

**City of Elko, Nevada**  
**Water Conservation Plan**  
**Updated 7/11/2018**

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**Introduction/Overview:**

Nevada is the driest state in the Nation. During the summer, the city of Elko Water usage more than triples when compared to the winter consumption. This drastic increase in demand places an enormous strain on the City of Elko's Water Resources, the City of Elko Municipal Water System, and staff.

The City of Elko water system is comprised of 5 water storage tank locations totaling 20.23 million gallons of storage, 18 operational municipal wells pumping groundwater with a combined pumping capacity of 13,176 gallons per minute, and over 100 miles of water main. The current number of total water connections is approximately 7600. In 2017 city wells pumped a total of 2.0 billion gallons of water.

The City Water Department would like to remind customers to be smart and conserve water. Our water is a precious resource. Consumers should remember that it costs money to pump and treat our municipal water. This precious resource is limited and it is the responsibility of each customer to use this resource wisely. This water conservation plan is designed to help customers reduce the amount of water they use at home and at work. Our goal is to increase public awareness of the benefits of water conservation.

**Reasons to use water wisely:**

- Communities that use water wisely are better prepared to cope with the effects of drought.
- Improving a community's water efficiency is quicker and cheaper than developing additional water supplies.
- Reduced water usage extends the life of our municipal water and wastewater treatment facilities.
- Water saved is also energy and money saved for you and our community. Efficient water use means less power needed to pump and treat water and wastewater.
- Reduced pumping of groundwater lessens the chance that pollutants will be drawn into our groundwater.

**How to Reduce Water Consumption:****Xeriscaping:**

The art of creating a landscape with the goal of reducing water usage is called xeriscaping. Plants requiring little or no watering, or those that can survive droughts, are chosen. Plant cultural practices such as soil preparation and mulching are also used

extensively in xeriscaping. Xeriscaping does not mean using no water in the landscape. It implies the managed use of irrigation water. Many plants tolerant of drought conditions are also tolerant of flood conditions. Carefully studying and reading of xeriscaping resources is essential, or visit your local nurseries for information and advice on xeriscaping.

### **Your yard:**

Over half of the water used by residential customers is for outdoor landscape irrigation. Use these ideas to save water:

- Water your lawn early in the morning or late in the evening to reduce evaporation.
- Follow the City's mandatory "every other day" watering schedule. Homes or businesses with odd numbered addresses water outdoors on Tuesdays, Thursdays, and Saturdays. Homes or businesses with even numbered addresses water outdoors on Sundays, Wednesdays, and Fridays. On Mondays, residents are allowed to hand water only.
- Use drip irrigation for shrubs and trees.
- Maintain your sprinkler system and adjust sprinkler heads so only your lawn is watered and not your sidewalk, street and house.
- Whenever possible, plant and maintain drought tolerant plants that require little water.
- Use mulch in your flower gardens to reduce evaporation and discourage weed growth.
- Wash your car at the car wash or wash it at home with a bucket and rag only using your garden hose to rinse your car.
- Don't cut your lawn too short. Maintain a lawn length of 2-inches to have a healthy lawn.
- Promptly fix leaky sprinkler lines and leaks in your evaporation cooling systems. Have your evaporative cooling system maintained by qualified technicians.
- Don't over water your lawns and flower gardens. Residents must be aware that it is "against the law" to over water and allow your lawn water to run off your property and into the street, gutter, or onto your neighbor's property. Violation of this law can result in monetary fines and/or termination of water service.
- Learn about water saving plant materials from your local landscape nursery center.

### **Bathroom, Kitchen, and Laundry:**

Residents can reduce water waste indoors by doing the following:

- Check your water pipes and faucets for leaks.
- Turn off the faucet when brushing your teeth or shaving. Turn on the faucet to rinse.
- Limit your time in the shower.
- Install flow restricting devices in your faucets and showers to reduce water flow.
- Check your toilet periodically for leaks. Place a few drops of food coloring in the flush tank. After a few minutes check the bowl, if any of the food coloring appears, you have a leak in your flush valve.

- Listen for gurgling sounds coming from your toilet. These noises indicate the flush valve needs to be adjusted or replaced.
- Install a displacement device such as a toilet dam or water log in the tank to reduce the amount of water used to flush the toilet.
- Avoid using your toilet as a wastebasket or ashtray. Extra flushes waste water and money.
- Wash full loads of clothes in your washer and full loads of dishes in your dishwasher.
- Keep a jug of water in the refrigerator instead of letting the water run from the tap until cold.
- When cleaning, fill a basin or pail instead of letting the water faucet run.

**Mandatory Water Meters:**

Since 2005 all new construction is required to install water meters.

