

**Gold Ranch Casino & RV Resort  
Water Conservation Plan  
Revised September 2014**

**Prepared for:**

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## Introduction

The water supply in Nevada is a precious commodity and plays an important role in determining Nevada's future. Nevada is the one of the driest states in the nation as well as one of the fastest growing ones. Nevada's future, both from an economic and a quality of life view, depends heavily upon the wise management of the water supply.

Groundwater, in general, provides about 40 percent of the total water supply used in Nevada. In some areas, groundwater provides the entire water supply. Groundwater usage may vary considerably from year-to-year as it is sometimes pumped to supplement surface water sources.

Water use in Nevada can be classified as:

- Domestic (household, both indoor and outdoor) – Met by public supply or private supply (e.g. wells).
- Commercial (businesses) – Met by public supply or private supply (e.g. non-community systems).
- Industrial (manufacturing/construction) – Met by public supply or private supply (e.g. non-community systems).
- Thermoelectric (electric/fossil fuel/geothermal power generation) – Met by public supply in a minor fraction.
- Mining (mining processes) – Supply source varies widely from operation to operation and is dependent upon the mineral being recovered and the recovery process employed.
- Irrigation (land use) – Met by self-supplied or supplied by irrigation companies or districts.
- Livestock (farm needs) – Supply source varies.

While all classifications of water usages have shown an increase over the years, it has historically been irrigation water use which has accounted for the majority of the water use in Nevada.

It has been estimated that the domestic water use accounts for less than 15 percent of the water used in Nevada, but this is expected to rise to nearly 25 percent as the population increases (based upon existing water use patterns and conservation measures). It is expected that Nevada's population will become increasingly concentrated in its primary urban areas of Las Vegas (Clark County), Reno/Sparks (Washoe County) and Carson City, with varied spillover effects on neighboring counties.

It is vitally important that all residents understand the fundamental science of water, how it is managed in the state, and the issues affecting its management. Water education must become a priority and must include education of children as they are our future.

Because Nevada does not have a comprehensive state-wide conservation program, it is reliant upon the individual water suppliers for developing their own conservation programs. In 1991, Nevada enacted a law requiring adoption of conservations plans by water suppliers. Minimum standards for plumbing fixtures were adopted in 1991 (Assembly Bill 359) by Nevada and in 1992 minimum flow standards for plumbing fixtures were adopted by the federal government (National Energy and Policy Conservation Act).

Conservation is an essential part of ensuring adequate water supply as it is no longer feasible to develop new sources. It has proven to be a cost-effective way to reduce demands and/or to extend a given water supply. It can easily be pursued by all water users regardless of the water system type. Key to evaluating the program's effectiveness is the water use measurement (through meters and other measurement devices). Various conservation measures can be put into place and the achievement of the goals set with these measures is vital to combating the expected increase in water usage.

## Statutory Requirements

This water conservation plan was prepared for the **Gold Ranch Casino & RV Resort** in accordance with Nevada Revised Statue (NRS) 540. As outlined in NRS 540.141, the provisions of this plan must include:

- a. Public Education
- b. Conservation Measures
- c. Water Management
- d. Contingency Plan
- e. Schedule
- f. Evaluation Measurements
- g. Conservation Estimates

In addition to the provisions of the water conservation plan, listed above, NRS 540.141 also requires a rate analysis to be performed and included with the submittal.

This plan is being submitted to the Nevada Department of Conservation and Natural Resources (DCNR), Division of Water Resources (DWR) for review and approval prior to its adoption by the **Gold Ranch Casino & RV Resort**, as required by NRS 540.131.

This plan is available for inspection during normal business hours at 350 Interstate 80 West Verdi, Nevada.

This plan will conform to all public notice requirements as found in NRS 540.

The original Water Conservation Plan for the **Gold Ranch Casino & RV Resort** was developed on **August 24, 2010**.

In accordance with NRS 540.131, this plan will be reviewed from time-to-time to reflect changes and must be updated every five (5) years to comply with NRS 540.131 and NRS 540.141. The next update of this plan is to be on, or before, **September 30, 2019**.

## System Description

The **Gold Ranch Casino & RV Resort** is a privately-owned Commercial Non-Transient Non-Community water system and has a current water operation permit, NV0000751. The **Gold Ranch Casino & RV Resort** serves water to 109 flat rate connections the cost of which is included in the Recreational Vehicle (RV) Park usage fee to 1000 customers in its service area in Verdi, which is located in Washoe County. The service area boundaries are the boundaries of 350 Interstate 80 West and 335 Interstate 80 West and cover approximately 30 acres. The service area's terrain is flat and surrounded by mountains. **Gold Ranch Casino & RV Resort** provides water to 105 RV Park spaces, the RV Gate House, one customer (Jack in the Box), three self-owned connections to the Casino, the Lottery, a storage building located across Interstate 80, and five irrigation connections.

The estimated population served in 2010 is 1000. The **Gold Ranch Casino & RV Resort** estimates that its customer base will increase by 1 % on a yearly basis through 2020. The State of Nevada, through its State Water Plan, estimates the population growth for Washoe County through 2020 to be 1.33 % annually.

