2012 Annual Capacity Development Report to the US Environmental Protection Agency

State Fiscal Year 2012
(July 1, 2011 – June 30, 2012)

State of Nevada
Division of Environmental Protection

August 2012

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Background

The Nevada Division of Environmental Protection (NDEP) implements the state's capacity development program. The following annual capacity development implementation report describes the capacity development efforts conducted by the Office of Financial Assistance (OFA), Bureau of Safe Drinking Water (BSDW), Bureau of Water Pollution Control (BWPC), and technical assistance provider – Nevada Rural Water Association (NvRWA).

The capacity development program is funded primarily with set-aside monies from the Drinking Water State Revolving Fund.

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) 2012.

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

   There have been no modifications to Nevada's control points during SFY12.

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

ACTIVITY STATUS	ACTIVITY DATE	COUNTY	TYPE	PWS ID	PWS NAME	POPULATION	ETT SCORE
A	6/22/2012	CLARK	NTNC	NV0001114	EXCALIBUR RESORT AND CASINO	2607	
A	6/22/2012	CLARK	C	NV0001116	SIGNATURE TOWERS	516	
A	6/22/2012	CLARK	NTNC	NV0001113	CIRCUS CIRCUS CASINO	2668	
A	5/9/2012	CLARK	NTNC	NV0001112	NEW YORK NEW YORK HOTEL AND CASINO	2000	
A	5/9/2012	CLARK	NTNC	NV0001111	LUXOR RESORT AND CASINO	3196	
A	4/2/2012	CLARK	C	NV0001109	CITY CENTER RESIDENCES	808	
A	3/23/2012	PERSHING	NTNC	NV0001108	STANDARD GOLD MINE WATER SYSTEM	30	
A	2/24/2012	WHITE PINE	NTNC	NV0000982	BALD MOUNTAIN MINE	110	2
A	11/17/2011	HUMBOLDT	NTNC	NV0001103	MARIGOLD MINE POTABLE WATER SYSTEM	200	
A	10/26/2011	CLARK	NC	NV0001024	CORN CREEK FIELD STATION	25	
A	10/14/2011	WHITE PINE	NC	NV0003053	BIRD CREEK CAMPGROUND USFS	30	
A	10/7/2011	CLARK	NTNC	NV0001106	CITY CENTER HOTELS	8900	
A	10/1/2011	CLARK	NTNC	NV0001107	KAPEX WATER SYSTEM CITY OF NLV	25	
A	9/15/2011	NYE	NC	NV0001105	ANTHONYS MARKET	25	
A	7/27/2011	NYE	NC	NV0000385	COYOTE CORNER III	25	2
A	5/24/2011	LANDER	NTNC	NV0001097	BARRICK CORTEZ HILLS	358	
A	5/9/2011	LYON	NC	NV0002608	STAGECOACH COUNTRY MARKET	25	10
A	1/13/2011	NYE	NTNC	NV0001095	CEDAR PASS WATER SYSTEM	250	

ACTIVITY STATUS	ACTIVITY DATE	COUNTY	TYPE	PWS ID	PWS NAME	POPULATION	ETT SCORE
A	1/13/2011	NYE	NC	NV0001096	SANDERS WINERY	25	
A	1/1/2011	WHITE PINE	NC	NV0000922	WARD CHARCOAL OVENS STATE PARK	25	
A	12/21/2010	NYE	C	NV0000408	CALVADA MEADOWS UICN	77	
A	11/19/2010	HUMBOLDT	NC	NV0002094	DIAMOND INN BAR	25	
A	11/3/2010	NYE	NC	NV0001094	PATCH OF HEAVEN	50	
A	10/1/2010	NYE	NC	NV0001093	SPRING MOUNTAIN MOTOR SPORTS RANCH	30	
A	9/30/2010	LINCOLN	NC	NV0002563	A COWBOYS DREAM	26	
A	9/9/2010	LYON	NC	NV0000858	SHERRYS STEAKHOUSE	25	
A	8/30/2010	CHURCHILL	NC	NV0002017	COLD SPRINGS STATION	25	
A	6/25/2010	ELKO	NC	NV0001091	CALIFORNIA NATIONAL HISTORIC TRAILS CTR	178	
A	5/11/2010	CLARK	C	NV0001102	SNWA COYOTE SPRING VALLEY-MOAPA PWS	25	
A	3/16/2010	CLARK	NTNC	NV0002602	LOVES TRAVEL STOP AND COUNTRY STORE	500	
A	3/1/2010	CLARK	NTNC	NV0002577	APEX GENERATING STATION	25	2

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 PWS's in acquiring and maintaining TMF capacity? Discuss the target audience these activities have been directed towards.*

   Several tools are being utilized to implement the capacity development strategy. These tools, which are discussed below, include data collection, technical assistance, funding, operator training, and wellhead protection.

Data Collection

Capacity Development programs provide water systems the necessary resources to build and maintain TMF capacity. A capacity assessment, through a self-assessment or one-on-one interview, can be a useful tool for the water system manager and/or operator to measure strengths and identify weaknesses. It can also be a useful tool for state staff to provide the most appropriate assistance to a particular system.

Capacity surveys are conducted with community water systems every 3 – 5 years or as needed. Nevada's capacity survey was updated in SFY12 to provide a more objective survey of water systems' TMF capacity (ATTACHMENT 1). Knowing what expectations the state has can help water systems recognize the areas with which they need assistance in meeting those expectations. Seeing the long-term implications can encourage the system to manage their operations sustainably, so that they are able to continue to afford as well as be allowed to operate in the future. These assessments also help systems realize that poor management can jeopardize future opportunities for assistance or even participation in DWSRF loans.

Common deficiencies among small water systems in Nevada include:

- Limited maps of water distribution systems
- Lacking plans for Operation & Maintenance, Emergency Response, Cross Connection Control and Capital Improvement
- Routine maintenance lacking
- Under-staffed and under-funded operations

Technical Assistance

Helping water systems develop and maintain capacity is the backbone of the Capacity Development Strategy. Many water systems throughout Nevada have increased their capacity through the technical assistance program. In SFY12, NDEP contracted with the NvRWA to provide technical assistance to small water systems. The technical assistance program provides "targeted" assistance by focusing on specific issues or problem areas. Specific assistance to small water systems is shown in ATTACHMENT 2. Some of the more recent program highlights of technical assistance are described below.

Cross-connection Control Plan Development

One of the technical capacity needs at several systems in Nevada has been an individual system plan for the control of potential flow of contaminated liquids by back-siphoning or back-pressure, into the drinking water distribution system. Nationwide, cross-connections represent the single largest source of contamination of drinking water. Nevada Administrative Code 445A addresses cross-connection control and requires both local plans and plan implementation through control measures at connections where specific activities take place. NvRWA developed a template and then used that model to begin writing plans at thirty small and medium sized water systems. Where needed, system managers and boards were educated on the need to include the local plan in system policies. Systems with plans in place are ready to take the next step to implement their local plan. The challenge is in moving from no program to a costly device installation and testing scenario, which by and large impacts businesses. Future efforts will be multi-phased, finding community-appropriate ways to carry out implementation, conducting public education, managerial capacity development and additional training for local governing boards.

For the smallest public water systems, the cross-connection control plan is combined into one template with operations and maintenance (O&M) and emergency response plans. These items are all regulatory requirements for every public water system. Now that these living documents are in place, often for the first time, local managers and staff will be guided to periodically update their plans and encouraged to take on ownership of the plans. Most can be expected to maintain the O&M manual and emergency response plan on their own after one or two years of assistance with updating.

Pre Sanitary Surveys

One of the ways capacity development in water system technical and managerial areas will be carried out is by taking system staff through mock sanitary surveys. Regulatory sanitary surveys are conducted on a triennial basis for systems using groundwater. It is important that system personnel have an understanding the sanitary survey conducted by the NDEP-BSDW and any

needed actions to address deficiencies. Working through a survey of their own, guided by NvRWA staff, system personnel will gain a deeper understanding of system requirements and the regulatory perspective. They will receive assistance in understanding and addressing any system deficiencies identified in these public health surveys.

Water Conservation Plan Development

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. This requirement was addressed by working with the system staff to write individual plans. The plans were then presented to local boards for adoption into policy and submitted to the State Engineer's Office for approval. NvRWA assisted twelve systems to complete their water conservation plans. Systems should now be able to implement and update these plans on their own. 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. Boards are being informed to ask for this information each month. Once usage patterns are established, changes in use will prompt managers to implement leak detection studies. NvRWA has obtained electronic leak detection equipment specifically so that water system personnel can be trained on up-to-date detection technologies while locating any leaks. Control of leakage in water systems not only saves water but pumping costs and energy.

General Technical Assistance

A variety of assistance was delivered to systems, depending on system needs. Examples of assistance requested and provided include: measuring customer meter accuracy; meter reading; helping local staff in evaluating appropriate technologies, for example reverse osmosis treatment or fiberglass-reinforced plastic storage tanks; assistance to seasonal systems to develop system startup procedures for flushing, disinfection and water quality testing; direction on developing budget based water rates.

Compliance Assistance

It is important that systems understand and comply with all of the regulatory requirements, and on-site and telephone support was provided to systems around the state. A listing of the issues addressed would include: balancing storage tank level cycling, formation of disinfection byproducts and disinfectant residual concentration; writing the annual consumer confidence report; water quality issues such as corrosion control; developing a site-specific Bacteriological Sampling Plan; improving quality control for the chlorine residual measuring procedure by writing standard operating procedures and implementing validation steps.

Digital Mapping and Spatially Referenced Record Keeping

Nevada recognizes that as operators have retired, a wealth of system knowledge goes with them and is largely undocumented. In order to better plan for the future and to capture and transfer that knowledge to paper and electronic media, technical assistance is being provided to small water systems with limited budgets to create system maps and asset tables in the free ESRI product, ArcReader. Similar assistance and training is being provided to those systems with licensed versions of GIS software that did not know how to get started.

