Management

Asset management concepts provide important tools for helping small water systems understand their technical, managerial, and financial capacity needs. At its core, asset management is about identifying

water system assets and planning for their proper operation, maintenance, and replacement. There are multiple areas where our work intersects with asset management concepts.

- Water system planning.
- Capacity development work.
- Supporting sustainable infrastructure through our DWSRF Program.

Water systems must be able to manage all aspects of operations to ensure their long-term sustainability. A system cannot be sustainable if it does not include ongoing operation, maintenance, and infrastructure repair and replacement costs in its rates.

To help small water systems prepare for the future, we have been working on coordinated approaches within our program and other state agencies to meet the asset management requirements in AWIA of 2018. For example, we have developed, promoted, and distributed tools to support asset management activities for our small water systems.

We have incorporated asset management concepts into our planning guidance documents including the recently finalized [Water System Planning Guidebook, ODW Publication #331-068](#). In addition, we created a training program to teach small and medium systems how to incorporate asset management into their current operations and planning programs.

B. Local Assistance Set-Aside Fund Project

In 2021, DOH continued to fund a project with the Washington State Department of Commerce to develop water utility resiliency in the Mid-Columbia Basin using local assistance set-aside funds. In that region, declining aquifers could affect at least 137 Group A community water systems. This project assisted the water systems in organizing and communicating their current efforts and future plans to maintain reliable water sources.

DOH continues to collaborate with multiple stakeholders to support a successful application from the Washington State University for a Bureau of Reclamation WaterSMART Applied Science Grant. The grant proposal was a collaborative effort of DOH, Commerce, Lincoln County, multiple conservation districts, and drinking water utilities. The proposed project will create the foundational documents to establish a long-term, stakeholder-driven coalition. Additionally, the WaterSMART grant will establish a pilot groundwater monitoring network. Data from this study will help utilities and agencies better understand how groundwater supplies have changed over time. It will also establish a baseline for future groundwater level tracking. In 2022, we successfully contracted with Columbia Basin Development League to provide facilitation services for monthly stakeholder meetings and began formulating foundational documents for the organization. Additionally, monies were awarded to Landau and Associates to review existing groundwater level data and identify potential monitoring sites in the project area.

All these efforts provide managers in the region with much needed data to support decision-making. DOH is also working to support the consolidation of water systems in the area to increase operational efficiency, reduce customer costs, and improve service.

C. Arsenic Treatment Optimization Program (ATOP)

Since its start in 2011, the Arsenic Treatment Optimization Program has helped water systems across Washington progress steadily towards increased compliance with the Arsenic Rule and optimized operation of treatment plants. Most of these water systems demonstrated their ability to produce reliable and consistently treated water that meets regulatory standards. However, water systems occasionally struggle to get their arsenic treatment processes to work effectively. We require water systems with arsenic treatment to monitor the treated water for arsenic at least monthly. This sampling frequency helps us identify treatment issues early, providing greater public health protection.

We began targeted technical assistance in 2012. Since then, the percentage of arsenic treatment facilities successfully meeting the arsenic maximum contaminant level (MCL) has steadily increased from 76 percent at the end of 2011, to 99 percent at the end of 2020.

Ongoing engagement with water systems is needed to maintain and improve the level of public health protection they provide through reduced arsenic exposure. Due to the success of the ATOP Team, funding constraints, and other agency priorities, people on the ATOP Team have been asked to focus on other core safe drinking water activities. We are hoping to check in with this program and reinvigorate it as we hire more staff into these roles.

D. Sanitary Survey Program

Sanitary surveys of public water systems are key to capacity development. Regular inspections of water systems provide opportunities for education and technical assistance for operators and other water system personnel.

The Sanitary Survey Program coordinates and administers inspections of all water systems in Washington. Inspections occur every three to five years, depending on system type, source, and performance. During an inspection, surveyors physically inspect the water system components, review the management and operations of the water system, and identify areas for improvement. When we find significant deficiencies, we explain how to correct them, set compliance deadlines, and follow-up to make sure the system addresses the deficiencies. We also document our observations and recommendations associated with steps the water system can take for improved technical, managerial, and financial capacity.

Some survey findings warrant further follow up by other specialists in the regional offices. These are called “internal referrals.” Examples of internal referrals include potential groundwater under the influence of surface water (GWI) and observations that training is needed for operation and monitoring of disinfection systems.

In 2021, we built on prior year enhancements to our data system that enable us to track the occurrence of significant deficiencies and other findings to measure trends that indicate success in building capacity to prevent future occurrences.

DOH regional engineers and other staff usually survey larger water systems and systems with treatment other than simple disinfection. Our LHI partners survey the state’s numerous smaller public water systems. LHI staff conduct more than half of the hundreds of (and sometimes more than 1,000) sanitary surveys performed each year. Without our local health partners, we could not meet our responsibilities

to complete effective sanitary surveys within required timeframes. We support our local health partners with training and funding that also helps build the state’s capacity to respond locally to drinking water emergencies.

