# State of Nevada

# 2018 Annual Capacity Development Report
# To the
# US Environmental Protection Agency

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**State Fiscal Year 2018**
**(July 1, 2017 – June 30, 2018)**

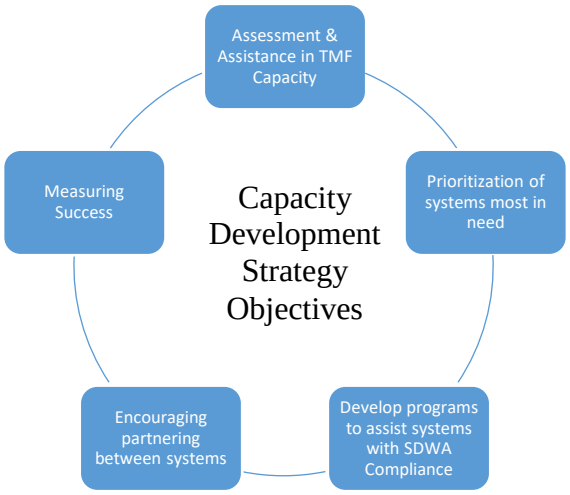
**September 2018**

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

**Contents**

## Background

The Nevada Division of Environmental Protection (NDEP) implements the state's capacity development program – https://ndep.nv.gov/water/financing-infrastructure/state-revolving-fund-loans/drinking-water/capacity-development . The following annual capacity development report describes the efforts conducted by the Office of Financial Assistance (OFA), Bureau of Safe Drinking Water (BSDW), and Technical Assistance (TA) provider – Nevada Rural Water Association (NvRWA) – from July 1, 2017 through June 30, 2018 in the direction of the Capacity Development Program.




The capacity development program is funded primarily with set-aside monies from the Drinking Water State Revolving Fund (DWSRF). In developing and implementing this program, the NDEP accomplished tasks in the following areas:

A. New Systems Program Annual Reporting Criteria
B. Existing System Strategy

### *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) 2018.

2. *Have there been any modifications to the state's control points?*

   There have been no modifications to Nevada's control points during SFY 2018.

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

   Table 1 shows the new systems in the state within the past three years and their Enforcement Targeting Tool (ETT) scores from the second quarter of calendar year 2018.

| ACTIVITY DATE | COUNTY | TYPE | PWS ID | PWS Name | Pop Srvd | ETT Score |
|---|---|---|---|---|---|---|
| 6/13/2018 | HUMBOLDT | NC | NV0002094 | DIAMOND INN BAR | 25 | |
| 4/1/2018 | CLARK | C | NV0001109 | MANDARIN ORIENTAL LV RESIDENCES | 260 | |
| 3/21/2018 | CLARK | C | NV0000699 | NEVADA STATE VETERANS HOME BOULDER CITY | 708 | |
| 3/15/2018 | CLARK | NTNC | NV0001167 | RIO RESORT AND CASINO | 7132 | |
| 12/6/2017 | CLARK | NTNC | NV0001165 | VENETIAN PALAZZO | 19387 | |
| 12/1/2017 | WASHOE | NC | NV0004125 | SIERRA SAFARI ZOO | 35 | |
| 8/16/2017 | NYE | NC | NV0004027 | ASH MEADOWS NATIONAL WILDLIFE REFUGE FWS | 25 | |
| 8/2/2017 | NYE | NC | NV0004026 | BASE CAMP US AIR FORCE | 25 | |
| 6/15/2017 | WASHOE | NC | NV0004114 | THUNDERBIRD LODGE | 90 | |
| 6/12/2017 | LANDER | NTNC | NV0004117 | GREYSTONE MINE | 36 | |
| 5/5/2017 | MINERAL | NTNC | NV0001156 | DENTON RAWHIDE MINE | 75 | 4 |
| 5/5/2017 | NYE | NTNC | NV0001170 | PREMIER MAGNESIA | 114 | |
| 3/21/2017 | NYE | NTNC | NV0000418 | CRESCENT DUNES SOLAR ENERGY | 40 | 2 |
| 3/10/2017 | CLARK | NC | NV0003100 | RED ROCK CAMPGROUND BLM | 25 | |
| 3/10/2017 | CLARK | NC | NV0003101 | RED ROCK FIRE STN AND LAW ENF BLM | 25 | |
| 2/2/2017 | CLARK | NTNC | NV0001136 | HILTON GRAND VACATIONS FLAMINGO | 712 | |
| 1/11/2017 | CLARK | NTNC | NV0001143 | HILTON GRAND VACATIONS ELARA | 2544 | |
| 12/7/2016 | CLARK | NC | NV0004029 | RITCHIE BROTHERS | 1013 | |
| 11/29/2016 | CLARK | NTNC | NV0001150 | HILTON GRAND VACATIONS LAS VEGAS BLVD | 2488 | 5 |
| 11/15/2016 | ELKO | NC | NV0004112 | RUBY 360 LODGE | 25 | |
| 10/27/2016 | CLARK | NC | NV0004108 | SPEED VEGAS | 200 | |
| 10/18/2016 | CHURCHILL | NTNC | NV0004120 | EP MINERALS LLC FERNLEY | 41 | 15 |
| 9/1/2016 | CLARK | NTNC | NV0001130 | M RESORT SPA AND CASINO | 3550 | |
| 9/1/2016 | WASHOE | NC | NV0004113 | WASHOE VALLEY CHRISTIAN CHURCH | 840 | 1 |
| 8/18/2016 | WASHOE | NTNC | NV0004061 | SPRINGWOOD EQUESTRIAN CENTER | 175 | 15 |

***Table 1. New water systems within Nevada in the last 3 years.***

### *B. Existing System Strategy*

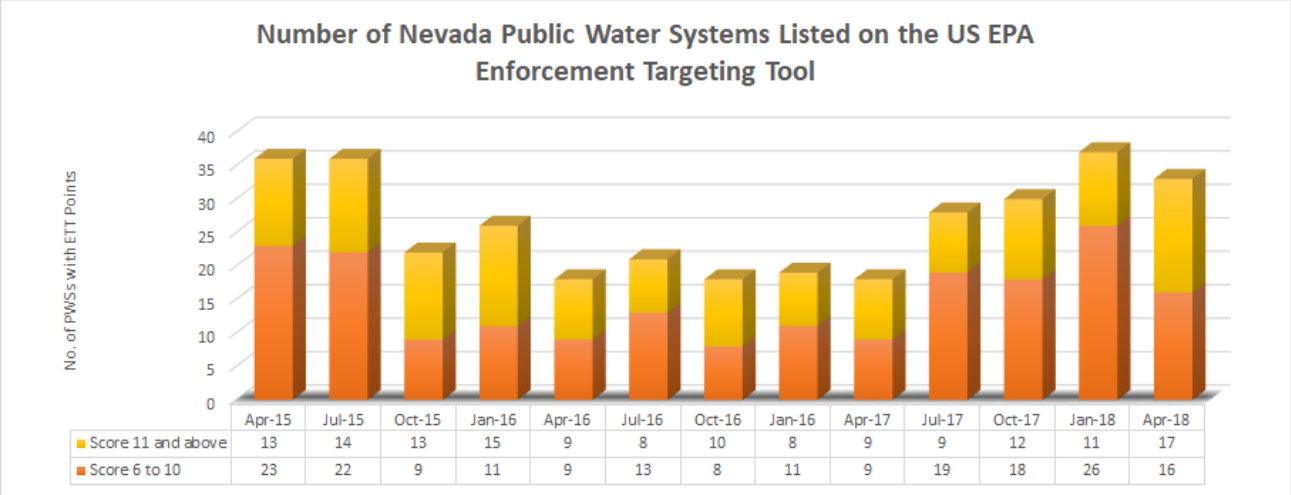
1. *In referencing the state's approved existing systems strategy, which programs, tools, and/or activities were used, and how did each assist existing Public Water Systems (PWS) in acquiring and maintaining Technical, Managerial, and Financial (TMF) capacity? Discuss the target audience these activities 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 the TA program. In SFY 2018, NDEP contracted with the NvRWA to provide technical assistance to small water systems. The TA program provides "targeted" assistance by focusing on specific issues or problem areas. Specific assistance to small water systems is shown in Attachment 1. 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 and review the ETT list provided each quarter to identify systems that lack TMF capacity. We determine steps to help the system return to compliance in a timely manner. With funding provided through the DWSRF small systems TA contract, NvRWA focuses on systems under the 11-point threshold to help get them off and keep them off the ETT list altogether. As shown in Figure 1, Nevada continues to track progress in assisting water systems return to compliance through this process.