Using simple, low-cost methods to develop a system image linked to spreadsheet tables containing component documentation, systems are able to develop digital maps to locate components such as pipe lines, valves, hydrants, production and storage facilities, and customer meters. NvRWA assisted staff at eleven systems to locate their physical assets using GPS and to create GIS component tables. In addition, NvRWA converted existing CAD and other files to an appropriate form the particular system was using or for which it had purchased software. In most cases, a properly aligned image of the system was created. Compared to using paper maps or having data located at an off-site consulting engineer office, with this approach local staff gains not only immediate access to their data, but deeper skills and an enhanced sense of ownership. The image with attribute table method not only enables local staff to use digital maps in the field, but will provide a seamless linkage between maps and day-to-day maintenance management and longer term asset management and capital improvement planning. This facilitates the implementation of asset management and planning locally, by system personnel. At three systems, NvRWA started work to enable staff to implement the next step, using GIS for asset management and spatially referenced record keeping.

Operator Training and Certification

NDEP has funded the University of Nevada Reno to provide operator training using remote video-conferencing. This method of offering training 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 from Reno to sites all over the state and offer the advantage of being essentially local classes that are cost-effective extensions of the university that require minimal travel for the participants.

NDEP has also funded the NvRWA to provide both group and individual operator training at the operator's water system. These sessions are open to any interested party, and often staff from a number of nearby systems participate.

In 2011, two industry groups, the volunteer Certified Drinking Water Operators Forum and Nevada Water and Wastewater Training Coalition, concerned with guiding operator training and development consolidated. Members recognized some overlap in the work of the two groups and found a way to unify for the benefit of both the water and wastewater sectors. The consolidated group will continue to evaluate operator certification exam performance to provide input to training organizations and advice to the State Environmental Commission.

Declining Pool of Professionals

A large number of long serving water system specialists will be retiring in the next 5 to 10 years. Water operator certification exams in Nevada are now fully-validated, national exams which are provided by the Association of Boards of Certification. Using standard national certification programs makes the water and wastewater industry in Nevada more attractive to qualified personnel from both Nevada and out of state. This development facilitates recognition of qualified persons wishing to make interstate career moves and obtain Nevada certification through reciprocity. Reciprocity in the wastewater sector is facilitated by using exam materials obtained through the National Water Environment Association. Other efforts to attract people to the water sector being carried out through the Capacity Development program include

publishing articles about the trades and distributing to the community of high school guidance counselors. Initial participation in high school career day activities, where local waterworks staff also participated, generated a great deal of interest among the students. Water systems are being asked to participate in outreach activities such as career days and also to consider job shadowing and internship programs so that more young people can be made aware of the variety of careers in the industry.

Integrated Source Water Protection/Wellhead Protection

Groundwater is the source of drinking water for approximately 90% of Nevada's public water systems. To assist public water systems and local communities in protecting groundwater from contamination, Nevada has successfully implemented a multi-faceted Integrated Source Water Protection Program ("ISWPP", formerly referred to as the "Wellhead Protection Program" or "WHPP"). It is Nevada's belief that effective source water protection must be developed and administered by local government in conjunction with the water supplier(s). A local plan should be 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.

The Nevada Division of Environmental Protection's (NDEP's) Bureau of Water Pollution Control administers the ISWPP, which provides assistance to communities in the development and implementation of Community Source Water Protection Plans (CSWPPs). Local CSWPPs are developed through a county-wide planning and coordination approach which provides a framework for all public water systems within a specific county to work together to examine shared water sources, evaluate community development impacts to those sources, and discuss how to collectively manage potential risks from a broader perspective. 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 acceptance 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.

Since the inception of the State's Wellhead Protection Program in 1994 through the recent implementation of the ISWPP, Nevada has assisted in the development of 70 wellhead/source water protection plans, covering 208 of 558 public water systems in Nevada. The success of the ISWPP and local CSWPP plan development depends on the establishment of engaged local planning teams; they represent the water systems, local planning agencies, and other stakeholders throughout each county. Each team must be structured so that it adequately represents the community's public water systems and planning agencies. A representative team allows for more transparency of the planning effort and brings credibility when presenting the plan to community leaders. It is also imperative that the teams are committed for the entire plan development process, which on average takes approximately two years. The time it takes to complete a plan may vary depending upon the county's population, geographic size, resource availability, and commitment.

The ISWPP assists communities in developing engaged and committed local planning teams by dedicating resources upfront to provide outreach and education to the local governing boards

and public water systems through presentations at their regularly scheduled meetings. The presentations outline the ISWPP planning goals and highlight local planning benefits should the community chose to participate. The ISWPP emphasizes that the planning effort is voluntary, and provides a mutual benefit for the State and local communities. The goal of the Program planning horizon is to overlap the technical assistance into neighboring counties to allow for regional coordination and to maximize funds dedicated to travel expenses. However, ISWPP is also flexible in working in other communities based on demonstrated needs, local planning momentum, and resource availability.

Previously, the Wellhead Protection Program provided financial assistance to public water systems and communities through the annual Request for Proposal (RFP) process. Since the ISWPP was refocused in 2009, NDEP has opted to contract directly with a technical contractor through the RFP process, which occurs every two to four years. The contractor works directly with the community in coordinating plan development and is required to demonstrate technical and planning experience in working with local planning communities. Strong leadership skills are crucial to facilitate multi-jurisdictional team meetings and to promote a cooperative and productive environment.

The current ISWPP planning schedule and funding allocations allow every public water system in the State of Nevada an opportunity to participate in the planning process over the next 12-15 years. In addition, the program planning schedule goal is to provide assistance for up to three counties at a time; approximately two years of technical assistance is dedicated for each county to include team building, plan development and implementation, and promoting community acceptance of the plan.

Nevada's local community boards may send a letter to NDEP requesting assistance. The letter must demonstrate a commitment to dedicating appropriate staff to participate in local planning teams and attend regular meetings. This ensures that staff has the resources and support to commit to plan development.

Between 2009 and 2012, the ISWPP assisted three counties in developing and implementing plans which covered all regulated public water systems within the respective counties. Douglas County served as the State's pilot community. In the spring of 2012, the Douglas County CSWPP (plan) was unanimously adopted by the Douglas County Regional Planning Commission and the Board of County Commissioners. This plan was incorporated into the County's Master Plan to ensure its legitimacy and implementation in future planning activities. The plan covers all regulated public water systems in the Carson Valley. The Lake Tahoe water systems are excluded because they are already a highly regulated community under the Watershed Control Program administered by NDEP's Bureau of Safe Drinking Water. The plan covers a population of approximately 34,000.

Two other counties - White Pine and Nye - were cycled into the planning schedule following Douglas County's planning momentum. The White Pine Board of County Commissioners has formally adopted and is currently implementing the county-wide plan. The Nye County CSWPP

is currently in a complete draft form. The plan is scheduled to be presented to the local governing boards for formal approval by the end of 2012.

In the summer of 2012, a new technical contractor was selected to provide community assistance under the ISWPP. Carson City and Lyon County have been approached as the next two communities to receive planning assistance. Initial outreach activities are underway in these two communities.

Sustainable Infrastructure

The U.S. Environmental Protection Agency's (USEPA) *Clean Water and Drinking Water Infrastructure Gap Analysis (2002)* estimated that if capital investment and operations and maintenance remained at current levels, the potential funding shortfall for drinking water and wastewater infrastructure could exceed $500 billion by 2020. To address the funding gap, USEPA launched the *Sustainable Water Infrastructure Initiative*. The Sustainable Infrastructure Initiative will guide efforts in changing how the nation views, values, manages, and invests in its water infrastructure. Many of the efforts of Nevada's Capacity Development Program support sustainable infrastructure. USEPA has identified the following four sustainable infrastructure priority areas:

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

Nevada's Capacity Development Program addresses, to some degree, all four of these areas. Nevada has recognized that good management is critical to a well-functioning utility. Nevada offers technical assistance in the form of Board training to assist in better management. In terms of full cost pricing, Nevada's technical assistance providers have completed a number of rate studies for water systems and presented the findings to the governing board and the public. Being the driest state in the U.S., Nevada has long recognized the value of water. 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. Technical Assistance providers have helped a number of communities prepare these plans. Although the concept of "Watershed Approach" is more focused on management of pollution sources, Nevada's integrated source water protection program (which incorporates wellhead protection) also fits into this concept. State grant funding policies have required water systems to implement reasonable water rates and contribute to future infrastructure renewal and replacement.

Funding

The Drinking Water State Revolving Fund (DWSRF) continues to provide subsidy in the form of principal forgiveness loans to "disadvantaged" communities 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 average income per household is less than 80 percent of the median household income of the

state median household income. The terms and amount of the additional subsidy are determined on a case by case basis based on the individual community's financial situation.

Nevada, as a whole, recognizes that the needs associated with infrastructure deficiencies are increasing while many federal and state funding resources are dwindling. Collaboration between the major funding agencies in the state was initiated in 2006 as a subcommittee of the Infrastructure for Nevada Communities (INC) group that existed for many years in Nevada. INC's mission statement is "To provide a forum for coordination on utilities serving Nevada communities to promote efficient application of technical and financial assistance and to ensure they have the best access to resources." The subcommittee known as the Nevada Water and Wastewater Review Committee (NWWRC) is composed of representatives from the different water system funding groups in the state: Drinking Water State Revolving Fund (DWSRF) Loan program, United States Department of Agriculture – Rural Development (USDA-RD) Loan/Grant program and Community Development Block Grant (CDBG). This collaborative effort allows us to stretch limited funding dollars and support the greatest number of projects. NWWRC has a "pre-application" common to all of the funders that makes coordination and communication between the agencies and applicants simple and allows the NWWRC to suggest funding solutions that are most appropriate while leveraging all of the funding available in the state. The NWWRC representatives also share a common goal of seeing water systems achieve full cost pricing through the setting of appropriate water rates and also the setting aside of funds for capital replacement, capital improvements, and emergency repairs.

Challenges

Impact of the new drinking water standard for arsenic on Nevada

According to the NDEP Bureau of Safe Drinking Water (BSDW), 113 Public Water Systems, approximately 35% of systems subject to the Arsenic Rule in Nevada, were impacted by the new standard when compliance determinations were made in 2005. A few systems have since been added to the list based on more recent arsenic data. The Safe Drinking Water Act and Nevada Administrative Code, allow for systems that meet certain criteria to be eligible for exemptions to the new standard, providing more time for them to comply. For some systems with small populations and low concentrations, final compliance deadlines can be as far out as January 23, 2015. Exemptions are approved by the State Environmental Commission.

