

State of Nevada

**2021 Annual Capacity Development Report
To the
US Environmental Protection Agency**

**State Fiscal Year 2021
(July 1, 2020 – June 30, 2021)**



July 2021



Nevada Division of Environmental Protection
Bureau of Safe Drinking Water & Office of Financial Assistance

Table of Contents

Contents

Background	2
A. New Systems Program Annual Reporting Criteria.....	2
B. Existing System Capacity Development Strategy	5
Compliance with the Safe Drinking Water Act.....	5
Reporting Period.....	6
End of the current reporting period (April – June 2021)	6
Focused Technical Assistance under EPA Grant.....	6
Found Systems Program Technical Assistance.....	8
Nevada’s Contracted Technical Assistance	9
Capacity Assessments.....	9
Cross-Connection Control Plans (CCCP), Emergency Restoration Plans (ERP), Operation/Maintenance (O&M), Water Conservation, & Sampling Site Plans	10
Compliance Assistance & Other General Technical Assistance	11
Operator Training and Certification	12
Financial Sustainability	13
Capacity Development Success Stories	15
Integrated Source Water Protection Program	17
Vulnerability Assessment and Monitoring Waiver Programs	20
Funding.....	21
C. Challenges	22
Drought.....	22
COVID-19 Pandemic	23
The Future	24
ATTACHMENT 1: Technical Assistance Flyer.....	30
ATTACHMENT 2: Specific TA Vendor Services	33
ATTACHMENT 3: TA Vendor Services in SFY 2020-21.....	43
ATTACHMENT 4: Vulnerability Assessment and Monitoring Waiver Form.....	51
ATTACHMENT 5: Specific TA Vendor Services for SFY 2022-23.....	53

Background



The Nevada Division of Environmental Protection (NDEP) implements the State’s [Capacity Development Program](#) to assist public water systems (PWS). The following annual capacity development report covering July 1, 2020 through June 30, 2021 – highlights efforts to further the Capacity Development Program. NDEP’s Office of Financial Assistance (OFA), Bureau of Safe Drinking Water (BSDW), and contracted Technical Assistance (TA) providers – Nevada Rural Water Association (NvRWA), Farr West Engineering (FW), and Rural Community Assistance Corporation (RCAC) – contributed to this report.

The Capacity Development Program is funded primarily with set-aside monies from the Drinking Water State Revolving Fund (DWSRF). Validating Nevada’s ‘living’ document approach to the capacity development strategy and implementation, NDEP accomplished the following:

- A. Improved existing system strategies
- B. Consistent demonstrable results and evolution

A. New Systems Program Annual Reporting Criteria

1. ***Has the State’s legal authority (statutes/regulations) to implement the New Systems Program changed within the previous reporting year?***

Nevada’s legal authority to implement the New Systems Program did not change during State fiscal year (SFY) 2021.

2. ***Have there been any modifications to the State’s control points?***

There have been no modifications to Nevada’s control points during SFY 2021.

3. ***List new systems (PWSID & Name) in the State within the past three years and their ETT scores.***

Table 1 shows new systems in the State in the last three years and their Enforcement Targeting Tool (ETT) scores through the second quarter of calendar year 2021. Six of the seven public water systems with ETT Scores are systems that were discovered to be operating without a permit and are described as Found Systems. Activities to address capacity development for these types of systems is further discussed in the Found Systems sections of this report.

2021 Annual Capacity Development Report

#	ACTIVITY DATE	COUNTY	PWS TYPE ^A	Found System	PWS ID	PWS Name	Population Served	ETT Score
1	6/23/2021	CLARK	NTNC		NV0001169	CAESARS PALACE	6,372	
2	6/3/2021	CLARK	NTNC		NV0001210	RESORTS WORLD LAS VEGAS	11,250	
3	4/30/2021	CLARK	C	Yes	NV0000426	DESERT SUNRISE WATER USERS ASSOC	25	
4	3/8/2021	CLARK	NTNC		NV0001177	MARRIOTT GRAND CHATEAU	1,228	
5	2/10/2021	WASHOE	NTNC	Yes	NV0001196	PARR RENO WATER COMPANY	25	
6	11/12/2020	CLARK	NC		NV0004119	COYOTE SPRINGS GOLF COURSE	25	
7	10/26/2020	WHITE PINE	NTNC		NV0001200	VANTAGE COMPLEX PROJECT	40	
8	9/8/2020	CLARK	C	Yes	NV0000430	FORT APACHE ANN NE WATER ASSOC	25	
9	8/12/2020	NYE	NC	Yes	NV0004132	FORELAND REFINERY	225	
10	8/11/2020	WASHOE	NC	Yes	NV0004145	HOLY SPIRIT CATHOLIC CHURCH	150	
11	6/30/2020	CLARK	NC	Yes	NV0004140	ARAVADA SPRINGS	25	
12	6/19/2020	CLARK	NC	Yes	NV0004131	BLUE DIAMOND RAINBOW NW PLAZA WATER	25	
13	4/1/2020	DOUGLAS	C		NV0000172	PINEVIEW ESTATES	450	
14	3/24/2020	CLARK	NTNC		NV0001190	T MOBILE ARENA	473	
15	3/13/2020	CLARK	NTNC		NV0001164	CROMWELL HOTEL AND CASINO	1,500	
16	2/25/2020	NYE	NTNC	Yes	NV0001181	ACRES CULTIVATION	248	
17	1/31/2020	HUMBOLDT	NTNC	Yes	NV0001191	CSS FARMS LLC	30	2
18	1/28/2020	LYON	NTNC	Yes	NV0001133	PUMPKIN HOLLOW SHAFT SITE	200	
19	1/24/2020	PERSHING	NTNC	Yes	NV0001205	RELIEF CANYON MINE	36	
20	1/22/2020	MINERAL	NTNC	Yes	NV0001178	ISABELLA PEARL MINE	25	2
21	12/4/2019	CLARK	NTNC		NV0001180	PLANET HOLLYWOOD HOTEL AND CASINO	6,509	
22	10/22/2019	NYE	NTNC	Yes	NV0001174	FRONT SIGHT FIREARMS TRAINING INSTITUTE	224	1
23	9/23/2019	CLARK	NTNC		NV0001163	LINQ HOTEL AND CASINO	5,172	
24	9/23/2019	CLARK	NTNC		NV0001172	WALDORF ASTORIA HOTEL LAS VEGAS	25	
25	8/14/2019	LYON	NTNC	Yes	NV0001195	ARCOSA SPECIALTY MATERIALS	63	1
26	7/10/2019	ELKO	NC		NV0001088	MUSTANG MONUMENT	25	
27	7/9/2019	CLARK	NTNC		NV0001166	PARIS LAS VEGAS HOTEL AND CASINO	30	
28	7/5/2019	CLARK	NTNC		NV0001175	FLAMINGO LAS VEGAS HOTEL AND CASINO	9,421	
29	7/5/2019	CLARK	NTNC		NV0001171	HARRAHS LAS VEGAS	8,031	
30	7/3/2019	EUREKA	NTNC		NV0001159	GOLD BAR MINE	70	
31	6/4/2019	WASHOE	NC		NV0002609	DOLLAR GENERAL	123	
32	5/28/2019	WASHOE	NC		NV0004135	ECOLOGICA CORPORATION	25	
33	5/2/2019	CHURCHILL	NTNC	Yes	NV0001185	LOGOS CHRISTIAN ACADEMY	85	27
34	3/7/2019	CLARK	NTNC		NV0001162	BALLYS	7,850	2
35	1/16/2019	WASHOE	NC		NV0004076	THE LODGE AT GALENA	142	
36	12/14/2018	WASHOE	NC		NV0000318	WASHOE LAKE STATE PARK NORTH BOAT RAMP	25	
37	12/5/2018	LINCOLN	NC		NV0004106	PAHRANAGAT NATIONAL WILDLIFE REFUGE FWS	25	
38	11/6/2018	WASHOE	NC	Yes	NV0000700	KRUSE FEED AND HARDWARE	1,000	20
39	9/17/2018	LYON	NC		NV0004118	WALKER RIVER STATE REC AREA PITCHFORK	120	
40	8/31/2018	CLARK	NTNC		NV0001155	BERKLEY	672	

Table 1. New Public Water Systems (PWS) within Nevada in the last 3 years.

^APWS Types: C- Community; NC- Non-Community; NTNC- Non-Transient Non-Community

2021 Annual Capacity Development Report

#	ACTIVITY DATE	COUNTY	PWS TYPE ^A	Found System	PWS ID	PWS Name	Population Served	ETT Score
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38	11/27/2018	CLARK	C		NV0000124	SUNRISE ACRES WATER ASSOCIATION	231	
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B. Existing System Capacity Development Strategy

The current Capacity Development Strategy is being updated in coordination with internal and external stakeholders. An invitation was sent in April 2021 to the members of the Infrastructure for Nevada’s Communities (INC) group, along with other water system operators and community leaders, to participate as a stakeholder for this strategy development. The revised strategy will include the requirements for Asset Management, as well as any additional updates stakeholders feel Nevada needs to address in capacity development. The final report will be submitted to the U.S. Environmental Protection Agency (EPA) by December 2021.

- 1. In referencing the State’s approved existing systems strategy, which programs, tools, and/or activities were used, and how did each assist existing Public Water Systems (PWSs) in acquiring and maintaining Technical, Managerial, and Financial (TMF) capacity? Discuss the target audience these activities have been directed towards.***

Capacity Development Goals		
To protect public health by ensuring consistent compliance with drinking water standards	To enhance performance beyond compliance through measures that bring about efficiency, effectiveness and service excellence	To promote continuous improvement through monitoring, assessment and strategic planning

The backbone of the Capacity Development Strategy is supported by efforts to help water systems develop and maintain capacity. Many water systems throughout Nevada have increased their capacity through NDEP’s TA program. The program’s outreach flyer is included with this report as Attachment 1. The TA program provided “targeted” assistance by focusing on capacity deficiencies within the constraints of the ongoing coronavirus pandemic. Specific assistance to small water systems is shown in Attachment 2. Some of the more recent program highlights are described below.

Compliance with the Safe Drinking Water Act

Nevada’s State capacity development coordinators and TA providers work closely with State enforcement staff to review the ETT list provided each quarter. They identify systems that lack TMF capacity. OFA and BSDW staff then determines steps to help the system return to compliance in a timely manner. With funding provided through the DWSRF small systems TA contract, vendors focus on systems that score above the ten-point threshold to help get them off the ETT list and stay off. As shown below in Figure 1, Nevada continues to track the program’s progress in helping water systems return to compliance.

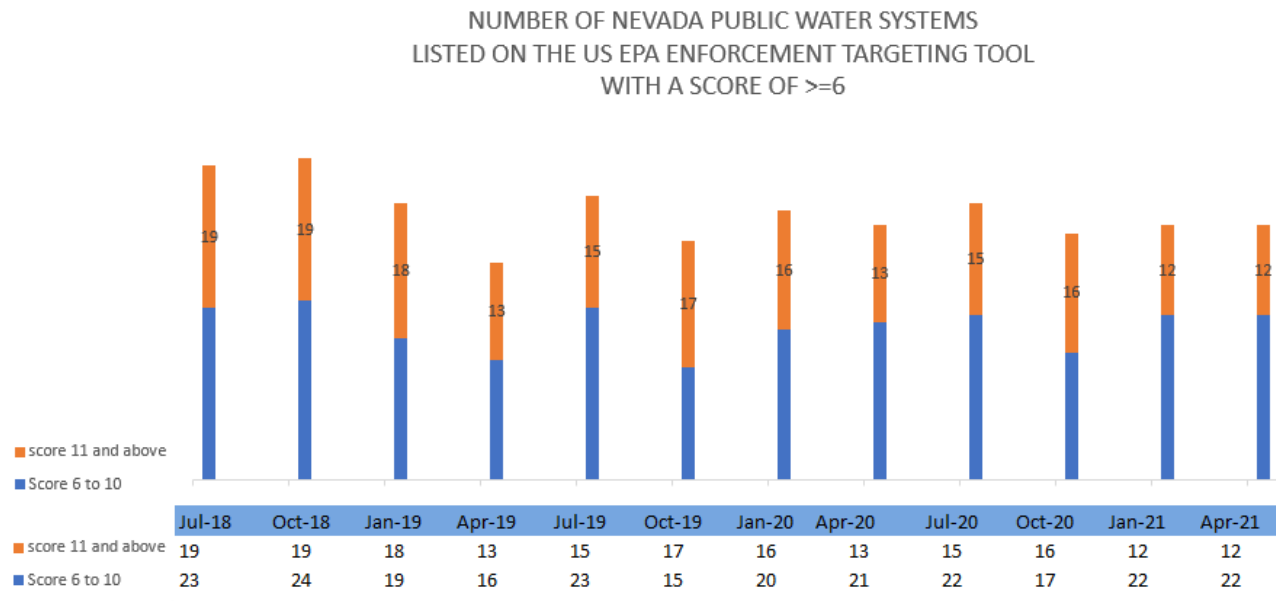


Figure 1: ETT tracking over time

Reporting Period A total of 13 systems were newly flagged during this reporting period for a score of 11 and above. Out of these, eight systems got back to an ETT score of under 11.

End of the current reporting period (April – June 2021) A total of 12 systems scored 11 or above. Out of these, four systems are new this quarter, one PWS was listed in 2nd quarter of the reporting period, and the rest of the seven systems have been on the list for at least a year. currently, some of these systems are either actively pursuing the infrastructure projects or a construction project is underway that addresses the deficiencies.

Focused Technical Assistance under EPA Grant

PWSs in Nevada: Ensuring PWS compliance with laws and regulations requires a multi-faceted approach. NDEP oversees approximately 606 PWSs with diverse service populations. Many of these regulated water systems are not in the primary business of supplying water; rather, their business requires that they have water for drinking and hygiene purposes. Only a handful of systems in Nevada (19 systems including businesses like Casinos) serve a population greater than 10,000 and 458 systems serve a population less than 500. This information underscores the capacity challenges faced by a typical PWS in Nevada. A vast number of very small sized PWSs in Nevada typically operate on very small budgets with limited ability to meet unexpected capacity deficiencies. NDEP acknowledges this hardship and strives to serve the systems with additional emphasis on intra-agency collaboration and assistance. As such, 99.9% of all PWSs in Nevada are compliant, validating the constant adjustments and strategies that NDEP performs in meeting the capacity needs of any given typical PWS.