| | Apr-15 | Jul-15 | Oct-15 | Jan-16 | Apr-16 | Jul-16 | Oct-16 | Jan-16 | Apr-17 | Jul-17 | Oct-17 | Jan-18 | Apr-18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Score 11 and above | 13 | 14 | 13 | 15 | 9 | 8 | 10 | 8 | 9 | 9 | 12 | 11 | 17 |
| Score 6 to 10 | 23 | 22 | 9 | 11 | 9 | 13 | 8 | 11 | 9 | 19 | 18 | 26 | 16 |

***Figure 1. ETT Tracking Over Time***

The actual number of public water systems on the list fluctuates as compliance is addressed throughout the year. As reflected in Table 2, 76% of the public water systems that were on the ETT list in the 6 – 10 point range were addressed during SFY 2018. Of those systems in the range of 11 and above, 80% were addressed, either by being removed from the list through actions noted below or by making significant progress towards resolving their non-compliance with anticipated compliance in SFY 2019. Resolution to non-compliance in this range is often a more lengthy process involving formal enforcement, capital projects, consolidation with nearby water purveyors, and loans and grants from the OFA or other state funding agencies. Continued communication with these systems has enhanced the responsibility of the owners and encouraged a greater focus on the protection of public health.

| Point Range | # PWS Addressed in SFY 2018 | % PWS Addressed in SFY 2018 |
|---|---|---|
| 6 – 10 | 30 of 32 | 94% |
| 11 and above | 20 of 25 | 80% |

***Table 2. PWS Addressed Statistics***

**Focused Technical Assistance under EPA Grant**

In SFY 2018, the BSDW worked with the EPA Small Systems TA providers (Nevada Rural Water Association [NvRWA], Environmental Finance Center [EFC], and the Rural Community Assistance Corporation [RCAC]) to bring additional, focused training into Nevada. A major focus of both the

NvRWA and RCAC in SFY 2018 was to help small systems 1) better understand and address arsenic non-compliance, 2) address lead sampling and sample plan compliance, and 3) advise schools with compliance problems, and 4) address significant deficiencies found in their sanitary surveys.

**Found Systems Program Technical Assistance**

A Public Water System (PWS) is a drinking water system that serves more than 25 people regularly and/or has more than 15 service connections. As communities and businesses grow, many drinking water systems cross this minimum threshold in a given year and require permitting. In some instances, however, systems are constructed or even begin operations without knowing that they fall under regulatory requirements enforced by NDEP. Such systems continue to operate outside of the regulatory program. Systems meeting either of these situations have been dubbed 'Found Systems,' and a special program for capacity development was implemented in SFY 2016 to facilitate these systems to be aware of and comply with the appropriate regulatory program. The 'Found Systems' continue to be assisted with funds from the DWSRF 10% set-aside.

The BSDW contracts the 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 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. They then assist the PWS to produce a written corrective action plan for deficiencies revealed in the sanitary survey and provide the necessary TA for proceeding with proper permitting and water quality monitoring.

NvRWA started by providing a review and ranking of the initial list, which — by the end of SFY 2016 — had grown to approximately 156 Found Systems. BSDW expects that the number of Found Systems will fluctuate with changing economies.

The highlights for SFY 2018 include: four (4) Found Systems were activated as PWSs, five (5) were issued a permit, and six (6) were consolidated with existing, sustainable systems. Twenty (20) systems are currently working towards compliance and permitting. In addition, 85 of the Found Systems were designated for continuous verification, meaning their status will be revisited periodically to determine whether they have crossed the threshold to become a PWS.

**Contracted Technical Assistance**

In past years, accurate and complete maps and asset information were limited. 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 while also continuing to provide assistance to systems in the areas of compliance issues, distribution and treatment training, and other TMF capacity development initiatives. Figure 2 provides a graphical summary of technical assistance by type:

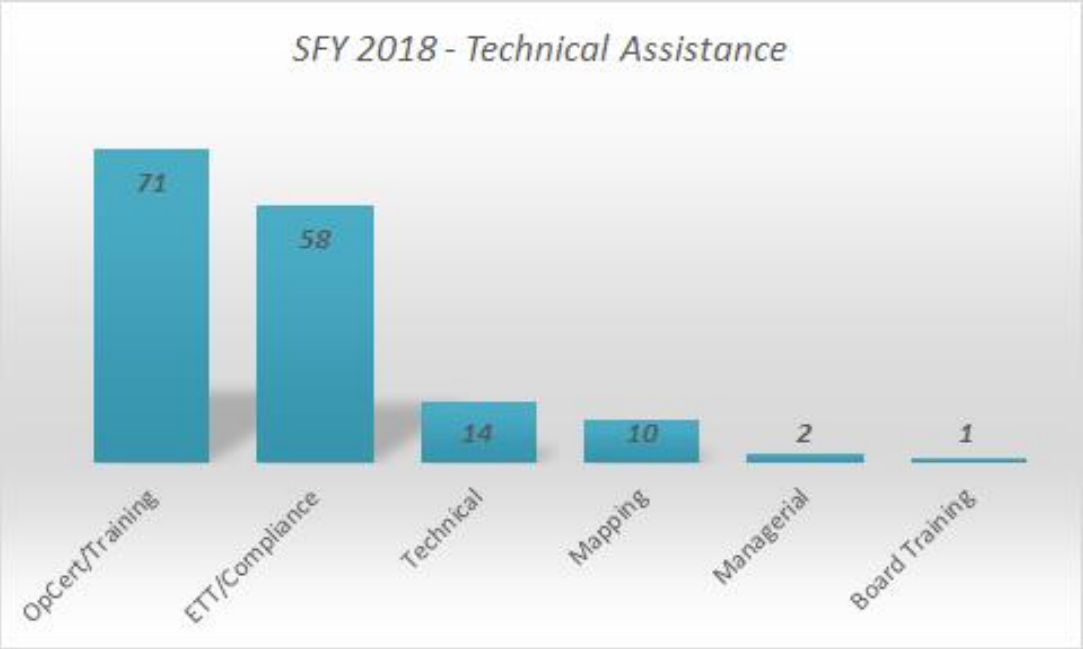



***Figure 2. Technical Assistance Summary***

***Capacity Assessments***

A capacity assessment is a valuable tool used by water systems to measure strengths and identify weaknesses. It is also used by NDEP and TA providers to outline the most appropriate assistance for water systems. In addition, the DWSRF uses capacity assessments to determine eligibility for loans. Three (3) systems participated in capacity assessments in FY 2018 as a part of their loan process. Nevada's current capacity assessment form is available at: https://ndep.nv.gov/water/financing-infrastructure/state-revolving-fund-loans/drinking-water/capacity-development .