As of July 2012, 86 affected water systems have met their compliance requirements through treatment or non-treatment solutions. This is an improvement from the 69 systems that had achieved compliance as of September 2011. Exemptions are in place for 11 systems allowing more time to determine their path to compliance and obtain appropriate funding. Five (5) systems in violation of the drinking water standard are under an NDEP Administrative Order on Consent that outlines their compliance timeframes. There are nine (9) additional systems that are not in compliance with the standard, but are working on their compliance solutions in concert with NDEP staff using various enforcement approaches other than the Administrative Order. An Arsenic Rule compliance status list is included in ATTACHMENT 3. Many of the systems on this list have projects underway.

Many systems were not prepared financially or otherwise to meet their compliance deadlines. Systems faced many hurdles pertaining to regulatory requirements, exemption options and processes, compliance options, treatment options, cost impacts, funding options, and strategic planning. In addition, the requirements of operator certification increased. Previously, systems that only consisted of water storage and distribution were not assigned treatment points for operator certification. Any system that employs treatment must have a treatment-certified operator. Some water systems have installed treatment systems of some complexity, elevating them from no treatment required to now needing a Treatment 2 to Treatment 4 operator and adding more costs. Systems are now working to determine their true cost of operations and maintenance. These cost vary widely depending on the type of treatment technology, number and type of chemical addition required, power use, and various administrative costs including possible disposal of media or sludge.

Managerial Capacity

Despite the evolution and maturing of Nevada's Capacity Development Program, the greatest areas of weakness in rural Nevada continue to be in managerial capacity. Information gathered from the 2011 and 2012 Capacity Surveys shows that managerial capacity is directly affected by the individual water system operators, managers, and board members. Nevada has some very small water systems (31% of the community water systems in Nevada serve a population less than 100 people) and in some cases there is not even one full time employee. Finding and retaining qualified and experienced water system operators, managers, and board members is limited in rural areas and may be attributed to the following causes:

- Board Members without utility backgrounds. In rural communities, water systems are fortunate to find enough individuals to serve on a board. Many board members in rural areas lack a fundamental understanding of water system operations, finance and management. This can be overcome where an experienced water system manager is in place, but when the manager is lacking experience, this situation can be problematic. Unfortunately, some boards tend to micro-manage water systems, and when they lack the appropriate background or experience this can lead to a serious decline in the capacity of a water system.

- Aging workforce. There have been several published reports regarding the aging workforce in the water industry and the lack of qualified professionals to succeed those that are retiring.

- Salaries. Due to the competition in the marketplace, rural water systems typically do not offer enough money to attract experienced operators and managers. They will usually settle for someone less qualified that will work for a lower wage. This in turn affects the managerial capacity of the water system.

Water systems that are led by a capable, experienced manager, who are supported by a competent and progressive governing board, tend to have high capacity in all areas. On the other hand, water systems that are led by managers with little experience or technical ability

who report to an unsupportive or uninformed board tend to struggle with capacity in many areas.

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 implementation of the Strategy has evolved.

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.

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 manage system assets in a way that meets long-term service requirements reliably and cost-effectively. Future technical assistance efforts will include asset management training and assistance to:

- develop a record of their assets
- schedule required maintenance tasks
- understand their financial situation
- create a tailored asset management plan

There are new requirements and issues that will challenge many Nevada water systems in the coming years. Among them are the Disinfection Byproducts Rule, the Long Term 2 Enhanced Surface Water Treatment Rule, the Groundwater Rule, the need to conserve the State's precious water resources, and finding qualified professionals in the water industry.

The focus of technical assistance over the near term will be on the critical issues that are identified above. Plans and strategies are already in place to make sure Nevada's water systems will continue to successfully meet new challenges and build capacity. The Capacity Development Strategy will continue to evolve, but will always focus on the following statement:

"Water system capacity is the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Capacity has three components: technical, managerial, and financial. Adequate capacity in all three areas is necessary for a system to have capacity."

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 technical assistance, 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?*

   Technical assistance has been offered both by state staff and through third party contractors (see technical assistance 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 SFY12.

ATTACHMENT 1 – Data Collection

Technical, Managerial, and Financial Capacity Assessment Form
Updated in FY12

State of Nevada
Nevada Division of Environmental Protection
Office of Financial Assistance
901 So. Stewart Street, Suite 4001, Carson City NV 89701-5249

Technical, Managerial and Financial (TMF) Capacity Survey for Public Water Systems (PWS)

Public Water System Name: State PWS ID#:

____Community ____Non-Transient, Non-Community ____ Transient, Non-Community

Address:

PWS Type:
_____Public Municipal _____Private Municipal _____General Improvement District
_____Mobile Home Park _____Homeowner's Association _____Private, Non-profit
_____Other, Please Specify

Contact Name, Title: Contact Phone:
Contact Email: Contact FAX:

Interview Date: Person Performing Evaluation:

For ease of calculation, please use the accompanying TMF Capacity Survey Calculator spreadsheet.

TECHNICAL SCORE:
MANAGERIAL SCORE:
FINANCIAL SCORE:
TOTAL CAPACITY EVALUATION SCORE:

Water system satisfies NRS 445A.817, 827 and 847 Statutory Definitions for "Technical, Managerial and Financial Capability." Please note that capacity and capability are used interchangeably in this document. Assumes a score of 65% or higher in each capacity category.
_____Yes _____No

Note that water systems that lack adequate TMF Capacity or that cannot reasonably achieve adequate TMF Capacity may be ineligible for financial assistance from the Drinking Water State Revolving Fund (NAC 445A.67563).

_____PWS Uninterested/Uncooperative _____Contact Not Possible

For each indicator, please rate yourself on a scale of 1-3, based on your system's current capacity. If your water system is interested in technical assistance for a particular question/indicator, please check the item labeled "Interested in TA" and provide any comments.

Technical Capacity

NRS 445A.847 "Technical capability" defined. *"Technical capability" means the ability of a public water system to:*

1. *Obtain an adequate and reliable source of water that is necessary to provide the quantity and quality of water required by the system;*
2. *Establish and maintain an adequate infrastructure for the treatment, storage and distribution of the quantity and quality of water required by the system; and*
3. *Employ operators who have the technical knowledge and ability to operate the system*

1. Does the water system have a digital utility map/service area map of the entire service area that includes the location of each water source, treatment facility, pumping station, reservoir, pressure zone and control and isolation valve? Are service area boundaries outlined? Does the map include future growth areas? Are precise "As-Built" plans or drawings prepared and maintained for all new facilities? The water system should have copies of the actual CAD drawings as well as paper copies.

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			**Score (1-3)**
Mapping	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
As-Built Plans	As-Built plans have been reviewed and are 100% accurate	As-Built plans have been reviewed but are <100% accurate	As-Built plans have not been reviewed, or are not accurate, or are not maintained for any facilities	
Computer Aided Design (CAD) Maps	PWS has up-to-date CAD maps both in digital and paper format	PWS has CAD maps in both digital and paper format, but they have not been updated to reflect recent water system changes (e.g. adding valves etc.)	PWS only has maps in paper format	
Water System Assets	All current water system assets are identified in maps including: sources, storage tanks, valves, booster pumps, water lines, hydrants, etc.	Because maps are not updated annually, some water system assets &/or minor changes have not yet been included	Because maps are not updated annually, many water system assets/changes have not yet been included	

Updating	Maps are reviewed and/or updated annually Date of last update: ____	Maps are reviewed and/or updated every 2 years Date of last update: _____	Maps have not been reviewed in over 3 years Date of last update: _____	
Geographical Information Systems (GIS)**	PWS has or is currently developing GIS maps	PWS is interested in GIS mapping, but has not started the process	PWS is not interested in GIS mapping	
** Extra credit, but shouldn't count against small systems that do not have the capability or funding to expand into GIS at this point.			**Total**	
			Score = Total ÷ 4	

2. How well does the water system meet requirements for water system facilities and back-up power (e.g., wells, pumps, power, etc.) for adequate redundancy to ensure reliable service?

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			**Score (1-3)**
Service Reliability	**Strong Technical Capacity** **3**	**Moderate Technical Capacity** **2**	**Weak or deficient Technical Capacity** **1**	
Source Redundancy	PWS has more than one well that can supply safe drinking water	PWS has a back-up source that can be used but the water is not high quality &/or quantity	PWS only has one water source	
Back-up Equipment	PWS maintains a back-up generator for each water source PWS keeps spare parts onsite and can obtain spare parts within 24 hours (e.g. pump)	PWS has a back-up generator for at least one source PWS does not keep spare parts onsite but works with a distributor to ensure equipment w/in 24 hours	PWS does not have a back-up generator PWS does not maintain any spare parts onsite and does not have a spare parts distributor who can provide equipment if there is an emergency	
			Total	
			Score = Total ÷ 2	

3. Maintaining sufficient pressure throughout the distribution system prevents contaminants from entering the water lines. Drops in pressure can also result in backflow. How well does the water system meet state and local codes and ordinances regarding water pressure? Typical ranges are 40-70 psi. Minimum Requirements (NAC 445A.6672): at least 20 psi during fire flow and fire demand conditions experienced during maximum day demand; at least 30 psi during peak hour demand; and at least 40 psi during maximum day demand

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			Score (1-3)
Pressure	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Demand	PWS can meet the requirements of NAC 445A.6672 (fire flow demands, peak hour demand and maximum day demand)	PWS can meet peak demand and maximum day demand but cannot meet 20 psi during fire demand conditions during maximum day demand	PWS can only meet maximum day demand or less but cannot meet fire flow demand or peak hour demand	
Pressure Range & Zones	Typical pressure ranges are between 40 to 70 psi If necessary pressure zones have been created to regulate pressure	Typical pressure ranges are between 40 to 70 psi Pressure zones have been created, but pressure could be improved by creating more zones	Pressure ranges fluctuate outside of 40 to 70 psi	
			Total	
			Score = Total ÷ 2	