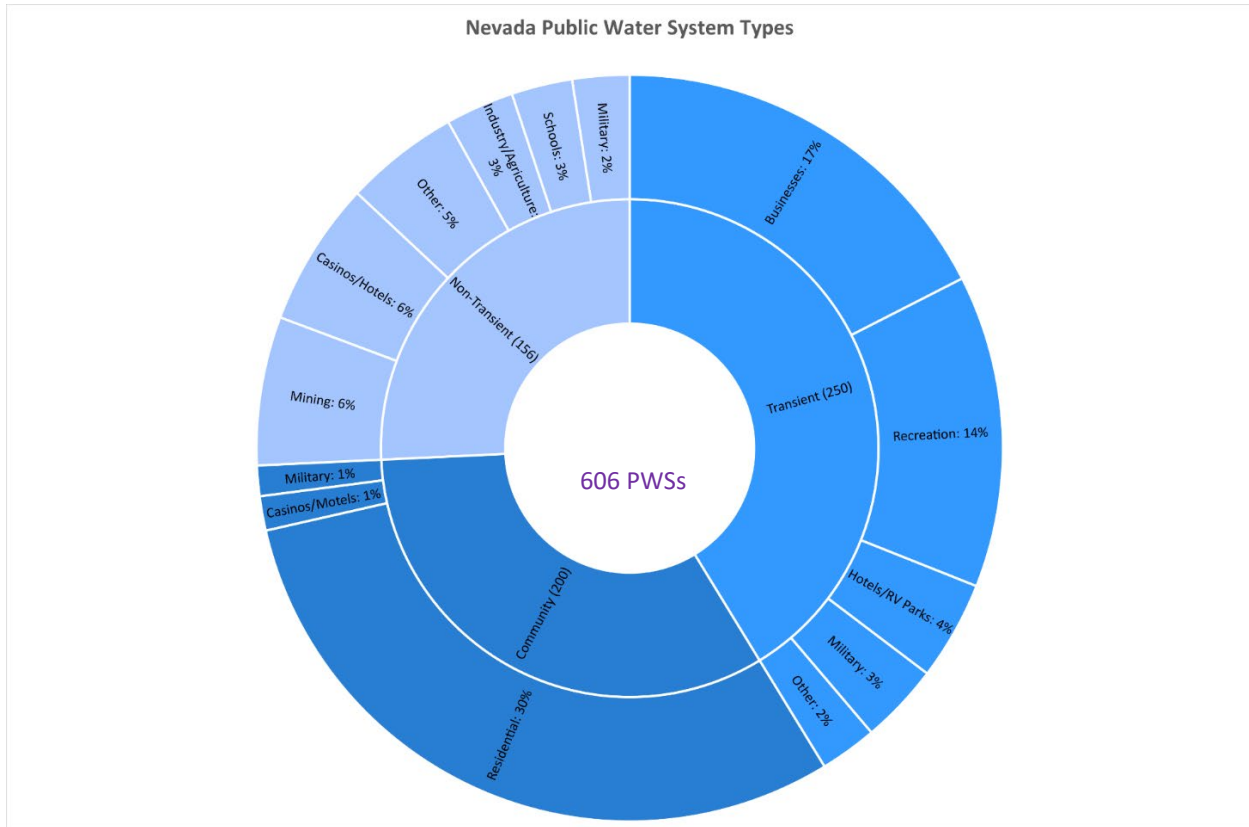


Figure 2: Service footprint of PWSs in Nevada

In SFY 2021, NDEP continued to work with the EPA small systems TA providers – NvRWA, EFCN, RCAC. NDEP further contracted with Farr West Engineering for additional technical assistance. As a result, NDEP was able to help PWSs meet their distinct capacity development needs, at no cost to the systems.

Three of these technical assistance providers (vendors¹) were on a biennial contract with NDEP which expired on June 30th, 2021, coinciding with the end of this reporting period:

- **NvRWA:** technical capacity assistance, operator certification training, outreach
- **RCAC:** managerial capacity assistance, financial capacity assistance, outreach
- **FW:** water rights assistance, system mapping, and health and safety training

OFA and BSDW also coordinated with the EFCN to provide training for the small systems.

¹ Detailed services are shown in Attachment 2

As a part of the cooperative agreement grant with the EPA, a workshop planned by EFCN for SFY 2020 was re-scheduled for October 1, 2020 (SFY 2021). This third and last of the three-part series was facilitated to empower the small systems with the knowledge and tools to better manage their systems and improve sustainability by exploring avenues to pool resources with other systems.

Heather Himmelberger of the Southwest Environmental Finance Center presented examples that illustrated the following topics and helped the audience relate to the material.

- Leveraging shared purchasing power
- Informal information sharing
- Equipment sharing
- Sharing personnel
- Consolidation
- Managerial collaboration
- Preparing for emergencies

The workshop was recorded and made available upon request to those who could not attend the live presentations.

For four days in May, OFA also participated in a webinar series organized by the Sacramento State Environmental Finance Center wherein OFA brought attention to the current capacity development program, workflows, and State specific challenges. NDEP believes this will further the value of ongoing collaboration with EFCN.

In State Fiscal Year 2021 RCAC provided training on revisions to Nevada's open meeting laws, a funding forum which brought together many of Nevada's infrastructure funders, and a two-part training series on Cross Connection Control Programs for Tribal systems. These three trainings had nine, 21, and 20 participants, respectively. RCAC also provided a three-part series on protecting water supply from microbial contaminants with an average of 16 participants and an operator exam preparation course for 11 participants. RCAC also conducted four Native American Water Master Association (NAWMA) trainings with an average of 4 tribal operators per training.

Found Systems Program Technical Assistance

A PWS is a drinking water system that regularly serves at least 25 people and/or 15 service connections for 60 days in a year. Many drinking water systems cross this minimum threshold each year and require permitting. However, some systems may also begin operations without knowing that they fall under regulatory requirements enforced by NDEP. Such systems continue to operate outside of the regulatory program. Systems in this situation have been dubbed "found systems" and a special program for capacity development was implemented in SFY 2016 to make sure these systems comply with the appropriate regulatory program. The found systems are assisted with funds from the DWSRF 10% set-aside. NDEP expects that the number of found systems will fluctuate with changing economies.

BSDW contracted with NvRWA to provide special TMF capacity assistance for these systems. The goal of the program is to first determine if the found system meets the definition of a PWS. Systems possibly meeting the definition of a community public water system rank highest on the list for review and/or assistance. If the system meets appropriate criteria, BSDW staff conducts a sanitary survey, and NvRWA assists the system in completing the work necessary to document the PWS infrastructure. NvRWA then helps the PWS produce a written corrective action plan for deficiencies revealed in the sanitary survey and provides the necessary TA for proper permitting and water quality monitoring.

The highlights of SFY 2021 include bringing the number of potential found systems on the original list down from nine to five undetermined targets. Over the year, nine potential systems were added. Determinations have been made on 13 of the targets. The Potential Found Systems list now stands at five undetermined targets.

During SFY 2021, three found systems were issued a permit and three were inactivated. There are currently 16 systems working towards compliance and permitting. Since the found system project began, the number of systems designated for continuous verification has remained at approximately 89 systems.

Nevada's Contracted Technical Assistance

Often PWSs did not have accurate and complete maps and asset information. In addition, some systems lacked Operation & Maintenance, Emergency Response, Cross Connection Control, and Capital Improvement Plans. Nevada has made special efforts to assist systems with these common deficiencies and other routine TMF capacity development needs. Attachment 1 has lists of TA assistance provided during SFY 2021. Attachment 2 provides a summary of technical assistance by type and is color coded to indicate general focus areas for each of the vendors.

In SFY 2021, a total of \$455,268 was budgeted for contracted vendor assistance. OFA has spent \$355,939, or 78.2% of our expected budget. COVID-19 continued to severely impact travel during FY21. Vendors offered remote assistance where practical, building upon SFY2020 experience. All three vendors had completed their respective assignments within the contract expiry date.

Capacity Assessments

A capacity assessment is a valuable tool used by water systems to measure strengths and identify weaknesses. BSDW and TA providers use a standard TMF survey to identify appropriate assistance needs for water systems. In addition, OFA also uses capacity assessments to determine eligibility for loans. In SFY 2021, all the systems seeking funding (total 14) participated in capacity assessments as part of their loan application review process. This helped ensure that all capacity deficiencies were adequately addressed by the proposed projects. This requirement also led applicants to consider factors that might otherwise have been overlooked. The result was a commitment to address deficiencies regardless of the applicant's eligibility for a loan.

Nevada's current capacity assessment form is available online².

Cross-Connection Control Plans (CCCP), Emergency Restoration Plans (ERP), Operation/Maintenance (O&M), Water Conservation, & Sampling Site Plans

Public drinking water systems in Nevada are required to have site-specific plans approved by BSDW. These plans include cross-connection control, operations and maintenance (O&M), and restoration of services in an emergency. Water systems are also required to have a water conservation plan that must be updated every five years and approved by the Nevada Division of Water Resources. This fiscal year, RCAC assisted 20 small water systems to prepare O&M plans, CCCP, and ERPs. Many of these systems are very small and are predominantly non-transient community public water systems.

This year, RCAC assisted one other system, Silver Knolls Mutual Water Company, with drafting a water conservation plan. This was accomplished by working closely with system personnel so that they could gain working knowledge and ownership of their site-specific plans.

Developing O&M plans and cross-connection control plans provides the PWS staff with an opportunity to systematically examine the needs of their customers and their own facilities. Our future efforts will continue to be multi-faceted to address both routine and other challenges unique to PWSs in Nevada. These efforts include:

Updating various plans (O&Ms, FSPs, ERPs, etc.)

- Providing training for system staff and local governing boards
- Continuing public education
- Developing community-focused implementation strategies

An important focus for the Capacity Development Program is helping systems prepare emergency response and restoration plans. These plans provide a framework for dealing with emergencies. The planning exercise is valuable, as participants gain greater understanding of system vulnerabilities and begin to develop necessary action plans. Another outcome of this planning process is an enhanced understanding of system responsibilities under the Public Notification Rule. Furthermore, TA providers increase water systems' preparedness by conducting tabletop exercises that test the resilience of an emergency response plan.

BSDW staff and staff from NvRWA and RCAC actively work with both community and non-community PWSs. The teams continued to develop or update site sampling plans to comply with the Revised Total Coliform Rule and the related Groundwater Rule. Developing these plans requires working with system personnel to educate them on the nuances of each rule, identify

² https://ndep.nv.gov/uploads/water-financing-srf-capacitydevelopment-docs/nv_tmf_capacity_survey_fy12.pdf

appropriate sample locations, and establish appropriate sampling schedules. Expanded capacities among system personnel include:

- Competency about how the rule applies to their system.
- Actions to take in case of positive coliform or *E. coli* results.
- Proper sample collection techniques.
- Timely interaction with the primacy agency.
- Knowledge of the concepts of representative sampling.
- Effective public notification language and methods when needed.
- Modifying their plans as their system grows.

With the development of these site sampling plans, small systems have an additional tool at their disposal in the event of a water related emergency or the presence of coliform or *E. coli* bacteria in the water system, including effective public notification language and methods. Additionally, DWSRF mandates that all systems that receive funding address or plan to address critical capacity deficiencies in their proposed project plan.

Compliance Assistance & Other General Technical Assistance

TA assistance during SFY 2021 helped systems resolve deficiencies noted in the sanitary surveys. Vendors also helped the facility owner better understand the sanitary survey results, write corrective action plans, and work to address deficiencies. Typically, a variety of situations trigger compliance related assistance:

- Immediate coliform-positive result
- Disinfection followed by sampling for coliform
- Lead and copper reporting
- Disinfection byproducts compliance
- Water quality or monitoring issues
- Development of standard operating procedures

Where sanitary deficiencies or water quality/monitoring issues needed to be addressed, discussions during examination instilled a greater understanding of sanitation for public health protection.

During SFY 2021, OFA has reviewed recent sanitary survey reports for 14 PWSs seeking DWSRF funding for their water infrastructure projects. OFA collaborated with PWS staff and BSDW to identify and assist with improving the most critical capacity needs. The results and recommendations of such review were included in the staff reports presented to the Board for Financing Water Projects. This effort reasonably assured the Board that the system was appropriately addressing capacity deficiencies.

The success or failure of a water system often depends on the knowledge and experience of its board or any relevant governing body. PWS governing body is ultimately responsible for ensuring that their system(s) distribute water that is safe to drink. As most boards prefer hands-on and in-person training, due to travel restrictions, RCAC was able to provide only one system with training and assistance at the board and administrative levels. The work reinforced the roles of board members in keeping small drinking water systems financially viable and in compliance. Training ranged from basic governing responsibilities, to developing sustainable rate structures. Additionally, virtual delivery of board training expanded the number of participants since they were not limited by travel restrictions or budget constraints.

Operator Training and Certification

Nevada has 606 public water systems. These systems include:

- 200 community water systems (C).
- 156 non-transient, non-community water systems (NTNC); and
- 250 transient, non-community water systems (TNC).

Nevada requires all C and NTNC water systems to have certified operators. In total, there are 356 systems that meet this criterion. TNC water systems that use surface water – or groundwater under the direct influence of surface water – must also be operated by a certified operator. Two TNC systems met this additional criterion in SFY 2021. All water systems are also required to designate an operator in “Responsible Charge” – a person whose qualification and nature of responsibilities are identical to PWS’s regular operators. As presented in the NDEP/BSDW Annual Operator Certification Report (SFY 2021), water system compliance for operator certification is at 99.8 percent statewide. Information and resources are available on Nevada’s Drinking Water Operator Certification Program website³.

Nevada works to keep compliance high by providing outreach and training to operators. The State uses monies from the Public Water System Supervision Program (PWSSP) grant and the 10 percent set-aside from DWSRF. BSDW also provides technical assistance, suggestions, and recommendations to operators through frequent telephone contact and through the sanitary survey process. Staff also coordinates with TA contractors to engage in technical, managerial, and financial assistance services using other NDEP/DWSRF set-asides and EPA TA grants.

BSDW also partnered with the U.S. Department of Veterans Affairs (VA) in fiscal year 2021. This program allows BSDW to provide veterans taking the Nevada Drinking Water Operator Certification Exams financial assistance to cover licensing costs. Military occupational specialty experience continues to be an invaluable asset for PWSs throughout Nevada.

The Nevada Water and Wastewater Operators Forum (Forum) is now hosted quarterly by the BSDW. BSDW also hosts a webpage for the Forum and supports the administrative needs of the

³ <https://ndep.nv.gov/water/operator-certification/drinking-water>

entities. This Forum provides a regular mechanism for communication between the regulated community of certified operators, NDEP, the American Water Works Association, the Nevada Water Environment Association, TA providers, and others. These discussions provide for an avenue for Nevada operators to remain up to date with current news and regulations, express training needs, and to voice any concerns operators may be facing. As a result of the pandemic, the Forum has shifted from an in-person/phone meeting to web-based meeting(s). Moving forward, the BSDW's intention is to create a hybrid of the two.

During the reporting period, a total of three forum meetings were held: 09/03/2020, 12/16/2020, and 05/06/2021 benefiting a total of 82 participants.

In SFY 2021, NvRWA was able to host its annual conference virtually. This was partially accomplished with the Promethean display funded with DWSRF set-aside funds. Recognizing the need for training credit hours for operator certification renewals, NvRWA provided the required training via remote videoconferencing platforms. OFA provided 51 scholarships to certified operators to participate in this conference to maintain certification.

Financial Sustainability

Nevada's capacity development efforts support the EPA's sustainable infrastructure priorities:

- Full cost pricing
- Water and energy efficiency
- Using the watershed approach

As part of the 2021 DWSRF Intended Use Plan (IUP), NDEP requires DWSRF loans recipients to have a fiscal sustainability plan (FSP) when receiving principal forgiveness loans for construction projects. Additionally, points are given when considering applicants for principal forgiveness eligibility if the system has evaluated their level of service for the system and present the evaluation with the loan application. If the system has prepared an asset management plan (AMP), then this requirement is considered satisfied.

Principal forgiveness loan recipients must maintain an FSP or AMP that:

- Includes an inventory of all assets
- Identifies critical assets that are part of the system
- Evaluates the condition and performance of inventoried assets or asset groupings
- Documents the useful life of the assets
- Contains a plan for maintaining, repairing, and – as necessary – replacing the assets
- Contains a plan for funding maintenance, repair, and replacement

Loan applicants must certify as part of the loan contract that the recipient has, or will develop, an FSP, or AMP, prior to the final draw on the loan. In addition, FSPs and AMPs must be re-evaluated by the governing board every five years thereafter. Technical assistance is available for developing AMPs that will meet this requirement.

