

Wadsworth Mobile Home Park PWS

Water Conservation Plan

3506 Hobby Horse Ln
Carson City, NV 89701
PWS ID# NV 0000281

Prepared With the Assistance of the *Nevada Rural Water Association*

Wadsworth Mobile Home Park Public Water System NV 0000281 Water Conservation Plan

Background / System Information

The Wadsworth MHP public water system (PWS NV 0000281) serves customers within the town of Wadsworth. The total service area is approximately 6 acres. The estimated population served (in 2007) is 100. Residential customers are billed at a uniform flat rate as part of their monthly space and unit rent. Meters are not installed on residential services. There are no commercial services.

The system is located in the Town of Wadsworth on the east side of the Truckee River. Water is supplied from two drilled wells using submersible pumps. Above-ground storage consists of a 3000 gallon hydropneumatic pressure tank. Full-time disinfection is practiced using sodium hypochlorite. Wastewater collected from the area is managed through two large septic tanks (5000 gallon and a 2500 gallon). There is no reclaimed water system within the Wadsworth MHP service area.

The Wadsworth MHP does not have a prior Conservation Plan for the system. This plan is to be reviewed at five year intervals, with modifications to meet changing system conditions as they develop.

Plan Elements

This plan describes the drinking water conservation and drought management efforts in the Wadsworth MHP, 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. 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**
For each conservation measure specified in the plan or joint plan, an estimate of the amount of water that will be conserved each year as a result of the adoption of the plan or joint plan, stated in terms of gallons of water per person per day (gpcpd).
- **Variable pricing analysis**
The feasibility of charging variable rates for the use of water to encourage the conservation of water.
- **Water savings in gallons/person/day**
How the rates that are proposed to be charged for the use of water in the plan or joint plan will maximize water conservation, including, without limitation, an estimate of the manner in which the rates will affect consumption of water (expressed in terms of gpcpd).
- **How will rate structure impact conservation**
How the rates that are proposed to be charged for the use of water in the plan or joint plan will maximize water conservation, including, without limitation, an estimate of the manner in which the rates will affect consumption of water (expressed in terms of gpcpd).
- **Incentives to encourage water conservation**
- **Incentives to retrofit plumbing fixtures**
- **Incentives for water conserving landscaping**

Public Awareness

The Wadsworth MHP efforts to enhance public awareness of the need to conserve water include the following:

- New customers will be provided with literature on conservation when they open a rental service account. Examples include materials from the Turf Institute, American Waterworks Association, and the USDA Agricultural Extension.
- Periodically, educational literature will be distributed. Educational materials include tips on Conservation landscaping, basic ways to conserving water, things you can do to prevent water waste and water leak loss calculators.
- Participate in Earth Day activities or other public outreach opportunities to raise public awareness of water use when available.

- Incentives for the customers of Wadsworth MHP to observe water conservation practices are demonstrated through educational pamphlets and flyers.

Lawn sizes and use of arid and semiarid plants

The Wadsworth MHP encourages the public to practice scientific turf management, and makes literature and resources such as the Turf Institute, available to customers. Local nurseries are encouraged to promote the use of drip irrigation and climate-appropriate plant materials. Wadsworth MHP residents are NOT allowed to use the system water for irrigation, agriculture or landscaping purposes. The Pyramid Lake Paiute Tribe (Tribal Community) makes water from the Truckee River available for this purpose from April through September and is monitored by the Tribal Community as to proper usage.

Specific water conservation measures

- Washoe County has adopted a Plumbing-Water Conservation Ordinance. The Ordinance applies to structures which are renovated as well as all new construction.
 - a) Copies of the Plumbing- Water Conservation Ordinance will be furnished to local suppliers and contractors.
 - b) The Washoe County Building Department checks new construction, renovation, and expansions within the Washoe County to insure compliance with the ordinance.
- The 2" meter will be tested annually, and replaced if under-registering by more than 5%. The meter was purchased new in July 2007.
- There are no residential meters. However, should they become necessary they will be tested every ten years and replaced if under-registering by more than 5%.
- The plumbing code, which specifies low-flow fixtures, is enforced which results in an estimated savings of 1 to 4 gpcpd.
- The Wadsworth MHP Code includes a provision that water service can be shut off for wasting water. This is enforced by visual inspection for runoff, following-up on citizen reports, and review of use at the

services. Typically a verbal or written warning is issued, followed by a shut-off when cooperation is not forthcoming.