4. Six-inch pipes help ensure that demand for fire suppression purposes can be met. Does the water system meet state and local codes and ordinances regarding pipe size (pipes should be 6-inches or larger)? Minimum Requirements (NAC 445A.67115): nominal size of at least 6 inches

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			Score (1-3)
Pipes	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Pipe Size	100% of pipes are 6-inches or larger	At least 75% of pipes are 6-inches or larger	< 75% of pipes are 6-inches or larger	
			Total	
			Score = Total ÷ 1	

5. How well prepared is the water system to provide adequate fire flow and storage in compliance with state and local codes (i.e., 1,000 gpm for residential and 2,500 gpm for commercial - or flows specified by the local Fire Marshall)? How long can current storage sustain average day demand if wells can't be pumped?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Fire Flow & Storage	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Fire Flow Rate	PWS can meet demand for all required flows.	PWS can meet residential fire demand but cannot meet commercial	PWS cannot meet either 1,000 gpm or 2,500 gpm for fire flow demand	
Storage: Operational/Emergency	If wells can't be pumped, water can be supplied for at least two full days (according to average daily demand) Average Daily Demand: _____	If well can't be pumped storage can supply water for ~1 full day (according to average daily demand) Average Daily Demand: _____	Storage can supply water for less than 1 day if wells can't be pumped (according to average daily demand) Average Daily Demand: _____	
Storage: Fire Reserve	In addition to Operational/Emergency Storage, PWS retains storage that can provide fire demand for at least two hours at the suggested commercial flow rate	In addition to Operational/Emergency Storage, PWS retains storage that can provide fire demand for less than two hours at the suggested commercial flow rate	PWS does not have fire reserve in addition to operational and emergency storage.	
Hydrant Testing	Hydrants are flow tested annually	Hydrants are flow tested every 2-3 years	Hydrants are non-existent or have never been flow tested	
			Total	
			Score = Total ÷ 4	

6. Routine maintenance can prolong the lifespan of equipment and help identify problems early. How well is the infrastructure and related equipment maintained? Is routine maintenance done to assure performance (e.g., valves exercised, hydrants flushed, equipment inspected and repaired, etc.)?

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			Score (1-3)
Routine Maintenance	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Inspection & Addressing Problems	Source(s) and pumps are inspected daily Issues are addressed as soon as possible after they are detected	Source(s) and pumps are inspected at least weekly Issues are addressed as soon as possible after they are detected	Source(s) and pumps are inspected rarely (once a month or less). There is a significant lag in time to fix identified issues	
Valves & Hydrants	Valves are exercised and hydrants/dead end lines are flushed at least annually	Valves and hydrants are exercised/flushed every 2 years Dead end lines are flushed less than annually	Valves, hydrants and dead ends are rarely/never exercised or flushed	
			Total	
			Score = Total ÷ 2	

7. Water systems may experience water loss in a variety of ways, some under their control, others not. Line breaks, hydrant flushing, faulty metering and theft are common culprits in water loss. Water that has been conveyed from the source, treated to drinking water standards then not sold equals lost revenue for the system. It also puts increased pressure on the source, as additional water must be withdrawn to make up for that which has been lost. Some "non-revenue" water (NRW) is inevitable; however systems should become concerned if water loss exceeds 10-15%. At a bare minimum, systems should track water loss monthly. How prepared is the water system to address un-accounted for water losses (has a water audit been performed, is a leak detection program in place, what steps are being taken to address leaks in the distribution system)? What is the percentage of water lost to leaks?

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			Score (1-3)
Water Loss	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Metering	PWS is 100% metered	PWS is >75% metered with plans in place to meter up to 100%	PWS is <75% metered. No plans are in place to reach 100% metering	

Non-Revenue Water	NRW is accurately tracked monthly and is below 10 - 15%, or, if above 10 - 15%, a plan to reduce is underway Hydrant flushing is metered Other departments (Parks, Fire, etc.) are billed for their water usage Leak detection equipment is available and utilized	NRW is accurately tracked monthly and is above 10-15%, however a plan to reduce has not been developed	NRW is not tracked or improperly tracked	
			Total	
			Score = Total ÷ 2	

8. Cross-connection control/backflow prevention ensures that there are no unprotected connections between the public water system and any source of pollution or contamination which can be discharged or drawn into the public water system as a result of back-siphonage or backpressure and potentially harm consumers. (NAC 445A.67185 – 445A.67255). Is there an active cross-connection control program? Date of last Plan Update:

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			**Score (1-3)**
Cross-Connection Control	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Implementation	A CCC plan is available and actively being implemented PWS is surveying facilities and requiring all facilities to install appropriate backflow protection where deemed necessary	A CCC plan is available, but is not being completely implemented All new commercial businesses are required to install appropriate protection No enforcement with established businesses	No CCC plan is in place or being implemented Some businesses have installed appropriate protection of their own accord	
Certifications	PWS has a Certified Cross-Connection Control Specialist and a Certified Backflow Tester on staff	PWS has a Certified Backflow Tester on staff or PWS works closely with a private testing company on a regular basis	No certified testers or specialists are on staff and no working relationship has been formed with a private testing company	

Public Education	PWS has implemented public education to spread awareness about the risks of backflow The public has been involved in the planning process	PWS has started to discuss backflow prevention with commercial businesses and some businesses are protected Some involvement from the public with the planning process	Public education is negligible	
Record Keeping	PWS keeps up-to-date records including survey results, testing results, and repairs of assemblies Customers are notified prior to their annual testing date to test their devices	Records on testing, repairs or surveys are incomplete No notification process is in place	PWS maintains no records.	
			Total	
			Score = Total ÷ 4	

9. Water systems must have a water conservation plan and it must be approved by the Division of Water Resources (NRS 540.131 – 540.151). Is there a water conservation plan in place and do current policies appropriately address water conservation as spelled out in the plan? What percentage of facilities is metered? Date of Last Plan Update:

   _____ Interested in TA _____ N/A

   Comments:

	Assessment			**Score (1-3)**
Water Conservation	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Planning	An approved Water Conservation Plan is on file with the Division of Water Resources and has been updated in the last 5 years	An approved Water Conservation Plan was developed for the PWS but has not been updated in more than 5 years	No Water Conservation Plan has been developed	
Policies/ Ordinances	PWS has developed policies which are implemented to promote water conservation (e.g. watering during certain hours, not watering sidewalks etc.)	Water conservation policies have been adopted but are not actively promoted or enforced	No policies are in place for water conservation	
Metering	100% of facilities are metered and rates encourage conservation, especially during peak water use	> 75% of facilities are metered and/or rates do not encourage conservation	< 75 % of facilities are metered and/or customers are charged a flat rate regardless of water use or given a cost break for high water use	

Public Education	PWS actively engages in public education at town events, in bill inserts etc. to promote water conservation	Minimal public education takes place. PWS assumes water rates generally promote water conservation	No public education is underway	
			Total	
			Score = Total ÷ 4	

10. How is the water system performing in meeting the monitoring and reporting schedule requirements? How is the water system performing in meeting all applicable water quality standards? Have there been any issues in the last three years? How familiar is the water system with its current monitoring and reporting requirements? Are results on file?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Water Quality Monitoring & Reporting	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Water Quality	No MCLs or Action Levels (AL) are exceeded No unaddressed or uncorrected violations If an MCL or AL has been exceeded the PWS has implemented controls to remediate the issue ETT Score: _____	An MCL or AL is exceeded and the PWS is actively working to monitor and control the issue ETT Score: _____	MCLs or AL are exceeded and the PWS has no plans in place to remedy the issue PWS a priority system with the BSDW and/or is facing formal enforcement action ETT Score: _____	
Monitoring	PWS submits all monthly, annual, and 3-year monitoring and reporting requirements to the Bureau of Safe Drinking Water on time	PWS is usually on time with monitoring and reporting but has missed a couple sampling events within the past three years	PWS has missed 3 or more sampling events in the past three years	
Reporting/ Public Notification	PWS follows all correct protocol for re-testing and public notification in case of an MCL/AL exceedance or positive bac-t test	PWS has had issues with following the correct protocol for re-testing and needed assistance from the NDEP With assistance they follow public notification correctly	PWS has not followed public notification procedure correctly	
			Total	
			Score = Total ÷ 3	

11. How interested would you be in consolidating either physically or managerially with another public water system? Has this been investigated or has a feasibility study been done? Is it a feasible option? Note: If this option is not feasible, this question is not counted toward the final technical score.

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Consolidation	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Physical / Managerial Consolidation	PWS is currently consolidated managerially with other PWS(s) or PWS is in the process of consolidating either physically or managerially with other PWS(s)	PWS is working on or has completed a feasibility study and would consider either physical or managerial consolidation; however, funding or other issues are currently inhibiting further action	PWS could consolidate either physically or managerially with other PWS(s) but chooses not to	
			Total	
			Score = Total ÷ 1	

12. Are water system operator(s) certified to an appropriate grade for water treatment and distribution? Are the water system operator(s) on-site and available? How many certified operators or OITs are on staff and what are their certification levels?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Certified Operators	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Number of Operators	At least 2 operators certified to the appropriate grade for water treatment and/or distribution or The system has one Certified Operator and an agreement is in place with a nearby system or contractor to provide backup Certified Operator services when necessary	At least 1 operator certified to the appropriate grade for water treatment and/or distribution	No certified operator or operator not certified to the appropriate grade	

Availability	More than one operator is onsite/available 24/7	Only one operator available 24/7	Certified Operator is an off-site contract operator, only available periodically	
			Total	
			Score = Total ÷ 2	

13. How familiar is management with the most recent Sanitary Survey? Are there any items on the most recent sanitary survey which have not been addressed? How familiar is management with the most recent Technical, Managerial and Financial (TMF) Capacity Survey?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Sanitary Surveys	**Strong Technical Capacity 3**	**Moderate Technical Capacity 2**	**Weak or deficient Technical Capacity 1**	
Pre-Sanitary Surveys	PWS participates in pre-Sanitary Surveys and Capacity Surveys to identify and remedy potential deficiencies prior to the official Sanitary Survey PWS has requested and received technical assistance to improve TMF capacity	PWS participates in pre-Sanitary Surveys and Capacity Surveys, but does not remedy the issues prior to the official Sanitary Survey	PWS does not participate in pre-Sanitary Surveys and/or Capacity Surveys	
Familiarity	Operator/Manager can recall findings of the previous sanitary survey w/o prompt	Operator/Manager can recall some, but not all, of the findings of the previous sanitary survey	Operator/Manager cannot recall the previous sanitary survey	
Deficiencies	All deficiencies have been corrected	Some, but not all, deficiencies have been corrected	No deficiencies have been corrected	
			Total	
			Score = Total ÷ 3	

Enter your score from each of the questions 1 – 13 above. Divide the total by 13 to get your final technical score. Note that if Question #11 is not applicable, enter 0 in the box below and divide by 12 to get your total score.