The water supply is from groundwater which is located within the Truckee River Basin (Basin #6) of the Truckee Canyon Segment Hydrographic Region Area (Area #91). There is one well (Well #2) supplying the system and one storage tank. Well #1 was abandoned prior to 2000. Each of these is identified in the tables below (Table 1 and Table 2). Water is pumped from Well #2 to the 200K gallon storage tank.

**Table 1 – Source of Supply**

<b>Well No.</b>	<b>Depth (feet)</b>	<b>Production (gpm)</b>
<b>Well #1</b>	<b>Abandoned prior to 2000</b>	<b>NA</b>
<b>RV Park Well #2</b>	<b>700 feet, below ground surface</b>	<b>160</b>

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**Table 2 – Storage Tanks**

<b>Tank No.</b>	<b>Volume (gallons)</b>
<b>ST01</b>	<b>200K</b>

The **Gold Ranch Casino & RV Resort** has been granted water rights in the total amount of 102.539 acre-feet per year. Permits # **49011**, #**65966**, #**65967**, #**65969**, #**68695**, and #**75297** have been permitted. The property is owned by the Stremmel's who own additional properties outside of Gold Ranch Casino. On May 27, 2009 the owner's of the water rights filed for an extension for permit #49011. Proof of Beneficial Use (PBU) was due May 16, 2010 and an extension of time to provide PBU was granted for permit #49011. Permits #65966, #65967, #65969, #68695 provided PBU on April 28, 2009. Permit #75297 is due to provide PBU on December 27, 2012. The current water rights are listed in the table below (Table 3).

**Table 3 – Water Rights**

<b>Permit No.</b>	<b>Well No.</b>	<b>Acre-feet</b>	<b>Rate of Diversion (CFS)</b>
<b>49011A01</b>	<b>Well #2</b>	<b>24.97</b>	<b>.33</b>
<b>65966</b>	<b>Well #2</b>	<b>2.85</b>	<b>0.004</b>
<b>65967</b>	<b>Well #2</b>	<b>46.30</b>	<b>0.065</b>
<b>65969</b>	<b>Well #2</b>	<b>8.01</b>	<b>0.011</b>
<b>68695</b>	<b>Well #2</b>	<b>0.21</b>	<b>0.003</b>
<b>75297</b>	<b>Well #2</b>	<b>20.20</b>	<b>0.1143</b>

Water is pumped from Well #2 to the manganese removal treatment plant and then pumped uphill to the 200K storage tank which then gravity feeds into the distribution system. Water is then distributed to the customers through a 4-inch water main.

The **Gold Ranch Casino & RV Resort** is operated by a certified D2/T2 operator. Operations are contracted to SPB Utility Services located in 430 Stoker Ave. Suite 207 Reno, NV 89503-5065.

The plant operator is required to perform weekly, quarterly, monthly and yearly monitoring and testing of water quality including chlorine residual and coliform tests. The **Gold Ranch Casino & RV Resort** recently installed the Manganese removal treatment system the week of July 26<sup>th</sup>, 2010 to address an exceedance of the MCL. Manganese is tested on a quarterly basis and will be tested again in late September. With the exception of Manganese, which is being addressed, **Gold Ranch Casino & RV Resort** does not currently have any outstanding water quality issues.

The last sanitary survey performed by the Nevada Department of Environmental Protection (NDEP) was completed on August 13, 2009 and shows four deficiencies with the system. These deficiencies were: the old Well #1 is still physically connected to the water system, the filters serving old Well #1 and Well #2 must be removed if not in service, the chlorine injector line is in the old chemical shed (which is used for storage including pesticides) and still connected to the well service pipeline, the service hatch on the storage tank requires a sensor to alert personnel to unauthorized opening of the hatch. **Gold Ranch Casino & RV Resort** has completed the following to address the deficiencies noted above: Well #1 has been permanently isolated, the filters in Well #1 and Well #2 have been temporarily isolated, and the chlorine injector line has been removed. The sanitary survey also noted that the water system appeared to be properly maintained and operated and is in compliance with all drinking water sampling requirements.

The **Gold Ranch Casino & RV Resort** includes the cost of water use with the amount total charge for customers to rent their space. In other words the Recreational Vehicle (RV) Park includes the water fee in the cost of the space and Jack in the Box, the only other customer to whom **Gold Ranch Casino & RV Resort** rents space, water use is included in the monthly rent. The RV Park has a master meter, and individual RV spaces are not individually metered. The Jack in the Box is metered. **Gold Ranch Casino & RV Resort** does not have a tiered rate usage fee. A breakdown of the customer type, number, and charge is found in the tables below. It is important to note that most of the water produced by **Gold Ranch Casino & RV Resort** is used to provide its own buildings and facilities with water, therefore these facilities, with the exception of the storage building located across Interstate 80, are not metered and are not charged a fee.

Both Residential & Commercial customers are billed a monthly space fee which includes the water usage. The fees are detailed in the table below (Table 4).

**Table 4 – Residential & Commercial Customers and Usage Charges**

Meter Size	Number	Monthly Fee (water rate included in rent)
Residential: RV Park 4-inch	105	Fluctuate Seasonally and depending on lot ~\$700
Commercial: Jack in the Box 2-inch	1	Unavailable

Wastewater collected from the service area is treated onsite by **Gold Ranch Casino & RV Resort**. The wastewater system is operated by SPB Utility Services. Wastewater is processed by going through an aeration basin, clarifier, and digester (for nitrate removal). Treated wastewater is then discharged into leach fields. Solids are treated at the Sparks plant.

