TERRACE GARDEN APARTMENTS

1111 E. 5th STREET

CARSON CITY, NV 89701

WATER CONSERVATION PLAN

DECEMBER 30, 2019

PREPARED FOR:

SS INVESTMENTS, LTD.

P.O. BOX 2917

CARSON CITY, NV 89702

Introduction

Nevada is one of the driest states in the nation and is one of the fastest growing. Carson City utilizes water from three groundwater basins, and surface waters from Ash Canyon and Kings Canyon Creek, Carson River and the Marlette/Hobart system. Our economic future and our quality of life for the future depends on the wise management of our precious water supply.

In general, groundwater provides about 40 percent of the total water supply used in Nevada. Groundwater usage can vary greatly from year to year depending on the amount needed to supplement surface water sources.

There are seven main uses of water in Nevada:

- 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 system).
- 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), 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), where the supply source varies.

Nevada does not have a statewide conservation program; therefore it is reliant upon the individual water suppliers to develop their own conservation programs. In 1991, Nevada enacted a law requiring adoption of conservation 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 (Energy Policy Act).

Conservation is an essential part of ensuring adequate water supply as it is no longer feasible to develop new sources. It is a cost-effective method to reduce demand and/or to extend current water supply.

Statutory Requirements

As outlined by Nevada Revised Statue (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 Terrace Garden Apartments, as required by NRS 540.131.

This plan is available for inspection during normal business hours at the office of SS Investments, LTD, 1111 E. 5th Street, Carson City, NV.

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

This is the original Water Conservation Plan for Terrace Garden Apartments.

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 November 15, 2027.

System Description

Terrace Garden Apartments is a 44-unit apartment unit complex with a privately owned water system and operates under a current water permit NV 0000028. A Permit To Operate A Public Water System was issued to Terrace Garden Apartments under Permit # CC-0028-C. Water is provided to tenants and an office on approximately 1.28 acres. This complex is located at 1111 E. 5th Street in Carson City, NV. Terrace Garden is not a water company in the business of selling water to customers, and as such does not have any water customers.

An approximation of 60 tenants and staff are serviced by this water supply which obtains its water from groundwater sources, not from any surface water source. As the complex is currently 100% occupied, no significant changes in tenant/office usage is

projected. An on-site swimming pool of approximately 30,800 gallons is provided for tenant usage in the summer months. In October each year, this pool is drained down for the winter, and re-filled in late May. In addition to tenant and pool water usage, landscaping also benefits from the water supply.

The known active facilities for Terrace Garden Apartments include the following:

- Distribution System
- Pressure Tank 3K
- Well 1 Chlorinator
- Well 1

Terrace Garden Apartments currently contracts Water Operator Services out to Jason Dukek, who possesses a Grade 3 Distribution Water Operator License as well as a Grade 2 Water Treatment Operator License.

The water operator is required to perform annual testing of water quality, as well as monitor monthly testing. Terrace Garden Apartments does not have any outstanding water quality issues.

Terrace Garden Apartments is a self-supplied water system and does not currently meter individual apartment units for water use. Only tenants and office staff are allowed to utilize Terrace Garden Apartments. Because there are no water customers, a tiered rate usage is not applicable.

Wastewater collected from the service area is handled through Carson City Public Works.

Plan Provisions

In accordance with NRS 540.131, this plan will be reviewed from time-to-time to reflect any 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 scheduled on or before November 15, 2027.

Terrace Garden Apartments will provide a staff member 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 Water Conservation Plan when needed.

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

Public Education

It is the goal of Terrace Garden Apartments to increase public awareness to conserve water, encourage the use of climate appropriate plants, encourage the use of drip system irrigation, and to monitor the use of irrigation water for our lawns. We also encourage the re-filling of the pool to be done in the cool times of the day.

Conservation Measures

Terrace Garden Apartments does not have a formal leak detection program. When a leak is discovered, repairs are made immediately. When replacement is needed, existing fixtures are replaced with lower flow devices.

Terrace Garden does not monitor for water loss, as the apartments are not metered. Terrace Garden Apartments does not intend to install individual water meters. Because Terrace Garden Apartments does not meter usage, a meter replacement program for all meters that are not registering properly is not applicable.

Terrace Garden Apartments does not experience pressure differences within the system, as it is on a flat terrain.

Terrace Garden Apartments does not have a formal well head protection program. The well house is kept clean and secure.