In another effort to develop fiscal responsibility, the 2021 DWSRF IUP requires principal forgiveness loan recipients to set aside funds in a reserve account for capital replacement. The

annual contribution to this account is based on the system's short-lived assets (15 years or less) amortized on a straight-line basis:

- Short-lived assets may include pumps, meters, and data collection equipment like telemetry, alarms, and SCADA units.
- Utilities may only use these reserve funds for capital improvements.⁴
- Utilities cannot use these reserve funds for inventory items, for maintenance, or for operation expenses.
- Utilities cannot use the funds in the reserve account for the purpose of expanding their system.
- Utilities must clearly identify their annual contribution to this fund — along with the fund balance — in their financial statements.

It has been a common practice for PWSs to reach out to OFA for confirmation regarding the appropriate use of these reserve funds.

Nevada has recognized that good management is critical to a well-functioning utility. All systems that seek funding support from DWSRF are required to submit a proof of sufficient water rates to adequately support financial sustainability of the system. In terms of full cost pricing, Nevada's TA providers have completed several rate studies for water systems over the years and presented the findings to the public and the governing boards.

In SFY 2021, RCAC assisted three communities with rate setting and FSP development: McGill Ruth Water & Sewer GID, Roark Estates Water Association, and the Gabbs Water System. DWSRF, as well as the State-funded capital grant program, requires as a condition of funding that a water system implement and maintain a rate structure sufficient to ensure financial strength, solvency, and sustainability. This assistance resulted in board approval for a loan for McGill Ruth, while the Roark project is actively moving forward with a previously approved loan commitment to rehabilitate a second water storage tank.

⁴ Importantly, these improvements are not restricted to the system's short-lived assets. Expenses that qualify as capital expenditures may also include bringing a new facility into service, planning or designing a new facility that will enhance the existing system, or extending the life or enhancing the value of an asset with better quality materials or system upgrades.

Capacity Development Success Stories

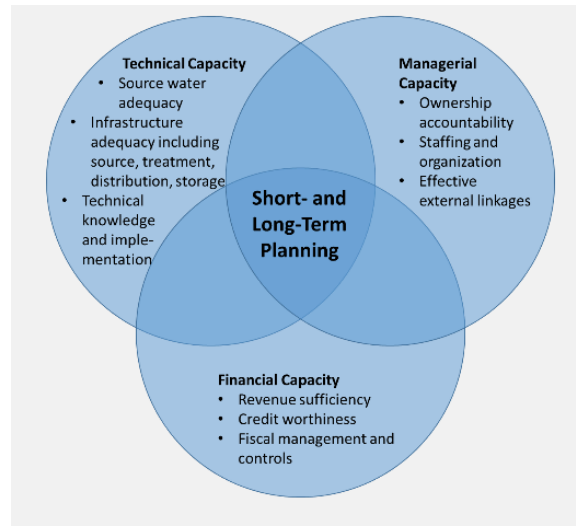


Figure 3: TFM Capacities & key elements

Vendor 1: Farr West Engineering

TA assistance focus: GIS mapping and water management

Nye County, Nevada requested GIS and mapping services for several of their small communities. Due to COVID-19 related travel restrictions, FW traveled to the communities of Amargosa, Crystal, Pahrump, Manhattan, and Gabbs to collect water system asset location data with land survey equipment in May of 2021 (originally scheduled for June 2020). FW is still processing approximately 50% of the survey data collected in the field for subsequent GIS mapping. While the survey portion of the work has exceeded their labor estimates, NDEP is pleased to note that they are still committed to completing the GIS maps in the month of July – beyond the contract responsibility and at their cost. This story is an example of Nevada TA vendors fostering long-term relationships amongst the stakeholders that have a net positive impact to PWSs.

Vendor 2: Nevada Rural Water Association

TA assistance focus: PWS compliance, operator training, sustainability, workforce outreach

During SFY 2021, NvRWA continued to provide hands-on assistance and/or guidance to many public water systems, helping troubleshoot issues, make recommendations for repairs, and identify necessary parts or materials. By working alongside experienced TA providers, system operators gained a deeper knowledge of troubleshooting techniques and the equipment installed in their facilities – including where to obtain supplies.

NvRWA was equipped with the OFA’s Promethean display and utilized widely available virtual technology platforms like Zoom to provide their customer base with the best training

experience available. As such, when COVID-19 has limited their on-site work with systems, assistance to public water systems had continued reasonably uninterrupted.

In response to Covid-19, NvRWA has also helped NDEP distribute thermometers to public water systems and continued to deliver face coverings to our industry workforce provided by the federal government.

Vendor 3: Rural Community Assistance Corporation (RCAC)

TA assistance focus: O&Ms, financial sustainability plans, TMF surveys, cross-connection control plans, emergency response plans, water conservation plans

A water system in Northern Nevada had recently lost their two most experienced operators. The system had been primarily using verbal instruction to train new staff and written documentation was limited. RCAC was able to work with the system staff to develop an operations and maintenance manual and emergency response plan. These documents provide consistent procedures for the system which allow new staff to run the system more completely.

A water system in Northern Nevada experienced nitrate violations and purchased a treatment system. The system did not have a nitrate contingency plan or an operations and maintenance plan for the new equipment. RCAC was able to assist the system develop a nitrate contingency plan and operations plan. As a result, the system gained compliance with regulations and created necessary management documentation.

Nevada Infrastructure Financial System (NIFS)

Starting in SFY 2020, Nevada contracted with a software programmer to develop a web-based system that will help OFA manage its programs more efficiently and effectively. The current software program is no longer technically supported and was not effective in managing loans. It further did not provide any TA support, nor any virtual platform options for management. Since NIFS is web-based, users of the system will only need an internet connection and security approvals to access the information. NIFS is also including a module for technical assistance to water systems. This module will allow the coordination between BSDW facility managers and the vendors to enhance communication on needed TA work. NIFS is substantially complete at the end of SFY 2021, with only a few components still being programmed. NIFS will be rolled out in phases to ensure accuracy in each module.

One of the first modules introduced will be technical assistance management. TA providers, BSDW facility managers, and OFA will be able to work in the same system to share information and resources that will better assist the water system. Task orders for specific TA work can be generated, approved, reviewed, tracked, and recorded. Invoices for TA vendors can be processed through NIFS to simplify the reporting requirements. TA Reporting will be simplified to help OFA meet its reporting needs to EPA, the Legislature, and to the public.

Another component of NIFS that will ultimately assist water systems and NDEP is a document repository for manuals and reports. Each entity will be able to store manuals and plans in the

system. Additionally, the reports include an expiration date so future TA assistance for updates can be generated timely.

Integrated Source Water Protection Program

“Source water” in Nevada means an untreated source of water used to supply drinking water to the public. Source water includes groundwater before it is pumped out by a well, or surface water flowing in a river or tributary before being diverted to a treatment plant. Groundwater aquifers are critical resources in Nevada. Most public water systems in the state rely solely on wells for their water supplies (though a few larger communities also rely on springs, creeks, lakes, rivers and reservoirs). Source water protection areas are also often referred to as wellhead protection areas, drinking water protection areas and vulnerability assessment areas.

Public water systems and local communities throughout Nevada are working to protect drinking water supplies from contamination. The State assists them through a multi-faceted Integrated Source Water Protection Program (ISWPP). It is Nevada’s belief that effective source water protection must be developed and administered by the community in conjunction with local water suppliers. A local plan is a long-term commitment on the part of the community to protect its drinking water sources from becoming contaminated or polluted by various land use activities.

BSDW administers the ISWPP and provides technical assistance for communities to develop and implement Community Source Water Protection Plans (CSWPPs). Local CSWPPs are developed through a county-wide planning and coordination approach. This encourages PWSs to work together to examine shared water resources, evaluate community development impacts to water sources, and discuss how to collectively manage potential risks from a broader perspective.

The ISWPP’s multi-jurisdictional approach helps PWSs — ranging from very small taverns and mobile home parks to larger districts and municipalities — pool resources to implement the plan and promote community-wide awareness. This ultimately increases opportunities for smaller systems with limited resources and/or capacity to be included under a more comprehensive CSWPP and implementation effort.

The current ISWPP schedule and funding allocations lets every PWS in Nevada participate in the planning process over a 12 to 15-year cycle. In addition, the program plans to assist up to three counties at a time. Approximately two to four years of technical assistance – including team building, plan development and implementation, and promoting public acceptance of the plan – is dedicated to each county based on geographic size, number of public water systems, population, and governing agencies.

Currently, 380 of the 606 regulated PWSs in Nevada (62.7%) are covered under a source water protection plan, an increase from 51% of PWSs covered in SFY 2020. A new contract began in August 2020 for countywide planning in up to four additional rural counties and to implement program strategies in communities with existing NDEP endorsed plans.

Implementation activities may include minor updates to dated countywide plans and the creation of online GIS tools like what was created for Washoe County.

To date, the following communities have participated in, and completed, countywide protection plans under the ISWPP:

County	Implementation Activities
Douglas	Public education and outreach, GIS mapping, well abandonment, integration of Source Water Protection Plan into local master planning documents, development/planning tool development, increased coordination with NDEP on projects.
White Pine	Integration of Source Water Protection Plan into local master planning documents, public education, and outreach
Nye	Public education and outreach, GIS mapping, technical training, multi-agency coordination to facilitate source water protection activities
Lyon	Local source water protection code development and updates, well abandonment
Carson City	Public education and outreach, trail improvement projects (Kings Canyon Trail and Waterfall), GIS mapping, multi-agency coordination to facilitate source water protection activities
Churchill	Public education and outreach, GIS mapping, Integration of Source Water Protection areas into local planning procedures, orphan well survey in source water protection areas, development of sustainability code which incorporates protection of source water protection areas
Humboldt	Public education and outreach, GIS mapping, Integration of Source Water Protection Areas into local planning consideration, continued technical assistance on Grass Valley Nitrate Study area
Washoe County	Plan Completion August 2020 (see update below)

Washoe County, Nevada’s second largest county based on population, is the newest entry in the table above during SFY 2020. As part of ISWPP for Washoe County, BSDW continues to leverage funding and technical assistance from the Bureau of Water Quality Planning’s

(BWQP) Nonpoint Source Program (NPS) to assist the communities and public water systems within Washoe County. Working closely with BWQP, BSDW was able to assist the communities and PWSs to gain local support and acceptance of the “2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows.”⁵ This coordination has been encouraged through a national initiative by the Association of State Drinking Water Administrators (ASDWA), the Association of Clean Water Administrators (ACWA), and the EPA to better integrate Clean Water Act and Safe Drinking Water Act programs.

BWQP and BSDW staff met in 2016 and determined that there was overlap in the planning efforts for Source Water Protection and Nonpoint Source programs directed in the 2015 NPS State Management Plan. Therefore, through the ISWPP’s contract, tasks were included to develop the stakeholder group and initiate a regional approach towards a comprehensive water quality plan that includes both watershed and source water protection components.

The Washoe County’s ISWPP was completed in August 2020. The plan is entirely in digital format and includes an interactive GIS mapping tool. The plan meets EPA criteria for approval and subsequent funding of implementation projects under both the source water protection and the 319(h) NPS programs. The plan was presented to the Truckee Meadows Water Authority, Northern Nevada Water Planning Commission, Western Regional Water Commission, and the Truckee Meadows Regional Planning Agency for formal approval/acceptance from October 2020 through February 2021. All the agencies listed above unanimously approved the plan.

As a result of this planning effort, the City of Reno and Washoe County both updated relevant sections of their development code in coordination with Truckee Meadows Water Authority (TMWA). The Reno code updates will further coordination on local development efforts in source water protection areas. This coordination and collaboration will bring TMWA into the conversation during the initial stages of new development, so all parties can consider impacts to source water. Early discussions between agencies and the water purveyor provides an added layer of protection for the communities drinking water sources. Washoe County updated development code to protect critical water resources and adjacent buffer areas from encroachment or development. These factors can negatively impact the county’s ability to sustain water quality.

In addition, two water quality improvement projects in source water protection areas were funded through the 319(h) Non-Point Source Program and staff are supporting and providing technical assistance to the development of a Spill Communication Plan for source water protection areas in Washoe County. This effort will involve multiple stakeholders across the three planning agencies and the Truckee Meadows Water Authority.

⁵ washoecountycleanwater.org

In addition to providing support for source water protection planning and activities, U.S. EPA Regions 8, 9, and 10 collaborate with states to hold the Western State's Source Water Protection Forum. The event brings western states, the Navajo Nation, USEPA, and source water protection partners together to share and discuss ways to protect groundwater. The most recent forum was hosted in Boise, Idaho in June 2018. Nevada was scheduled to host the next forum in spring of 2020. Unfortunately, the forum was postponed due to the COVID-19 pandemic and the subsequent budgeting constraints and strict social distancing needs.

In response, NDEP sponsored and hosted multiple virtual workshops in lieu of an in-person event. A total of five virtual workshops were held with EPA, western states, and partners such as the Natural Resources Conservation Service (NRCS), Nevada Rural Water Association, Rural Community Assistance Corporation, Ground Water Protection Council, Association of State Drinking Water Administrators, Southwest Environmental Finance Center, Eastern Research Group, Truckee Meadows Regional Planning Agency, Truckee Meadows Water Authority and the Carson Water Sub-Conservancy District. The workshops discussed a myriad of topics including tools and technologies used for source water protection, strategic partnerships with technical assistance providers to maximize local source water protection efforts, and the 2018 Farm Bill requirements that 10 percent of funds authorized for conservation programs (approximately \$4 billion) be used to protect sources of drinking water, and which authorized NRCS to work with community water systems to identify local source water protection priorities. More information on Nevada's ISWPP is available on NDEP's website⁶.

Additionally, BSDW assists the Bureau of Water Pollution Control's (BWPC) permitting process to ensure source water protection areas are not impacted by permitted discharges. Every proposed discharge permit is reviewed to determine if the proposed discharge is located in, or near, a source water protection area. The technical review includes looking at available data such as well construction information, discharge water chemistry, water system sampling data/analysis, soil survey information and aquifer characteristics etc.

During SFY 2021, BSDW reviewed 24 proposed discharge permits and coordinated with the individual permit writers on potential impacts to source water. Building these bridges across NDEP programs is important for broader drinking water protection and helps to avoid negative impacts to source water from regulated discharge activities.

Vulnerability Assessment and Monitoring Waiver Programs

The 2020 Vulnerability Assessment Program, as implemented during SFY 2021, is an update to the 2003 Source Water Assessment Program (SWAP). 2003 SWAP, in turn, has its roots in the original Vulnerability Assessment Program (approved by the EPA in 1995), which was performed during the initial permitting process of a PWS.

Vulnerability assessments include:

⁶ <https://ndep.nv.gov/water/source-water-protection>

- Locating sources
- Identifying potential sources of contaminants within a 3000-foot radius of wells/springs
- Evaluating source water susceptibility to contamination
- Reviewing prior sampling results

NDEP's Vulnerability Assessment Program requires summaries of the vulnerability assessments to be reported to the public in the annual Consumer Confidence Reports for PWSs. Based on initial assessment of the source water vulnerability determination, a PWS may qualify for chemical monitoring relief (IOC, VOC, and SOC) as approved by the EPA in 1995. Eligible PWSs are also required to provide updates to the assessment data and apply for waiver renewal every three years.

The updated 2020 BSDW Vulnerability Assessment and Monitoring Waiver Programs share information with the ISWPP to document potential contaminant sources (PCS) for PWSs. The Vulnerability Assessment Reports (VARs) note PCSs and rank them based on their potential to adversely affect a water supply source. Project efforts were funded by the American Recovery and Reinvestment Act set-asides and continued with a combination of resources, DWSRF set-aside funding, and leveraging technical assistance from ISWPP/Wellhead Protection staff. BSDW updated VARs for three eligible community water systems (CWSs) and one eligible non-transient non-community (NTNC) water system in SFY 2021.