Current water rates were established on January 1, 2010 for all customers. Water rates are reviewed annually for the RV Park, and every five years for Jack in the Box.

## Plan Provisions

In accordance with NRS 540.131, this plan will be reviewed from time-to-time to reflect changes and must be updated every five (5) years to comply with NRS 540.131 and NRS 540.141. The next update of this plan is to be on, or before, **September 30, 2019**.

The **Gold Ranch Casino & RV Resort** will appoint a staff member, if economically feasible, to oversee the conservation efforts and this staff member will be responsible for implementation of conservation programs, monitoring of water use, and will review /revise the conservation plan when needed. Conservation oversight is included with the responsibilities of the Facilities Manager.

In an effort to promote voluntary conservation and aid in Nevada's future, the **Gold Ranch Casino & RV Resort** will enact the voluntary conservation measures found in the *Conservation Measures* section. When more stringent measures are needed, the **Gold Ranch Casino & RV Resort** will enact the measures found in the *Contingency Measures* section. All measures can be found in Appendix A.

As required by NRS 540.141, the water conservation plan must include the following provisions:

- a. Public Education
- b. Conservation Measures
- c. Water Management
- d. Contingency Plan
- e. Schedule
- f. Evaluation Measures
- g. Conservation Estimates

Each provision is discussed below.

### ***Public Education***

Public education is a key for cooperation with conservation efforts, so funding for public education is crucial. The **Gold Ranch Casino & RV Resort** recognizes this and will establish a conservation education program and corresponding budget, if economically feasible.

It is the goal of the **Gold Ranch Casino & RV Resort** to increase public awareness to conserve water, encourage reduction in lawn sizes, encourage the use of climate-appropriate plants, encourage the use of drip irrigation, and encourage conscious decisions for water use.

The conservation education program includes education materials such as bill inserts, pamphlets, flyers, and posters. New customers will be provided these materials when service is established and when new customers check into the RV Park, while existing customers will receive these materials periodically through bill inserts. Educational materials will be posted in the RV Park Gatehouse to increase customer awareness. Educational pamphlets will be provided to all customers upon request and should include an explanation of all costs involved in supplying drinking water and demonstrate how the water conservation practices will provide water users with long-term savings. Educational materials should also encourage reduction of lawn sizes, use of drip irrigation, use of climate-appropriate plants, and conservation tips and techniques (see Appendix B). It is important to note that **Gold Ranch Casino & RV Resort** is responsible for managing the facility's irrigation system, not RV Park customers. Jack in the Box manages their own irrigation system which is 100% drip irrigation and uses minimal water. **Gold Ranch Casino & RV Resort** has already installed a drip irrigation system that is on a timer and managed effectively.

Customers do not receive a specific water bill because water use is included in the space rental fee, but should **Gold Ranch Casino & RV Resort** utilize meters on individual RV spaces and implement a billing program in the future customers should also be able to read and understand their water bills. Bills should be informative, going beyond the basic billing information. Bills should include comparisons to previous bills and tips on water conservation that can help customers make informed choices about their water usage. Bill inserts can also include this information.

The **Gold Ranch Casino & RV Resort** could participate in public outreach opportunities such as Earth Day, provide information at a variety of school programs, participate at workshops for plumbers/suppliers/builders, and could provide incentives for conservation efforts (e.g. plumbing retrofit rebates, water conservation landscaping rebates, etc.).

The **Gold Ranch Casino & RV Resort** could also establish a water conservation advisory committee that would involve the public in the conservation process and provide feedback to the system concerning its efforts, thus fostering support for conservation in the community.

### *Conservation Measures*

In an effort to promote conservation and voluntarily conserve water, the **Gold Ranch Casino & RV Resort** is adopting water-use regulations to promote water conservation during non-emergency situations. These regulations include the following non-essential water use:

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- 1) A broken or defective plumbing, sprinkler, watering or irrigation system that **Gold Ranch Casino & RV Resort** has been unable repair within 5 days after receipt of such notice.
- 2) Use of water which results in flooding or run-off in gutters, waterways, patios, driveway, or streets.
- 3) Use of water for washing aircraft, cars, buses, boats, trailers or other vehicles without a positive shut-off nozzle on the outlet end of the hose.
- 4) Use of water through a hose for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas in a manner which results in excessive run-off or waste.
- 5) Use of water for watering streets with trucks, except for initial wash-down for construction purposes (if street sweeping is not feasible), or to protect the health and safety of the public. \***Gold Ranch Casino & RV Resort** does not practice street watering.
- 6) Use of water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used.
- 7) Use of water for more than minimal landscaping in connection with any new construction.
- 8) Watering of plants, lawn, landscape, and turf areas.
- 9) Use of water for watering outside plants and turf areas using a hand-held hose without a positive shut-off valve.
- 10) Use of water for decorative fountains or the filling or topping off of decorative lakes or ponds. Exceptions are made for those decorative fountains, lakes, or ponds which utilize recycled water. \***Gold Ranch Casino & RV Resort** does not have any decorative fountains, lakes or ponds.
- 11) Use of water for the filling or refilling of swimming pools.
- 12) Service of water by any restaurant except upon the request of the patron.