- The Wadsworth MHP does not have any commercial customers.
- A residential metering program has not been implemented.
- Incentives for the customers of Wadsworth MHP to retrofit plumbing fixtures are demonstrated through educational pamphlets flyers.
- Wadsworth MHP residents are NOT allowed to use the system water for irrigation, agricultural, landscaping or vehicle washing. The Tribal Community provides water specifically for irrigation and agricultural purpose from April through September and closely monitors the usage. This water is distributed through a separate system. Vehicle washing using water from either system is NOT permitted.

Plan to identify and reduce leakage

- The Wadsworth MHP does not currently have in place a capital improvement plan to replace distribution lines at the anticipated life-cycle end.
- We are auditing production to determine the amount of water usage and establishing a historical same-month production record. When production increases unexpectedly, we will initiate a leak survey.
- It is our written policy to repair leaks in a timely manner. All large leaks are repaired immediately and small leaks (less than 1 gallon per minute) within 48 hours.

Reuse of effluent

Currently, there are no plans in place to reuse effluent within the service area.

Incentives for the customers of Wadsworth MHP to use water conserving landscaping are demonstrated through educational pamphlets flyers. Irrigation, agricultural or landscaping is only allowed using Tribal Community water available from April through September.

Drought contingency plan

Nevada is an arid state and Washoe 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. The objective of our plan is to manage the available resources to insure continued supply of potable water during periods of drought. We monitor water levels at our Well Sites and record the information. We work with other local water purveyors to insure adequate supplies are available. We do not have an inter-tie available which could allow water to flow both ways. Therefore, water conservation is especially critical during a drought condition.

When the Wadsworth MHP has found that a water scarcity condition exists or is likely to exist and has proclaimed the existence of a drought or emergency condition, it shall also declare an appropriate drought or emergency stage for its service area which may be Stage 1, Stage 2, Stage 3, or Stage 4, described as follows:

Stage 1 Droughts or Emergency

1. Water from the Wadsworth MHP water system allowed to pool, pond, or run-off of applied areas is considered a waste of water and as such is NOT permitted.
2. Leaks occurring on the customer side of the service connection in the Wadsworth MHP water system are considered a waste of water and as such are NOT permitted.
3. Water from the Wadsworth MHP water system which runs down the street is considered a waste of water and as such, is NOT permitted. If a sprinkler system is broken and left on for more than two (2) hours, the water will be shut off by the Wadsworth MHP or Tribal Community until it is fixed.
4. During a Stage 1 Drought or Emergency, lawn watering, including landscaping and the watering of a garden, will NOT be permitted between the hours of 1:00 pm and 5:00 pm. Irrigation, agriculture or landscape watering is NOT allowed using the Wadsworth MHP system water.

Stage 2 Droughts or Emergency

1. Water from the Wadsworth MHP potable water system allowed to pool, pond, or run-off of applied areas is considered a waste of water and as such is NOT permitted.
2. Leaks occurring on the customer side of the service connection in the Wadsworth MHP potable water system are considered a waste of water and as such are NOT permitted.

3. No hard surfaces including sidewalks, driveways, parking areas, or decks may washed or hosed down with water supplied through the Wadsworth MHP water system UNLESS required by health and safety requirements.
4. Wadsworth MHP water used for watering vegetation, including lawns, landscaping, and gardens is NOT permitted.
5. Use of Wadsworth MHP water for decorative purpose is NOT permitted.

