

Clinton City Water Conservation Plan Update 2016

INTRODUCTION

Clinton City is a community of 22,310 residents in Northern Davis County, Utah. Located north of Salt Lake City and southwest of Ogden nestled between the Wasatch Mountains and the Great Salt Lake.

Officials at the State of Utah Department of Water Resources recognize the need of conservation programs to extend current water supplies. They have established a statewide conservation goal of reducing per capita water use from levels measured in 2000 by 25 percent by the year 2025.

Water is no longer seen as an endless supply, but as a valuable commodity that needs to be managed wisely.

Water conservation from the city's standpoint is to increase the efficiency of water use in order to sustain future supplies to its customers by ensuring the water is used wisely and is not wasted. Benefits to the city of using the existing water supplies and infrastructure more efficiently include:

- Delaying or deferring expensive construction of capital improvement projects; and,
- Reducing the need for additional water supplies and resources.

Description of the Water System

The water system provides water to residential, commercial and institutional connections.

Clinton City currently has two culinary sources. These sources consist of a connection to Weber Basin Water Conservancy District on Hill Air Force Base and one city owned well. The majority of Clinton City's water is purchased from Weber Basin Water Conservancy District. The City utilizes its culinary water well to supplement water use if needed. Based on historical data these sources can produce the following flows:

Weber Basin Diversion	4,000 gpm (peak)
Clinton Well	<u>1,000 gpm</u>
	5,000 gpm

Clinton's Water Rights information is described in the following table.

WR#	CFS	AF
31-3978	3.01	2179.72
TOTAL		2179.72

Clinton is in the planning stages to drill an additional well sometime in the future. A change application related to the above water right now allows for water to be drawn from this new well site.

The existing piping in Clinton is mostly ductile iron and PVC. Some older sections of city still have transite pipe. The overall condition of these pipes is fair to good. Many areas of ductile iron pipe are being replaced with PVC as the pipe ages and deteriorates. Clinton City currently has 6,684 connections to the system, most of which are residential connections. The connections and use for the 2015 water year are presented below.

Type	Connections	Use (A.F./yr.)
Residential	6586	1227
Commercial	82	95.5
Institutional	9	1.5
Un-metered	7	195
Other	0	

Water Conservation Goals

In line with the state's goal of 25% reduction from the year 2000 to 2025, Clinton City is adhering to that as a guideline.

The city's usage has declined 15% from 2009 to 2015, based on total water usage for the year.

Year	Purchased	Pumped	Total
2009	1529.07	244.88	1773.9
2010	1609.75	145.17	1754.92
2011	1537.46	134.82	1672.28
2012	1615.17	83.44	1698.61
2013	1590.33	51.95	1642.28
2014	1602.79	0	1602.79
2015	1517.98	1.595	1519.575

Future Water Demand

Population Projections

2020	24,899
2030	30,352
2040	36,999

At the build out condition, the peak day demand will be 6,763 GMP*. The current sources would supply approximately 70% of this need. It is apparent that new sources of water will need to be developed. Using the state's published growth rate expectation for Clinton City of 1.4%, these water sources should be adequate for a number of years.

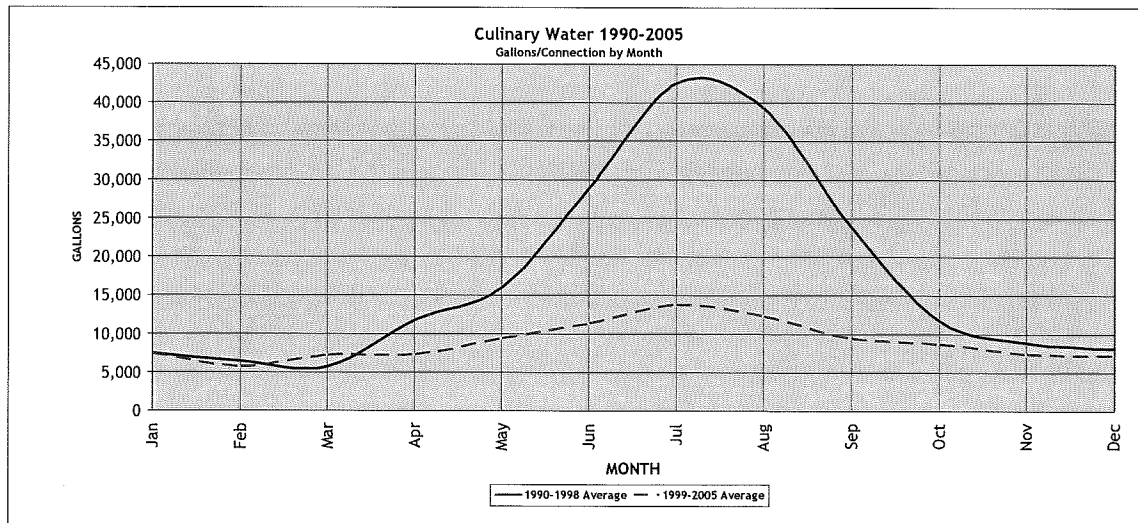
*This peak day demand calculation is based on water use prior to 2009. Any conservation of water use will delay or eliminate the need for some capital facility improvements.