In the event these conservation measures are insufficient to control the water shortage, the **Gold Ranch Casino & RV Resort** may wish to implement the mandatory measures discussed in the *Contingency Plan* section below.

The **Gold Ranch Casino & RV Resort** also promotes the development of water conserving principles into the planning, development, and management of new landscape projects such as public parks, building grounds, and golf course. **Gold Ranch Casino & RV Resort** consults with the local nursery or performs an internet search on the availability of water conservation plants and how to renovate existing landscapes. **Gold Ranch Casino & RV Resort** already utilizes an advanced irrigation management system using metering, timing, and drip technology.

At present, it is not viable for **Gold Ranch Casino & RV Resort** to offer any water conservation incentives because RV Park water usage is controlled by the **Gold Ranch Casino & RV Resort** Facilities Manager and customers are not billed directly for their water use. **Gold Ranch Casino & RV Resort** is primarily a casino facility where daily customer water use is minimal. **Gold Ranch Casino & RV Resort** supplies only one customer (Jack in the Box) with metered water, and their water usage is minimal.

### *Water Management*

The **Gold Ranch Casino & RV Resort** monitors and records water levels at Well #2 and the storage tank site. Monthly readings are recorded from the main meter on Well #2. The storage tank water levels are recorded twice a day using Level Con and emailed to the Facilities Manager instantaneously. If water levels are dropping the Facilities Manager immediately observes the physical state of the tank and the well. The well is on a manual pumping schedule. Security coordinates with the Facilities Manager to turn on and off the well pump. During summer months the well pump is typically turned on for four to six hours a day, and during winter months the well is typically turned on four to six hours every three days. If water levels are dropping and the physical state of the well, the well pump, and the storage tank are good then the pump is manually turned on to keep up with demand. If there is a physical issue with the well, the well pump, storage tank or any component in the distribution system the Facilities Manager either corrects the problem if it is within the scope of his/her expertise or contacts the appropriate licensed professionals.

Working relationships with other local water purveyors are not maintained to ensure adequate water supplies are available. Other local water purveyors in the Verdi area are down-gradient of **Gold Ranch Casino & RV Resort**, and in addition many of their wells are high in arsenic. When **Gold Ranch Casino & RV Resort** has had well issues in the past their contingency plan was to bring in Crystal Springs Water as a short-term temporary solution.

The **Gold Ranch Casino & RV Resort** does not actively monitor for unaccounted water losses using meter comparisons. The **Gold Ranch Casino & RV Resort** does not monitor unaccounted for water losses because all connections are not metered and there is no comparison to be made between production and customer usage. The **Gold Ranch Casino & RV Resort** does have a master meter on the line to the RV Park, but does not plan to install individual water meters on each of its RV spaces. Individual meters would be difficult to implement in the RV Park because customers generally use the communal facilities (i.e. restroom and showers). Actual water use at the individual RV sites is minimal. **Gold Ranch Casino & RV Resort** does have a meter on its one commercial customer, Jack in the Box, and if **Gold Ranch Casino & RV Resort** were to expand its system to more commercial customers, meters would be installed and there would be potential for the contract to include a tiered water rate program.

**Gold Ranch Casino & RV Resort** does not have a formal leak detection program, but the grounds are constantly monitored by Security Personnel. When leaks are reported by customers or Security Personnel the Facilities Manager and Maintenance Personnel repair the leaks immediately. In addition, the Facilities Manager compares and contrasts monthly historical water use data to detect leaks.

Pressure differences in the system have primarily been the result of a low water level in the storage tank. The actual casino in **Gold Ranch Casino & RV Resort** is equipped with a

pressure reducer. Pressures are all within NRS requirements and the facility is all within one pressure zone.

The **Gold Ranch Casino & RV Resort** does not have a formal well head protection program. The well is located up-gradient of all development on the **Gold Ranch Casino & RV Resort** property. The well is secured with a secure well cap and locked fencing and no development is planned to take place near the well.

Three buildings to which **Gold Ranch Casino & RV Resort** supplies water are metered: Jack in the Box, the RV Park and the storage building located across Interstate 80 West from the Casino. **Gold Ranch Casino & RV Resort** is responsible for meter replacement if meters are not registering properly. **Gold Ranch Casino & RV Resort** does not bill on a quantity usage system.

Water meters were installed on the RV Park and storage building for proof of beneficial use and maintenance of water rights. The water meter was placed on the Jack in the Box with anticipation to charge based on usage, but the contract was negotiated to use a flat rate. If new construction for contracted buildings takes place in the future the facilities will be metered. If new construction is solely for **Gold Ranch Casino & RV Resort** use then the facilities are not planned to be metered. No new construction is currently anticipated. There is the possibility to renegotiate the Jack in the Box contract in the future to implement a tiered water usage rate based on quantity of use.

A capital improvement plan (CIP) is in place for the entire facility. The CIP is funded with profits from **Gold Ranch Casino & RV Resort**. CIPs are not currently being funded through water rates. Water facilities are replaced when necessary.

The **Gold Ranch Casino & RV Resort** does not have a system for reusing of effluent. Effluent is treated, and there are no plans to reuse effluent in the immediate future.

Washoe County has not adopted a Plumbing Water Conservation Ordinance which applies to structures which are renovated as well as all new construction. The Washoe County Building and Safety Department checks all new construction, renovation, and expansions within Washoe County to ensure compliance with National Plumbing Codes and Standards.