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*Total*

Managerial Capacity

NRS 445A.827 "Managerial capability" defined. *"Managerial capability" means the ability of a public water system to conduct its administrative affairs in a manner that ensures compliance with all applicable standards based on:*

1. *The accountability, responsibility and authority of the owner or operator of the system;*
2. *The personnel and organization of the system; and*
3. *The ability of the persons who manage the system to work with:*

(a) Jurisdictional, regulatory and other governmental agencies;

(b) Trade and industry organizations; and

(c) The persons served by the system

Compliance is often considered a technical capacity indicator. However, compliance also has a very strong managerial component. In order to comply, the management must understand what their responsibilities are with regard to regulations. For example, the proper samples must be taken when and where required, records must be kept on site, and if deficiencies are noted on sanitary surveys, they must be corrected. In addition, the management must support operator training and certification to ensure that the system is run by a competent, qualified individual.

A utility's compliance status and compliance history is a good indication of the strength of the managerial capacity. A system who has frequent monitoring and reporting violations is one in which there is little regard for the regulations or for which there is a lack of training or understanding. A system with long-term unresolved sanitary survey deficiencies shows a lack of regard for the regulations and a lack of understanding of the actions it will take to correct the deficiencies. A system who lacks a certified operator at the appropriate level is not demonstrating proper support for operator training, recruitment and retention. A system that has non-compliance for a particular contaminant does not possess sufficient managerial capacity to change operations to fix the problem or to obtain the funding necessary to remedy the situation. A good compliance history is one indication of strong managerial capacity.

14. How adequate is the current source water supply (quantity)? Is there sufficient supply to sustain existing and future populations? How adequate are existing water rights for future growth projections? How well are water rights being maintained and managed? Does the PWS submit regular (monthly or quarterly) pumpage documentation to the Department of Water Resources [this is a requirement of the PWS permit]?

    _____ Interested in TA _____ N/A

    Currently Using (acre-ft): Currently Permitted Water Rights (acre-ft):

    Comments:

	Assessment			Score (1-3)
Water Quantity & Rights	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Quantity, Rights & Population Growth	Population could double and the water quantity and water rights are sufficient	Quantity and rights are more than sufficient to meet the existing population, but another source and additional rights would be required if the population were to grow by 50% PWS has plans in place to identify a new source and secure additional rights and is currently setting aside funds	PWS can barely meet the needs of the existing population, and the source could not sustain any extra demand PWS does not have plans in place to secure another source or additional rights.	
Water Rights Management	Water rights are managed by the PWS and are reviewed at least annually for adequacy PWS has a close working relationship with the Dept. of Water Resources	Water rights are managed by a private company; PWS is "hands-off" with their management but is kept up to date at least every 2 years with their status PWS receives copies of all correspondence regarding their water rights	PWS is not involved in water rights management and has difficulty quantifying the rights they have and how many they may need in the future	
			Total	
			Score = Total ÷ 2	

15. Each community public water system must provide its customers an annual consumer confidence report which contains information on the quality of the water delivered by the system. How is the water system performing in submitting annual consumer confidence reports (are reports submitted consistently and on-time)?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			Score (1-3)
Consumer Confidence Reports	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Preparation	PWS is self-sufficient in preparing their CCR.	PWS needs limited assistance from the BSDW, but largely prepares the document in-house.	PWS completely relies on the NDEP or other assistance providers to prepare the CCR.	

Submittal	CCRs have been prepared and submitted on-time every year for the past 5 years.	CCRs have been submitted late once in the last 5 years.	CCRs have been submitted late 2 or more times in the past 5 years.	
Information Sharing	PWS obliges with the mandatory legal requirements of the CCR, and uses the CCR as a tool to promote public relations and share other relevant information.	CCR only includes the mandatory legal requirements.	CCR barely meets the mandatory legal requirements.	
			Total	
			Score = Total ÷ 3	

16. Source water protection is a proactive way to prevent contaminants from entering a community's drinking water source and is much less expensive than cleaning up contamination or identifying a new source. How well does the water system identify and locate all major contamination hazards (e.g., waste disposal sites, landfills, animal feedlots, etc.), actual or potential, within the system's service area or in adjacent areas that might impact the system's water source(s)? Does the water system have a source water protection plan in place (WHPP)? Date of Last Plan Update?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Source Protection	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Potential Contaminant Sources (PCS)	All PCS within the PWS's service area have been identified. Controls and monitoring are underway to control each PCS	All PCS have been identified, but controls are not in place	PWS has not taken steps to identify, document or manage PCS	
Community Source Water Protection/ Wellhead Protection (CSWP)	A CSWP plan has been developed and approved by the Board	A CSWP plan has not been developed, but concrete plans are underway to work on a plan and funding has been approved or is actively being sought	No CSWP plan is in place, nor is the PWS making plans to develop one	
Policies/ Ordinances	The CSWP plan has been approved by the NDEP Policies &/or ordinances are in place to protect the CSWP area	The CSWP plan has been approved by the NDEP, but no policies or ordinances have legally been adopted by the Board	No policies are in place	

Public Education	Public education is ongoing for residents and businesses within the source's contribution area Signage is posted conspicuously within the CSWP area.	Public education is minimal, i.e. periodic bill inserts No signage in the CSWP area	Public education is negligible	
			Total	
			Score = Total ÷ 4	

17. Are records of routine maintenance kept? How are the records managed? Are the records audited annually?

_____ Interested in TA _____ N/A

Comments:

	Assessment			**Score (1-3)**
Records Management	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Records Maintenance System	PWS uses a system to maintain records regarding well maintenance, pumpage documentation, valve exercising, hydrant/dead-end flushing, backflow prevention assembly testing etc. This system can be a simple filing system, an Excel spreadsheet, or software such as CUPSS	PWS maintains records of routine maintenance, but no organized system is in place to locate or document specific records and records are incomplete	Record maintenance is negligible	
Auditing	Records of operation and maintenance are summarized and presented to the Board at each monthly board meeting	Records of O&M are summarized and presented periodically at board meetings or only when requested	Records are not reviewed or audited	
			Total	
			Score = Total ÷ 2	

18. An Operation and Maintenance (O&M) Manual should detail the water system from source to treatment to distribution. This plan should include specific details on start up and stop of the system and daily, monthly and yearly maintenance performed on the system. It should read as a comprehensive document that someone not familiar with the system can follow. The O&M Manual is not solely a compilation of manuals for various pieces of equipment. Is there an updated O&M plan? Date of last update? How well does the O&M manual describe operational activities, daily operational practice, and routine maintenance? How familiar is personnel with the O&M plan (is it utilized and referenced frequently)?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Operations & Maintenance Manual	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
O&M Manual Contents	The O&M Manual clearly states the daily/monthly/annual operation of the water system and includes a description of the water sources and distribution system, start and stop procedures and other intricacies of the specific water system that can easily be followed by someone not familiar with the PWS	The O&M Manual consists of a collection of specific manuals for various pieces of equipment, but no summary on how to actually run the PWS or a description of normal operation The information is available, but an actual O&M manual needs to be developed that includes a summary of water system intricacies	No O&M manual in any form exists	
Updating O&M Manual	Manual is reviewed annually and changes are made as necessary	Manual is reviewed every two years and changes are made as necessary	Manual is rarely reviewed (> every 5 years) and is out of date	
Familiarity of Personnel	Personnel are familiar with the contents of the O&M, know where to look for specific information, and refer to the O&M as necessary	Personnel have reviewed the O&M manual only when they were new to the PWS, but have not reviewed the manual since then even though changes to the system have occurred	Personnel rarely/never refer to the O&M Manual	
			Total	
			Score = Total ÷ 3	

19. How well does the water system Emergency Response Plan (ERP) outline procedures to respond to emergencies? Is the plan up to date and available upon request? Does the ERP define responsible personnel and a clear chain of command and responsibilities? Does the ERP identify an emergency operations center and communication network? Date of Last Plan Update or Table Top Exercises:

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Emergency Response	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Plan	Plan includes: - immediate steps to take when an emergency occurs - a clear chain of command and responsibilities - an outline of procedures to assess damage - current emergency phone numbers - an inventory of resources that may be available upon request - emergency procedures to monitor progress of repairs and restoration	Plan is available but is limited in its content: - chain of command is included but plan lacks clearly defined responsibilities - some steps to take when an emergency occurs are included but could be elaborated - phone numbers are out of date	PWS does not have a plan or emergency response procedures are solely limited to a list of phone numbers	
Review	Plan is reviewed and updated at least annually	Plan is only updated every 2-4 years	Plan is nonexistent or has not been updated in 5+ years	
Exercises	The majority of PWS employees have participated in exercises to practice emergency response within the last two years	Less than the majority of PWS employees have participated in exercises to practice emergency response within the last two years	PWS has never rehearsed emergency response exercises	
Mutual Assistance	PWS is an active member of NvWARN or other mutual assistance network (i.e. neighboring PWS)	PWS collaborates with their closest neighbor to share equipment in case of emergencies	PWS does not participate in any mutual assistance network	
Health Authority Notification	PWS notifies the health authority when an emergency occurs and submits necessary documentation	PWS notifies the health authority when an emergency occurs, but is delayed in submitting the necessary documentation	PWS does not notify the health authority	
			Total	
			Score = Total ÷ 5	