Current Conservation Practices

Secondary Water System

The most significant conservation measure in Clinton City has been the construction of a secondary water system. The precious culinary water that in the past would have been used to irrigate lawns and gardens can now be conserved. The first phase of the secondary water system went into operation in 1998. The system now extends throughout the city and is operated and maintained by the Davis and Weber Counties Canal Company. Rick Smith is the general manager (801-774-6373). The source for this system is the Weber River. Water is diverted into the Davis and Weber Canal, and then into a storage reservoir. The water rights for the system are available from shares of irrigation stock owned by the city and by private individuals that have become available as agricultural land has been developed.

All new developments are required to connect to the system. The nine-year average annual culinary water use per connection in the city before the secondary water system was 211,062 gallons/connection. A five-year average annual culinary water use since the secondary system is 107,109 gallons/connection. The table below illustrates the difference between culinary water usage per connection before the secondary water system was available and after.



Time of Day Watering Restrictions

During summer months the City has encouraged citizens to avoid watering lawns and gardens during daylight hours. This is normally accomplished through a notice in the city newsletter and on the city website.

Pressure Regulation

Clinton's culinary distribution system currently consists of three pressure zones. Pressure in these zones is kept at or below 100 psi. Maintenance on the pressure reducing stations is performed each year to ensure they remain in good working condition. Pressures are checked weekly in each of the pressure zones.

Public Education

Water conservation information is included in the annual consumer confidence report sent to each resident. It is also included in summer editions of the city newsletter and posted on the city's website.

Water Meter Maintenance

Clinton City uses service calls received from culinary water customers as an opportunity to verify meter accuracy. Water meters with inaccuracies greater than 3% are replaced. In 2010, sixty residential water meters were pulled at random and tested for accuracy. Results showed an overall accuracy of 100.05%. Meters are regularly replaced with new meters throughout the year.

Water Rates

Clinton's current water rates are:

\$16.50 per month for 10,000 gallons and \$1.65 per each 1,000 gallons thereafter. This rate was implemented in 2015. The billing cycle is monthly.

Additional Conservation Measures:

Restrict outdoor watering

Problem: Clinton City does not have a mandatory restriction plan in place. Recommendations to not water during the hottest times of the day are currently utilized.

Goal: Establish a plan to restrict or limit days of the week that watering may be allowed, if needed.

Actions: The City may implement a schedule of water use restrictions.

Public Awareness

Problem: The practice of overwatering is still occurring by residents, but has become less common.

Goal: Increase the awareness and education of Clinton City's water users by distributing water conservation information annually.

Action: The City will continue to include water conservation information in the annual consumer confidence report and the city newsletter. Additionally the City will provide water conservation literature during the annual Heritage Days festivities, and make 6th grade elementary school class visits to discuss the topic.

Ordinances

Problem: There is no city ordinance that specifically addresses water conservation.

Goal: Adopt a Water Conservation Ordinance.

Action: Ordinance 27-3-21 that prohibits the waste of water is in effect. Any additional ordinance(s) will be adopted by the Clinton City Council as that body deems necessary.

Current actions seem adequate for the time being

Implementation

Clinton City has a contract with Weber Basin Water Conservation District for 1,630 Acre-feet of water per year, with the ability to use up to 4,000 gallons per minute for brief periods of time. A Water Conservation Committee will be organized as described in the action step under Ordinances described above. This committee will be formed and begin meeting when the contracted amount of water from Weber Basin can no longer meet the demands of the system.

This committee will meet semi-annually. The committee will be responsible for overseeing the implementation of the Water Conservation Plan. Once established, this committee will also oversee the update and re-submittal of the future city conservation plans as required by the Division of Water Resources.

This Water Conservation Plan was placed on the December 13, 2016 City Council agenda and adopted by the City Council. The City Council is comprised of:

- L. Mitch Adams, Mayor
- TJ Mitchell, Councilmember
- Barbara Patterson, Councilmember
- Karen Peterson, Councilmember
- Mike Petersen, Councilmember
- Anna Stanton, Councilmember

Utah Division of Water Resources
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Enclosed is a copy of the 2016 Water Conservation Plan Update for

Clinton City
UTAH06003

Thank You,

John Wyan
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