### *Contingency Plan*

The objective of the contingency plan would be to manage the available resources to ensure continued supply of potable water during periods of drought or extended drought.

It is envisioned that voluntary conservation will be sufficient to ensure an adequate supply of water and reduce water usage. However, if a sustained drought (lack of precipitation) is encountered, it may be necessary to implement mandatory restrictions in order to ensure an adequate supply of water to meet essential needs.

The **Gold Ranch Casino & RV Resort** plan for drought response is based upon the State of Nevada Drought Response and would be in three (3) stages: (1) warning stage, (2) alert stage, and (3) emergency stage. The stages are describes as follows:

In Stage 1, the warning stage, the **Gold Ranch Casino & RV Resort** would increase monitoring of its water supplies and would begin expanding public awareness of the water supply situation and the need to conserve. Conservation measures at this stage would be voluntary. Retrofit kits (low-flow faucet aerators, low-flow showerheads, leak detection tablets, and replacement flapper valves) can be made available, or at cost, and can be actively distributed, if needed.

In Stage 2, the alert stage, the **Gold Ranch Casino & RV Resort** would call for wide-based community support to achieve conservation, limit the use of fire hydrants to fire protection uses (by requiring effluent for construction and dust control purposes), implement water use restrictions. Conservation measures at this stage would be mandatory and violations would incur fines.

In Stage 3, the emergency stage, the **Gold Ranch Casino & RV Resort** would declare a drought and water shortage emergency, would enforce water use restrictions, and impose higher fees for water usage. Media relations would be activated in order to inform the customers and monetary assistance may need to be secured in an effort to mitigate the effects of the drought (e.g. federal funding assistance). Conservation measures at this stage would be mandatory.

When a drought is declared over, voluntary conservation measures (see *Conservation Measures* section) will be reinstated and water supplies would continue to be monitored.

### ***Schedule***

All of the provisions listed will be placed after the approval of this plan, and many water conservation measures have already been realized including the use of drip irrigation on timers, low-flow toilets, automatic (metered) faucets on the sinks, and fire hydrants are used only for fire protection.

Approximately **three** or 50% of services are now metered. Jack in the Box, the RV Park, and the storage building are all metered. The Casino, Lottery, and irrigation system are not metered. The meter on the production well is read monthly. The meters on the other buildings are currently not read because of the flat rate agreement. Meters are not scheduled to be placed on the Casino, Lottery or irrigation system because these are part of **Gold Ranch Casino & RV Resort** and these would not be billed for water usage as they are all "in house".

### ***Evaluation Measurements***

Because **Gold Ranch Casino & RV Resort** primarily provides water to its own facilities, with the exception of Jack in the Box, **Gold Ranch Casino & RV Resort** can evaluate the effectiveness of the water conservation plan based on the reduction of water use read from the production well water meter and based on historical data. Terrible's Facilities Manager is responsible for managing the irrigation system which is the dominant water user in the summer months. Individual RV water use is minimal due to the small nature of an RV. **Gold Ranch Casino & RV Resort** can evaluate the effectiveness of each plan element from the perspective of the whole system. In that regard, as a plan element is activated (e.g. handing out literature to RV customers or declaring a drought stage), production figures will be compared to same-month historical data to estimate the plan element's effectiveness. This information will be utilized as a basis for any future water conservation plan revision and plan elements.

If there is a decrease in production as a result of a particular measure/incentive, that measure/incentive can be expanded or improved upon, if possible. If it is discovered that a particular measure/incentive is ineffective, it will be discontinued and a new one can then be implemented to take its place.

### *Conservation Estimates*

Three or 50% of services are now metered. Jack in the Box, the RV Park, and the storage building are all metered. The casino, lottery, and irrigation system are not metered. The meter on the production well is read monthly. The meters on the other buildings are currently not read because of the flat rate agreement. Meters are not scheduled to be placed on the Casino, Lottery or irrigation system because these are part of **Gold Ranch Casino & RV Resort** and these would not be billed for water usage as they are all "in house".

Average winter water usage for the total facility is 300,000 or 0.3 million gallons per month; average winter use solely for the RV Park is 0.2 million gallons per month, therefore 0.1 million gallons per month are used by the rest of the facilities (i.e. the Casino, restaurant etc.) Total average summer time water use is 2,000,000 or 2 million gallons per month with 0.8 million gallons per month used solely by the RV Park. Assuming water use by the rest of the facility (i.e. the Casino, restaurant etc.) remains the same at 0.1 million gallons per month, total water use by the facility, excluding irrigation, is 0.9 million gallons per month with 1.1 million gallons per month used for irrigation.

During the Stage 1 phase of the conservation plan, it is estimated that conservation measures could be expected to provide a 5-10% % reduction in water use, or 0.1-0.2 million gallons per month (5-10% of 2 million). **Gold Ranch Casino & RV Resort** has already implemented many of these water conservation measures including drip irrigation which is on timers and only conducted at night during the summer months, low-flow toilets and urinals, and automatic (metered) faucets. They plan on implementing public education outreach to RV Park residents during this stage.