Stage 3 Droughts or Emergency

1. Water from the Wadsworth MHP water system allowed to pool, pond, or run-off of applied areas is considered a waste of water and as such is NOT permitted.
2. Leaks occurring on the customer side of the service connection in the Wadsworth MHP water system are considered a waste of water and as such are NOT permitted.
3. No hard surfaces including sidewalks, driveways, parking areas, or decks may washed or hosed down with water supplied through the Wadsworth MHP water system UNLESS required by health and safety requirements.
4. Wadsworth MHP water used for watering vegetation, including lawns, landscaping, and gardens is NOT permitted.
5. Use of Wadsworth MHP water for decorative purpose is NOT permitted.
6. Water from the Wadsworth MHP water system used for general construction or maintenance activities, including dust control, compaction and concrete curing, is considered a waste of water and as such is NOT permitted.

Stage 4 Droughts or Emergency

1. Water from the Wadsworth MHP water system allowed to pool, pond, or run-off of applied areas is considered a waste of water and as such is NOT permitted.
2. Leaks occurring on the customer side of the service connection in the Wadsworth MHP water system are considered a waste of water and as such are NOT permitted.
3. No hard surfaces including sidewalks, driveways, parking areas, or decks may washed or hosed down with water supplied through the Wadsworth MHP water system UNLESS required by health and safety requirements.

4. Wadsworth MHP water used for watering vegetation, including lawns, landscaping, and gardens is NOT permitted.
5. Use of Wadsworth MHP water for decorative purpose is NOT permitted.
6. Water from the Wadsworth MHP water system used for general construction or maintenance activities, including dust control, compaction and concrete curing, is considered a waste of water and as such is NOT permitted.
7. During a Stage 4 Drought or Emergency, the planting or installing of new lawns is prohibited unless authorized by the Tribal Community.

Implementation schedule

All of the plan elements listed are currently in place. The plan is to be reviewed every five years, and updated as system needs change.

None of the residential services are now metered. The use of metering will be evaluated to determine whether implementation is warranted.

Plan effectiveness metrics

Historical well production data is not available. As data accrues, it will be compared to estimated population each year to determine the gallons per capita per day (gpcpd) consumption. For 2007, the gross production divided by the estimated population is approximately 15 to 24 gpcpd. If the average annual consumption is significantly greater than 105 gpcpd, plan revision will be considered, to include additional conservation measures. At the present time, well production provides a gross gpcpd estimate. More accurate determination of water loss and conservation components would become available if residential metering is used.

When a plan element is activated, such as mailing literature or declaring a drought stage, production in terms of gpcpd will be compared to same month historical data to estimate effectiveness. It is estimated that customer education alone will be the major driver of conservation, by raising awareness of the proper use of water. Customer awareness alone, without a rate structure change, but with the public education elements, can be expected to provide at least a ten percent reduction in water use.

Variable pricing analysis

The present residential water rate is included in the monthly space/unit rent. Rental rates are reviewed periodically and adjusted to meet budgeted costs.

Each time the rental rates are altered, the water usage patterns will be also be analyzed to determine the new rate structure. The estimated amount of water conserved as a result of actual price changes, in terms of gpcpd, will be used in future analyses. The feasibility of charging variable rates for the use of water to encourage conservation of water is considered remote at this time due to strong feelings of the customers.

Water savings in gallons/person/day

The current water usage of Wadsworth MHP is 15 to 24 gpcpd, which is estimated to be 14 to 23% of the national average of 105 gpcpd. The Wadsworth MHP will continue to monitor the water usage of its population and water use regulations will be amended as needed.

Rate structure impact on water conservation

The Wadsworth MHP continually evaluates their customer's water usage. The Wadsworth MHP will continue to monitor the gpcpd of it customers and will revisit this issue at each rental rate modification to ensure both budgetary and water conservation goals are met.

Incentives to encourage water conservation

The Wadsworth MHP restricts water usage to domestic purposes only. The Wadsworth MHP will evaluate and apply additional conservation measures as those tools become available.

Incentives to retrofit plumbing fixtures

Plumbing fixtures are replaced with water conservation fixtures as the rental units become available for rent. Additional water conservation fixtures are being made available to existing tenants.

Incentives for water conserving landscaping

The Wadsworth MHP does not allow use of the system water for irrigation, agricultural or landscaping purposes. The Tribal Community makes river water available for those purposes from April to September through a separate system and closely monitors that use.