

# **WATER CONSERVATION PLAN**

(HAL Project No.: 126.24.200)

**June 2014** 





SALT LAKE AREA OFFICE

6771 SOUTH 900 EAST MIDVALE, UTAH 84047 PHONE: (801) 566-5599 FAX: (801) 566-5581 www.hansenallenluce.com

Mr. Marv Taylor South Salt Lake City 220 Morris Ave., Suite 200 South Salt Lake, Utah 84115 June 16, 2014

RE:

South Salt Water Conversation Plan

Dear Mr. Taylor:

As per your request, transmitted herewith are three final copies of South Salt Lake City's Water Conversation Plan.

If you have any questions regarding the enclosed, please call. We appreciate being of service to South Salt Lake City.

Sincerely,

Marvin E. Allen, P.E.

Principal

Enclosure



# CITY OF SOUTH SALT LAKE

## WATER CONSERVATION PLAN

(HAL Project No.: 126.24.200)



J. Lance Nielsen, P.E. Project Engineer



June 2014

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# **CHAPTER 1 – INTRODUCTION**

Recognizing the need for proactive planning to meet the water needs of its citizens, the City of South Salt Lake (City) has prepared this 2014 update of its Water Conservation Plan (Plan). The original Plan was completed in 2000 and was updated in 2009. The Plan describes the drinking water system, reviews historical water use, assesses water conservation measures available to the City, sets goals to conserve water, and identifies existing and proposed water conservation measures to be implemented.

This Plan is submitted to the Division of Water Resources under the requirements of Utah Code 73-10-32.

# **CHAPTER 2 – WATER SYSTEM DESCRIPTION**

The City of South Salt Lake is located in the heart of Salt Lake County. It had an estimated population of 24,366 in 2012, a moderate increase over its 2010 population of 23,617 and its 2000 population of 22,038. Attractive to both businesses and residents, the City is nearing its build-out capacity and will experience significant growth only with higher-density redevelopment.

#### SERVICE AREA

Three entities provide drinking water to South Salt Lake (Figure 2-1). In part of South Salt Lake, the City operates its own system, whose service area extends from 3300 South to 2100 South and from 700 East to the Jordan River. Salt Lake City serves a portion in the northwest corner of South Salt Lake. The area south of 3300 South is served directly by Jordan Valley Water Conservancy District.

The City's system serves an estimated 13,300 residents based on an analysis of 2010 census block data within the service area. The 2000 service population was 14,500, indicating a decline of approximately 8% by 2010. The total number of system connections has not increased since 2010, suggesting a stable service population. This report assumes a constant service population of 13,300 since 2010.

While the City is close to build-out, four transit-oriented development (TOD) overlays have been planned within the service area. According to the City's 2013 Drinking Water System Master Plan, the high-density redevelopment is expected to double the service population by 2050.

#### **TYPES OF USE**

The City's water system serves residential, commercial, and industrial customers for both indoor and outdoor water uses. Most of the residential development (single and multi-family) is concentrated on the east side of the City. The western half is largely industrial. Commercial zones are located along the major corridors of 3300 South and State Street. The City's drinking water system must meet the demands for these several types of use.

Because there is no secondary irrigation system in the City, irrigation necessary to support existing landscaping is supplied by the drinking water system. Typical landscaping at businesses, churches, and private homes consists of water-intensive features such as turf grass and other non-drought tolerant plants. The City also operates one large park and several smaller parks with large grass areas.

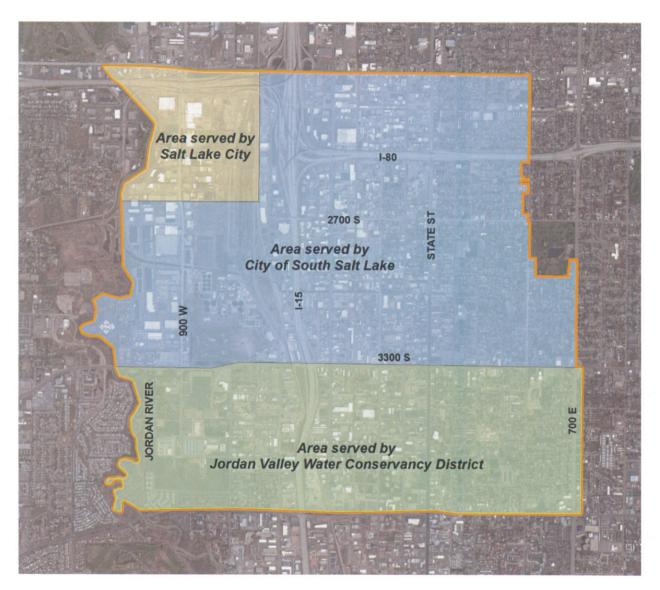


Figure 2-1: Drinking Water Service Areas

### **INVENTORY OF WATER SOURCES**

The City currently receives drinking water from three active wells, four connections to Jordan Valley Water Conservancy District (JVWCD), and two emergency connections to Salt Lake City's (SLC) drinking water system. The City also has three additional wells that are currently not in use. Table 2-1 summarizes the City's drinking water sources.