***Cross-Connection Control, Emergency Restoration, Operation/Maintenance, Water Conservation, & Sampling Site Plans***

Public Drinking Water systems in Nevada are required to have site-specific plans approved by BSDW for cross-connection control, operations and maintenance, 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 State Engineer's Office. In the past year, NvRWA assisted twenty-three (23) small water systems with these plans. This was accomplished by working closely with system personnel so that they could gain working knowledge and ownership of their site-specific plans.

Developing operation and maintenance plans and cross-connection control plans provides the systems' staff with an opportunity to systematically examine the needs of their customers' and their own facilities. Nationwide, cross-connections represent the single largest source of contamination of drinking water. However, it is challenging to transition a system unaware of program requirements to a costly device installation and testing scenario; understandably, this transition may also affect local businesses. Our future efforts will continue to be multi-phased

to adapt to these challenges, employing updated plans, additional training for system staff and local governing boards, public education, and community-focused implementation strategies.

An important focus for the capacity development program is assistance with emergency response and restoration. Emergency restoration plans provide a framework for dealing with emergencies. The planning exercise is valuable in itself, as participants gain greater understanding of system vulnerabilities and begin to develop action plans for dealing with unusual conditions. 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.

***Water System Mapping***

Capacity assessments revealed that many water systems had limited mapping of their systems; assets were, largely, undocumented. Maps are critical for basic operations and maintenance, cross-connection control, water conservation, and emergency response. Systems with the highest TMF capacity can easily access digital utility maps of the entire service area that include the location of each water source, treatment facility, pumping station, reservoir, pressure zone, control and isolation valve, hydrant, and meter. Some of these also include future growth areas.

In order to take advantage of available information technologies and to capture and transfer institutional knowledge and outdated paper maps to electronic media, TA is being provided to small water systems to create detailed electronic system maps and asset databases in a geographical information system (GIS) format. With the evolution of GIS over the years, electronic mapping is easier and more cost effective for small systems due to the availability of free imagery and high-resolution aerial photographs, increased accuracy of GPS data collectors, and ArcGIS on line. With the assistance and training from NvRWA, Nevada's small water systems collect and own their GIS data. Users can access and view their maps using any internet-enabled device, and they can choose how they want to use their data. In the past year, NvRWA (as a part of the DWSRF TA outreach) offered ten (10) small water systems free assistance in training, asset identification, and mapping

***Compliance Assistance & Other General Technical Assistance***

NvRWA helped thirty-one (31) systems to better understand their sanitary survey results, write corrective action plans, and work to address deficiencies. There was a variety of situations that triggered this assistance: an immediate coliform positive result, disinfection followed by sampling for coliform, lead and copper reporting, disinfection byproducts compliance, water quality or monitoring issues, and development of standard operating procedures. Where sanitary deficiencies or water quality/monitoring issues needed to be addressed, discussions during examination of the deficiency instilled a greater understanding of the concept of sanitation for public health protection.

Assistance was also provided to fourteen (14) systems to address equipment problems and general operations. Working closely with the staff at each system, NvRWA provided hands-on assistance and/or guidance with troubleshooting, made recommendations for repairs, and helped to identify parts, materials, or actions needed. 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).

Because the success or failure of a water system often depends on the knowledge and experience of its board, the board — working through the operations staff — is ultimately responsible for ensuring that they distribute water that is safe to drink. One (1) system received training and assistance at the board and administrative levels to enhance understanding of their roles in keeping small drinking water systems financially viable and in compliance. Training ranged from basic governing responsibilities to developing sustainable rate structures.

BSDW and NvRWA staff actively worked with six (6) Community and Non-Community water systems to develop or update Site Sampling Plans for compliance 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, identifying appropriate sample locations, and establishing appropriate sampling schedules. Expanded capacities among these system personnel include: competency about how the rule applies to their system; actions to take in case of positive coliform or *E. coli* results; timely interaction with the primacy agency; knowledge of the concepts of representative sampling; and the ability to modify their plans as their system grows in the future. With the development of these site sampling plans, the small systems have an additional tool at their disposal in the event of a water related emergency or the presence of Total Coliform or *E. coli* bacteria in the water system, including effective public notification language and methods.

***Operator Training and Certification***

Nevada currently has 592 public water systems. These systems include: 200 community water systems; 143 non-transient, non-community water systems; and 249 transient, non-community water systems. Nevada requires all community and non-transient, non-community public water systems to have certified operators: a total of 343 systems. Transient, non-community water systems that use surface water or groundwater under the direct influence of surface water must also be operated by a certified operator. As presented in the NDEP, BSDW Annual Operator Certification Report – SFY 2018, compliance with the operator certification requirements for all water systems statewide is at 98.2 percent. Information and resources are available on Nevada's Drinking Water Operator Certification Program website at https://ndep.nv.gov/water/operator-certification/drinking-water .

The NvRWA is instrumental in providing training to small, rural water systems. With funding from the DWSRF TA contract, NvRWA provides operator training using remote video-conferencing. This method has been very successful in part because it meets the needs of a very specific audience: the very small system operators (those that serve between 25-100 customers). The sessions are broadcast to sites all over the state and offer the advantage of being interactive training that is relevant and cost-effective — requiring minimal travel for the participants. In SFY 2018, NvRWA conducted 11 interactive videoconference trainings. These sessions provided a total of 33 hours of training to participants. Sessions were broadcast monthly and included a wide array of topics (e.g., *Risk Management, Water Quality Sampling, Maintaining Well*

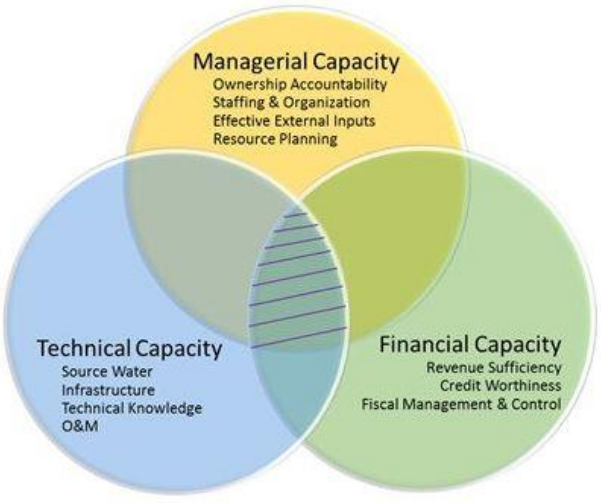
*Performance & Water Quality*). A listing of all training sessions for SFY 2018 is included in Attachment 1.

In addition to video-conferencing, NvRWA hosts an annual spring conference in Reno to provide training and general information to water system operators, managers, and board members. The class sessions and vendor displays at this conference give operators information on basic and state-of-the-art equipment and methods in the industry as well as focused training in distribution and treatment systems. The conference also helps to prepare operators for certification testing. The DWSRF TA contract with NvRWA also provides scholarship money to operators to assure that they are able to attend the spring conference and gain the benefits of the certification training and testing. In order to help meet local small system needs, training for Backflow Assembly Tester certification has also been funded using this method.

NDEP has also funded the NvRWA to provide both group and individual operator training at the operator's water system. In seventy-one (71) on-site sessions, NvRWA provided 266 hours of training to water systems throughout the state. Training topics are selected depending on system needs, and often system managers request specific topics. These sessions are open to any interested individual, and staff from nearby systems often participate. Specific assistance to small water systems in SFY 2018 is shown in Attachment 1. This and other training has been instrumental in helping individuals become certified, including many new distribution operators and treatment operators who needed new certifications as a result of arsenic or other treatment types being implemented at their systems.