Terrace Garden Apartments does not have a system for reusing effluent. Effluent is passed through to the Carson City Public Works Department Sanitary Sewer System.

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.

Voluntary consumption should be sufficient to ensure an adequate supply of water and reduce water usage. It may be necessary to ensure to adopt stricter guidelines for landscaping to ensure an adequate supply of water.

When a drought is declared over, voluntary conservation measures will be re-instated.

Schedule

All of the provisions listed will be in place after the approval of this plan.

Evaluation Measurements

Because the individual apartments are not metered, we are unable to determine the effectiveness of each plan element on an individual basis.

Conservation Estimates

Although individual meters are not in use, Terrace Garden Apartments will monitor water usage with regard to drought conditions and will make adjustments as deemed necessary.

Rate Analysis

Terrace Garden Apartments is not a water company in the business of selling water to customers, and as such does not have paying customers. A rate analysis is not applicable in this care.

Appendices

APPENDIX A

CONSERVATION MEASURES

Stage 1 – Warning Stage

1. Terrace Garden Apartments would increase monitoring of water supplies
2. Terrace Garden Apartments would begin creating public awareness of the water supply situation and the need to conserve.
3. Terrace Garden Apartments would inform tenant of voluntary conservation measure (non-essential water uses, listed below).
4. Terrace Garden Apartment would provide tenants with retrofit kits, either at cost of free.

Non-Essential Water Uses Are:

1. Use of water which results in flooding or run-off in gutters, waterways, patios, driveways, or streets.
2. Use of water for washing vehicles, boats, or trailers.
3. Use of water through a hose for washing buildings, structures, sidewalks, walkways, driveways, patios, or other hard-surface areas in a manner which results in excessive run-off or waste.
4. Use of water for other than minimal landscaping in connection with any new construction.
5. Use of water for outside plants, lawn, landscape, and turf areas is prohibited between the hours or 10:00 a.m. to 4:00 p.m.
6. Use of water for watering of outside plants and turf areas using a hand-held hose without a positive shut-off valve.

Stage 2 – Alert Stage

1. Terrace Garden Apartments would set conservation goals and call for wide-based community support to achieve these goals.
2. Terrace Garden Apartments would inform tenants of mandatory conservation measures (non-essential water uses listed in Stage 1 are now mandatory).
3. Terrace Garden Apartments would inform tenants of penalties if mandatory conservation measures are not observed (penalties listed below).
4. Terrace Garden Apartments would provide tenants with retrofit kits, either at cost or free.

Penalties for violation of mandatory conservation measures are:

1st Violation – written warning

2nd violation - $25.00

3rd violation - $50.00

4th violation - $100.0

Stage 3 – Emergency Stage

1. Terrace Garden Apartments would declare a drought and water shortage emergency and use media relations to supplement efforts to keep tenants informed.
2. Terrace Garden Apartments would inform members of prohibited water uses (non-essential water uses, listed in Stage 1 are now prohibited).
3. Terrace Garden Apartments would inform tenants of penalties if prohibited measures are not observed (penalties are listed below).
4. Terrace Garden Apartments would seek monetary assistance in an effort to mitigate the drought (e.g., federal funding).

Penalties for violation of prohibited water use measures are:

1st violation – written warning

2nd violation - $100.00

3rd violation – take the necessary legal action to protect existing water sources

APPENDIX B

There are several publications available for use at U.S. EPA website for general distribution (currently located at https://www.epa.gov/watersense) 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
- Water Efficient Landscaping

These publications can be utilized until Terrace Garden Apartments develops system-specific publications.

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

Specific tips for landscaping that can be provided 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.
- Water lawns and gardens 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.
- Set sprinklers to water lawns or gardens 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 movements of water to the root zone.
- Raise your lawn mower cutting height to cut grass no shorter than 3 inches – longer grass encourages deeper roots, help shade soil, cut down on evaporation, and inhibit weed growth.
- Minimize or eliminate fertilizing, which requires additional watering and promotes growth which will need additional watering.

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 are 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 waster about 200 gallons of water each day.

Fix: To tell if your toilet has a leak, please 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 bathtub requires about 70 gallons of water, while taking a 5-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 2 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 per month!

Watering Wisely

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

Fix: Drip irrigation systems use between 20 – 50% 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 install it. 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% less than their older, less-efficient counterparts. Compared to a 3.5 gallon 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.