**Reuse Water:**

The City Water Reclamation Facility cleans our wastewater in order that the processed, or “reuse water”, can be used for a number of outdoor water uses to conserve our potable water. We depend on the use of over 400 million gallons of recycled water each year to satisfy water demands such as:

- Water for irrigation at the Ruby View Golf Course. The golf course uses reuse water to irrigate the golf course for the vast majority of each year.
- To provide water to contractors for construction site dust suppression and soil compaction activities.
- To grow hay and alfalfa at the Elko County Fairgrounds and at the Elko Land Application Site.

This past year the City spent approximately \$160,000.00 for a reuse fill stand. This upgrade is available at all hours and reuse water is available for no charge.

The use of reuse water is required by the City of Elko to meet the City’s summer irrigation needs. Please contact the Elko City Water Reclamation Facility at 777-7386 or the City Utilities Department at 777-7212, to obtain additional information about the use of reuse water within the City.

**Voluntary Encouragement of Certain Uses:**

Between the dates of September 16 - June 14 of each calendar year, all persons using municipal water are encouraged to voluntarily water yards, wash sidewalks, driveways, filling station aprons, parking lots and other similar outdoor uses of water on odd/even days. That is to say, persons living or working at odd-numbered addresses (addresses ending in 1, 3, 5, 7, and 9) are encouraged to use Municipal water for outdoor purposes on Tuesdays, Thursdays and Saturdays. Persons living or working at even-numbered addresses (addresses that end in 0, 2, 4, 6, and 8) are encouraged to use Municipal water for outdoor purposes on Wednesdays, Fridays, and Sundays. Irrigation of public park areas is encouraged on Mondays and Thursdays. For dust abatement at construction sites, the use of reuse water is encouraged.

**Prohibition of Certain Uses:**

Between the dates of June 15 to September 15 of each calendar year, it shall be a civil infraction subject to civil fines for any person who uses Municipal water within the City for the following outdoor uses:

Watering yards, watering sidewalks, driveways, filling station aprons, parking lots, the outside of dwellings and office buildings and other outdoor surfaces except in compliance with the following schedule:

With the exception of the City of Elko, persons living or working at odd-numbered addresses (addresses ending in 1, 3, 5, 7, and 9) shall only use Municipal water for the purposes stated above on Tuesdays, Thursdays, and Saturdays.

With the exception of the City of Elko, persons living or working at even-numbered addresses (addresses ending in 0, 2, 4, 6, and 8) shall only use Municipal water for purposes stated above on Wednesdays, Fridays, and Sundays.

With the exception of the City of Elko, there shall be no use of Municipal water for the above stated purposes on Mondays.

City of Elko park lands shall be irrigated on Mondays and Thursdays. Exceptions may be made for public parks that demonstrate stress from lack of water.

Hand watering of dry spots on yards shall be permitted on Mondays.

Re-use water shall be used for dust abatement at construction sites to the extent practical. The City Utilities Director/City Manager may permit use of potable water for dust abatement in certain situations at his/her discretion. Rules and regulations for the use of re-use water, as determined by the City Utilities Director and /or the Nevada Division of Environmental Protection shall be adhered to by users of reuse water.

Waivers are approved on a case by case basis for special circumstances. The city manager or his/her designee may grant exceptions to the above listed restrictions, after application by a person, for the following demonstrated reasons only:

- (1) Fire safety concerns;
- (2) Dust suppression;
- (3) Establishing new turf;
- (4) Installation of a moisture sensing irrigation system that has been verified and approved by the city engineer or designee;

- (5) Inability to irrigate on designated schedule due to verified absence, disability, or other legitimate reason, as determined by the city manager.

Approved applications for exception from outdoor watering restrictions shall be kept on file in the city clerk's office, and a copy will be provided to the police department.

**D. Prohibiting Waste of Municipal Water:** It shall be a civil infraction for any person to waste municipal water within the city. Prima facie evidence of municipal water waste includes water escaping through defective plumbing or, when watering yards, gardens or other vegetation, allowing municipal water to escape and flow onto adjoining property or into or along a public street, alley or gutter.

**E. Contingency Plan - Additional Prohibition of Certain Uses:**

1. If the conditions set forth in subsection E (2) of this section occur, additional prohibitions of water usage may be ordered by the City Utilities Director after approval by two (2) members of the city council. It shall be a civil infraction subject to civil fines for any person to use municipal water for those additional prohibited uses identified under this section.

2. The above mandatory civil infraction may be imposed if the following conditions occur:

a. Two (2) members of the city council, together with the city manager and the city utilities director verify in writing that either of the two (2) following conditions exist:

(1) The total water storage capacity of the city has dropped below fifty percent (50%); and/or

(2) Daily water use exceeds maximum pumping ability.

b. The city has caused to be published in a newspaper of local circulation, a one time notice that beginning at nine o'clock (9:00) A.M. the next morning following the publication of the notice that the city will begin issuing civil infraction citations for violations of the approved outdoor watering requirements.

c. That prior to the issuance of a civil infraction citation to any person, said person will first be issued a one time warning citation, and upon the next violation a civil infraction citation subject to a civil fine will be issued.