During 2021, ODW and local health staff surveyed 826 water systems, including 467 community systems, 291 transient noncommunity (TNC) systems, and 68 nontransient noncommunity (NTNC) systems. See the table below for more specific data.

Sanitary Surveys Completed in 2021 by DOH or Third-Party Staff

Region and Surveyor type	Community	NTNC	TNC	Total
Eastern Regional Office DOH Surveyors	110	19	33	162
Eastern Regional Office Third Party Surveyors	29	21	72	125
Northwest Regional Office DOH Surveyors	127	7	45	179
Northwest Regional Office Third Party Surveyors	71	2	32	105
Southwest Regional Office DOH Surveyors	58	8	27	93
Southwest Regional Office Third Party Surveyors	72	11	79	162
Total	467	68	291	826

E. Source Water Protection Program

The 2021 reporting period posed a key challenge to the Source Water Protection Program (SWPP). In mid-2021, our SWPP manager was temporarily reassigned to manage the DWSRF. In late 2021, the SWPP manager position became vacant, and the agency was unable to refill it until mid-June 2022. In the meantime, the wellhead protection specialist, who typically performed CAO and SEPA reviews, absorbed the grant functions previously administered by the program manager. Additionally, this individual shifted positions within ODW in September 2022, creating another vacancy.

Besides staffing challenges, most of the conferences and training opportunities in which the program would typically participate remained sidelined or “virtual only” due to COVID concerns. As a result, there were fewer contacts, reviews, and trainings or presentations than in a typical year. Staff primarily focused on keeping the grant program running, providing technical assistance, and reviewing CAO updates as time allowed rather than project-level SEPA review. We anticipate restoring our previous level of services in the coming year as full staffing is reestablished and outside organizations begin to feel safe holding in-person meetings once again.

Accomplishments for this reporting year include the following:

- In cooperation with the Drinking Water Providers Partnership (U.S. Forest Service and other agencies), we contributed \$30,000 to the Walla Walla Basin Watershed Council’s Mill Creek baseflow assessment and springs inventory project, to develop LiDAR data for the Mill Creek watershed. This is leveraged together with other funding to complete the entire project.
- We granted \$30,000 to the Spokane Aquifer Joint Board to be used for identifying property and hydrogeologic information for both existing aquifer breaches in the Spokane Valley-Rathdrum Prairie Aquifer Source Area Sole Source Aquifer and those that may be expected to occur as additional surface mining occurs in the region. Because these are not regulated as shorelines or water bodies in themselves, they lack typical protections and could allow contamination of a

primary surface source. The goal is to develop strategies for controlling what happens with the resulting “lakes.”

- We appropriated \$50,000 to use for modeling wellhead protection areas that are currently delineated through the calculated fixed radius approach or have been “assigned,” lacking proper delineation, in the Lower Yakima Basin. The information gained on groundwater movement throughout the broader river basin is expected to be dually useful in understanding nitrate issues throughout that area.
- We continued to work with grantees on completing projects under previous funding periods, including the state Department of Agriculture, Thurston County, and Whatcom PUD.
- We continued to participate at the national level on the ASDWA SWP Committee, attending ASDWA SWP Committee conference calls.
- Together with other staff, we reviewed and commented on draft documents relating to Ecology’s reissuance of the general permit for concentrated animal feeding operations.

We continued to disseminate SWP tools, resources, notices about funding availability, and training opportunities via our website and partners. We also updated our funding application in keeping with other agency documents.

Along with regional staff, we worked with various local governments to identify emerging SWP issues and identify possible solutions such as feasibility studies, facilitation, development of ordinances, and identification of funding options. Additional details can be found in the annual source water protection program report.

Next Steps

As we continue to address Washington’s small system challenges, we remain focused on our vision - To address competing water challenges, such as climate change, water resources, aging infrastructure, and economic development. To ensure and promote the value of safe and reliable drinking water to all people of Washington, now and for generations to come.

Our approach is multi-faceted. We focus training and technical assistance resources as much as possible on water systems that are willing and able to build their capacity to sustain themselves. We rely on our graduated compliance approach to direct water systems when they are unable or unwilling to maintain sufficient capacity. We strive for innovative approaches, like consolidation and restructuring strategies, to help struggling small systems out of the water business and mitigate the impending financial burden on customers of those systems. We continue to nurture relationships and develop forward-thinking strategies with all of our partners to enhance service and support to water systems.

In 2021, we continued to support water systems to address technical, managerial, and financial capacity for the provision of safe and reliable drinking water for everyone served by public water systems. We continue to be deliberate about a capacity development approach that includes all staff in ODW, as well as other parts of state government, LHJs, and non-governmental organizations to support and sustain the capacity of public water systems.