

# **Cold Creek Canyon Water System**

## ***Water Conservation Plan***

### **Background / System Information**

The Cold Creek Canyon HOA public water system (PWS NV0004000) serves customers within the town. The total service area is approximately 0.25 square miles. There are 201 recognized lots with 54 year-round customers. All residential customers are metered. Meters are installed on new residential services. Residential customers are billed on a flat rate basis.

The system is located in the Las Vegas Valley. Water is supplied from two drilled wells each using submersible pumps. Above-ground storage consists of a 218,000 gallon reservoir. The system is gravity fed. Disinfection has not been necessary and is not practiced. Wastewater collected from the area is managed through individual septic systems.

### **Plan Elements**

This plan describes the drinking water conservation and drought management efforts in the Cold Creek Canyon HOA, along with implementation schedules. The plan components conform to Nevada regulations as outlined by the Nevada Department of Conservation and Natural Resource, Division of Water Resources and NRS 540.141. Plan elements address the following areas:

- Increase public awareness of the need to conserve water.
- Encourage reduction in lawn sizes and use of arid and semiarid plants.
- Identify specific water conservation measures.
- Propose plan to identify and reduce leakage.
- Increase reuse of effluent where applicable.
- Provide a drought contingency plan.
- Implementation schedule.
- Plan effectiveness metrics.
- Variable pricing analysis.

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## **Public Awareness**

The Cold Creek Canyon HOA efforts to enhance public awareness of the need to conserve water include the following:

- Customers and shareholders are informed via periodic HOA meetings.
- The HOA meeting minutes are recorded and posted for those that either couldn't make it, or wish to have written copies.

## **Encourage the Reduction of Lawns and Landscaping**

The Cold Creek HOA encourages the public to practice scientific turf management, makes literature and resources such as the Turf Institute, available to customers.

## **Specific Water Conservation Measures**

All residences are required to be in compliance with Clark County building code. Clark County has adopted the UPC standards requiring low flow water outlets and faucets. As such, Cold Creek Canyon HOA has adopted these measures as well. New homes are required to meet these standards to be permitted to hook on to the water system.

Annually, we audit production vs. usage to determine the amount of unaccounted water and infrastructure leakage index. We also compare current to historical production. This aims to ensure that the residence of Cold Creek Canyon HOA are not increasing, but decreasing their water use.

## **Plan to Identify and Reduce Leakage**

Cold Creek Canyon HOA is in the initial phases of developing a water system master plan to develop a system to identify water system leaks thereby by promoting efficient use of the available permitted water resources. Researching grants that may be available to private water systems to promote efficient water systems. In the mean time, there is weekly inspection of the system to ensure any and all leaks are found and repaired in a timely manner.

## **Reuse of Effluent**

Currently there is no plan to implement the reuse of water. Each structure uses an individual septic system for waste water capture, and there are no plans for a central treatment facility. Should a central treatment facility be considered in the future, appropriate measures will be taken to receive aid in building the necessary infrastructure.

### **Drought Contingency Plan**

Nevada is an arid state and Clark County is continuing to grow and water requirements are increasing. The area is subject to drought cycles; therefore, it is necessary to have a drought contingency plan. Water levels in both active wells are measured regularly to check for any draw down. To date the water level has lowered insignificantly. By this knowledge the Cold Creek Canyon HOA has not recognized drought conditions in recent history. However if a drought were to take place, provisions are in place to have a third party company bring in emergency potable water. For other emergency provisions, please refer to the Emergency Response Plan.

### **Implementation Schedule**

Plans for identifying leakages are already partially underway. Advancement and completion of this and all aforementioned plans will depend entirely on ease of acquisition of funds.

### **Plan Effectiveness Metrics**

By comparing current-year usage to historical-year usage, water saving effectiveness can be measured. If current-year usage is less than historical-year usage, then the conservations measures have succeeded.

Just taking in to account the replacement of the restroom fixtures with efficient fixtures is expected to save 13.5 gallons per person per day. And assuming no vacations, each person lives there year 'round, the expected water savings is about 4800 gallons per person per year.

### **Variable Pricing Analysis**

There are no plans to change the rate structure only to promote conservation. Rates are scheduled to be reviewed annually and adjusted, to meet budgeted costs. Each time rates are altered, the water usage patterns will be analyzed to determine price sensitivity.