As of date, 227 PWSs qualified for chemical monitoring waivers based on the vulnerability of the source water as determined in the individual VARs. Additionally, BSDW maintains waiver status by having these respective PWSs apply for waiver renewal applications (Attachment 5 - updated Form B) every three years. Once waiver renewals are received and the water system status is updated, Monitoring Assessment Plan (MAP), showing the system when to perform chemical monitoring, is completed and sent out to the water system.

Funding

The EFCN points out that financial management is a major challenge for small drinking water systems. DWSRF provides low interest loans to both publicly and privately owned water utilities to meet this need. Nevada has a "disadvantaged community" program to address low-income areas that have infrastructure deficiencies that pose a health threat. The Nevada Administrative Code defines a disadvantaged community as an area served by a PWS in which the median household income is less than 80 %of the state median household income. Federal appropriations for DWSRF require Nevada to use a percentage of its grant to provide additional subsidies to eligible recipients. These include forgiveness of principal, negative interest loans, grants, or any combination of these. Water systems that qualify as a disadvantaged community are considered for additional subsidy if they are ready to proceed.

NDEP has expanded additional subsidy eligibility criteria to include:

- Systems addressing acute or chronic health risk needs
- system consolidation to address capacity deficiencies

- capital project planning documents
- small systems with populations less than 10,000
- Affordability due to economic situations

The subsidy program provided funding to eight projects – totaling \$2,600,037 – in SFY 2021. The terms and amount of the additional subsidy are case-by-case basis determinations based on the individual community's needs and financial situation.

Nevada recognizes that addressing the needs associated with infrastructure deficiencies is significant to continue to maintain the State free from waterborne disease and outbreaks attributable to public drinking water systems. Furthermore, large proportion of PWSs in the State are very small systems and often find it hard to identify and avail various federal and State funding resources. To address this challenge, a collaboration between the major funding agencies in the state began in 2006 and continues today. A "pre-application" common to all funders makes coordination and communication between the funding agencies and applicants simple. It also allows the funding agencies to suggest funding solutions that are most appropriate for the communities, while leveraging all the funding available in the State.

Nevada conducted numerous outreach activities in SFY 2021 to help spread the word about how systems can obtain funding for their projects. DWSRF conducted a system-wide survey to see what hurdles systems are facing with obtaining funds for projects in February 2021. After this, DWSRF participated in three separate co-sponsored webinars and conferences with the U.S. Department of Agriculture, U.S. Environmental Protection Agency, Governor's Office of Economic Development, and the Nevada Rural Water Association. These activities gave water systems the opportunity to hear insights in to how to get started on obtaining funding.

C. Challenges

Drought

As the driest state in the U.S., Nevada has long recognized the value of efficient water use and reuse. In accordance with EPA sustainable priorities, the Nevada Division of Water Resources requires that every water system submit a Water Conservation Plan that includes measures to evaluate the effectiveness of the plan. These plans have been required since July 1992, with updates every five years. TA providers have helped multiple communities prepare and update these plans. In addition to user-based conservation measures, systems are being educated on auditing and charting the amounts of water produced and sold monthly. Once usage patterns are established, changes in use may prompt managers to implement leak detection studies. NvRWA trains water system staff on electronic and acoustic leak detection equipment specifically to enhance their technical capacity. The training keeps staff up to date on detection technologies, while also locating any leaks. Control of leakage in water systems does more than just save water; it protects the water quality and cuts energy costs.

Through the summer of 2016, Nevada's ongoing drought led to a drop in groundwater levels, sometimes affecting the operation of wells or reducing flow from springs. While wet winters in SFY 2017-2019 improved both surface and groundwater levels, the impact of drought periods in Nevada is well documented. Improvements in system capacity includes discussions on predicting potential drought impacts and planning responses before the situation becomes critical.

Nevada's drought forum consists of members of local water municipalities, state government, higher education, and climate experts. It is tasked with examining water policies currently in effect around the state and recommending any changes. Information and updates on the drought and activities related to the Forum are available at <http://drought.nv.gov/>.

COVID-19 Pandemic

BSDW:

In response to COVID-19, NDEP organized a water and wastewater workgroup to quickly evaluate the water sector needs throughout Nevada. Unsure how the pandemic may impact the ability of critical workers to travel to and from their job sites, NDEP spearheaded the development of a database to certify critical workers and issue travel documents to PWS personnel such as certified water and wastewater operators and laboratory analysts. Furthermore, the dissemination of federally supplied face masks and thermometers were coordinated between Nevada Division of Emergency Management, Nevada Water/Wastewater Agency Response Network (<https://www.nvwarn.org/>) and TA providers. NDEP recognizes that timely and adequate support is critical in helping small systems achieve and maintain adequate TMF capabilities.

RCAC: Because of the COVID-19 pandemic, and to conform to statewide social distancing directives and local safety measures in place, all on-site work and travel for technical assistance contracts has been discontinued. During SFY 2021, RCAC continued with their online format for various board trainings, meeting TA needs for small PWSs throughout the state.

NvRWA: NvRWA's continued to deliver the service digitally throughout SFY 2021. A Promethean display purchased through DWSRF set-aside funds supported virtual trainings that will allow more participation without travel restrictions or budget constraints.

Overall, COVID-19 has severely restricted this vendor's travel to work on-site with systems. However, with digital technology, NvRWA continued to remotely provide technical assist public water systems.

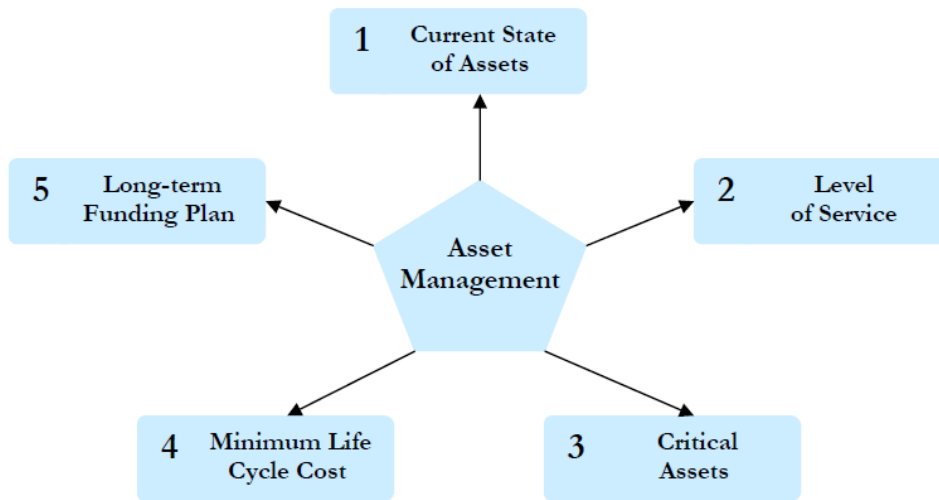
Farr West Engineering: Because of the COVID-19 pandemic, all on-site work and travel for technical assistance contracts have been halted. FW resumed on-site work necessary to collect GIS data in May 2021.

The Future

Since its inception, the Capacity Development Strategy has been a ‘living’ document. Implementation methods and strategies continued to evolve to protect public health, better serve the PWS operators and communities, and improve the long-term sustainability of Nevada’s PWSs.

Promoting Asset Management:

Flow Chart: The Five Core Questions of Asset Management Framework



This flow chart shows the relationships and dependencies between each core framework question.

Figure 4: Five-Component Asset Management Framework

Proper management of infrastructure assets is critical to sustainability. As illustrated above the primary objective of asset management is to maintain system assets while meeting long-term service requirements in a reliable and cost-effective manner. Although the concept of managing assets is relatively simple, many water utilities do not necessarily have expertise and resources to design and implement an effective asset management program. Managing a utility effectively requires a proactive approach to managing infrastructure assets. Future TA efforts (Attachment 4 – SFY 2022-23 TA categories) now include continued assistance as required by AWIA to encourage Asset Management:

- Current State of Assets: Develop a comprehensive record of all assets statuses and create a tailored fiscal sustainability plan based on asset analysis & system mapping.
- Determine Level of Service: customer service, asset management requirements.

- Critical Assets: Determination of asset risks, severity and probability of failures, with potential for financial planning impacts.
- Minimum Life Cycle Cost: Planning for Capital Improvements, Sanitary Surveys, and O& M.
- Long-term Funding Plan: Help the system understand its financial situation and guarantee proper rates are in place to maintain sustainability without sacrificing the level of service expected by customers. Business, Financial & Rate-setting training, Rate dashboard applications, Short-lived asset reserves.

Adapting Templates for PWS TA Deliverables:

While standard operating procedures and plans to better manage respective PWSs remains the goal, NDEP has recently adopted standard templates for O&M plan, CCCP, and ERP. These standard templates would be implemented as reference for review of deliverables from Vendors assisting the PWSs. NDEP believes this consistency will also help to make the PWS experience portable across the PWSs. Such additional value is significant to Nevada PWS ecosystem overall as limited workforce remains a high concern capacity issue.

NIFS development

NIFS will continue to be introduced to water systems over the next year. The TA module is substantially complete and will be enhanced through the initial rollout on July 1, 2021. Eventually, NIFS will allow loan borrowers of the DWSRF and the CWSRF to apply for funding, be ranked on a priority list, manage a project, submit draws, store project documents, obtain reports of their project and their system, as well as refer back to previous work completed on other projects. NIFS will further support NDEP staff to streamline reporting requirements and document management, while moving towards a paperless office.

Priorities for future and TA Categories for SFY 2022-23:

There are requirements and issues that will continue to challenge many Nevada water systems in the coming years. Among them are:

- The Arsenic Rule
- The Revised Total Coliform Rule
- The Groundwater Rule
- Managing the impacts of growing or declining populations
- Protecting the state's precious water resources
- Finding and retaining qualified professionals in the water industry
- Tools and data management needs to develop asset management strategies
- Sufficient water rates for desired level of service
- Review and improve Nevada's strategy for capacity development

These critical issues continue to be a focus of NDEP and TA service over the next two years. In SFY 2021, OFA put out a new Request for Proposal to find qualified vendors. Two TA vendors were selected to provide technical assistance through from SFY 2022 and SFY 2023. These vendors will continue to provide comprehensive assistance in technical, managerial, and financial capacity-building, as well as training in one-on-one and group scenarios.

The sub-grant requirements for these TA vendors aimed to improve the assistance they provide. The focus areas for success are presented in Attachment 4. Deliverable TA reviews and coordination between stakeholders – including PWS representatives, TA vendors, BSDW, and DWSRF – will continue to enrich PWSs by providing consistent and reliable information. This also helps NDEP identify and follow-up on unresolved TMF deficiencies in systems that received TA assistance. These concerted and coordinated efforts will help direct available funding in the future.

TA categories for SFY 2022-23 are similar to the current categories. Notable changes include:

- Emphasis on developing plans and standard operating procedures
- Support the PWSs on DWSRF program requirements
- Assist PWSs work towards developing the five-component framework for asset management (Figure 5 above)

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

The following are some main avenues for NDEP to identify and assist PWS for their capacity development needs and goals.

- Health based violations
- Compliance problems
- Sanitary survey deficiencies
- Requests for TA from PWSs
- Public water systems that met OFA for State revolving fund support for their drinking water infrastructure projects
- Routine TMF capacity survey reviews by BSDW
- TMF surveys reviewed by OFA during project reviews for possible DWSRF loan commitment

3. *During the reporting period, if Statewide PWS capacity concerns or capacity development needs (TMF) have been identified, what was the State's approach in offering and/or providing assistance?*

After identifying a PWS's need, TA services were offered by NDEP staff and through third party contractors (see TA section above). Additionally, NDEP has required a current TMF survey to accompany letter of intents and/or loan applications from all potential project proposals seeking DWSRF funding. A review of TMF survey ensured either proposed

projects are appropriately addressing any unresolved TMF issues either through the proposed infrastructure project or by arranging for the potential borrower to receive TA support to meet SRF loan eligibility requirements.

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

Nevada evaluates the effectiveness of the existing systems strategy on an ongoing basis and adjusts the program when deficiencies are identified. In an effort meet future goals, OFA, in collaboration with BSDW, has completed a PWS and Stakeholder survey to gather inputs and comments. The overall goal of the survey was to gather views and opinions about the existing Nevada Capacity Development Strategy from 2000 from participating stakeholders. The survey also obtained feedback on specific components of the strategy component requirements.

2021 Capacity Development Strategy Survey of PWS Members & Stakeholders:

The survey was developed in the May 2021 timeframe. The survey was created using the Microsoft® Forms application, twelve areas about Nevada's Capacity Development Strategy were covered in the survey.

- How relevant is the 2000 Capacity Development Strategy today?
- External Issues – What issues exist that cause impairment
- Technical Issues
- Sample and Analytical Issues
- Managerial Issues
- Financial Issues
- Regulatory Issues
- Impairments
- Enhancements
- Asset Management Plans
- Success Factors
- Ranking System criteria: How should Nevada rank systems that need capacity development priority

The survey was sent to stakeholders on June 7, 2021. On June 28th, a final call for input was closed. During the week of July 5th, the survey results were examined in detail including tallied responses to gauge topic priorities to stakeholders, as well as a gathering of specific added responses and comments from all the sections of the survey. On July 9th, 2021, the survey results were presented back to all PWS sites and all other listed stakeholders. Stakeholders were again elicited to respond with any further comments regarding the survey results and the Capacity Development Strategy in general.

CAPACITY DEVELOPMENT STRATEGY SURVEY RESULT HIGHLIGHTS

- **Capacity Development Strategy 2000 Relevancy:** The relevancy rating of the existing strategy made clear that the opinion of the Stakeholders states that the strategy needs to be updated. Although many stated that many portions of the strategy were relevant.
- **Capacity Development Needs:**
 - **External Issues:** Weighing heaviest were Drought, staffing issue (pay, turn-over) especially for small water systems.
 - **Technical Issues:** Most concerning issues were - Aging infrastructure, Treatment water quality and Operator Training.
 - **Sample and Analytical Issues:** High Costs for small PWS, access to laboratories for rural PWS and staff changes affecting site knowledge.
 - **Managerial Issues:** Training for Board members, Management & Operators, Planning and Asset Management.
 - **Financial Issues:** Repairs/Maintenance cost/funding sources, Rates, Lack of Financial Capacity Education.
 - **Regulatory Issues:** Cost of compliance/monitoring, Consistency among regulators, Need for Compliance Assistance- regulations training.
 - **Impairments:** Operator retention, Lack of planning, Limited funding opportunities (meeting regulations).
 - **Enhancements:** Good State Communications, Funding improvements, Money available for assistance.
 - **Asset Management Plans:** Guidance needed for PWS, Training on Asset Management, add AM to loan conditions and principal forgiveness.
- **Success Factors:** Provide early technical assistance, remaining off ETT list, Having system development plans.
- **Ranking systems for loan priorities:** Should include Acute/Chronic health concerns, Systems needing sanitary improvements, capacity building and systems actively seeking funding.

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

NDEP is currently working on a revision to the Capacity Development Strategy. As detailed in response to question 4 above, Nevada considered the current workflows and conceived a plan to enhance and fill the communication gaps in coordination between stakeholders, specifically the PWS owners, regulators, OFA, and the TA providers. As a result, OFA came up with a new software application module within the NIFS software program, a comprehensive, one-stop portal for three-way communication between OFA, BSDW and TA vendors of the Nevada SRF program. NIFS is still being developed and introduced in phases, with the TA module being introduced in late June 2021.

