

**ORIGINAL**  
**LAS QUINTAS SERENAS WATER**



0000156446

P.O. Box 68  
Sahuarita, Arizona 85629  
Telephone: 520.625.8040 | Facsimile: 520.648.3520

2014 OCT -1 A 10: 54

September 29, 2014

AZ CORP COMMISSION  
DOCKET CONTROL

Arizona Corporation Commission  
**DOCKETED**

OCT -1 2014

Docket Control Center  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

DOCKETED BY	<i>nr</i>
-------------	-----------

Utility: Las Quintas Serenas Water Company

Docket No: W-01583A-13-0117      Decision No. 74398

To Whom It May Concern,

On March 19, 2014, per Decision and Order Docket No. W-01583A-13-0117 Decision No. 74398 Las Quintas Serenas Water Company was ordered for compliance an action order to monitor its water system closely and take action to ensure that annual water loss is 10 percent or less. If the reported annual water loss is greater than 10 percent, the Company (LQS) should prepare a report containing a detailed analysis and a plan to reduce annual water loss to 10 percent or less. If Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost/benefit analysis to support its position. In no case will annual water loss be greater than 15 percent. The water loss reduction report or detailed analysis, whichever is submitted, shall be docketed as a compliance item within 180 days of this Decision's effective date.

Please find attached for compliance Las Quintas Serenas Water Company, Water loss Reduction Report for your review. If you have any question you may contact my office or by e-mail.

Sincerely,

Omar Mejia, General Manager  
Las Quintas Serenas Water Company  
520-625-8040  
[omar@lqswater.com](mailto:omar@lqswater.com)

Copy:

Docket Control Center

Compliance Section

Director of Utilities Division

LQS Office

## **Las Quintas Serenas Water Company**

### **Loss Reduction Report**

Las Quintas Serenas (LQS) Water Company has prepared this report to outline the strategies planned to reduce annual water loss to less than 10%, per ACC requirements. These strategies include several operational and water system programs as discussed below.

#### **Metering**

LQS believes that a major contributor to the apparent water loss is inaccurate meter readings. Our first focus will be to improve meter accuracy for both production (well) meters, and customer meters.

##### *Well Production Meters*

The well production meters in the LQS system are not regularly tested or calibrated. The 4-inch Well No. 6 meter was installed in 2008. The 8-inch Well No. 7 meter was installed in 2002. The 4-inch Well No. 5 meter was installed in 1998. None of these meters have been tested or calibrated since the original installation dates. We understand that AWWA recommends that meters 4-inch and larger be tested every year and 1- to 3-inch meters should be tested every 5 years. LQS plans to have the production meters tested for accuracy in late 2014 or early 2015, and repaired if necessary. If the meters are determined to be inaccurate and they cannot be repaired they will be replaced with new meters. Once the meters are repaired or replaced, we will schedule to test and calibrate/repair the meters approximately every 2 years.

##### *Customer Meters*

The ages of water meters throughout the LQS system vary widely, with most of the "new" meters being 10 or more years old, the majority of the meters being between 10 and 20 years old, and some meters being more than 20 years old. From meter records, it appears that about half of the customer meters have registered more than 1 million gallons of flow, with many meters in the 2 to 6 million gallon range. In addition, it is our understanding that in the past a number of water meters replacements were performed with rebuilt used meters, and we are unsure as to the effect of the rebuilt condition of the meters on their potential lifespan. We understand that the AWWA recommends testing 1-inch and smaller meters every 10 years, and 1- to 3-inch meters every 5 years. Very few recommendations exist for replacing meters based on volume run through the meter, although we have learned of a study performed in the Metro Water District in Tucson which determined that at 1.5 million gallons the replacement of customer water meters became cost effective for that utility. Because of the age and condition of the water meters, LQS plans to start a meter replacement program. LQS plans to replace 8 to 10 meters per month, which will total approximately 100 meters per year. This meter change-out program will allow LQS to exchange approximately 10 percent of the customer meters per year. We will start with replacing the oldest meters, and the meters with the highest total usage readings. We will also focus on the largest meters in the system.

## Standpipe Water Use Metering

LQS has approximately 130 customers served through individual meters located at two bulk water standpipe locations. Because of concerns about pressure fluctuations and water hammer in the water system there is a slow-closing valve that controls the delivery of water from the standpipes to the customer's bulk storage tank. Each of the customer meters are controlled by an electronic key-based system. Because of the way the standpipe meter system operates, the customer water meter stops registering flow as soon as the customer key is turned. However, due to the slow-closing valve on the outlet of the standpipe, the water continues to flow for several seconds, and measurements by LQS show that the unmetered water is approximately 25 to 60 gallons each time this occurs. LQS plans to work with the valve vendor to determine if changes to the operation of the slow-closing valve can be made to reduce or eliminate this lost water, while maintaining reasonable water pressures in the water system. LQS will also contact the vendor of the standpipe control system, to determine if any changes to this system are possible to properly meter the customer deliveries.

## Tracking of Miscellaneous Water Losses

LQS plans to improve the tracking of miscellaneous uses which are currently unmetered, including:

- LQS performs water system flushing as a standard practice to reduce stagnant water in dead ends. This flushing is currently performed at 62 blow-offs throughout the water system, approximately once per quarter for 15 to 20 minutes per site. This operational practice, while good for water quality, results in lost water. The water system operator performing the flushing has a quick-disconnect piping setup that allows the water to be directed out of the blow-off. LQS plans to add a water meter to this flushing apparatus, which will allow us to keep track of the water used for flushing and report that metered volume.
- LQS has occasional tank overflows and other miscellaneous uses of water in the system due to maintenance operations. The water system operators will keep track of the estimated quantity of water loss in a "Miscellaneous Water Loss Log" and this volume will be tabulated at the end of each year.
- LQS does not believe that water main and service leaks or breaks are a large contributor to water loss throughout the water system. Water main breaks are very infrequent, with only two large line breaks in the past six years. For any future water main or service issues, LQS will estimate the lost water and include it in the "Miscellaneous Water Loss Log". We will continue to monitor the system for signs of leakage, and if problem areas are identified, we will consider implementing a leak detection program, or a main/service replacement program.