Table 2-1 Water Sources

	Water Courses		
Source	Water Rights	Water Right / Contracted Flow	Source Capacity
300 East Well (300 E 2500 S)	57-1056, 2660	2.050 cfs	800 gpm
700 East Well (700 E 3200 S	57-8374, 8789	1.560 cfs	1,400 gpm
Davis Well (465 W 2975 S)	57-641, 727, 806, 1168, 3104, 6010, 7216, 7515, 8288, 8717	6.560 cfs	3,000 gpm
400 East Well (400 E 3050 S)	57-4246 through 4251, and 4253 through 4265	1.570 cfs	
Bolinder Well (600 W 2250 S)	57-8683, 8687	2.81 cfs	Not in use
265 West Well (265 W 2975 S)	57-818, 1056, 1057, 1058, 2660, 3113, 3157, 6010, 7515, 8037, 8288, 8374, 8684	10.665 cfs	
JVWCD (300 E 3300 S)			600 gpm
JVWCD (3300 S State St)	Contract with Jordan Valley Water	minimum	800 gpm
JVWCD (300 W 3300 S)	Conservancy District	1,020 ac-ft/year	700 gpm
JVWCD (900 W 3300 S)			1,500 gpm
SLC (2775 S 900 W)	Contract with Salt Lake City Department of	Emergency only; no	Approx. 800 gpm
SLC (2430 S 300 E)	Public Utilities	minimum or maximum	Approx. 800 gpm

#### **WATER BUDGETS**

Water budgets for 2008, 2011, and 2013 are presented in Table 2-2.

Table 2-2
Water Budgets

Year	Produced (ac-ft)	Metered (ac-ft)	% Difference
2008 <sup>1</sup>	2,948	2,594	12.0%
2011 <sup>2</sup>	2,476	2,181	11.9%
2013 <sup>2</sup>	2,908	2,464	15.2%

<sup>1.</sup> Data from 2009 Water Conservation Plan.

The information in Table 2-2 indicates that a portion of the water supplied by the City's drinking water sources is consistently unaccounted for. Possible explanations include leaks, meter inaccuracies, pipeline flushing, construction activities, fire hydrant testing, and use at unmetered connections. In 2001 the City determined that leaks and backflows to JVWCD connections due to low pressures in the JVWCD system were causing losses up to 40%. The City responded by installing check valves and replacing numerous leaking pipelines, reducing the loss to around 15% in recent years.

#### HISTORICAL WATER USE

The City's historical water use in gallons per capita per day (gpcd) is shown in Figure 2-2. Since total water use depends on the number of customers, per capita values are a better measure of individual water use over time.

<sup>2.</sup> Produced and metered data provided by City.

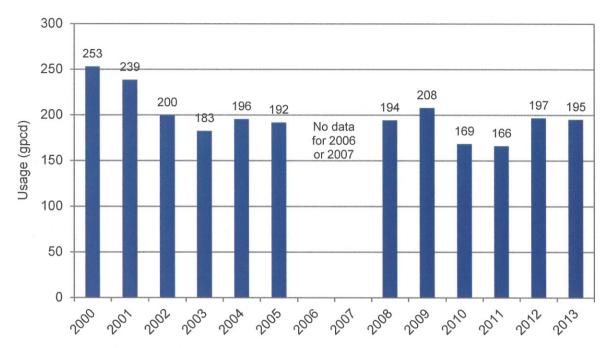


Figure 2-2: Per Capita South Salt Lake Water Use, 2000–2013

As noted above, improvements to the system were completed in 2001 to reduce serious water losses. The improvements contributed to a 21% reduction in water demand from 2000 to 2002. The City's water use has been relatively consistent since then, averaging about 190 gpcd. Use was lower in 2010 and 2011, likely attributable to more precipitation during these years compared to the drier years of 2012 and 2013. The consistent reduction since 2002 is encouraging as the City continues to implement its Water Conservation Plan.

It is important to note that the City's previous conservation plans overestimated the service population, leading to lower values of per capita water use. The results of this report should not be compared to earlier ones due to a fundamental difference in assumptions.

Water use for the period 2000–2005 averaged 3,350 ac-ft/yr. Total water use for the period 2008–2013 averaged 2,830 ac-ft/yr. The reduction may be attributed to both population decrease and water conservation.

Figure 2-3 illustrates the seasonal pattern of water use in the service area. The City delivers nearly three times as much water in July as it does in February. Conservation is most effective during summer months, where irrigation and other outdoor uses add to the overall water demand.