20. Is there adequate security in place to protect the water system assets?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Security	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
SCADA / Telemetry	PWS utilizes SCADA to monitor the water system remotely and to alert operators when issues arise	PWS has some telemetry, i.e. for tank water levels, but it does not monitor the entire system Operators are alerted when there are low tank levels	PWS has no telemetry Water system must be physically monitored	
Housing, Fencing, Locks, Etc.	Assets are housed, fenced, locked and alarmed An alarm at a facility is transmitted to the operators	Assets are housed, fenced and locked	Assets are not secured	
Location	Assets are located within the town and visible and/or are monitored remotely with security cameras and alarms	Assets are located partially outside of town and only partly visible There are no security cameras	Assets are located quite a distance from town and no form of alarm or surveillance is in place	
			Total	
			Score = Total ÷ 3	

21. How well trained is the water system governing board in understanding applicable regulations, regulatory agencies, rules, ordinances and professional practices in the water supply area? Are job duties clearly delineated? Is there an organizational chart? Does the governing board review and update policies/ordinances related to water system operations regularly? Are regular board meetings held? Does the board adhere to Open Meeting Law (NRS 241)?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Governing Body	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Governing Body Training	At least a majority of governing body members have attended training on water system management	Less than a majority of governing body members have attended training on water system management	No governing body members have attended training on water system management	

Member Participation in Meetings	The governing body holds regular meetings that all members attend	The governing body holds meetings on an as-needed basis. Member attendance at meetings is sporadic	The governing body does not hold meetings Not all seats on the governing body are filled	
Open Meetings	Meetings of the governing body are open to customers and staff At least 3 days advanced notice of meetings is provided	The governing body has procedures for open meetings, but does not follow them Notice of meetings is inadequate	The governing body does not hold open meetings	
Staff Communication with Governing Body	An operational and financial report are presented by staff and reviewed by the governing body each month	Operational and financial information is provided by staff to the governing body upon request	There is poor communication between the governing body and staff	
Customer Communication with Governing Body	At all meetings of the governing body: - public comment periods are provided prior to each agendized action by the governing body - public comments are included as a separate items on the agenda	There is a public comment period on the agenda at meetings of the governing body	There is no public comment period at meetings of the governing body	
Open Records	Meeting minutes and other records required by law are accessible to staff, customers and the public in general	Meeting minutes and other records required by law are inconsistently maintained or not accessible to customers and staff	Meeting minutes and other records required by law are not maintained	
Budget	Water system has annual operating and capital budgets that are approved by the governing body The governing body reviews a budget comparison each month	Water system has an annual operating budget that is approved by the governing body	Water system does not have an annual budget	
			Total	
			Score = Total ÷ 7	

22. Policies enable a water system to establish its business practices regarding personnel, contracts, and customer service (complaints and billing). Policies provide a consistent way for a system to respond to recurring situations or unusual conditions. They provide guidance for staff as well as provide information for customers so expectations and responsibilities are clear. Policies should be adopted by the governing body or delineated in an ordinance and distributed to staff and made available to customers. The size of the utility and number of staff will determine the number and complexity of the policies. Policies do not have to be elaborate or lengthy, but they should be

clear. How adequately do the existing policies/ordinances address day-to-day operations, water conservation, back-flow prevention, late fees, hook-up fees, capacity fees, service charges, meter replacement fees, shut-off and re-connection fees, etc.? Do the existing policies ensure compliance with regulations?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Type of Policies	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or Deficient Managerial Capacity 1**	
General	Clearly written policies are distributed to staff and customers Policies are enforced consistently and fairly	There are some written policies but not everyone is aware of them, lax application or enforcement of policies	Very few or no policies	
Personnel	Written job descriptions with clearly understood job expectations; clear policies on training, business use of utility cell phones and vehicles	Some personnel policies, but not consistent or fairly applied	No job descriptions or job expectations	
Contracts	Written contracts for operations with clearly defined responsibilities	Loosely worded written contracts, expectations unclear	Only verbal contracts	
Customer Service – Complaints	Complaints are recorded and responded to within a specified time frame by assigned staff	Minimal logging of complaints; no staff specifically tasked with responding so response is inconsistent	No recording of complaints; very inconsistent response or no response at all	
Customer Service – Billing	Clear information on procedures for new service; payment procedures; late payments, termination of service for non-payment, collection of past due accounts; restoration of service	Some polices but not enforced consistently or fairly	No policy on late payments, past due accounts, or termination of service; poor collection rate	
			Total	
			Score = Total ÷ 5	

23. It is important for customers to understand the service being provided by the utility. Customer support is the foundation upon which the utility builds support for rate increases, system upgrades, infrastructure replacement, operator salaries and others. The utility is also responsible for educating customers on important issues such compliance with new regulations, the need for water conservation, the importance of backflow prevention, and other issues. How well does the PWS communicate with the public?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Communication	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or Deficient Managerial Capacity 1**	
Public Relations - Notification	All required public notifications are completed and distributed, such as: Consumer Confidence Reports, violations, boil water notices, etc.	Some required public notifications are not completed or not distributed effectively	Required public notifications are not completed Utility does not know or understand requirements	
Public Relations - Education	System has developed effective methods of communicating with customers such as: bill stuffers, newsletters, website, radio announcements, etc. System participates in community events such as health fairs, water fairs, etc.	Some communication with customers, but no thought given to most effective methods	No communication with customers about impact of new regulations, water conservation or other topics.	
			Total	
			Score = Total ÷ 2	

24. How adequately is the water system staffed? Do responsible persons have sufficient time devoted to operations? Are roles, responsibilities and authorities clearly specified (including contract operators)?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Staffing	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or Deficient Managerial Capacity 1**	
Defined Responsibilities	Roles & Responsibilities are clearly defined in job descriptions	Some responsibilities are included in the job description, but the descriptions are incomplete	Job descriptions do not include clearly specified roles and responsibilities	

Staff	Office staff as well as operators are able to devote enough time to water system operations including conducting and documenting routine maintenance, seeking funding for projects and complying with all federal and state laws	Office staff and/or operators have difficulty completing all of the mandatory responsibilities in the form of daily and weekly tasks and constantly work overtime to meet requirements Additional staff would be appreciated and additive to the operation	Staff has difficulty completing responsibilities in the form of daily, weekly, monthly and yearly tasks They are always trying to play catch up	
			Total	
			Score = Total ÷ 2	

25. A system practicing comprehensive asset management knows what assets they have, the condition, criticality and value of each asset, when maintenance will be needed and when replacement of the asset should be considered. Asset Management Plans (AMP) can inform Capital Improvement Plans (CIP) by providing a projection of asset maintenance and replacement expenditures. In addition to minimizing emergency repair or replacement incidents, AMPs and CIPs can be used to budget and justify rate increases. How adequately does management prepare for future capital improvements and for the replacement of aging and failing infrastructure (depreciation)? Is there an updated capital improvement plan? Does the plan include a planning horizon of at least 5 years? Is there an up-to-date asset inventory and asset management plan? Has the utility adequately assessed the condition of and remaining service life of existing facilities and identified critical facilities that if inoperable, would result in a water outage and/or water quality failure?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Capital Improvements/ Asset Management	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Preparation	PWS has developed a CI plan and is actively saving money for funding PWS is also looking into various financing options	PWS has a CI plan, but is not saving money for funding nor have they started to look into their financing options	No CI plan has been developed and no funding is being set aside for projects	
CI Planning Horizon	PWS's CIP includes a planning horizon of 10 years	CIP includes a planning horizon of 5 years	No planning horizon	

Asset Management Planning	PWS has an inventory of all water system assets that includes: - date of installation - price when installed - anticipated life span - a maintenance schedule that will prolong the life of the asset	PWS has an incomplete inventory of water system assets Records on installation date, cost and maintenance are lacking	No inventory of assets is maintained	
Prioritizing	PWS has prioritized each water system asset based on criticality to the water system and remaining service life	Incomplete assessment of water system assets criticality to service	PWS is unaware of which assets are likely to fail first and/or what maintenance could be done to prolong their service	
Funding Depreciation	Funds are being set aside to fully account for depreciation	Funds are being set aside for depreciation but at a lower rate than to fully fund the assets	Depreciation is not included in budgeting	
			Total	
			Score = Total ÷ 5	

26. The PWS ultimately has all responsibility for a public works project regardless of who they may hire to assist with review and documentation. How well do you think your system is equipped to manage a construction project (e.g., staffing, record keeping, equipment, state and/or federal requirements such as State Prevailing and/or Davis-Bacon wage rates, etc.)?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Project Management	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Staff	PWS has had successful construction projects in the past and has staff experienced with construction oversight	PWS has limited staff but can complete small construction projects PWS can oversee construction projects with assistance from Engineer and the State	PWS has no experience with construction, they would need extensive assistance from their Engineer and the State to oversee a project	

Record Keeping	PWS keeps excellent records documenting progress, wages, equipment, and finances for all projects Updates are provided to those financing the project as required	PWS keeps most records documenting progress, wages, equipment, and finances for projects but some information is lacking Updates are provided to the financier but only after frequent prompting	Records are lacking in content and accountability PWS has difficulty in providing updates because of poor record keeping	
State/Federal Project & Wage Requirements	PWS is knowledgeable and has experience with soliciting bids for public works projects PWS is knowledgeable and has experience with state and federal wage comparisons, reviewing certified payrolls, and all requirements of the Davis-Bacon Act and State Prevailing Wage requirements	PWS relies on their Engineer to provide appropriate bid documents and follow the bidding process through to contract award PWS relies on its Engineer or other contracted help to take care of state and/or federal wage requirements	PWS has no experience with state or federal project or wage requirements	
			Total	
			Score = Total ÷ 3	

Enter your score from each of the questions 14 – 26 above. Divide the total by 13 to get your final managerial score.