During the Stage 2 phase of the conservation plan, it is estimated that conservation measures could be expected to provide a **32.5-37.5 %** reduction in water use, or **0.65 – .75** million gallons per month. **Gold Ranch Casino & RV Resort** already limits fire hydrant use specifically for fire protection. During Stage 2 phase Terrible's would limit their irrigation to 50% of its summer-time average use which alone would save .55 million gallons per month-.

During the Stage 3 phase of the conservation plan, it is estimated that conservation measures could be expected to provide a **43.5- 48.5%** reduction in water use, or **0.87 – 0.97** million gallons per month. During Stage 3 phase Terrible's would limit their irrigation to 30% of its summer-time average use which alone would save .77 million gallons per month.

The estimated water savings for various end-user efforts can be found in Appendix C.

### Rate Analysis

The charging of variable rates for the use of water has sometimes been shown to encourage conservation of water, but not in all systems. Oftentimes the end-user will continue to pay increasing block rates out of necessity for the water used. The use of variable water rates needs to be evaluated on a case-by-case basis.

At this time the **Gold Ranch Casino & RV Resort** does not anticipate any further water conservation savings due to a change in rate structure. The **Gold Ranch Casino & RV Resort** will continue to monitor the water usage and will re-visit this issue each time rates are reviewed. If so warranted, a change in rates will occur and this conservation plan will be updated to reflect the new rates. The **Gold Ranch Casino & RV Resort** will continue to monitor water pumpage and will re-visit this issue each time rates are reviewed.

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**Appendices**

## **APPENDIX A: CONSERVATION MEASURES**

**Stage 1 – Warning Stage**

1. The **Gold Ranch Casino & RV Resort** would increase monitoring of water supplies.
2. The **Gold Ranch Casino & RV Resort** would begin creating public awareness of the water supply situation and the need to conserve. This involves collaboration between the Facilities Manager and the RV Park Manager.
3. The **Gold Ranch Casino & RV Resort** would inform customers of voluntary conservation measures (non-essential water uses, listed below).
4. **Gold Ranch Casino & RV Resort** would like provide its customers with retrofit kits either at cost but due to the variation in Recreation Vehicle facilities and the frequency of turnover for customers it would be difficult to keep an inventory to meet the needs of all RVs.

Non-essential water uses are: “Voluntary conservation of non-essential water uses such as:”

- 1) A broken or defective plumbing, sprinkler, watering or irrigation system that **Gold Ranch Casino & RV Resort** has been unable repair within 5 days after receipt of such notice.
- 2) Use of water which results in flooding or run-off in gutters, waterways, patios, driveway, or streets.
- 3) Use of water for washing aircraft, cars, buses, boats, trailers or other vehicles without a positive shut-off nozzle on the outlet end of the hose.
- 4) Use of water through a hose for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas in a manner which results in excessive run-off or waste.
- 5) Use of water for watering streets with trucks, except for initial wash-down for construction purposes (if street sweeping is not feasible), or to protect the health and safety of the public. \***Gold Ranch Casino & RV Resort** does not practice street watering.
- 6) Use of water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used.
- 7) Use of water for more than minimal landscaping in connection with any new construction.
- 8) Watering of plants, lawn, landscape, and turf areas.
- 9) Use of water for watering outside plants and turf areas using a hand-held hose without a positive shut-off valve.
- 10) Use of water for decorative fountains or the filling or topping off of decorative lakes or ponds. Exceptions are made for those decorative fountains, lakes, or ponds which utilize recycled water. \***Gold Ranch Casino & RV Resort** does not have any decorative fountains, lakes or ponds.
- 11) Use of water for the filling or refilling of swimming pools.
- 12) Service of water by any restaurant except upon the request of the patron.

**Stage 2 – Alert Stage**

1. The **Gold Ranch Casino & RV Resort** would set conservation goals and call for wide-based community support to achieve those goals.
2. The **Gold Ranch Casino & RV Resort** would inform customers of mandatory conservation measures (non-essential water uses, listed in Stage 1 are now mandatory).
3. The **Gold Ranch Casino & RV Resort** would inform customers of penalties if mandatory conservation measures are not observed (penalties are listed below).
4. The **Gold Ranch Casino & RV Resort** would inform customers of mandatory conservation water fees.
5. The **Gold Ranch Casino & RV Resort** limit the use of fire hydrants to fire protection uses only.
6. **Gold Ranch Casino & RV Resort** would like provide its customers with retrofit kits either at cost but due to the variation in Recreation Vehicle facilities and the frequency of turnover for customers it would be difficult to keep an inventory to meet the needs of all RVs.

Penalties for violation of mandatory conservation measures are:

- 1<sup>st</sup> violation – verbal warning
- 2<sup>nd</sup> violation – written warning
- 3<sup>rd</sup> violation – elimination of water services to violator

Offenses for separate water use restriction violations will each start at the warning stage (1<sup>st</sup> violation) and the penalties for the offenses are in addition to the regular rate schedule charges. At this time, due to the commercial nature of **Gold Ranch Casino & RV Resort** they will not be implementing financial fees, but will provide verbal and written warnings and finally eliminate water services to persistent customers who are in violation.

Monthly water usage fees are difficult to implement on the RV Park because customers may only stay for two or three days. Length of stay varies for each customer. It is however possible to eliminate water service to customers on an as needed basis if neglecting to adhere to the water conservation policy of **Gold Ranch Casino & RV Resort** while mandatory conservation measures are in effect.