**F. Compliance:** The city council may, by majority vote at a properly noticed meeting, discontinue the process of issuing mandatory civil infraction citations and reinstate the voluntary compliance provisions of this section if in its discretion the city council believes circumstances have sufficiently changed so as to justify such action.

G. Notice of Civil Infraction Form: A notice of civil infraction must be on a form which is prescribed by the police department and must contain the following information:

1. The location in which the violation occurred;
2. The date and time of the violation;
3. The signature of the person who issued the notice of civil infraction;
4. The section of this code which is allegedly being violated;
5. Information advising of the manner and the time in which the notice of civil infraction must be answered;
6. Any other reasonable information which is prescribed by the police department.

H. Duties of Respondent:

1. A person who responds to a notice of infraction must either:
  - a. "Admit" the commission of the infraction and pay the appropriate civil fine; or
  - b. "Deny" liability for the infraction.
2. A person may "admit" pursuant to subsection H (1) a. of this section by paying the amount of the civil fine which is appropriate for the violation to the municipal court.
3. A person may "deny" liability pursuant to subsection H (1) b. of this section by appearing in person before the municipal court at the time specified on the notice of civil infraction.

I. Commencement Of Civil Action Procedure: If liability is denied in the manner set forth herein or if there is no admission or denial within the prescribed time, judicial enforcement of notices of infraction must be by way of civil suit in the municipal court if the person denies liability. The civil action may be commenced by the filing of a complaint in the name of the city and the issuance of a summons with respect thereto and service of such complaint and summons on the defendant must be made by certified mail, return receipt requested, addressed to the defendant at his or her last known address or in any other manner which is authorized by law. The proceedings in municipal court for actions commenced pursuant to this subsection shall be governed by rule 1 and rules 3 through 87 of the Nevada justice court rules of civil procedure, except that there shall be no right of trial by jury.

J. Schedule of Civil Fines: The civil fines imposed on any person violating this water conservation section of this chapter shall be established by a resolution as adopted by the city council.

K. Termination Of Service For Waste Of Water: Where negligent or wasteful use of water exists from a customer's premises, the water department may terminate the service if such practices are not remedied after it has given the customer written notice to such effect by certified mail or citation issued by the city police, three (3) days prior to proposed date of termination.

**Schedule of Civil Fines:** The civil fines imposed on any person violating this water conservation section of the Elko Water Code shall be as follows:

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| First civil infraction   | \$50.00  |
| Second civil infraction within one year of the date of first infraction    | \$100.00 |
| Third civil infraction within one year of the date of the first infraction | \$300.00 |

**Measures to evaluate the effectiveness of the plan:**

With mandated water meters initiated in 2005, the City is beginning to see the effectiveness of meters as part of the water conservation plan. The City now has the means to measure and track per capita usage to develop a baseline value. From this value, the City will set a goal of reducing consumption by 5% over the next 5 years on those homes with water meters. The City of Elko has grown considerably over the past 5 years; however, water consumption has actually decreased, indicating a much more efficient use of the water resource. For example, in 2013 the City pumped 2.4 Billion gallons of water. In 2017 the City pumped 2.0 Billion gallons of water, a reduction of 400 million gallons, despite considerable growth in population and new housing during this time.

Additionally, water mains have been tracked for leakage. Those mains with a high number of leaks on a recurring basis are budgeted for replacement in the City's capital improvement program. Further, when streets are totally reconstructed, in many instances the City is also installing meter pits in these locations.

**Standards for Water Efficiency:**

The City of Elko had adopted the Uniform Plumbing Code 2008 version and intends to adopt the 2018 version within the next year.

**Variable Rates:**

The City of Elko currently charges variable rates for the use of different forms of water to encourage potable water conservation and reuse water consumption. As of 3/4/2014, the consumption rates are \$1.02/1000 gallons for potable domestic service and \$1.50/1000 gallons to use that same water for construction purposes, while reuse water has a \$.40/1000 gallons consumption charge. This process financially encourages both the conservation of potable water and the use of reuse water.

Although the City does not have a tiered rate structure, the currently billing method functions as such to an extent. The sewer bill is 47% of the water metered usage, so when



the water consumption increases, the fees for not only water, but also sewer increase, thereby encouraging conservation.

**Incentives:**

The City currently offers a water meter grant program whereby the City pays for the cost to install a meter pit with the customer only paying for the actual cost of a water meter.

This document lists several suggestions to encourage water conservation in the service area, retrofit existing plumbing structures with fixtures or devices which reduce water consumption, as well as the installation of landscaping that uses minimal amounts of water.

At the present time, the incentive for these types of installations is the assurance of a lower water bill, which in turn is a direct incentive to the customer to conserve water. The more water you save, the more money you save.

To Report Violations of the City Water Code, please call the City of Elko Police Department at 777-7300.

To Report Broken Pipes or Leaks, inquire about water billing or general water information please call the City of Elko Water Billing Department at 777-7135.