14	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*	*26*	*Total*

Financial Capacity

NRS 445A.817 "Financial capability" defined. *"Financial capability" means the ability of a public water system to:*

1. *Pay the costs related to maintenance, operations, depreciation and capital expenses;*
2. *Maintain creditworthiness; and*
3. *Establish and maintain adequate fiscal controls and accounting methods required for the operation of the system*

27. Budgeting is crucial to effective management of water system finances. Budgeting is typically considered an indicator of financial capacity. However, it is also an important managerial capacity indicator because the water system governing body plays such an important role in the budget process. Although the draft budget may be prepared by water system staff, it should be approved by the governing body. The governing body should also get a status report each month comparing budget projections to actual revenue and expenditures. With this information, it can monitor financial trends, provide oversight, and ensure that the allocation of funds reflects the goals of the water system.

    How adequate is the existing budget (does the budget project out 5 years, include a line item for capital improvements and depreciation reserves, are line items properly defined and easily understood and does the budget realistically project all revenues and expenses)? Are water system revenues and expenses tracked separately from other utility and general funds?
    Rates can help you gauge whether a utility is charging the full cost of providing water and if there is willingness to raise rates to keep up with costs. This indicator is often considered financial, yet governing bodies are responsible for positioning the system to be financially sound. This includes understanding the full cost of providing service, now and into the future, and educating customers about those costs. It also includes the development of a rate structure that encourages conservation, preserving the system's source, and reducing energy costs and wear and tear on the system. How well do the existing rates meet the budget demands (are they based on the current budget and adequately recover the cost of service)? Are rates sufficient to cover all operating expenses including depreciation reserves, debt service, capital improvements and emergency reserves? Does utility management review the rates annually for adequacy? Are they reasonable (> or = 1.5% of the service area MHI)? What is the current charge for a 3/4-inch residential metered customer for 15,000 gallons used in a month? $95.00

    Are there reserves available for improvements? Has preventative maintenance or replacement of major system components been postponed for financial reasons? How much is the system saving annually? How much is currently saved?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			Score (1-3)
Budget Management	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Budget	PWS budget: - projects out 5 years - realistically projects all revenues and expenses - line items are properly defined and easily understood - includes a line item for capital improvements and depreciation reserves - revenues and expenses are tracked separately from other utilities and the general fund	PWS budget: - projects out 1-2 years - line items are properly defined and easily understood - includes a line item for some reserves - revenues and expenses are not tracked separately from other utilities and the general fund	PWS budget: - covers only the current year - missing or understated expenses (sometimes due to lack of revenue) - line items may be confusing - may include inaccuracies (generally found by the Dept. of Taxation) - does not include a line item for some reserves - revenues and expenses are not tracked separately from other utilities and the general fund	
Operating Cash Reserve	PWS has enough set aside to cover expenses that occur before all payments come in	System sometimes does not have cash available to cover expenses that occur before payments come in	System does not have cash available to cover expenses that occur before payments come in	
Emergency Reserve	System has enough funding available to cover the most expensive component of the system	System has some funding available, but not enough to cover the most expensive or vulnerable component of the system	System does not have any funding available to respond to an emergency	
Water Rates	PWS charges a 'reasonable' rate for water used Rates are sufficient to cover all operating expenses including depreciation reserves, debt service, capital improvements and emergency reserves – they cover the full current and anticipated costs of providing safe, reliable drinking water Rates are reviewed/increased annually to keep up with costs Customers understand the full cost of service	Rates are sufficient to cover operating expenses and debt service with little left for depreciation reserves or capital improvements Rates are not reviewed on an annual basis and are increased only when emergent needs arise Customers do not understand the full cost of service	PWS does not know the full cost of service and water rates do not cover operating expenses Rates are rarely reviewed and there is reluctance on the part of the governing board to consider increases	

Short-lived Assets (Components that last 5-6 years) Reserve	System has funding available to replace short-lived assets over the next 5-6 years	System has some funding available to replace short-lived assets over the next 5-6 years	System does not have funding available to replace short-lived assets over the next 5-6 years	
Capital Reserve	System has a plan in place to finance long-term capital investments to the system	System will be able to finance some, but not all long-term capital investments to the system	System does not have a plan to finance long-term capital investments to the system System indicates they need a grant to cover future costs	
			Total	
			Score = Total ÷ 6	

28. When consumers have various options to pay bills, utilities are more likely to receive payments on-time. How appropriate is the current water system billing and collection process? Does the PWS accept credit cards, online payments, automatic payments, cash, checks etc.? Are payments generally received on time (are there many overdue accounts)?

    _____ Interested in TA _____ N/A

    Comments:

	Assessment			**Score (1-3)**
Billing /Collections	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
Billing	PWS accepts all forms of payment: online payments, credit cards, automatic payments, cash, checks, money orders, etc.	PWS accepts credit cards, cash, checks and money orders and is actively pursuing adding the ability to accept online payments or automatic payments	PWS accepts cash, checks or money orders and is not interested in or does not have the capability of adding any other forms of payment	
Overdue Accounts	Few accounts are overdue and the PWS enforces policies that address late payments	<10% of accounts are overdue and PWS is working with those customers to pay prior bills	>10% of accounts are overdue and the PWS has not taken collection actions	
			Total	
			Score = Total ÷ 2	

29. Does management retain a certified public accountant and/or management consultant or retain staff that is qualified and uses generally accepted accounting principles (GAAP) in compliance with the Governmental Accounting Standards Board (GASB), the Financial Accounting Standards Board (FASB) and/or National Association of Regulatory Utility Commissioners (NARUC) in preparation of

financial statements and audits? Does the PWS use Quick Books or other finance management software? How well are financial records kept? Do financial audits include any findings of significant concern? Are audits available for review?

_____ Interested in TA _____ N/A

Comments:

	Assessment			Score (1-3)
Accounting	**Strong Managerial Capacity 3**	**Moderate Managerial Capacity 2**	**Weak or deficient Managerial Capacity 1**	
GAAP	PWS has staff that is qualified in financial management and uses GAAP	PWS retains a certified public accountant and/or management consultant	PWS does not do their own accounting and is not aware of it financial status It relies on the City or the County to generally manage their finances	
Financial Software	PWS uses widely accepted finance management software (Caselle, Inhance, QuickBooks, etc.)	PWS uses personal financial software such as Quicken	PWS does not have any financial software or is unable to use it effectively	
Record Keeping	PWS keeps excellent financial records that are available for review	PWS keeps most records documenting progress, wages, equipment, and finances for projects but some information is lacking Updates are provided to the financier but only after frequent prompting	PWS does not maintain its financial records The County handles the financial records PWS is somewhat weak in its understanding but this is the best solution for many of our small systems	
Department of Taxation /Financial Audits	PWS has never received a letter of concern from the Department of Taxation regarding their current financial situation Financial audits include no findings of significant concern	PWS has not received a letter of concern from the Department of Taxation regarding their current financial situation in the past 5 years Any issues previously noted by taxation were corrected Financial audits in the last 5 years include no findings of significant concern	PWS has received a letter of concern in the last year and has not addressed those concerns Financial audits include findings of significant concern	
			Total	
			Score = Total ÷ 4	

Enter your score from each of the questions 27 – 29 above. Divide the total by 3 to get your final financial score.

27	*28*	*29*	*Total*

Enter your score from each of the sections – technical, managerial, and financial – above. Divide the total by 3 to get your final capacity score.

Technical	*Managerial*	*Financial*	*Total Capacity Score*

Other Comments or Specific Requests for Assistance –

Attach additional sheets as needed

ATTACHMENT 2 –Technical Assistance Provided by Nevada Rural Water Association

Technical Assistance provided by Nevada Rural Water Association

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

	Water System Name	Description of Assistance
	Jul-Sep 2011	
1	Battle Mountain	Capacity Survey
2	McGill-Ruth GID	Capacity Survey
3	Devil's Gate GID	Capacity Survey
4	Caliente	Capacity Survey
5	Beatty GID	Operator training water treatment (5 sessions)
6	Kingston	Wellhead Protection Plan
7	Gabbs	Bacteriological Sampling Plan
8	USFS Terraces Picnic Area	O&M Document, Start-up Procedures
9	USFS Thomas Creek Campgound/Picnic Area	O&M Document, Start-up Procedures
10	Mt Rose Bowl HOA	Corrosion control treatment options (lead & copper issue)
11	Dyer Elementary School	Davis-Bacon reporting training
12	Silver Springs Mutual Water Company	Board training & assistance with recruitment of a new manager
13	City of Wells	Planning for storage tank shutdown (tank damaged in earthquake)
	McGill-Ruth GID	Financial management & record keeping training
	Oct-Dec 2011	
14	Golconda GID	O&M, ERP, Well logs
15	Lahontan Dam State Park	SOP development
16	South Ruby Campground	SOP development
17	Imlay	Asset Management Plan
	USFS Terraces Picnic Area	O&M plan
18	Pioche Public Utilities	Water Conservation Plan
	City of Wells	CCCP, GIS Mapping of Meters
19	Moapa Valley Water District	GIS/GPS assistance in correcting point displacement issue; training on ArcView GIS
20	Goldfield	Organized digital mapping data
	McGill-Ruth GID	Organized digital mapping data
21	Topaz Ranch Estates GID	Assitance to resolve manager-board conflicts
	Imlay	Conversion of CAD data for use in GIS system
22	Carlin	Conversion of CAD data for use in GIS system
23	Tonopah Public Utilities	Board training
	Pioche Public Utilities	Water audit/Leak detection training
24	Panaca Farmstead Association	Water audit/Leak detection training
25	Angel Lake	Assistance with operator certification training
	Mt Rose Bowl HOA	Assistance with aggressive water calculations using new data; sampling corrosive spring water for CO_2
	Golconda GID	Assistance with use of Trichlor & NSF requirements
	McGill-Ruth GID	Addendum to supplement existing O&M plan
	Silver Springs Mutual Water Company	CCCP
	City of Wells	Budget review and assistance with water rate setting
26	Aervoe Industries	Water Conservation Plan
	McGill-Ruth GID	Set up McGill data in QGIS
	Silver Springs Mutual Water Company	Assistance with response to PUC letter
	City of Wells	Assistance with management decision on proposed heat exchanger
	Carlin	Set up Carlin data in QGIS
	Goldfield	Set up new GIS data & map in ArcReader
27	Ely	Leak detection/water audit/Excel training
	Caliente	Board training on backflow prevention
	Topaz Ranch Estates GID	Board training
28	Canyon GID	Operator Training (2 sessions)
29	Wildes Manor MHP	Operator Training (2 sessions)
	McGill-Ruth GID	O&M plan
	Kingston	CSWP plan
30	Williams Ridge Technology Park	Water Conservation Plan
31	Patch of Heaven Camp	Assisted with preparations for upcoming Sanitary Survey
32	Boulder City	Assisted with treated water reservoir quality management & DBPs
	Panaca Farmstead Association	GPS assistance with valves & manholes; training on ArcView GIS
	Tonopah Public Utilities	Training on ArcView GIS
	Mt Rose Bowl HOA	Assisted with information and training on applying for project funding and getting on Priority List
	Kingston	Leak detection/water audit training
33	Austin	Treatment math training
	City of Wells	Leak detection/water audit training
	Jan-Mar 2012	
34	Weed Heights	O&M Manual
	Tonopah Public Utilities	Training on GIS & file conversions to/from GoogleEarth
35	USFS Bob Scott Campground	Water system management/plan development
	Goldfield	Replaced old, water system map with new, image background map
	City of Wells	GIS mapping of water system
	Panaca Farmstead Association	GIS and GPS training
36	Indian Springs	Fire hydrant / valve operation & maintenance training (1 session)
	Indian Springs	Distribution 1-2 class (1 session)