*Stage 3 – Emergency Stage*

1. The **Gold Ranch Casino & RV Resort** would declare a drought and water shortage emergency and use media relations to supplement efforts to keep customers informed.
2. The **Gold Ranch Casino & RV Resort** would inform customers of prohibited water uses (non-essential water uses, listed in Stage 1 are now prohibited).
3. The **Gold Ranch Casino & RV Resort** would inform customers of penalties if prohibited measures are not observed (penalties are listed below).
4. The **Gold Ranch Casino & RV Resort** would limit the use of fire hydrants to fire protection uses only.
5. **Gold Ranch Casino & RV Resort** would like provide its customers with retrofit kits either at cost but due to the variation in Recreation Vehicle facilities and the frequency of turnover for customers it would be difficult to keep an inventory to meet the needs of all RVs.
6. The **Gold Ranch Casino & RV Resort** would seek monetary assistance in an effort to mitigate the drought (e.g. federal funding).

Penalties for violation of prohibited water use measures are:

- 1<sup>st</sup> violation – verbal warning
- 2<sup>nd</sup> violation – written warning
- 3<sup>rd</sup> violation – elimination of water services to violator

Offenses for separate water use restriction violations will each start at the warning stage (1<sup>st</sup> violation) and the penalties for the offenses are in addition to the regular rate schedule charges. At this time due to the commercial nature of **Gold Ranch Casino & RV Resort** they will not be implementing financial fees, but will provide verbal and written warnings and finally eliminate water services to persistent customers who are in violation.

Monthly water usage fees are difficult to implement on the RV Park because customers may only stay for two or three days. Length of stay varies for each customer. It is however possible to eliminate water service to customers on an as needed basis if neglecting to adhere to the water conservation policy of **Gold Ranch Casino & RV Resort** while mandatory conservation measures are in effect.

If any customer seeks a variance from the provisions of Stage 3, then that customer shall notify the **Gold Ranch Casino & RV Resort** in writing, explaining in detail the reason for such a variation. The **Gold Ranch Casino & RV Resort** shall respond to each request.

**APPENDIX B: PUBLIC EDUCATION MATERIALS**

## Draft Water System Conservation Plan

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Revised September, 2014

There are several publications available for use at U.S. EPA website for general distribution (currently located at <http://epa.gov/watersense/pubs/index.htm#ideas>). These publications include such topics as:

- Simple Steps to Save Water,
- Ideas for Residences,
- Ideas for Commercial,
- Using Water Wisely In the Home,
- Outdoor Water Use in the US,
- Toilet Flush Facts,
- Watering Can Be Efficient,
- Irrigation Timers for the Homeowner, and
- Water Efficient Landscaping,

These publications can be utilized until the **Gold Ranch Casino & RV Resort** develops system-specific publications.

There are also numerous website that provide tips for conserving water. One of these is: <http://www.wateruseitwisely.com/100-ways-to-conserve/index.php>. Customers can be directed to this website for tips to conserve water.

Specific tips for landscaping that can be provided to the customers are listed below. During drought conditions outdoor watering restrictions may be imposed, and therefore some of the following tips will not apply.

### **Tips for Landscaping**

#### **Watering:**

- Detect and repair all leaks in irrigation systems.
- Use properly treated wastewater for irrigation where available.
- Water the lawn or garden during the coolest part of the day (early morning is best). Do not water on windy days.
- Water trees and shrubs, which have deep root systems, longer and less frequently than shallow-rooted plants which require smaller amounts of water more often. Check with the local nursery for advice on the amount and frequency of watering needed in your area.
- Set sprinklers to water the lawn or garden only—not the street or sidewalk.
- Use soaker hoses and trickle irrigation systems.
- Install moisture sensors on sprinkler systems.

#### **Planting:**

- Have your soil tested for nutrient content and add organic matter if needed. Good soil absorbs and retains water better.
- Minimize turf areas and use native grasses.
- Use native plants in your landscape—they require less care and water than ornamental varieties.
- Add compost or peat moss to soil to improve its water-holding capacity.

#### **Maintaining:**

- Use mulch around shrubs and garden plants to reduce evaporation from the soil surface and cut down on weed growth.
- Remove thatch and aerate turf to encourage movement of water to the root zone.
- Raise your lawn mower cutting height to cut grass no shorter than three inches—longer grass blades encourages deeper roots, help shade soil, cut down on evaporation, and inhibit weed growth.
- Minimize or eliminate fertilizing which requires additional watering, and promotes new growth which will also need additional watering.

#### **Ornamental Water Features:**

- Do not install or use ornamental water features unless they recycle the water. Use signs to indicate that water is recycled. Do not operate during a drought.

## **APPENDIX C: END-USER WATER SAVINGS**

Here are just a few of the end-user water savings that could be realized:

### **Leaky Faucets**

**Issue:** Leaky faucets that drip at the rate of one drip per second can waste more than 3,000 gallons of water each year.

**Fix:** If you're unsure whether you have a leak, read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, you probably have a leak.

### **Leaky Toilets**

**Issue:** A leaky toilet can waste about 200 gallons of water every day.

**Fix:** To tell if your toilet has a leak, place a drop of food coloring in the tank; if the color shows in the bowl without flushing, you have a leak.