Besides this significant enhancement to capacity development program implementation workflows, no other changes to Nevada's Capacity Strategy were formally made formal during SFY 2021.

ATTACHMENT 1: Technical Assistance Flyer

Free assistance for your water system

Nevadans not only rely on public water systems to provide safe, reliable drinking water, but they also expect excellent service and low water rates. Why not work to exceed these expectations by taking advantage of free, comprehensive training and on-the-ground support?

NDEP's third-party contractors offer free assistance on all aspects of operating a water system, from water sampling to water rights management to public accounting and more.

- Business and management processes
- Regulatory compliance
- Technical processes
- Financial planning and strategy



GET STARTED

This brochure only scratches the surface of the free services available to you. For a complete list of services, visit ndep.nv.gov/water/financing-infrastructure or contact NDEP's Office of Financial Assistance by emailing ndep-ofa@ndep.nv.gov.

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Free Services for Public Water Systems

Office of Financial Assistance
BUREAU OF ADMINISTRATIVE SERVICES



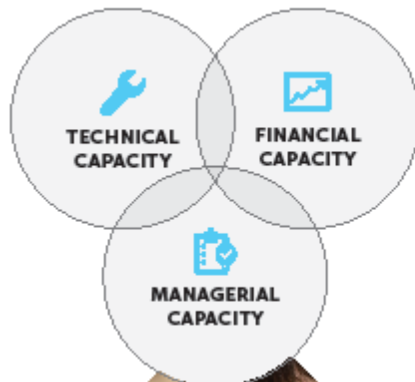
NEVADA DIVISION OF
ENVIRONMENTAL PROTECTION

Build your system's capacity

NDEP's free services focus on building capacity so your water system thrives, not just gets by. This opens doors for opportunities to refine your processes:

- Better system performance and efficiency
- Increased compliance to protect public health
- Excellent service to your community
- More effective business processes
- Long-term financial stability

Three parts of a capable water system



FINANCIAL CAPACITY Help with finances

Shore up the financial capacity of your system to provide top-notch water services both sustainably and efficiently.

- Budgeting and rate setting
- Income surveys
- Understanding financial reports
- Grants and loans management
- Fiscal sustainability plans
- Bookkeeping and public accounting



MANAGERIAL CAPACITY Help with business processes

Expand the managerial capacity of your system using targeted help with the business side of public water service.

- Consumer confidence reports and public notifications
- Operation and maintenance manuals
- Emergency response plans
- Water and energy conservation
- Technical, managerial, and financial capacity surveys
- Labor, water rights, records, and contract management



TECHNICAL CAPACITY Help with technical processes

Improve the technical capacity of your system with expert help on important regulations and processes that keep things running smoothly.

- Assistance with state and federal drinking water rules
- Help resolve violations in a timely manner
- Sampling, water quality testing, and troubleshooting
- Responses to sanitary surveys
- Digital mapping of system components



Free, third-party support to enable you to provide safe, reliable water service to your community.

FREE TRAINING

We also offer training so your team has the knowledge base to get the job done.

- Board training
- Clerical and office staff training
- Operator certification training
- Security and health threats training

ATTACHMENT 2: Specific TA Vendor Services

SFY 2020-21

Farr West Engineering

Date Task Approved	System Name	PWS Type	System ID	Population	Service Connections	Assistance	Deliverables
1/7/2020	Humboldt County Golconda	C	NV0005029	60	100	GIS and Mapping Services	Project status update, field notes, map package (ESRI digital file format) hard copies and instructions for future data collection
1/24/2020	Nye County	C	NV000063	100	8	Water Rights Permit Search, Water Rights Scoping for Purchase, GIS Mapping	Project status update, field notes, map package (ESRI digital file format) hard copies and instructions for future data collection
1/2/2020	Storey County Water District	C	NV0000420	1420	779	Water Rigths Management	Mtg agenda & minutes, Inventory of Water Rights, Storey Co Water Resource Plan
4/9/2020	Gardnerville Ranchos GID	C	NV0000066	9500	3800	GIS Mapping and Services	Project status update, field notes, map package (ESRI digital file format) hard copies and instructions for future data collection
11/17/2020	Pine View Estates HOA	C	NV0000172	450	210	Water Rights	Monthly invoices and project status updates. NV Water Rights Appropriation Application Water Rights maps (if required)
10/21/2019	Empire Mine Water System	C	NV0000042	350	145	Digital Mapping	GIS Database Development, one 11x17 and one 24x36 hard copy of map both draft and final

SFY 2021 TA Vendor Assistance FarrWest

Rural Community Assistance Corporation

Date	System Name	PWS Type	System ID	Population	Service Connections	Location	Assistance	Deliverables	Contact Hours
12/31/2020	Amargosa Valley RV Park/TNC	TNC	NV0000155	25	91	Amargosa Valley	The system was out of compliance with the Safe Drinking Water Act (SDWA) and lacked managerial capacity due to lack of documented operational plans. Lacked appropriate management documents to show managerial capacity and comply with the Safe Drinking Water Act.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	72
6/30/2021	Big Five Park	C	NV0000362	65	52	Pahrump	The system was not in compliance with SDWA and lacked managerial capacity because of lacking key management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	52
1/31/2021	Buckboard General Store	TNC	NV0000389	25	5	Smith	The system was not in compliance with SDWA and lacked managerial capacity because of lacking key management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	1.5
5/31/2021	CG Bar	TNC	NV0002128	25	1	Wellington	The system was not operating during the pandemic and accepted technical assistance to gain compliance with management documents prior to reopening.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	35
3/31/2021	Chicken Ranch	TNC	NV0004085	25	1	Pahrump	The system was not in compliance with SDWA and lacked managerial capacity because of lacking key management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	48
5/31/2021	Cold Springs Station Resort	TNC	NV0002017	25	10	Fallon	The system was not in compliance with SDWA and lacked managerial capacity because of lacking key management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	37.5
3/31/2021	Coyote Corner III	TNC	NV0000385	25	1	Las Vegas	The system was not in compliance with SDWA and lacked managerial capacity because of lacking key management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	40
3/31/2021	Coyote Corner Market	TNC	NV0002565	25	1	Las Vegas	The system was not in compliance with SDWA and lacked managerial capacity because of lacking key management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	40
6/30/2021	Escapee Co Op of Nevada	C	NV0002552	200	182	Pahrump	The system had regular exceedance of nitrate and needed updated documents and assistance understanding how to use their new nitrate removal system	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	50
6/30/2021	Fallon RV Park	TNC	NV0002534	25	68	Fallon	The system recently transitioned ownership and needed assistance creating management documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	25
4/30/2021	Fireside Inn	TNC	NV0002170	50	18	Ely		Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	50

2021 Nevada Annual Capacity Development Report

Date	System Name	PWS Type	System ID	Population	Service Connections	Location	Assistance	Deliverables	Contact Hours
2/28/2021	Gabbs Water System	C	NV0000063	411	160	Gabbs	Gabbs is applying for funding to support major rehabilitation of their water system. Financial capacity was lacking and the water enterprise was relying on subsidy from the county and other funds. A rate study as well as a plan for maintaining and replacing capital assets was necessary.	Rate Study and Fiscal Sustainability Plan	40
4/30/2021	Gardnerville Ranchos GID	C	NV0000066	11300	4400	Gardnerville	The system experienced turnover of their most experienced operators and had no documented operations plan or emergency plan.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	45
5/31/2021	S&J Ventures DBA Junction Bar	TNC	NV0002047	35	12	Gardnerville	The system was unaware of the need for management documents and needed assistance compiling all documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	47.5
6/30/2021	KOA of Ely Campground	C	NV0002174	80	131	Ely	The system did not have recent management documents and had experienced changes since the most recent documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	51.5
6/30/2021	Little Ale Inn	TNC	NV0002192	60	8	Rachel	The system needed assistance developing a management documents, including cross connection control plan and identifying possible cross connections.	Operation & Maintenance Manual, Emergency Response Plan, Cross-connection control plan and onsite survey	72
5/30/2021	Majors Station	TNC	NV0002175	25	1	Ely	Majors station needed a water conservation plan and did not know how to start.	Water Conservation Plan	60
4/30/2021	McGill Ruth Water District	C	NV0000163	1200	618	McGill	The system had outdated management documents and needed more useful documents.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	32
4/30/2021	Mill House Inn	TNC	NV0002006	50	25	Carson City	The system had many scattered documents about the system and running the system. They needed assistance creating documents compliant with regulations.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	40.5
4/30/2021	Sage Valley RV Park	TNC	NV0000872	25	44	Fallon	The system was in need of management documents prior to an intertie connecting it to system NV0002023.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	30
4/30/2021	Sage Valley Park, LLC	C	NV0002023	188	47	Fallon	The system was in need of management documents prior to an intertie connecting it to system NV0000872.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	33.5
12/31/2020	Silver Knolls Mutual Water Company	C	NV0004021	120	63	Sparks	The system has a decommissioned arsenic system and is seeking funding to replace. They need assistance developing management documents and learning how to update those documents when a new treatment system is in place.	Operations and Maintenance Manual, Emergency Response Plan, & Cross Connection Control Plan	49.5
5/30/2021	Silver Knolls Mutual Water Company	C	NV0004021	120	63	Sparks	Per new state regulations the system asked for assistance developing a water conservation plan.	Water Conservation Plan	63
2/28/2021	Weed Heights Development	C	NV0000242	340	250	Yerington	The system board had no experiencing managing a public water system and needed training on financial management.	Board Training Agendas for 4 board trainings	44.5
2/28/2021	Weed Heights Development	C	NV0000242	340	250	Yerington	The system is seeking financial assistance and needs a plan for maintaining and replacing assets.	Fiscal Sustainability Plan	34.5
5/30/2021	West Wendover Water System	C	NV0000246	4520	1223	West Wendover	The system had adopted a cross connection control plan and was struggling to implement it.	Copies of letters and onsite survey's for cross-connection policy and database for tracking devices.	44.5
Total Contact Hours								1139	

SFY 2021 TA Vendor Assistance RCAC_1

2021 Nevada Annual Capacity Development Report

Nevada Rural Water Association

Class Date	ClassID	Class Subject / Title	Location	Instructor	Number of PWS	Number of Attendees	Training Hours
6/30/2021	4165	WW Treatment Certification, What You Need to Know	Elko	Max Sosa	1	5	3
6/30/2021	4164	D1/D2 Exam Prep / Math Refresher	Elko	Max Sosa	2	6	3
6/29/2021	4161	Wastewater Collection Systems Training	Tonopah	Mike Boney	1	1	3
6/29/2021	4159	Water Treatment Basics / Water Treatment Class 2 Study Guide	Webinar	Joe Mathein	8	14	3
6/28/2021	4163	WW Treatment Certification, What You Need to Know	Panaca	Max Sosa	4	6	3
6/28/2021	4162	D1/D2 Exam Prep / Math Refresher	Panaca	Max Sosa	4	6	3
6/28/2021	4160	Wastewater Collection System Training	Zephyr Cove	Mike Boney	1	3	3
6/23/2021	4158	PFAS: The Forever Chemical	Hawthorne	Mike Boney	3	3	3
6/17/2021	4157	Pumps & Motors Pre-Certification	Webinar	Joe Mathein	11	28	3
6/15/2021	4155	D3/D4 Exam Prep / Intermediate Math	Webinar	Joe Mathein	10	14	3
6/3/2021	4150	Disinfection / O&M Pre-Certification with Joe Mathein	Webinar	Joe Mathein	9	12	3
5/26/2021	4149	Distribution Training Grades 1 & 2	Elko	Max Sosa	1	1	3
5/27/2021	4146	D1/D2 Exam Prep & Math Refresher	Webinar	Joe Mathein	9	9	3
5/25/2021	4148	System Utility Management - Class 2	Webinar	Michael Boney	6	12	3
5/19/2021	4145	Wastewater Treatment Training	Winnemucca	Max Sosa	2	2	2
5/19/2021	4144	Water Distribution Training	Winnemucca	Max Sosa	4	6	3
5/18/2021	4147	System Utility Management - Class 1	Webinar	Michael Boney	6	12	3
5/6/2021	4137	Ethics & Water Quality	Virtual	Lance Goodman	11	23	1
5/6/2021	4136	D1/D2 Exam Prep / Math Refresher	Virtual	Joe Mathein	12	25	1
5/6/2021	4135	Wastewater Class III Exam / ABC Need-to-Know / Lab Analysis	Virtual	Max Sosa	11	14	2
5/6/2021	4134	Operator Forum Meeting	Virtual	Crystel Montecinos	8	10	1
5/6/2021	4133	NVWARN Meeting	Virtual	John Hines	2	2	1
5/5/2021	4142	Wastewater Math - Problem Solving	Virtual	Michael Boney	24	51	1
5/5/2021	4132	Flexiriser Drop Pipe	Virtual	Nicholas Steverlynck	23	43	1
5/5/2021	4131	D3/D4 Distribution Exam Preparation	Virtual	Joe Mathein	14	21	1
5/5/2021	4130	Water Treatment 3 Exam Prep / Math	Virtual	Joe Mathein	25	47	1
5/5/2021	4129	AMI Is It Now Within Reach For Small To Mid Sized Utilities	Virtual	Keith Jones	24	46	1
5/5/2021	4128	Dreaded Flushables!	Virtual	Rick Allen	30	66	1

2021 Nevada Annual Capacity Development Report

Class Date	ClassID	Class Subject / Title	Location	Instructor	Number of PWS	Number of Attendees	Training Hours
5/5/2021	4127	Sustainability	Virtual	Bill Coffey	33	80	1
5/5/2021	4126	External Carbon - Wastewater Treatment Operations	Virtual	Rick Allen	21	39	1
5/5/2021	4125	Water Meters - Where Are we Headed?	Virtual	Kevin Barnes	25	47	1
5/5/2021	4122	Source Water Protection	Virtual	Kelli Nevills	35	95	1
5/4/2021	4141	Supporting Data Driven Decisions	Virtual	Eric Wagner	30	80	1
5/4/2021	4124	Operator Certification Updates	Virtual	Crystel Montecinos	29	72	1
5/4/2021	4123	NSF 60 & 61 What Are They & Why Are They So Important?	Virtual	Theresa Bellish	15	30	1
5/4/2021	4121	Flexiriser Drop Pipe	Virtual	Nicholas Steverlynck	21	44	1
5/4/2021	4120	The Future of AMI	Virtual	Charlie Prosh	29	69	1
5/4/2021	4119	Board Members Guide to Understanding Water Rights	Virtual	Theresa Stix	22	46	2
5/4/2021	4118	Risk & Resilience	Virtual	Gabrielle Minton	30	79	1
5/4/2021	4117	Roundtable	Virtual	Jason Cooper	25	40	1
5/4/2021	4116	SCADA Cloud Based	Virtual	Collin Bunyard	30	79	1
5/4/2021	4115	Asset Management	Virtual	Arnab Bhomick	30	53	2
5/4/2021	4114	Water Conservation and Audits	Virtual	Bunny Bishop	29	65	1
5/4/2021	4113	Maximizing Your Investments Control Valve Accessories	Virtual	Collin Bryant	32	70	1
5/3/2021	4143	Wastewater Math - Problem Solving	Virtual	Michael Boney	16	32	1
5/3/2021	4112	On-Site Hypochlorite Generation	Virtual	Ethan Brooke	26	59	1
5/3/2021	4111	Wastewater Plant Restart and Start Up	Virtual	Rick Allen	17	28	1
5/3/2021	4110	Project Management	Virtual	Dawn Halpern	31	75	1
5/3/2021	4108	PWS Security / EPA Regularatory Updates	Virtual	Nate Diaz	29	68	1
5/3/2021	4107	Ethics in the Workplace	Virtual	Ashley Creel	24	56	1
5/3/2021	4106	Business - The Show Must Go On	Virtual	Arnab Bhomick	7	13	1
5/3/2021	4105	Maintaining Your Storage Tanks	Virtual	Brian Woodring	41	104	1
5/3/2021	4103	Tech New Normal	Virtual	Arnab Bhomick	12	20	1
5/3/2021	4102	Regulations in a Nutshell - What Gets Forgotten	Virtual	Mark Kaminski	36	90	1
5/3/2021	4101	Meter Protection vs. Internal Protection	Virtual	Tim Buxton	10	23	1
5/3/2021	4100	NSF 60 & 61 What Are They & Why Are They Important?	Virtual	Theresa Bellish	15	30	1