	Jan-Mar 2012	
	Moapa Valley Water District	Treatment math class (1 session)
	Tonopah Public Utilities	Board training on CCC
	Tonopah Public Utilities	Distribution 1-2 class (1 session)
37	Nevada Youth Training Center	Leak detection training
	City of Wells	Water quality units & measures training (1 session)
	Canyon GID	Operator training (4 sessions)
	Wildes Manor MHP	Operator training (4 sessions)
	Ely	Excel & Record keeping/Database management training (1 session)
	Indian Springs	Capacity Survey & Pre-Sanitary Survey
38	Elk Point Country Club	Capacity Survey & Pre-Sanitary Survey
	Canyon GID	Capacity Survey & Pre-Sanitary Survey
	Ely	Capacity Survey & Pre-Sanitary Survey
	Dyer Elementary School	Updating O&M, CCCP, ERP, and site sampling plans after replacement well project
	Canyon GID	GPS assets & GIS mapping of water system
	Moapa Valley Water District	GIS mapping & training in ArcView, Mapbook for volunteer fire department
39	Silver Peak	Creating & georeferencing background map for use in GIS map of system
	Goldfield	Assisted with compensation survey
	Wildes Manor MHP	Assisted with SRF Letter of Intent for arsenic mitigation project funding
40	USFS Timber Creek Campground	O&M plan
41	USFS Angel Creek Campground	O&M plan
42	USFS Bird Creek Campground	O&M, ERP, & CCCP
43	Elko, Mountain City, Montello, Tuscarora	Leak detection training
	Austin	Bacteriological Sampling Plan
	Wildes Manor MHP	Water Conservation Plan
	Indian Springs	GPS assets & GIS mapping of water system
44	Elko County Schools	Leak detection training (1 session)
	Apr-Jun 2012	
45	Gardnerville Ranchos GID	Capacity Survey & Pre-Sanitary Survey
46	Wells Honor Camp	Pre-Sanitary Survey
	Wildes Manor MHP	Water Conservation Plan
	Indian Springs	Set up new GIS data & map in ArcReader
	Panaca Farmstead Association	GPS manholes & wells; training on digitizing lines
	Moapa Valley Water District	Training on geodatabases & use of Arc Catalogue
	Pioche Public Utilities	Financial accounting workshop (1 session)
	Wells Honor Camp	Leak detection training (1 session)
	City of Elko	Leak detection training (1 session)
47	City of Fallon	Capacity Survey & Pre-Sanitary Survey
48	Indian Hills GID	Chlorine residual procedure validation
49	Sierra Estates GID	Capacity Survey & Pre-Sanitary Survey
50	Roark Estates HOA	Capacity Survey & water loss evaluation
51	Virgin Valley Water District	Capacity Survey & Pre-Sanitary Survey
	Elk Point County Club	Operator certification / reinstatement
52	Sierra Country Estates	System consolidation review & assistance with compliance issues
	Sierra Estates GID	CCCP plan review & meter accuracy testing assistance
53	Lamoille HOA	Assistance with fiberglass UST inpection requirements
54	Sutcliff MHP	Operator certification assistance
55	Round Hill GID	Capacity Survey
	Roark Estates HOA	Assistance with reverse osmosis treatment technology
56	Incline Village GID	Capacity Survey
	Panaca Farmstead Association	Asset management plan
57	USFS Angel Lake Campground	O&M plan
	USFS Bob Scott Campground	O&M plan
	Tonopah Public Utilities	Assistance with using GIS for asset management
	Carlin	Assistance with entry of water line diameters into GIS system
	Canyon GID	Assistance with GIS data entry (valve testing), addition of map for the LCC
	City of Elko	Assistance with placing locations of leak detection loggers on Googlemaps
	Goldfield	Treatment operations training (2 sessions)
	Silver Peak	Treatment operations training (1 session)
	Pioche Public Utilities	Quickbooks setup and training (1 session)
	City of Fallon	Operator certification training (2 sessions)
58	South Maine MHP	Leak detection training (1 session)
	Roark Estates HOA	Review of record keeping & corrective actions with management company
	Alamo Sewer and Water GID	Assistance with completing the CCR
	Kingston	Chlorine residual SOP
59	Tolas Water Coop	CCR
60	Orovada GID	Capacity Survey & Pre-Sanitary Survey
	City of Wells	Capacity Survey & Pre-Sanitary Survey
61	Gerlach GID	CCCP & training on CCC
62	Kingsbury GID	Leak detection training (1 session)
63	Coyote Springs	Water hauling trailer certification/licensing assistance
	Sierra Estates GID	Board training on CCC
	Canyon GID	Addition of attributes to GIS tables
	Tonopah Public Utilities	Addition of attributes to GIS tables
	Indian Springs	Assistance with use of publish map with water system assets linked to Excel tables
64	Stagecoach GID	Board training (1 session)
	Tonopah Public Utilities	Distribution review class (1 session)
65	Round Mountain	Distribution review class (1 session)
	Silver Springs Mutual Water Company	Cla-Val Training (1 session)
66	City of Yerington	Cla-Val Training (1 session)

General Training provided by Nevada Rural Water Association

Course Title	Date	Contact Hours	Number of Participants	Number of Systems	Locations
Practical Steps in Conducting Your Water Audit	3/20/2012	1.00	25	16	NvRWA Conference, Reno, NV
Experiences Setting Up Simple GIS in Rural Nevada Communities	3/21/2012	2.25	17	11	NvRWA Conference, Reno, NV
Coordinate Systems Using GIS	3/21/2012	1.00	22	11	NvRWA Conference, Reno, NV
Financial Accounting for Small Utilities	3/22/2012	1.50	7	5	NvRWA Conference, Reno, NV
Water Treatment Operator Grades 3 & 4 Review	3/22/2012	2.25	8	6	NvRWA Conference, Reno, NV
Statewide Capacity Evaluation: How Do You Compare	3/23/2012	1.00	25	21	NvRWA Conference, Reno, NV
Distribution Operator Training	4/11/2012	6.00	12	14	Reno, NV
Distribution Operator Training	4/12/2012	3.00	13	15	Reno, NV

ATTACHMENT 3 – NDEP Bureau of Safe Drinking Water
Arsenic Rule Compliance Status List

NDEP Bureau of Safe Drinking Water - Arsenic Rule Compliance Status List

	COUNTY	PWS ID#	PUBLIC WATER SYSTEM NAME	ARSENIC (ppb)	POP
Systems with Compliance Timeline Exemptions from the State Environmental Commission					
1	CL	NV0000219	SEARCHLIGHT WATER COMPANY	11	760
2	DO	NV0000887	SUNRISE ESTATES	17	91
3	EU	NV0000043	CRESCENT VALLEY WATER SYSTEM	12	350
4	HU	NV0000162	MC DERMITT WATER SYSTEM	19	200
5	LA	NV0000006	LA CO SEWER AND WATER DIST 2 AUSTIN	14	350
6	LI	NV0000185	PANACA FARMSTEAD WATER ASSOCIATION	20	800
7	LY	NV0000255	YERINGTON CITY OF	19	2,900
8	NY	NV0000237	TONOPAH PUBLIC UTILITIES	13	2,600
9	WA	NV0000896	BRISTLECONE FAMILY RESOURCES	12	25
10	WA	NV0004021	SILVER KNOLLS MUTUAL WATER COMPANY	13	120
11	WA	NV0003000	VERDI SCHOOL	13	250
Systems Working to Achieve Compliance Under an NDEP Administrative Order on Consent					
1	CL	NV0000109	EQUESTRIAN ESTATES CO OP WATER ASSOC	36	108
2	CL	NV0000147	FRONTIER VILLAGE MHP	42	60
3	EL	NV0005027	SPRING CREEK MHP	44	4,146
4	ES	NV0000072	GOLDFIELD TOWN WATER	47	350
5	WA	NV0000193	CRYSTAL TP	27	80
Systems Working to Achieve Compliance Under Other NDEP Enforcement Mechanisms					
1	CH	NV0000055	TOLAS WATERWORKS	35	110
2	CH	NV0000303	OLD RIVER WATER COMPANY	32	300
3	CH	NV0000058	WILDES MANOR	20	70
4	CL	NV0000319	ROARK ESTATES WATER ASSOC.	18	62
5	DO	NV0002046	HOLBROOK STATION RV & MHP	43	180
6	EL	NV0000928	LAMOILLE VALLEY PLAZA	24	25
7	LI	NV0000005	ALAMO SEWER AND WATER GID	36	900
8	NY	NV0005028	SHOSHONE ESTATES WATER COMPANY	30	240
9	WA	NV0005061	VERDI BUSINESS PARK WATER CO-OP	15	100

Updated 07/26/2012