### **Showering**

**Issue:** A full bath tub requires about 70 gallons of water, while taking a five-minute shower uses 10 to 25 gallons.

**Fix:** If you take a bath, stopper the drain immediately and adjust the temperature as you fill the tub.

### **Brushing Teeth Wisely**

**Issue:** The average bathroom faucet flows at a rate of two gallons per minute.

**Fix:** Turning off the tap while brushing your teeth in the morning and at bedtime can save up to 8 gallons of water per day, which equals 240 gallons a month!

### **Watering Wisely**

**Issue:** The typical single-family suburban household uses at least 30 percent of their water outdoors for irrigation. Some experts estimate that more than 50 percent of landscape water use goes to waste due to evaporation or runoff caused by overwatering.

**Fix:** Drip irrigation systems use between 20 to 50 percent less water than conventional in-ground sprinkler systems. They are also much more efficient than conventional sprinklers because no water is lost to wind, runoff, and evaporation. If the in-ground system uses 100,000 gallons annually, you could potentially save more than 200,000 gallons over the lifetime of a drip irrigation system should you choose to have one installed. That adds up to savings of at least \$1,150!

### **Washing Wisely**

**Issue:** The average washing machine uses about 41 gallons of water per load.

**Fix:** High-efficiency washing machines use less than 28 gallons of water per load. To achieve even greater savings, wash only full loads of laundry or use the appropriate load size selection on the washing machine.

### **Flushing Wisely**

**Issue:** If your toilet is from 1992 or earlier, you probably have an inefficient model that uses at least 3.5 gallons per flush.

**Fix:** New and improved high-efficiency models use less than 1.3 gallons per flush—that's at least 60 percent less than their older, less efficient counterparts. Compared to 3.5 gallons per flush toilet, a WaterSense labeled toilet could save a family of four more than \$90 annually on their water bill, and \$2,000 over the lifetime of the toilet.

### **Dish Washing Wisely**

**Issue:** Running dishwasher partial full and pre-rinsing dishes before loading the dishwasher.

**Fix:** Run the dishwasher only when it's full and use the rinse-and-hold dishwasher feature until you're ready to run a full load. Pre-rinsing dishes does not improve cleaning and skipping this step can save you as much as 20 gallons per load, or 6,500 gallons per year. New water-saver dishwashers use only about 4 gallons per wash.

Draft Water System Conservation Plan

Revised September, 2014

Estimated water savings from EPA Water Conservation Guidelines 1998 (Appendix B, Table B-1):

Type	Estimated Usage (gpcpd)	Conservation Usage (gpcpd)	Savings (gpcpd)	Savings (%)
Toilet	18.3	10.4	7.9	43 %
Clothes Washers	14.9	10.5	4.4	30 %
Showers	12.2	10.0	2.2	18 %
Faucets	10.3	10.0	.3	3 %
Leaks	6.6	1.5	5.1	77 %

Benchmarks from selected conservation measures from EPA Water Conservation Guidelines 1998 (Appendix B, Table B-4):

Category	Measure	Reduction of End Use (% or gpcpd)
Universal metering	Connection metering	20 %
	Sub metering	20 – 40 %
Costing and pricing	10% increase in residential prices	2 – 4 %
	10% increase in non-residential prices	5 – 8 %
	Increasing-block rate	5 %
Information and education	Public education and behavior changes	2 – 5 %
End-use audits	General industrial water conservation	10 – 20 %
	Outdoor residential use	5 – 10 %
	Large landscape water audit	10 – 20 %
Retrofits	Toilet tank displacement devices (for toilets using > 3.5 gallons/flush)	2 – 3 gpcpd
	Toilet retrofit	8 – 14 gpcpd
	Showerhead retrofit (aerator)	4 gpcpd
	Faucet retrofit (aerator)	5 gpcpd
	Fixture leak repair	0.5 gpcpd
	Governmental building (indoors)	5 %
Pressure management	Pressure reduction, system	3 – 6 % of total production
	Pressure-reducing valves, residential	5 – 30%
Outdoor water use efficiency	Low water-use plants	7.5 %
	Lawn watering guides	15 – 20 %
	Large landscape management	10 – 25%
	Irrigation timer	10 gpcpd
Replacements and promotions	Toilet replacement, residential	16 – 20 gpcpd
	Toilet replacement, commercial	16 – 20 gpcpd
	Showerhead replacement	8.1 gpcpd
	Faucet replacement	6.4 gpcpd
	Clothes washers, residential	4 – 12 gpcpd
	Dishwashers, residential	1 gpcpd
	Hot water demand units	10 gpcpd
Water-use regulation	Landscape requirements for new developments	10 – 20 % in sector
	Greywater reuse, residential	20 – 30 gpcpd

July 24, 2014

Re: Water Conservation Plan

To whom this may concern:

My name is Michael Netz I am the facilities manager at the Gold Ranch Casino & RV Resort. After reading over our Water Conservation Plan I have found that no changes have been made to the Property scene 2010. The one thing that has changed is our name we are no longer Terrible's Gold Ranch Casino. We are now Gold Ranch Casino & RV Resort, at PO Box 160, 350 Interstate 80 West Verdi, NV 89439 (775) 345-6789.

Sincerely,

Michael Netz

Facilities Manager

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