2021 Nevada Annual Capacity Development Report

Class Date	ClassID	Class Subject / Title	Location	Instructor	Number of PWS	Number of Attendees	Training Hours
4/21/2021	4099	Lagoon Microbiology, WW Pumps, Motors Valves & Meters	Webinar	Michael Boney	2	3	3
4/20/2021	4098	Water Treatment Basics / Water Treatment Class 2 Study Guide	Webinar	Joe Mathein	9	16	3
4/15/2021	4154	D3/D4 Exam Prep & Intermediate Math	Webinar	Joe Mathein	4	8	3
4/15/2021	4097	D3/D4 Exam Prep / Intermediate Math / D3 Study Guide	Webinar	Joe Mathein	8	16	3
4/13/2021	4096	D1/D2 Exam Prep With Refresher / D1 Study Guide	Webinar	Joe Mathein	12	34	3
4/6/2021	4088	WW Certification Review, WW General Review, Ponds & Lagoons	Webinar	Michael Boney	1	2	3
4/5/2021	4087	Water/Wastewater Pumps, Motors, Valves & Meters	Webinar	Michael Boney	1	2	3
3/24/2021	4091	Pumps, Motors, Valves & Meters; Source Water & Geology	Webinar	Michael Boney	2	3	3.5
3/24/2021	4090	Disinfection & Chemistry; Pumps, Motors, Valves & Meters	Webinar	Michael Boney	1	2	3.25
3/23/2021	4086	Storage Facilities, Pipes & Hydrants; Pumps, Motors, Valves	Webinar	Michael Boney	2	3	3
3/23/2021	4085	Pumps, Motors, Valves & Meters; Surface Water Treatment	Webinar	Michael Boney	1	2	3
3/23/2021	4080	Water Treatment III Exam Review	Webinar	Joe Mathein	4	4	1.5
3/23/2021	4079	Water Treatment II Exam Review	Webinar	Joe Mathein	3	3	1.5
3/23/2021	4077	Water Distribution I Exam Review	Webinar	Joe Mathein	6	7	1.5
3/22/2021	4084	Storage Facilities, Pipes & Hydrants; Pumps, Motors, Valves	Webinar	Michael Boney	1	2	3
3/22/2021	4083	Disinfection & Chemistry	Webinar	Michael Boney	2	3	3
3/18/2021	4071	Water Treatment III Exam Prep	Webinar	Joe Mathein	3	3	2
3/18/2021	4070	Water Treatment Basics Class II Study Guide	Webinar	Joe Mathein	7	7	2
3/16/2021	4082	WW Exam Questions; Pumps, Motors, Valves & Meters	Webinar	Michael Boney	1	2	4.5
3/15/2021	4081	WW Certification Review & Wastewater Exam Questions	Webinar	Michael Boney	1	1	2.5
3/12/2021	4069	Advanced WW Math, WW General Review & WW Ponds	Webinar	Michael Boney	9	12	3
3/9/2021	4075	D3/D4 Exam Prep & Intermediate Math	Webinar	Joe Mathein	4	7	2
3/9/2021	4074	Pumps & Motors Pre Cert	Webinar	Joe Mathein	7	9	2
3/9/2021	4066	Source Water & Geology, Operator Math Beginning	Webinar	Michael Boney	1	2	3
3/5/2021	4064	Water/Wastewater Pumps, Motors, Valves & Motors	Webinar	Michael Boney	19	37	3
2/26/2021	4073	Microscope Examination & Lagoon Microbiology	Webinar	Michael Boney	5	17	3
2/19/2021	4072	Wastewater Certification Review; Waster & Wastewater Safety	Webinar	Michael Boney	11	14	3
2/18/2021	4068	Pumps & Motors	Webinar	Joe Mathein	8	10	2
2/18/2021	4067	D3/D4 Exam Prep & Intermediate Math	Webinar	Joe Mathein	7	9	2
2/12/2021	4063	Acivated Sludge Process Control	Webinar	Mike Boney	13	16	3
2/11/2021	4061	Disinfection and O & M Pre-Certification	Webinar	Joe Mathein	12	14	2

2021 Nevada Annual Capacity Development Report

Class Date	ClassID	Class Subject / Title	Location	Instructor	Number of PWS	Number of Attendees	Training Hours
2/11/2021	4060	D1/D2 Exam Prep Math Refresher	Webinar	Joe Mathein	11	15	2.00
1/5/2021	4052	Process Control, Micro Exam, Active Sludge & Lagoon Microbio	Webinar	Michael Boney	1	1	4.00
12/22/2020	4047	Beginning Operator Math	Webinar	John Williams	15	21	3.00
12/21/2020	4046	Surface Water Treatment	Webinar	John Williams	13	16	3.00
12/18/2020	4044	Advanced WW Math, General WW Review and Ponds/Lagoons	Webinar	Michael Boney	8	10	3.00
12/16/2020	4050	Disinfection and Chemistry	Webinar	John Williams	1	1	3.00
12/15/2020	4042	Pumps, Motors, Valves and Meters	Webinar	John Williams	15	24	3.00
12/11/2020	4043	Water and Wastewater Math 1&2, Questions & Answers	Webinar	Michael Boney	9	11	3.00
12/10/2020	4041	Tribal & Small Systems- Disinfection and Chemistry 1pm	Webinar	John Williams	6	6	3.00
12/10/2020	4040	Tribal & Small Systems- Pumps, Motors, Vavles and Meters 9am	Webinar	John Williams	8	15	3.00
12/9/2020	4039	Storage Facilities, Pipes and Hydrants	Webinar	John Williams	14	25	3.00
12/8/2020	4037	Geology and Source Water	Webinar	John Williams	12	25	3.00
12/4/2020	4036	Wastewater and Water Safety	Webinar	Michael Boney	14	17	2.00
12/4/2020	4035	Wastewater Review	Webinar	Michael Boney	8	11	1.00
12/3/2020	4034	Tribal and Sml Sys- Storage Facilities, Pipes and Hydrants	Webinar	John Williams	4	6	3.00
12/3/2020	4032	Tribal and Small Systems- Source Water and Geology	Webinar	John Williams	9	11	3.00
12/2/2020	4051	Cert. Review, WW Math 1&2, WW General Review, Adv. WW Math	Webinar	Michael Boney	1	1	4.00
12/2/2020	4028	Advanced Operator Math	Webinar	John Williams	11	16	3.00
12/1/2020	4027	Surface Water Treatment	Webinar	John Williams	10	16	3.00
11/18/2020	4026	Disinfection and Chemisrty	Webinar	John Williams	9	16	3.00
11/17/2020	4025	Pumps, Motors, Valves and Meters	Webinar	John Williams	11	20	3.00
11/10/2020	4024	Geology and Source Water 9 to 11	Webinar	John Williams	1	1	2.00
11/10/2020	4023	Geology and Source Water	Webinar	John Williams	11	22	3.00
11/4/2020	4019	Beginning Operator Math	Webinar	John Williams	5	11	3.00
11/4/2020	4018	Surface Water Treatment 9 to 12	Webinar	John Williams	8	16	3.00

2021 Nevada Annual Capacity Development Report

Class Date	ClassID	Class Subject / Title	Location	Instructor	Number of PWS	Number of Attendees	Training Hours
11/3/2020	4017	Disinfection and Chemistry 1 to 4	Webinar	John Williams	10	15	3.00
11/3/2020	4016	Pumps, Motors, Valves and Meters 9 to 12	Webinar	John Williams	9	13	3.00
11/2/2020	4015	Storage Facilities, Pipes and Hydrants 1 to 4	Webinar	John Williams	12	17	3.00
11/2/2020	4012	Geology and Source Water 9 to 12	Webinar	John Williams	13	20	3.00
10/29/2020	4010	Disinfection/OM Pre-Cert Repeat	Webinar	Joe Mathein	4	5	3.00
10/28/2020	4009	Advanced Operator Math	Webinar	John Williams	9	12	3.00
10/27/2020	4014	Math Refresher/Intermediate Math	Pioche	Joe Mathein	2	4	2.00
10/27/2020	4013	O&M Pre Certification	Pioche	Joe Mathein	2	4	1.00
10/27/2020	4011	Distribution Operator D3/D4 Exam Prep	Pioche	Joe Mathein	2	4	1.00
10/27/2020	4008	Surface Water Treatment	Webinar	John Williams	9	18	3.00
10/22/2020	4006	D1/D2 Exam Prep and Math Refresher (Repeat of 9/10/20)	Webinar	Joe Mathein	7	10	3.00
10/21/2020	4003	Disinfection and Chemistry	Webinar	John Williams	5	14	3.00
10/20/2020	4001	Pumps, Motors, Valves and Meters	Webinar	John Williams	11	17	3.00
10/15/2020	4002	Water Treatment Basics/Water Treatment II Study Guide	Webinar	Joe Mathein	12	12	3.00
10/14/2020	3999	Storage Facilites, Pipes and Hydrants	Webinar	John Williams	9	20	3.00
10/13/2020	3996	Geology and Source Water	Webinar	John Williams	12	22	3.00
10/8/2020	3993	D1/D2 Exam Prep and Math Refresher	Webinar	Joe Mathein	9	14	3.00
10/7/2020	3992	Beginning Operator Math	Webinar	John Williams	12	17	3.00
10/6/2020	3991	Surface Water Treatment	Webinar	John Williams	2	2	2.00
10/1/2020	3985	Pumps Presentation 2020, D2 Exam Study Guide	Webinar	Joe Mathein	9	14	3.00
9/30/2020	3984	Disinfection and Chemistry	Webinar	John Williams	13	21	3.00
9/29/2020	3983	Pumps, Motors, Valves and Meters	Webinar	John Williams	21	30	3.00
9/24/2020	3986	D3 & D4 Exam Prep and Intermediate Math	Webinar	Joe Mathein	7	11	3.00
9/23/2020	3982	Wastewater Certification Review and Safety	Tonopah	Michael Boney	3	3	3.00
9/23/2020	3980	Storage Facilities, Pipes and Hydrants	Webinar	John Williams	15	26	3.00
9/22/2020	3981	Pumps, Motors, Valves and Meters (wastewater)	Hawthorne	Michael Boney	1	3	3.00
9/17/2020	3977	O&M Pre Cert & Disinfection Pre Cert repeat of 9/10 Material	Webinar	Joe Mathein	10	14	3.00
9/16/2020	3975	FlexiRisers Presented by Hose Solutions	webinar	Andy Andiyastika	6	10	1.00
9/10/2020	3976	O&M Pre Cert & Disinfection Pre Cert	Webinar	Joe Mathein	9	16	3.00
9/8/2020	3974	FlexiRisers Presented by Hose Solutions	webinar	Andy Andiyastika	5	5	1.00
9/2/2020	3971	Surface Water Treatment PM Session	Webinar	John Williams	6	10	3.00
9/2/2020	3970	Surface Water Treatment AM Session	Webinar	John Williams	6	10	3.00
9/1/2020	3969	Advanced Operators Math	Webinar	John Williams	4	6	3.00
8/27/2020	3965	Distribution System Operator D3/D4 Exam Prep Repeat	Webinar	Joe Mathein	5	10	3.00
8/26/2020	3967	Disinfection and Chemistry PM Session	webinar	John Williams	6	10	3.00
8/26/2020	3964	Disifection and Chemistry AM Session	Webinar	John Williams	8	13	3.00
8/25/2020	3968	Beginning Operator Math	Webinar	John Williams	3	5	3.00
8/20/2020	3963	D1/D2 Exam Prep Repeat Session	Webinar	Joe Mathein	9	13	3.00
8/19/2020	3960	Pumps, Motors and Valves PM Session	Webinar	John Williams	7	9	3.00

2021 Nevada Annual Capacity Development Report

Class Date	ClassID	Class Subject / Title	Location	Instructor	Number of PWS	Number of Attendees	Training Hours
8/19/2020	3959	Pumps, Motors and Valves AM Session	Webinar	John Williams	9	12	3.00
8/18/2020	3958	Advanced Operator Math PM Session	Webinar	John Williams	2	2	3.00
8/18/2020	3956	Advanced Operator Math AM Session	Webinar	John Williams	5	10	3.00
8/13/2020	3954	O&M Pre-Cert, Int. Math, Dist. System Op. D3/D4 Exam Prep	Webinar	Joe Mathein	3	7	3.00
8/12/2020	3953	Storage Facilities, Pipes and Hydrants PM Session	Webinar	John Williams	9	13	3.00
8/12/2020	3952	Storage Facilities, Pipes and Hydrants AM Session	Webinar	John Williams	7	10	3.00
8/11/2020	3955	Wastewater Review, Ponds & Lagoons, Advanced WW Math	Webinar	Michael Boney	1	3	3.00
8/11/2020	3951	Beginning Operator Math AM Session	Webinar	John Williams	5	5	3.00
8/6/2020	3948	D1/D2 Exam Prep	Webinar	Joe Mathein	8	13	3.00
7/29/2020	3943	Pre-Cert, Pumps and Motors and Intermediate Water Math	Webinar	Joe Mathein	1	1	1.00
7/29/2020	3942	Disinfecton, Pumps, Motors, Intern. Math Repeat	Webinar	Joe Mathein	8	12	3.00
7/22/2020	3946	Operator Math Review PM Session	Webinar	John Williams	3	4	3.00
7/22/2020	3945	Operator Math Review AM Session	Webinar	John Williams	7	10	3.00
7/22/2020	3940	Disinfection Pre-Cert, Pumps & Motors, Intermediate Math	Webinar	Joe Mathein	7	10	3.00
7/16/2020	3939	Surface Water Treatment PM Class	Webinar	John Williams	4	12	3.00
7/16/2020	3938	Surface Water Treatment AM Class	Webinar	John Williams	11	14	3.00
7/15/2020	3947	Disinfection, Pumps, Motors, Inter. Math Repeat Class	Webinar	Joe Mathein	5	11	3.00
7/15/2020	3937	Disinfection and Chemistry PM Session	Webinar	John Williams	5	12	3.00
7/15/2020	3936	Disinfection and Chemistry AM Session	Webinar	John Williams	9	12	3.00
7/14/2020	3935	Pumps, Motors and Valves PM Class	Webinar	John Williams	9	16	3.00
7/14/2020	3934	Pumps, Motors and Valves AM Class	Webinar	John Williams	11	15	3.00
7/13/2020	3933	Storage Facilities,Pipes and Hydrants PM Session	Webinar	John Williams	11	15	3.00
7/13/2020	3932	Storage Facilities,Pipes and Hydrants AM Session	Webinar	John Williams	10	15	3.00
7/8/2020	3941	Disinfection Pre-Cert, Pumps & Motors, Intermediate Math	Webinar	Joe Mathein	8	12	3.00
7/1/2020	3924	Disinfection, Pumps & Motors, Inter. Math	Webinar	Joe Mathein	8	12	3.00
				Total Training Hours:			<i>Sub Total: 252</i> 430.25

**ATTACHMENT 3: TA Vendor Services in SFY
2020-21**

The following capabilities are anticipated to be required under the subgrant; however, this is not to be considered a comprehensive description of all required services. Vendors must respond to this scope of work with available personnel, skill, experience, and expertise in each area.