The Nevada Water and Wastewater Operators Forum (Forum) is hosted by the BSDW and supports the protection of human health and the environment through collaboration among water and wastewater system operators and the NDEP. The Forum provides a regular mechanism for communication among the regulated community of certified operators, the American Water Works Association, NDEP, the Nevada Water Environment Association, and others. BSDW hosts a webpage for the Forum at https://ndep.nv.gov/water/operator-certification/operators-forum and supports the administrative needs of the entity.

**TMF Success Stories**



*Success Story 1: Small, Rural Community Water System in Central Nevada*
After construction and implementation of a 300 gallon-per-minute, coagulation-filtration, arsenic treatment system in 2010 to achieve compliance with the new arsenic rule, this small, rural town recognized that the majority of the existing water supply, pumping, and transmission system equipment had been in operation for more than 33 years without any significant improvements. The source water wells are approximately 12 miles from the town and require two, sequential booster stations to get water to the community. With just one pump each, there was no redundancy built into the booster stations and repair parts were becoming less accessible. The 6-inch, asbestos-cement transmission main was reaching the end of its useful life and experiencing some major breaks due to age and original installation.

The community and its consulting engineer prepared a Preliminary Engineering Report (PER) to address upgrades to the entire transmission system. The PER was presented to the Nevada Water & Wastewater Review Committee (comprised of the US Department of Agriculture – Rural Development [USDA-RD], DWSRF, Nevada Capital Improvements Grant Program, and the Community Development Block Grant program [CDBG]) for assistance with a funding plan.

In SFY 2017 and 2018, the community bid and constructed upgrades to the two supply wells and replacement of both booster stations (including redundant pumps at each station). The energy savings before and after the project improvements were anticipated to be 20 percent or greater and are now being documented to determine actual savings to the community.

The community has now secured funding to proceed with the replacement of the transmission pipeline from the wells through both booster stations. This project will increase the energy savings through water conservation. These system sustainability improvements would not have been possible without coordination and support from the community and governing body. The only TA this community requested was assistance with an independent income survey to provide documentation to the funding agencies of their low-income status and give them the ability to apply for low interest loans and grants.

*Success Story 2: A Small, Transient System in Central Nevada*
A small, transient water system with a population of 25 people per day – mostly children – was out of compliance with manganese and failing to collect coliform samples on schedule. Although a manganese treatment system had previously been installed, that system was not functioning, and the owner was unresponsive. Consolidation with a larger, properly operated system in the county or city was not possible due to the distance from these systems.

The BSDW conducted a site visit and noted significant black discoloration in toilets indicating very high levels of manganese in the water. The BSDW Facility Manager worked diligently with the absentee owner through emails, letters, phone calls, and finally violations were issued to get the manganese treatment system back on line and functioning properly.

In addition, the turnover in on-site management was a major issue for this system. New managers came and left before the BSDW could fully train them in the operation and

maintenance of their water system. Today, after assisting with a Level 1 Assessment and training a new system manager, the system is back into compliance with manganese and close to having 12 months of timely coliform sampling.

**Integrated Source Water Protection/Wellhead Protection**

Public water systems and local communities throughout Nevada are working to protect drinking water supplies from contamination. Nevada assists them through implementing 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.

Since July 2016, the BSDW has administered the ISWPP, which previously resided in the Bureau of Water Pollution Control. ISWPP helps communities develop and implement Community Source Water Protection Plans (CSWPPs). Local CSWPPs are developed through a county-wide planning and coordination approach, which encourages all public water systems within a specific county 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.

In addition, the BSDW Vulnerability Assessment and Waiver program shares information collected under those program efforts with the ISWPP to document Potential Contaminant Sources (PCS) for public water systems. The Vulnerability Assessment Reports (VARs) note PCS and rank them based on their potential to adversely affect a water supply source. Initial project efforts were funded by the American Recovery and Reinvestment Act set-asides and continue with a combination of resources, DWSRF set-aside funding and leveraging technical assistance from the ISWPP/Wellhead Protection staff. To date, 205 of 222 eligible community and non-transient non-community system have received completed VARs. It is anticipated that the remaining eligible systems will have updated VARs by the end of 2018. PWSs with complete VARs may qualify for chemical monitoring waivers based on vulnerability determined in the reports.

The ISWPP's multi-jurisdictional approach provides opportunities for public water systems — ranging from very small taverns and mobile home parks to larger districts and municipalities — to pool resources and promote community-wide awareness and implementation of the plan. This ultimately increases opportunities for small public water 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 allow every public water system in the State of Nevada an opportunity to participate in the planning process over the 12 to 15-year cycle. In addition, the program plans to provide assistance for up to three counties at a time; approximately two years of technical assistance (including team building, plan development and implementation, and promoting public acceptance of the plan) is dedicated for each county .

Currently, 301 of the 592 regulated public water systems in Nevada are covered under a source water or wellhead protection plan. Of those, 276 have significantly implemented some elements of SWP strategies.

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 and development/planning tool development |
| 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, facilitate local agency coordination to facilitate source water protection activities |
| Lyon | Local source water protection code development & updates, well abandonment |
| Carson City | Public education and outreach, trail improvement project: 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, and 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. |

The BSDW is continuing to leverage funding and technical assistance from the BWQP Nonpoint Source Program (NPS) to assist the communities and public water systems within Washoe County to develop a regional Source Water Protection and Watershed Management plan. 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 Environmental Protection Agency (EPA) to better integrate Clean Water Act and Safe Drinking Water Act programs. Washoe County is Nevada's second largest county based on population.

BWQP and BSDW staff met and determined that there was overlap between the planning efforts for Source Water Protection and Nonpoint Source Program, as was 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 toward a comprehensive water quality plan that includes both watershed and source water protection components.

EPA Regions 8, 9, and 10 collaborate to facilitate the Western State's Source Water Protection Forum. The most recent forum was hosted by the State of Idaho in Boise this past June 2018. Nevada will be hosting the next forum in the fall of 2019. The event focus is to bring the Western States, the Navajo Nation, USEPA, and Source Water Protection partners together to share and discuss solutions to source water and groundwater protection challenges in the West.

For more information on Nevada's ISWPP visit our website at:
https://ndep.nv.gov/water/source-water-protection

**Sustainable Infrastructure**

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

- Better Management
- Full Cost Pricing
- Water & Energy Efficiency
- The Watershed Approach

Fiscal sustainability plans (FSP) similar to those implemented in the 2014 Water Resources Reform and Development Act (WRRDA) to Titles I, II, V, and VI of the Federal Water Pollution Control Act have also been applied to the DWSRF program loans and Nevada Capital Improvements Grant program. Ideally, the FSP would include a complete asset management plan that would allow system managers and governing bodies to develop appropriate capital improvement plans and dedicated funding to achieve the plan goals. NvRWA has started the creating of a FSP Workbook using Microsoft Excel and the platform with the goal of assisting systems with their FSP.

In addition to having a FSP, the OFA now requires applicants seeking funding from the DWSRF for construction projects to demonstrate their willingness to sustain themselves into the future by setting aside funds into a reserve account for capital replacement. The OFA calculates this yearly investment based upon the water system's short-lived assets (15 years or less) amortized on a

straight-line basis. Costs of short-lived assets must be re-evaluated at least once every five years. Funds can be used on all capital assets of the water system, not just short-lived assets. Funds cannot be used for operations, maintenance, debt service or other non-capital expenditures.