1. Technical Assistance to Water Systems – NvRWA / FW

1.1. PWS Compliance - NvRWA

The awarded vendor(s) may be required to assist water systems with understanding of and compliance with legally enforceable standards and treatment techniques that apply to public water systems to protect public health and provide a safe and reliable drinking water supply. They include assistance to comply with State and federal drinking water regulations, including but not limited to, RTCR, Groundwater Rule, Disinfection Byproducts Rule, Arsenic Rule, LCR, SWTRs, and State enforceable secondary drinking water standards.

1.2. Prioritized PWS and ETT Score - NvRWA

The awarded vendor(s) may be required to assist prioritized water systems, which have accrued ETT scores in the range of 6-10 points from non-compliance with State and federal requirements, to:

- 1.2.1. Address the violations leading to noncompliance.
- 1.2.2. Return the system to compliance in a timely manner.

1.3. Sampling, Water Quality Testing and Troubleshooting - NvRWA

The awarded vendor(s) may be required to help train and/or assist PWSs in:

- 1.3.1. Developing and implementing sampling plans.
- 1.3.2. Conducting field measurement and water parameters.
- 1.3.3. Developing and implementing water sampling procedures for compliance.
- 1.3.4. Testing for chlorine residuals.
- 1.3.5. Measuring well drawdown.
- 1.3.6. Instrumentation.
- 1.3.7. Calculating proper chemical addition and chemical pump.
- 1.3.8. Treatment train operations.
- 1.3.9. Water quality and/or equipment troubleshooting.
- 1.3.10. Identifying a source or vendor to secure parts, equipment, tools, and supplies etc.

1.4. Sanitary Surveys and Deficiency Resolution - NvRWA

The awarded vendor(s) may be required to assist water systems in developing and implementing plans and taking the actions necessary to provide an appropriate response to sanitary surveys and Level 2 Assessment findings conducted by the BSDW. Guidance and instruction may be required to help the water system correct deficiencies and/or address sanitary defects. The goal is to bring the system back into compliance with State and federal regulatory requirements within the required timeframe.

1.5. Revised Total Coliform Rule Level 1 Assessment - NvRWA

The awarded vendor(s) may be required to assist water systems in performing a Level 1 Assessment. The vendor may be expected to assist the water system with:

- 1.5.1. Investigating the water system to identify sanitary defects.
- 1.5.2. Submitting the Level 1 Assessment documentation.
- 1.5.3. Locating resources to fix noted sanitary defects.
- 1.5.4. Developing a timeline that ensures the 30-day corrective action timeline is met.
- 1.5.5. Submitting an extension request if needed.

1.6. Digital Mapping and GPS Asset Location - FW

The awarded vendor(s) may be required to assist water systems with:

- 1.7. Developing and/or updating their digital maps or GIS system and attribute tables of system components.
- 1.8. Identifying the appropriate GPS tools for field data collection and will provide training in the use of these tools. GIS software and platforms used must be widely available to computer and phone users and must be free of charge to the water system; and
- 1.9. Identifying and integrating their GIS system with other management software that can assist in planning for repair and replacement of assets.

2. Managerial Assistance to Water Systems – RCAC / FW

2.1. PNR and CCR - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 2.1.1. Notices that alert consumers if there is a risk to public health, if the water does not meet drinking water standards, if the water system fails to test its water, or if the system has been granted a variance of exemption to a regulation; and
- 2.1.2. Their annual CCRs to increase consumer awareness of their drinking water quality and potential health risks and increase dialogue between the utilities and their consumers.

2.2. O&M Manuals - RCAC

The awarded vendor(s) may be required to assist water systems in:

- 2.2.1. Creating, updating, and implementing their system O&M manuals for both distribution and treatment facilities to describe operational activities on a daily, monthly and yearly basis.
- 2.2.2. Submitting any updates of water system assets to BSDW in order to maintain an accurate SDWIS database.

2.3. CCCP - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 2.3.1. Development and implementation of a CCCP.
- 2.3.2. Public outreach efforts to improve the public's understanding of the need and importance of such a program.
- 2.3.3. Follow up to assure that all cross-connection control devices are tested annually, and that the system is maintaining proper documentation of all devices and test results.

2.4. ERP and Emergency Assistance - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 2.4.1. Preparing new or updating existing system- and site-specific ERPs; and
- 2.4.2. Evaluating system security and necessary upgrades including but not limited to:
 - 2.4.2.1. Fencing.
 - 2.4.2.2. Locks.
 - 2.4.2.3. SCADA.
 - 2.4.2.4. Alarms; and
 - 2.4.2.5. Security cameras
- 2.4.3. Provide training and emergency assistance in implementing ERPs when systems face natural disasters, critical system component failures and risks to public health.

2.5. Water and Energy Conservation - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 2.5.1. Completing, updating, and implementing water conservation plans in compliance with the requirements of the DWR.
- 2.5.2. Metrics to be used by the systems to analyze the effectiveness of the plan.
- 2.5.3. Developing and implementing feasible water conservation measures and public awareness campaigns.
- 2.5.4. Water loss audits to assist system personnel in resolving unaccounted-for water.
- 2.5.5. Energy conservation opportunities including but not limited to:
 - 2.5.5.1. Energy efficient equipment.
 - 2.5.5.2. Alternative power generation; and
 - 2.5.5.3. Off-peak power use.

2.6. TMF Capacity Survey - RCAC

The awarded vendor(s) may be required to assist the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF.

2.7. Labor Management - RCAC

The awarded vendor(s) may be required to assist the water system with.

- 2.7.1. Personnel policies.
- 2.7.2. Job descriptions.
- 2.7.3. Contracts for operations, maintenance and/or administration

2.8. Water Rights Management - FW

The awarded vendor(s) may be required to assist the water system with:

- 2.8.1. Reviewing and understanding water rights and associated documentation.
- 2.8.2. Determining if water quantity and water rights are sufficient for existing and projected future population; and
- 2.8.3. Properly recording and submitting pumpage documentation to DWR.

2.9. Records Management - RCAC

The awarded vendor(s) may be required to assist the water system with developing and implementing a records keeping/tracking program for routine maintenance including but not limited to:

- 2.9.1. Well pumpage.
- 2.9.2. Valve exercising.
- 2.9.3. Hydrant/dead-end flushing; and
- 2.9.4. Backflow prevention assembly testing.

2.10. Contracts Management - RCAC

The awarded vendor(s) may be required to assist the water system with:

- 2.10.1. Technical services solicitations.
- 2.10.2. Review of bid specifications/construction contracts.
- 2.10.3. Project documentation included but not limited to:
 - 2.10.3.1. Certified payroll review.
 - 2.10.3.2. Funding draws; and
 - 2.10.3.3. Reporting as required by federal, State, and/or funding agencies.

3. Financial Assistance to Water Systems - RCAC

3.1. Budgeting and Rate Setting - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 3.1.1. Preparing a balanced budget (note that depreciation is not required to be fully funded in planning a budget under this subgrant scope of work, but the system must be educated on what depreciation means, why it is used, and how it benefits the system to fully fund depreciation);
- 3.1.2. Preparing a budget for 5-, 10-, and/or 20-year CIPs in order for the water system to develop rate strategies and identify potential funding available for necessary system renewal.
- 3.1.3. Establishing sufficient rates to support their unique system. User rates must be sufficient to cover:
 - 3.1.3.1. All operations and maintenance of the specific system of the community. This includes operation and maintenance of any planned construction project being proposed to a funding agency.
 - 3.1.3.2. Debt service requirements on all loans and bonds of the system: and
 - 3.1.3.3. All required reserve accounts of the system, including a short-lived asset reserve and any debt service required by the loan/bond agreements.

3.2. FSP - RCAC

The awarded vendor(s) may be required to assist the water systems with FSPs that include at a minimum:

- 3.2.1. Asset information including:
 - 3.2.1.1. An inventory; and
 - 3.2.1.2. Date of installation.
 - 3.2.1.3. A map showing their location.
 - 3.2.1.4. Original price.
 - 3.2.1.5. Anticipated life span.
 - 3.2.1.6. Replacement costs.

- 3.2.1.7. An evaluation of their condition and performance; and
- 3.2.1.8. An analysis of the criticality of each asset.
- 3.2.2. An evaluation of water and energy conservation efforts with existing assets and planned replacement assets; and
- 3.2.3. A plan for maintaining, repairing and replacing assets and for funding such activities.

3.3. Income Surveys - RCAC

The awarded vendor(s) may be required to assist water systems with conducting income surveys for the community in order to qualify for loans and grants from all funding agencies. The income survey must achieve a 98% contact rate and collect the household income of the residents sampled. The awarded vendor(s) will then determine the median household income from the data collected and certify to the data's authenticity.

3.4. Bookkeeping and Public Accounting - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 3.4.1. Understanding bookkeeping entries for transactions the water system must record and process on a day-to-day basis, including but not limited to:
 - 3.4.1.1. Payroll and related expenses.
 - 3.4.1.2. Contract transactions.
 - 3.4.1.3. Purchasing.
 - 3.4.1.4. Asset acquisitions, disposals and transfers.
 - 3.4.1.5. Operating expenses; and
 - 3.4.1.6. Items of income
- 3.4.2. Understanding their requirements to prepare financial Statements in conformity to GAAP for local governments as they pertain to their specific structure; and
- 3.4.3. Educate and train water system staff on terminology used in the public sector accounting profession such as but not limited to:
 - 3.4.3.1. Cash versus accrual accounting
 - 3.4.3.2. Asset depreciation
 - 3.4.3.3. Current versus noncurrent assets and liabilities.
 - 3.4.3.4. Net assets.
 - 3.4.3.5. Restricted reserves; and
 - 3.4.3.6. Enterprise funds.

3.5. Understanding Financial Reports - RCAC

The awarded vendor(s) may be required to assist water systems understand how to read a GAAP compliant financial report and notes to the financial Statements, including the balance sheet, income Statement, and Statement of cash flows.

3.6. Internal Controls - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 3.6.1. Understanding the importance of internal controls in their accounting framework.
- 3.6.2. Assessing the separation of duties and educate staff and the board of the water system on the risks involved by not following proper internal control procedures; and

- 3.6.3. Preparing fiscal policies to segregate the duties of the individual responsible for recording the transactions from the individual authorizing payment, and the individual responsible for handling deposits.

3.7. Organization - RCAC

The awarded vendor(s) may be requiring to:

- 3.7.1. Assist water system staff in understanding the organizational and governing structure and responsibility; and
- 3.7.2. Guide water systems to professionals authorized to prepare documentation and assist with reorganization (e.g., HOA), bylaws, federal non-profit application, ordinances/policies, and insurance etc.

3.8. Grants / Loans Management - RCAC

The awarded vendor(s) may be required to assist the water system with:

- 3.8.1. Identifying potential funding opportunities and applications for grants and loans for capital improvement projects and other activities eligible under specific financial programs; and
- 3.8.2. Identifying opportunities for saving through loan refinancing.

4. Training – RCAC / NvRWA / FW

The awarded vendor(s) may be required to work with PWS and NDEP to develop and prioritize training needs for specific system(s). The vendor will provide all materials necessary for training and assist with securing a meeting location if necessary. A specific course curriculum for requested training must be submitted to NDEP for approval prior to holding the training session. Technical courses that qualify for CEUs must also be reviewed and approved by the Nevada Certified Drinking Water Operator Program.

4.1. Board Training - RCAC

The awarded vendor(s) may be required to assist water systems with:

- 4.1.1. Training board members on open meeting law rules in the State of Nevada.
- 4.1.2. Board member roles and responsibilities.
- 4.1.3. Public notice requirements.
- 4.1.4. Water system management.
- 4.1.5. Understanding of operational requirements and documents; and
- 4.1.6. Financial reports including annual operating and capital budgets.

4.2. Clerical and Office Staff Training - RCAC

The awarded vendor(s) may be required to assist water systems with training staff on customer service, time management, organizational support, and basic computer programs such as Microsoft Office products or email. In certain situations, based on specific system needs, the vendor may be asked to provide basic technical training on copying, scanning, printing, filing, and records maintenance may also be required to ensure compliance with all required reporting and system management.

4.3. Operator Certification Training - NvRWA

The awarded vendor(s) may be required to provide training to prepare water system staff in obtaining requisite certification within Nevada for distribution or treatment operation. Under certain conditions, training that qualifies for contact hours (CEUs) may be required, if approved through the Nevada Drinking Water Operator Certification Program, to help certified operators to maintain their credentials. The vendor may propose one or more efficient and effective approach(es) to provide training to Nevada operator in order to accomplish this task.

4.4. Security and Health Threat Training - FW

The awarded vendor(s) may be required to assist water systems with training and preparedness to address security and health threats including physical, chemical, biological, or acts of God. The awarded vendor(s) may help provide regular training and refresher courses (scenarios), promote mutual assistance with nearby water systems, and utilize resources including the use of NVWARN and table top exercises to help water system staff develop capacity and maintain preparedness to address emergency response needs.

5. Outreach – NvRWA / RCAC

5.1. Water System – NvRWA / RCAC

The awarded vendor(s) may be required to assist with periodic public water system outreach efforts that provide refresher training to system board members, managers, and operators the responsibilities of owning and operate a public water system. The vendor may propose one or more efficient and effective approach(es) to provide outreach and training in order to accomplish this task.

5.2. Future Water System Operators – NvRWA / RCAC

The awarded vendor(s) may be required to coordinate, work collaboratively with, and/or assist NDEP with outreach activities at schools or community functions to educate, encourage, and engage potential new water system operators on the opportunities, challenges, and benefits of a career in public water system operations and management. The vendor may propose different approaches to introduce and engage potential drinking water professional on the works being described.

5.3. Project and Other Funding Outreach – NvRWA / RCAC

The awarded vendor(s) may be required to assist with outreach to water system boards or other elected officials on the type and availability of funding for capital improvement projects. The vendor may propose one or more effective approach(es) to provide outreach and training in order to accomplish this task.

ATTACHMENT 4: Vulnerability Assessment and Monitoring Waiver Form



**BUREAU OF SAFE DRINKING WATER
WAIVER APPLICATION OR RENEWAL
FORM "B"**

PWS NAME	
PWS ID #	
PWS SOURCE ID#	

<input type="checkbox"/> VOC	<input type="checkbox"/> SOC	<input type="checkbox"/> IOC II	<input type="checkbox"/> IOC V	<input type="checkbox"/> DIOXIN	<input type="checkbox"/> ASBESTOS
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Have there been any major changes to your water distribution system? (If yes, please elaborate in the space provided below.)	<input type="checkbox"/> YES <input type="checkbox"/> NO

Has there been any new construction, development, or zoning changes within a 3000 foot radius of your well in the past 3 years? (If yes, please elaborate in the space provided below.)	<input type="checkbox"/> YES <input type="checkbox"/> NO

Have there been any activities or occurrences (chemical spills, floods, improper storage of chemicals, etc.) in the past 3 years that may have potentially increased the possibility of contamination to the aquifer supplying your source water within a 3000 foot radius? (If yes, please elaborate in the space provided below.)	<input type="checkbox"/> YES <input type="checkbox"/> NO

I hereby affirm the above information I have provided is true and accurate to the best of my knowledge.