Nevada has recognized that good management is critical to a well-functioning utility. In terms of full cost pricing, Nevada's TA providers have completed a number of rate studies for water systems over the years and presented the findings to the public and the governing boards. In SFY 2018, NvRWA assisted one (1) community with a rate study. The DWSRF (as well as the State funded grant program) requires, as a condition of funding, that a water system implement a rate structure sufficient to ensure financial strength, solvency, and sustainability.

**Funding**

The Environmental Finance Center has pointed out that financial management is a major challenge for small drinking water systems. The DWSRF provides low interest loans to both publicly and privately owned water utilities to meet this need. As part of the DWSRF, 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 public water system in which the median household income is less than 80 percent of the state median household income. Starting in 2009, the federal appropriations for the DWSRF required that the state use a percentage of its grant to provide additional subsidy to eligible recipients in the form of forgiveness of principal, negative interest loans, grants, or any combination of these. Water systems that qualify for the disadvantaged program may be eligible for this additional subsidy. The additional subsidy requirements allowed for the resolution of many of the acute and chronic health risk needs. With the most serious health risks addressed, NDEP has expanded subsidy eligibility criteria to include small system consolidation with larger systems, capital project planning documents, and consideration of funding to small systems with populations less than 10,000. The subsidy program provided funding to eight (8) projects totaling approximately $2.25 million dollars in SFY 2018. The terms and amount of the additional subsidy are determined on a case-by-case basis based on the individual community's needs and financial situation.

As a whole, Nevada recognizes that the needs associated with infrastructure deficiencies are increasing even as many federal and state funding resources are dwindling. With this in mind, collaboration between the major funding agencies in the state began in 2006 and continues today. A "pre-application" common to all of the funders makes coordination and communication between the funding agencies and applicants simple and allows the funding agencies to suggest funding solutions that are most appropriate for the communities while leveraging all of the funding available in the state. Along with participating in the annual funders' roundtable session, the DWSRF co-sponsored a booth with the BSDW at the March 2018 NvRWA Conference. These activities gave water systems the opportunity for more one-on-one time to discuss their system needs and potential funding opportunities. The SFY 2018 DWSRF/CWSRF program flyer is included as Attachment 2.

## Challenges

### Drought

Being the driest state in the U.S., Nevada has long recognized the value of efficient water use. 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. TA providers have helped a number of communities prepare and update these plans. In addition to user-based conservation measures, systems are being educated to audit and chart the amounts of water produced and sold on a monthly basis. 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 by being up-to-date on detection technologies, while also locating any leaks real-time. Perhaps most understated, such control of leakage in water systems does more than save water; it cuts energy costs.

Through the summer of 2016, 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 and 2018 improved both surface and groundwater levels, the history of drought periods in Nevada is well documented, and the improvement of system capacity includes discussions on predicting potential drought impacts and planning responses before the situation becomes critical.

In recent years, Nevada and its western neighbors have experienced higher summer temperatures, an increase in the number and size of devastating wildfires, and an increase short-duration storms leading to flash flooding.

In April 2015, Governor Brian Sandoval signed the following Executive Order establishing the Nevada Drought Forum: "The Nevada Drought Forum will bring together some of the best minds in the water science, conservation, government and industry sectors to ensure that Nevada's path forward is clear. The Forum will provide an opportunity for all Nevadans – urban and rural, north and south – to come together to help address this most critical challenge."

The 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/.

## The Future

As the capacity development program grows and evolves, lessons learned have resulted in a program that continues to improve and better serve the needs of Nevada's water systems. From the beginning of the program, Nevada has maintained that the Capacity Development Strategy is a 'living' document and will be revised as needed. Although the Strategy document itself has not been revised, the method of Strategy implementation has evolved.

Furthermore, while all systems are unique, the vast majority of water systems in Nevada still need particular assistance with managerial and financial principles and planning. Full cost pricing

is required in order for a water system to fully function as it should. Operation and maintenance activities, such as valve exercising and line flushing, are also important to extending the life of the infrastructure and maintaining high water quality.

Proper management of infrastructure assets is critical to sustainability. Although the concept of managing assets is relatively simple, many water utilities do not understand how to design and implement an effective asset management program. Managing a utility effectively requires a proactive approach to managing infrastructure assets. The primary objective of asset management is to maintain system assets while meeting long-term service requirements in a reliable and cost-effective manner. Future TA efforts will include asset management training and assistance to:

- develop a comprehensive record of all assets & create a tailored fiscal sustainability plan,
- perform all required maintenance tasks,
- understand their financial situation and guarantee proper rates are in place to keep the water system sustainable without sacrificing the level of service expected by customers, and
- create, at a minimum, a short-lived asset reserve.

There are requirements and issues that will continue to challenge many Nevada water systems in the coming years. Among them are the Stage 2 Disinfectants and Disinfection Byproducts Rule, the Groundwater Rule, the Revised Total Coliform Rule, impacts caused by growing or declining populations, the need to conserve the State's precious water resources, and finding qualified professionals in the water industry.

The focus of TA over the near term will be on the critical issues that are identified above and also on general assistance to small water system and new operators. In SFY 2019, NDEP will put out a new Request for Proposal (RFP) to find the best vendor(s) to provide comprehensive assistance in technical, managerial, and financial capacity building and training in one-on-one and group scenarios. The requirements in the RFP will improve the metrics for measuring the success of the TA provided and help direct the available funding in the future.

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

   Compliance problems, sanitary survey deficiencies, requests for TA, and capacity surveys are all used to identify systems in need of capacity development assistance.

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?*

   TA has been offered both by state staff and through third party contractors (see TA section above).

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 needed improvements are identified.

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

   No changes to Nevada's Capacity Strategy were made during SFY 2018.

**ATTACHMENT 1 –Technical Assistance to Small Systems**
**Provided by Nevada Rural Water Association**
**Using DWSRF 2% & 15% Set-Asides**

## Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

| | Water System Name | Assistance Type | Description of Assistance |
|---|---|---|---|
| | **Jul-Sep 2017** | | |
| 1 | Hollywood Skate (NV0002586) | ETT/Compliance | Reviewed Level 1 Assessment & violations with manager |
| 2 | Rye Patch Travel Center (NV0002222) | ETT/Compliance | Assisted with Level 2 Assessment & corrective actions |
| 3 | Springwood Equestrian Center (NV0004061) | Technical | Reviewed Cl2 addition to arsenic treatment system, Cl2 sampling/monitoring, & lab result interpretation |
| 4 | Town of Minden (NV0000168) | Mapping | Assisted with GPS asset data collection & GIS data post-processing |
| 5 | Baker GID (NV0000863) | Mapping | Assisted system operator with electronic mapping of system assets |
| 6 | Marigold Mine Potable Water System (NV0001103) | OpCert/Training | Training: Rules & regulations (3 people, 1 system, 4 hours) |
| 7 | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (3 people, 1 system, 4 hours) |
| 8 | Windmill Ridge Restaurant & Lodge (NV0000399) | Technical | Assistance with chlorination & residual sampling |
| 9 | A Cowboys Dream (NV0002563) | ETT/Compliance | Assisted with O&M, CCCP, & ERP; Reviewed sanitary survey |
| | Silver Springs Mutual Water Company (NV0000223) | ETT/Compliance | Assisted with RTCSSP |
| 10 | Washoe Valley Christian Church (NV0004113) | ETT/Compliance | Reviewed Corrective Action Plan with members & provided sampling training; Assisted with O&M, ERP, & CCCP |
| 11 | Foothill Trailer Park (NV0000200) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| 12 | Mount Rose Bowl POWC (NV0000732) | ETT/Compliance | Assisted with CCCP |
| 13 | S & J Ventures DBA Junction Bar (NV0002047) | ETT/Compliance | Assisted with O&M, ERP, & CCCP as well as sampling requirements |
| 14 | Caliente Public Utilities (NV0000013) | Managerial | Assisted system with water rate study |
| 15 | Moapa Valley Water District (NV0000160) | Mapping | Assisted system with GIS updates |
| | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (2 people, 1 system, 4 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (5 people, 1 system, 4 hours) |
| 16 | McDermitt Water System (NV0000162) | OpCert/Training | Training: D1/D2 (6 people, 3 systems, 4 hours) |
| 17 | Lovelock Meadows Water District (NV0000161) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4 hours) |
| | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (6 people, 3 systems, 4 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (5 people, 1 system, 4 hours) |
| | McDermitt Water System (NV0000162) | OpCert/Training | Training: D1/D2 (6 people, 4 systems, 4 hours) |
| | Lovelock Meadows Water District (NV0000161) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4 hours) |
| | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (3 people, 1 system, 4 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (3 people, 1 system, 4 hours) |
| | McDermitt Water System (NV0000162) | OpCert/Training | Training: D1/D2 (7 people, 3 systems, 4 hours) |
| | Marigold Mine Potable Water System (NV0001103) | OpCert/Training | Training: Sanitary surveys, colorimeter & pH instrument calibration (3 people, 1 system, 4 hours) |
| | **Oct-Dec 2017** | | |
| 18 | Tatuado Wild Side Tavern (NV0002575) | ETT/Compliance | Assisted with Level 1 Assessment, inspected system & sample locations & reviewed sampling procedures with operator |
| 19 | Palm Gardens Water CO OP (NV0000819) | ETT/Compliance | Reviewed responses & corrective actions from sanitary survey |
| | Mount Rose Bowl POWC (NV0000732) | ETT/Compliance | Assisted system in updating the CCCP & customer policy documentation |
| 20 | Wildes Manor (NV0000058) | Technical | Assisted operator with bacteriological samples following customer complaints of sediment & odor |
| | Foothill Trailer Park (NV0000200) | ETT/Compliance | Reviewed systems changes that are needed to pass the next sanitary survey with owner |
| | Silver Springs Mutual Water Company (NV0000223) | ETT/Compliance | Assisted with system SOPs |
| 21 | Kruse Feed & Hardware (NV0000700) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| 22 | Denton Rawhide Mine (NV0001156) | ETT/Compliance | Assisted with corrective action plan for sanitary survey deficiencies, assisted with O&M, ERP, & CCCP |
| 23 | Valmy Station Mobile Home Park (NV0003016) | ETT/Compliance | Assisted owner with sampling schedule & use of colorimeter |
| | Washoe Valley Christian Church (NV0004113) | ETT/Compliance | Trained volunteers on proper sampling techniques |
| 24 | Moana Nursery (NV0004116) | Technical | Assisting with communication on consolidation with TMWA & re-plumbing well for only irrigation use |
| 25 | Greystone Mine (NV0004117) | ETT/Compliance | Assisting system with sanitary survey deficiencies |
| 26 | Hawthorne Utilities (NV0000073) | Mapping | Assisted system with ArcGIS installation |
| 27 | Tonopah Public Utilities (NV0000237) | Mapping | Assisted system with a map of the water meters for DWSRF loan application |
| 28 | Golconda GID (NV0005029) | Technical | Reviewed system need for improved chlorination system & a building to protect the wellhead |
| 29 | Kingsbury GID (NV0000004) | Managerial | Training: Board training on open meeting law (6 people, 1 system, 1 hour) |
| 30 | Indian Hills GID (NV0000355) | OpCert/Training | Training: D1/D2 (3 people, 1 system, 3 hours) |
| 31 | City of Fallon (NV0000045) | OpCert/Training | Training: Reviewed NACs relating to operators' roles & responsibilities (6 people, 1 system, 5 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: Review of O&M activities - sampling, flushing, valve exercising, meter replacement, well mgt, water audits, & SOPs (6 people, 1 system, 5 hours) |
| | Indian Hills GID (NV0000355) | OpCert/Training | Training: D1/D2 (3 people, 2 systems, 3 hours) |
| | Indian Hills GID (NV0000355) | OpCert/Training | Training: D1/D2 (4 people, 2 systems, 3 hours) |
| 32 | El Dorado Canyon Mine Tours (NV0004111) | ETT/Compliance | Assisted with deficiency resolutions |

## Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

| | Water System Name | Assistance Type | Description of Assistance |
|---|---|---|---|
| | **Oct-Dec 2017** | | |
| 33 | Granite Hills Baptist Church (NV0004109) | ETT/Compliance | Assisted with bac t sampling locations & technique |
| 34 | Eureka Meetinghouse LDS (NV0004104) | ETT/Compliance | Assisted with Level 1 Assessment |
| | Mount Rose Bowl POWC (NV0000732) | OpCert/Training | Assisted Broadbent's OIT with understanding the system operations |
| 35 | Riverview Mobile Home Park (NV0000068) | ETT/Compliance | Assisted system with understanding sanitary survey, chlorine residual, & water company management |
| | Foothill Trailer Park (NV0000200) | ETT/Compliance | Assisted with sampling |
| | Silver Springs Mutual Water Company (NV0000223) | ETT/Compliance | Reviewed & assisted with CCCP to accurately reflect current conditions |
| 36 | MSJK Properties, LLC (NV0000789) | ETT/Compliance | Assisted with O&M, ERP, CCCP, RTCR Sampling Plan, & sanitary survey deficiencies |
| 37 | Valmy Station (NV0002112) | ETT/Compliance | Assisted owner with system chlorination & acquision of a colorimeter |
| | El Dorado Canyon Mine Tours (NV0004111) | ETT/Compliance | Assisted owner in understanding water quality results |
| | Washoe Valley Christian Church (NV0004113) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| 38 | Topaz Ranch Estates GID (NV0000239) | OpCert/Training | Training: D1/D2 (2 people, 1 system, 4 hours) |
| | Indian Hills GID (NV0000355) | OpCert/Training | Training: D1/D2 (3 people, 1 system, 3 hours) |
| | Topaz Ranch Estates GID (NV0000239) | OpCert/Training | Training: D1/D2 (2 people, 1 system, 4 hours) |
| | Topaz Ranch Estates GID (NV0000239) | OpCert/Training | Training: D1/D2 (2 people, 1 system, 4 hours) |
| | Topaz Ranch Estates GID (NV0000239) | OpCert/Training | Training: D1/D2 (4 people, 1 system, 4 hours) |
| | Marigold Mine Potable Water System (NV0001103) | ETT/Compliance | Assisted technician with end of year samples to be taken |
| | Mount Rose Bowl POWC (NV0000732) | Technical | Assisted OIT operator with finding system leak that drained tank - system went on a boil water notice |
| | Riverview Mobile Home Park (NV0000068) | ETT/Compliance | Assisted with chlorine residual testing |
| 39 | New Millennium Bldg Systems, LLC (NV0000903) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| 40 | Premier Magnesia Mine (NV0001170) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| | Valmy Station (NV0002112) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| | Valmy Station Mobile Home Park (NV0003016) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| | Washoe Valley Christian Church (NV0004113) | ETT/Compliance | Assisted with deficiencies from the sanitary survey & Level One Assessment after positive Total Coliform & E. Coli results |
| | Topaz Ranch Estates GID (NV0000239) | OpCert/Training | Training: D1/D2 (2 people, 1 system, 4 hours) |
| | Topaz Ranch Estates GID (NV0000239) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (4 people, 1 system, 4 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (4 people, 1 system, 4 hours) |
| | **Jan-Mar 2018** | | |
| 41 | Crystal Trailer Park (NV0000193) | ETT/Compliance | Assisted with O&M manual |
| 42 | Verdi Meadows Utility Company (NV0000196) | Technical | Assisted system with 4500-Cl SOP & demonstration of competence for the new colorimeter standards |
| | New Millennium Bldg Systems, LLC (NV0000903) | ETT/Compliance | Assisted with deficiency resolutions from recent sanitary survey |
| | Valmy Station (NV0002112) | Technical | Trained operator to rebuild the Unidose chlorine pump & check the dosing lines for build-up; reviewed calculations necessary to create the proper chlorine concentration in the tank; & provided training on the use of the new Hach Pocket II colorimeter & complete the 4500-Cl SOP |
| | Washoe Valley Christian Church (NV0004113) | ETT/Compliance | Assisted with repeat samples required for compliance related to the Level One Assessment |
| 43 | Holbrook Junction (NV0002046) | Mapping | Worked with operator to collect asset data for use in online mapping |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (5 people, 1 system, 4 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4 hours) |
| | Hawthorne Utilities (NV0000073) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 1 hour) |
| 44 | Jarbidge Water System (NV0002070) | Technical | Assisted with identifying most probable source of odor problem |
| 45 | Laker Plaza Inc (NV0000942) | ETT/Compliance | Assisted with sanitary survey items that need to be addressed |
| 46 | Sierra Safari Zoo (NV0004125) | ETT/Compliance | Assisted with sanitary survey items that need to be addressed; identified possible cross-connection; O&M manual creation |
| 47 | Pinion Pines MHP (NV0000067) | Mapping | Worked with operator to collect asset data for use in online mapping |
| | Silver Springs Mutual Water Company (NV0000223) | Technical | Assisted with vulnerability assessment plan |
| | Holbrook Junction (NV0002046) | Mapping | Created ArcGIS online account & added photos to the asset file |
| 48 | Mountain View MHP (NV0003081) | Mapping | Worked with operator to collect asset data for use in online mapping |
| | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (1 person, 1 system, 3 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (5 people, 1 system, 4 hours) |
| | Hawthorne Utilities (NV0000073) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4.25 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: D1/D2 (5 people, 5 systems, 4 hours) |
| | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (10 people, 5 systems, 3 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (4 people, 3 systems, 4 hours) |

## Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

| | Water System Name | Assistance Type | Description of Assistance |
|---|---|---|---|
| | **Jan-Mar 2018** | | |
| | Jarbidge Water System (NV0002070) | OpCert/Training | Training: Threshhold Odor Number Determination - hands-on (5 people, 3 systems, 1 hour) |
| | Silver Springs Mutual Water Company (NV0000223) | OpCert/Training | Training: T1/T2 (9 people, 4 systems, 3 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (5 people, 2 systems, 4 hours) |
| | Hawthorne Utilities (NV0000073) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4 hours) |
| | Town of Minden (NV0000168) | OpCert/Training | Training: D1/D2 (6 people, 1 system, 4 hours) |
| | Hawthorne Utilities (NV0000073) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4.5 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: D1/D2 (3 people, 3 systems, 4 hours) |
| 49 | Goodsprings School CCSD (NV0001045) | ETT/Compliance | Assisted operator with problems & ongoing process for lead monitoring at the school well |
| 50 | Horizon C Stores 1 Pahrump Valley Blvd (NV0000833) | ETT/Compliance | Assisted owner with system chlorination, maintenance, & sanitary survey deficiencies |
| | Granite Hills Baptist Church (NV0004109) | ETT/Compliance | Assisted pastor with unresolved deficiencies from the recent sanitary survey |
| | Washoe Valley Christian Church (NV0004113) | ETT/Compliance | Assisted pastor with another round of sampling to achieve compliance with the RTCR |
| 51 | Indian Springs Water Co Inc (NV0000082) | Technical | Reviewed power issues that may be affecting the well motor; suggested configuration changes to make replacement easier |
| | Moapa Valley Water District (NV0000160) | Mapping | Assisted with GPS issues |
| | Moapa Valley Water District (NV0000160) | ETT/Compliance | Assisted with updates to the RTCR site sampling plan |
| | Topaz Ranch Estates GID (NV0000239) | ETT/Compliance | Assisted with reporting requirements for the RTCR |
| | Laker Plaza Inc (NV0000942) | Technical | Reviewed seasonal start-up of their systems with operator |
| | Sierra Safari Zoo (NV0004125) | ETT/Compliance | Instructed staff on bacteriological sampling requirements & techniques after a positive total coliform result |
| 52 | Schurz Elementary School (NV0000897) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 4 hours) |
| | **Apr-Jun 2018** | | |
| | Topaz Ranch Estates GID (NV0000239) | ETT/Compliance | Assisted manager with information on lifting boil water notification |
| 53 | Blue Diamond Saloon (NV0000323) | ETT/Compliance | Assisted with Level 1 Assessment & sample site plan |
| 54 | Camp Galilee (NV0004035) | ETT/Compliance | Assisted with O&M, ERP, & CCCP |
| | Jarbidge Water System (NV0002070) | Technical | Assisted system manager with sand filter short circuiting issue |
| | Schurz Elementary School (NV0000897) | OpCert/Training | Training: T1/T2 (4 people, 3 systems, 4 hours) |
| 55 | Douglas County Topaz Park (NV0002044) | OpCert/Training | Training: D1/D2 (4 people, 1 system, 5 hours) |
| | Schurz Elementary School (NV0000897) | OpCert/Training | Training: T1/T2 (4 people, 2 systems, 4.5 hours) |
| | Douglas County Topaz Park (NV0002044) | OpCert/Training | Training: D1/D2 (2 people, 1 system, 4.5 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: D1/D2 (1 person, 1 system, 3 hours) |
| | Schurz Elementary School (NV0000897) | OpCert/Training | Training: T1/T2 (4 people, 1 system, 4.5 hours) |
| | Douglas County Topaz Park (NV0002044) | OpCert/Training | Training: D1/D2 (4 people, 1 system, 4.75 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: D1/D2 (2 people, 2 systems, 3 hours) |
| 56 | Sunrise Mountain Trailer Park (NV0000123) | ETT/Compliance | Assisted with Level 1 Assessment & dust control measure for tank vent |
| | Sierra Safari Zoo (NV0004125) | ETT/Compliance | Assisted owner with proper TC sampling procedures & Level 1 Assessment |
| | Gabbs Water System (NV0000063) | Technical | Assisted County with future project implementation for presentation to commissioners |
| | Spirit Mountain Utility (NV0000221) | ETT/Compliance | Assisted system with CCR |
| 57 | City of Elko (NV0000272) | OpCert/Training | Training: D1-D4 (6 people, 1 system, 4 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: Field Operations (4 people, 1 system, 5.5 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (6 people, 2 systems, 4 hours) |
| | City of Elko (NV0000272) | OpCert/Training | Training: D1-D4 (8 people, 1 system, 3.5 hours) |
| | City of Winnemucca (NV0000248) | OpCert/Training | Training: Field review of system components (2 people, 2 systems, 3 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (2 people, 2 systems, 4.5 hours) |
| | City of Elko (NV0000272) | OpCert/Training | Training: Sanitary Surveys (7 people, 1 system, 3 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: Reviewed basic well design & maintenance (2 people, 2 systems, 3 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: Field review of system components (4 people, 2 systems, 4.5 hours) |
| | City of Elko (NV0000272) | OpCert/Training | Training: Field review of water reservoir facilities (10 people, 1 system, 3 hours) |
| | Golconda GID (NV0005029) | OpCert/Training | Training: Troubleshooting system components (2 people, 2 systems, 3 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: Disinfection, cross-connection control, public relations, & safety (6 people, 2 systems, 4 hours) |
| | City of Elko (NV0000272) | OpCert/Training | Training: D1-D4 (9 people, 1 system, 3 hours) |
| 58 | Amargosa Valley RV Park (NV0000155) | ETT/Compliance | Assisted with Level 2 Assessment |
| | Tatuado Wild Side Tavern (NV0002575) | ETT/Compliance | Assisted with Level 2 Assessment |
| | Blue Diamond Saloon (NV0000323) | ETT/Compliance | Reviewed the requirements for a water system conservation plan with owner |
| | Kruse Feed and Hardware (NV0000700) | ETT/Compliance | Assisted with Level 1 Assessment |

## Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

| | Water System Name | Assistance Type | Description of Assistance |
|---|---|---|---|
| | **Apr-Jun 2018** | | |
| 59 | Spencer W Kimball Scout Reservation (NV0004071) | ETT/Compliance | Assisted with O&M manual & calibration curves for sodium hypochlorite |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (5 people, 2 systems, 4.5 hours) |
| | City of Elko (NV0000272) | OpCert/Training | Training: D3/D4 (8 people, 1 system, 3 hours) |
| 60 | Alamo Sewer & Water GID (NV0000005) | Board Training | Training: Board (5 people, 1 system, 1.25 hours) |
| | City of Fallon (NV0000045) | OpCert/Training | Training: D1/D2 (4 people, 2 systems, 4.5 hours) |
| | City of Elko (NV0000272) | OpCert/Training | Training: D1/D4 (86 people, 1 system, 3 hours) |

**General Training provided by Nevada Rural Water Association (Component C)**

| Course Title | Date | Contact Hours | Number of Participants | Number of Systems | Locations |
|---|---|---|---|---|---|
| *Risk Management Principles for Public Utilities* | *7/21/2017* | *3.00* | *16* | *14* | *Videoconference to multiple locations* |
| *Water Quality Sampling* | *8/18/2017* | *3.00* | *73* | *42* | *Videoconference to multiple locations* |
| *Drinking Water Treatment & Distribution Exam Review* | *9/15/2017* | *3.00* | *41* | *21* | *Videoconference to multiple locations* |
| *Chlorination of Drinking Water* | *10/20/2017* | *3.00* | *60* | *34* | *Videoconference to multiple locations* |
| *Sustainable Tank Asset Management* | *11/9/2017* | *3.00* | *30* | *25* | *Videoconference to multiple locations* |
| *A Complete Discussion About Concrete & Steel Tanks* | *12/8/2017* | *3.00* | *23* | *16* | *Videoconference to multiple locations* |
| *Ductile Iron Pipes & the New Envision Rating System* | *1/12/2018* | *3.00* | *13* | *8* | *Videoconference to multiple locations* |
| *How to Start a Backflow Prevention/Cross-Connection Control Program* | *2/16/2018* | *3.00* | *28* | *20* | *Videoconference to multiple locations* |
| *Maps, Drawing & Water Meters* | *4/27/2018* | *3.00* | *29* | *17* | *Videoconference to multiple locations* |
| *Water Well Asset Management Programs: A New Sustainable Approach to Maintaining Well Performance & Water Quality* | *5/25/2018* | *3.00* | *25* | *20* | *Videoconference to multiple locations* |
| *New Smart Metering Options for Medium to Small Sized Utilities* | *6/22/2018* | *3.00* | *25* | *18* | *Videoconference to multiple locations* |
| ***YTD Total*** | | ***33.00*** | | | |

**ATTACHMENT 2 – SFY 2018 DWSRF/CWSRF Program Flyer**

# What can the Office of Financial Assistance do for you?

## What is the benefit of obtaining funding through the Office?

The following table illustrates the potential cost savings of obtaining a loan with the Office verses traditional financing. The Loan assumes a public entity taking a 20 year loan with a market rate of 4%.

| Size of Loan | Interest Savings |
|---|---|
| 2,000,000 | 175,034 |
| 10,000,000 | 608,759 |
| 50,000,000 | 3,043,795 |

Communities meeting certain requirements could qualify for principal forgiveness loans.

Searchlight new drinking water source

Mountain City pond rehabilitation

**What cannot be funded by the Office?**

- Construct or rehabilitate a dam
- Purchase water rights
- Construct or rehabilitate a reservoir except finished water reservoirs or those that are part of a treatment process
- Monitoring costs and laboratory fees
- Operating and Maintenance costs
- Projects mainly for fire protection
- Projects solely for future growth (DW only)
- Refinancing loans for private systems
- Projects for systems that fail to meet financial, managerial, and technical capacity.

**Want more information?**

**Financing Infrastructure Website:**

https://ndep.nv.gov/water/financing-infrastructure

**Program Manager:**

**Jason B. Cooper**
775.687.9531
j.cooper@ndep.nv.gov

NDEP

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

# Office of Financial Assistance for Drinking Water and Clean Water Project

**Do you own or operate a public or private water system that needs funding to meet EPA standards, rehabilitate an aging system, or improve an existing system for efficiency and environmental changes?**

*Office of Financial Assistance: 775.687.9436*

Minden Gardnerville Sanitation District wastewater energy co-generation enhancement

Las Vegas finished water reservoir rehabilitation

## Green Infrastructure Projects

Projects that address green infrastructure, water or energy efficiency improvements or other environmentally innovative activities receive incentives in the Program.

- Greywater and Blackwater Reuse
- Wet Weather Management Systems
- Stormwater Harvesting and Reuse
- Permanent Riparian Buffers
- Green Energy that Provides Significant Energy Savings.

**Drinking Water systems can receive technical support <u>at no charge</u> to help with:**

- **Emergency planning**
- **Sanitary Survey Deficiencies**
- **Cross Connection Controls**
- **Asset Management**
- **Budgeting and Rate Setting**
- **Board and Staff Training**
- **Digital Mapping**

## What can be funded with Drinking Water funds?

- Safe Drinking Water Act (SDWA) exceedances and prevention of future SDWA exceedances
- Well rehabilitation and drilling
- Rehabilitation of failing systems
- Consolidation and interties to other systems
- Storage, treatment, transmission, distribution, and SCADA
- Preliminary Engineering Reports, planning and design
- Security
- Energy efficiency upgrades
- Climate change remediation

**This list is not all-inclusive**

To date, Nevada has obligated well over $200 million in loans, benefitting approximately 100 projects in 53 separate jurisdictions across Nevada. Contract amounts have ranged from $20,000 to $21.9 million. No minimum or maximum loan amount is established to obtain funding.

## What can be funded with Clean Water funds?

- Clean Water Act (CWA) exceedances and prevention of future CWA exceedances
- Rehabilitation of failing systems
- Septic to sewer conversion
- Collection, interceptors, treatment, pumping stations, and SCADA.
- Preliminary Engineering Reports, planning and design.
- Energy efficiency upgrades
- Landfill foreclosure, stream bank restoration, and wetland flood prevention, and other nonpoint source pollution mitigation.

**This list is not all-inclusive**

To date, Nevada has obligated well over $400 million in loans, benefitting approximately 80 projects in 37 separate jurisdictions across Nevada. Contract amounts have ranged from $43,005 to $46.5 million. No minimum or maximum loan amount is established to obtain funding.