Signature Title Date

ATTACHMENT 5: Specific TA Vendor Services for SFY 2022-23



Scope of Work

The following capabilities are anticipated to be required under the subgrant; however, this is not to be considered a comprehensive description of all required services.

1. Technical Assistance to Water Systems

1.1. PWS Compliance-RCAC

The awarded vendor(s) may be required to assist water systems with understanding of and compliance with legally enforceable standards and treatment techniques that apply to public water systems to protect public health and provide a safe and reliable drinking water supply. They include assistance to comply with state and federal drinking water regulations, including but not limited to, RTCR, Groundwater Rule, Disinfection Byproducts Rule, Arsenic Rule, LCR, SWTRs, and state enforceable secondary drinking water standards.

- 1.1.1. This task may include training for staff personnel and/or board members over the necessary PWS compliance components.
- 1.1.2. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

1.2. Prioritized PWS and ETT Score-RCAC

The awarded vendor(s) may be required to assist prioritized water systems, which have accrued ETT scores in the range of 6-10 points from non-compliance with state and federal requirements, to:

- 1.2.1. Address the violations leading to noncompliance.
- 1.2.2. Return the system to compliance in a timely manner.
- 1.2.3. This task may include training for staff personnel and/or board members over the necessary requirements to be removed from the ETT list.
- 1.2.4. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF
- 1.2.5.

1.3. Sampling, Water Quality Testing and Troubleshooting-RCAC

The awarded vendor(s) may be required to help train and/or assist PWSs in:

- 1.3.1. Developing and implementing sampling plans.
- 1.3.2. Conducting field measurement and water parameters.
- 1.3.3. Developing and implementing water sampling procedures for compliance.
- 1.3.4. Testing for chlorine residuals.

- 1.3.5. Measuring well drawdown.
- 1.3.6. Instrumentation.
- 1.3.7. Calculating proper chemical addition and chemical pump.
- 1.3.8. Treatment train operations
- 1.3.9. Water quality and/or equipment troubleshooting; and
- 1.3.10. Identifying a source or vendor to secure parts, equipment, tools, and supplies etc.
- 1.3.11. This task may include training for staff personnel and/or board members over the necessary requirements sampling, testing, and troubleshooting.
- 1.3.12. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

1.4. Sanitary Surveys and Deficiency Resolution-RCAC

The awarded vendor(s) may be required to assist water systems in developing and implementing plans and taking the actions necessary to provide an appropriate response to sanitary surveys and Level 2 Assessment findings conducted by the BSDW. Guidance and instruction may be required to help the water system correct deficiencies and/or address sanitary defects. The goal is to bring the system back into compliance with state and federal regulatory requirements within the required timeframe.

- 1.4.1. This task may include training for staff personnel and/or board members over the sanitary survey deficiencies and responsible management of the system.
- 1.4.2. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

1.5. Revised Total Coliform Rule Level 1 Assessment-RCAC

The awarded vendor(s) may be required to assist water systems in performing a Level 1 Assessment. The vendor may be expected to assist the water system with:

- 1.5.1. Investigating the water system to identify sanitary defects.
- 1.5.2. Submitting the Level 1 Assessment documentation.
- 1.5.3. Locating resources to fix noted sanitary defects.
- 1.5.4. Developing a timeline that ensures the 30-day corrective action timeline is met; and
- 1.5.5. Submitting an extension request if needed.
- 1.5.6. This task may include training for staff personnel and/or board members over the Revised Total Coliform Rule.
- 1.5.7. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

1.6. Digital Mapping and GPS Asset Location-RCAC

The awarded vendor(s) may be required to assist water systems with:

- 1.7. Developing and/or updating their digital maps or GIS system and attribute tables of system components.
- 1.8. Identifying the appropriate GPS tools for field data collection and will provide training in the use of these tools. GIS software and platforms used must be widely available to computer and phone users and must be free of charge to the water system; and
- 1.9. Identifying and integrating their GIS system with other management software that can assist in planning for repair and replacement of assets.
- 1.10. This task may include training for staff personnel and/or board members over the need for mapping and asset identification.
- 1.11. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

2. Managerial Assistance to Water Systems

2.1. PNR and CCR-RCAC

The awarded vendor(s) may be required to assist water systems with:

- 2.1.1. Notices that alert consumers if there is a risk to public health, if the water does not meet drinking water standards, if the water system fails to test its water, or if the system has been granted a variance of exemption to a regulation; and
- 2.1.2. Their annual CCRs to increase consumer awareness of their drinking water quality and potential health risks and increase dialogue between the utilities and their consumers.
- 2.1.3. This task may include training for staff personnel and/or board members over the need for timely communication to the public for health risk violations.
- 2.1.4. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

2.2. Manuals and Plans-RCAC

The awarded vendor(s) may be required to assist water systems in:

- 2.2.1. Creating, updating, and implementing their system O&M manuals for both distribution and treatment facilities to describe operational activities on a daily, monthly and yearly basis.
 - 2.2.1.1. Submitting any updates of water system assets to BSDW in order to maintain an accurate SDWIS database.
- 2.2.2. Development and implementation of a CCCP.
 - 2.2.2.1. Public outreach efforts to improve the public's understanding of the need and importance of such a program.
- 2.2.3. Preparing new or updating existing system- and site-specific ERPs; and
 - 2.2.3.1. Evaluating system security and necessary upgrades including but not limited to:
 - 2.2.3.1.1. Fencing.
 - 2.2.3.1.2. Locks.
 - 2.2.3.1.3. SCADA.

- 2.2.3.1.4. Alarms; and
- 2.2.3.1.5. Security cameras
- 2.2.3.2. Provide training and emergency assistance in implementing ERPs when systems face natural disasters, critical system component failures and risks to public health.
- 2.2.4. The awarded vendor(s) may be required to assist water systems with completing, updating, and implementing water conservation plans in compliance with the requirements of the DWR.
 - 2.2.4.1. Metrics to be used by the systems to analyze the effectiveness of the plan.
 - 2.2.4.2. Developing and implementing feasible water conservation measures and public awareness campaigns.
 - 2.2.4.3. Water loss audits to assist system personnel in resolving unaccounted-for water.
 - 2.2.4.4. Energy conservation opportunities including but not limited to:
 - 2.2.4.5. Energy efficient equipment.
 - 2.2.4.6. Alternative power generation; and
 - 2.2.4.7. Off-peak power use.
- 2.2.5. This task may include training for staff personnel and/or board members over the need for manuals, their use, and the need to keep them updated.
- 2.2.6. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

2.3. Management and Operations-RCAC

- 2.3.1. The awarded vendor(s) may be required to assist the water system with personnel management.
 - 2.3.1.1. Personnel policies.
 - 2.3.1.2. Job descriptions.
 - 2.3.1.3. Contracts for operations, maintenance and/or administration
- 2.3.2. The awarded vendor(s) may be required to assist the water system with developing and implementing a records keeping/tracking program for routine maintenance including but not limited to:
 - 2.3.2.1. Well pumpage.
 - 2.3.2.2. Valve exercising.
 - 2.3.2.3. Hydrant/dead-end flushing; and
 - 2.3.2.4. Backflow prevention assembly testing.
- 2.3.3. The awarded vendor(s) may be required to assist the water system with contracts management:
 - 2.3.3.1. Technical services solicitations.
 - 2.3.3.2. Review of bid specifications/construction contracts.
 - 2.3.3.3. Project documentation included but not limited to:
 - 2.3.3.3.1. Certified payroll review.
 - 2.3.3.3.2. Funding draws; and
 - 2.3.3.3.3. Reporting as required by federal, state, and/or funding agencies.
- 2.3.4. The awarded vendor(s) may be requiring to:
 - 2.3.4.1. Assist water system staff in understanding the organizational and governing structure and responsibility; and

- 2.3.4.2. Guide water systems to professionals authorized to prepare documentation and assist with reorganization (e.g., HOA), bylaws, federal non-profit application, ordinances/policies, and insurance etc.
- 2.3.5. This task may include training for staff personnel and/or board members over sound management of a water system, troubleshooting workflows, contracting, and being responsive to customer needs.
- 2.3.6. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

2.4. Water Rights Management-RCAC

The awarded vendor(s) may be required to assist the water system with:

- 2.4.1. Reviewing and understanding water rights and associated documentation.
- 2.4.2. Determining if water quantity and water rights are sufficient for existing and projected future population; and
- 2.4.3. Properly recording and submitting pumpage documentation to DWR.
- 2.4.4. This task may include training for staff personnel and/or board members over the importance of water rights.
- 2.4.5. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

3. Financial Assistance to Water Systems

3.1. Budgeting and Rate Setting-RCAC

The awarded vendor(s) may be required to assist water systems with:

- 3.1.1. Preparing a balanced budget (note that depreciation is not required to be fully funded in planning a budget under this subgrant scope of work, but the system must be educated on what depreciation means, why it is used, and how it benefits the system to fully fund depreciation);
- 3.1.2. Preparing a budget for 5-, 10-, and/or 20-year CIPs in order for the water system to develop rate strategies and identify potential funding available for necessary system renewal.
- 3.1.3. Establishing sufficient rates to support their unique system. User rates must be sufficient to cover:
 - 3.1.3.1. All operations and maintenance of the specific system of the community. This includes operation and maintenance of any planned construction project being proposed to a funding agency.
 - 3.1.3.2. Debt service requirements on all loans and bonds of the system: and
 - 3.1.3.3. All required reserve accounts of the system, including a short-lived asset reserve and any debt service required by the loan/bond agreements.
- 3.1.4. This task may include training for staff personnel and/or board members over the importance of budgeting and rate setting.

- 3.1.5. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

3.2. Fiscal Sustainability Plans (FSP) or Asset Management Plans -RCAC

The awarded vendor(s) may be required to assist the water systems with FSPs that include at a minimum:

- 3.2.1. Asset information including.
 - 3.2.1.1. An inventory; and
 - 3.2.1.2. Date of installation.
 - 3.2.1.3. Original price.
 - 3.2.1.4. Anticipated life span.
 - 3.2.1.5. Replacement costs.
 - 3.2.1.6. An evaluation of their condition and performance; and
 - 3.2.1.7. An analysis of the criticality of each asset.
- 3.2.2. An evaluation of water and energy conservation efforts with existing assets and planned replacement assets; and
- 3.2.3. A plan for maintaining, repairing and replacing assets and for funding such activities; and
- 3.2.4. Defined level of service goals for:
 - 3.2.4.1. Physical performance of the assets, and
 - 3.2.4.2. Customer expectations and satisfaction
- 3.2.5. This task may include training for staff personnel and/or board members over the importance of having an FSP or Asset Management Plan.
- 3.2.6. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

3.3. Income Surveys-RCAC

The awarded vendor(s) may be required to assist water systems with conducting income surveys for the community in order to qualify for loans and grants from all funding agencies. The income survey must achieve a 98% contact rate and collect the household income of the residents sampled. The awarded vendor(s) will then determine the median household income from the data collected and certify to the data's authenticity.

3.4. Bookkeeping and Public Accounting-RCAC

The awarded vendor(s) may be required to assist water systems with:

- 3.4.1. Understanding bookkeeping entries for transactions the water system must record and process on a day-to-day basis, including but not limited to:

- 3.4.1.1. Payroll and related expenses.
- 3.4.1.2. Contract transactions.
- 3.4.1.3. Purchasing.
- 3.4.1.4. Asset acquisitions, disposals and transfers.
- 3.4.1.5. Operating expenses; and
- 3.4.1.6. Items of income
- 3.4.2. Understanding their requirements to prepare financial statements in conformity to GAAP for local governments as they pertain to their specific structure; and
- 3.4.3. Educate and train water system staff on terminology used in the public sector accounting profession such as but not limited to:
 - 3.4.3.1. Cash versus accrual accounting
 - 3.4.3.2. Asset depreciation
 - 3.4.3.3. Current versus noncurrent assets and liabilities.
 - 3.4.3.4. Net assets.
 - 3.4.3.5. Restricted reserves; and
 - 3.4.3.6. Enterprise funds.
- 3.4.4. The awarded vendor(s) may be required to assist water systems understand how to read a GAAP compliant financial report and notes to the financial statements, including the balance sheet, income statement, and statement of cash flows.
- 3.4.5. The awarded vendor(s) may be required to assist water systems with:
 - 3.4.5.1. Understanding the importance of internal controls in their accounting framework.
 - 3.4.5.2. Assessing the separation of duties and educate staff and the board of the water system on the risks involved by not following proper internal control procedures; and
 - 3.4.5.3. Preparing fiscal policies to segregate the duties of the individual responsible for recording the transactions from the individual authorizing payment, and the individual responsible for handling deposits.
- 3.4.6. This task may include training for staff personnel and/or board members over the importance of bookkeeping, transparency, internal controls, and sound accounting practices.
- 3.4.7. This task may include assisting the water system with TMF capacity surveys developed by NDEP to determine the system's TMF capacity, need for assistance and their eligibility for future funding from the DWSRF

4. Training

The awarded vendor(s) may be required to work with PWS and NDEP to develop and prioritize training needs for specific system(s). The vendor will provide all materials necessary for training and assist with securing a meeting location if necessary. A specific course curriculum for requested training must be submitted to NDEP for approval prior to holding the training session. Technical courses that qualify for CEUs must also be reviewed and approved by the Nevada Certified Drinking Water Operator Program.

4.1. Board, Clerical, and Office staff Training-RCAC

The awarded vendor(s) may be required to assist water systems with board training not previously identified in another task in this scope of work.

4.2. Operator Certification Training-RCAC and NvRWA

The awarded vendor(s) may be required to provide training to prepare water system staff in obtaining requisite certification within Nevada for distribution or treatment operation. Under certain conditions, training that qualifies for contact hours (CEUs) may be required, if approved through the Nevada Drinking Water Operator Certification Program, to help certified operators to maintain their credentials. The vendor may propose one or more efficient and effective approach(es) to provide training to Nevada operator in order to accomplish this task.

4.3. Security and Health Threat Training-RCAC

The awarded vendor(s) may be required to assist water systems with training and preparedness to address security and health threats including physical, chemical, biological, or acts of God. The awarded vendor(s) may help provide regular training and refresher courses (scenarios), promote mutual assistance with nearby water systems, and utilize resources including the use of NVWARN and table top exercises to help water system staff develop capacity and maintain preparedness to address emergency response needs.

4.4. Drinking Water State Revolving Fund Training-RCAC

The awarded vendor(s) may be required to assist water systems with training on various aspects of the Drinking Water State Revolving Fund. These components could include, but are not limited to:

- 4.4.1. Application Process
- 4.4.2. Davis-Bacon Wage Requirements
- 4.4.3. American Iron and Steel Requirements
- 4.4.4. Procurement Requirements
- 4.4.5. Project Management Requirements
- 4.4.6. Environmental review requirement and federal crosscutters

5. Outreach

5.1. Project and Other funding Outreach-RCAC

The awarded vendor(s) may be required to assist public water systems identify potential funding opportunities and applications for grants and loans for capital improvement projects and other activities under specific financial programs. The vendor may propose one or more efficient and effective approach(es) to provide outreach and training in order to accomplish this task.

5.2. Future Water System Operators-RCAC

The awarded vendor(s) may be required to coordinate, work collaboratively with, and/or assist NDEP with outreach activities at schools or community functions to educate, encourage, and engage potential new water system operators on the opportunities, challenges, and benefits of a career in public water system operations and management. The vendor may propose different approaches to introduce and engage potential drinking water professional on the works being described.