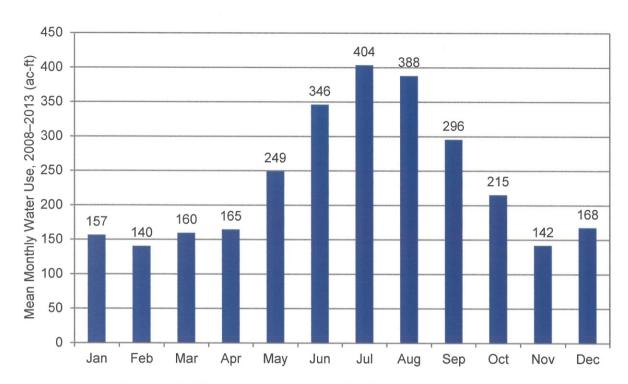


Figure 2-3: Monthly South Salt Lake Water Use, 2008–2013

### **FUTURE WATER USE**

As described in the City's 2013 Drinking Water System Master Plan, redevelopment may double the service population by 2050. Future increases in water demand are expected to be the result of redevelopment and population growth; per capita water use is expected to be similar to recent years as presented in Figure 2-2.

# **CHAPTER 3 – WATER CONSERVATION GOALS**

#### **PROBLEMS**

The City of South Salt Lake is concerned with the potential waste of water from inefficient indoor and outdoor water use and from system-wide losses. The following specific concerns have been identified by the City:

- Many pipes in the drinking water distribution system are old or undersized and may be leaking. A pipe replacement program addresses these issues periodically.
- Comparison of the water supplied to the distribution system and the monthly meter readings has revealed water that is unaccounted for.
- Potential for further indoor and outdoor conservation still exists.

#### **GOALS**

The City of South Salt Lake has set goals to address the identified problems and to promote conservation. The City currently supports the statewide goal set in 2000 by the Utah Division of Water Resources to reduce water use 25% by 2050. In 2013 Gov. Gary Herbert renewed the challenge: "In the year 2000 we set a target to use 25% less water by the year 2050, and we've already reduced our consumption by 18%. So let's go one step further. Let's cut the time in half, and achieve that goal by the year 2025." South Salt Lake has already made considerable progress toward this goal, reducing per capita water use by 21% since 2000. The City will continue working to further conserve its water resources and meet or exceed the original statewide goal.

The following water conservation goals have been identified by the City:

- The City will continue to implement the water conservation measures currently in effect as defined in Chapter 4.
- The City's water rate structure has been amended to better promote conservation. The City will consider additional rate modifications to encourage wise water use.
- The City will determine potential causes for unaccounted drinking water and attempt to reduce this water loss.
- The City will continue its pipe replacement program, replacing leaking pipelines as budget will allow.

## **CHAPTER 4 – WATER CONSERVATION MEASURES**

#### **EXISTING CONSERVATION MEASURES**

The City of South Salt Lake is already implementing, and will continue to implement, the following water conservation measures.

- Promotion of individual water conservation measures to City residents through the City's website, the annual Water Quality Report, bill stuffers, the City's On the Move monthly newsletter, a booth during the City's annual "Night Out Against Crime" community event, and the annual Huck Finn Day.
- Promoted conservation measures include the following:
  - O Ways to save water indoors:
    - Check all faucets, pipes, and toilets for leaks.
    - Install water-saving showerheads and low-flush toilets.
    - Take shorter showers.
    - Never use your toilet as an ashtray or wastebasket.
    - Turn off the water while brushing your teeth or shaving.
    - Defrost frozen food in the refrigerator.
    - Rinse vegetables in a full sink or pan of water.
    - Fully load your dishwasher.
    - Rinse dishes in a full sink or pan of water.
    - Wash full loads of clothes.
  - o Ways to save water outdoors:
    - Don't over-water landscaping.
    - Water your lawn or garden early in the morning or late in evening.
    - Adjust sprinklers so that they don't water the sidewalk or street.
    - Don't water on cool, rainy, or windy days.
    - Equip all hoses with shutoff nozzles.
    - Use drip irrigation systems.
    - Plant drought-tolerant or low-water use plants and grasses.
    - Use shrubs and ground cover to reduce the amount of grass.
    - Place mulch around plants to reduce evaporation and discourage weeds.
    - Set your mower blades one notch higher, since longer grass means less evaporation.
    - Use a pool cover to cut down on water evaporation.
    - Use a bucket instead of a hose to wash your car.
    - Use a broom rather than a hose to clean sidewalks, driveways, loading docks, and parking lots.
- The City directs citizens to the Slow the Flow website (<u>www.slowtheflow.org</u>) for additional conservation ideas.
- The City directs citizens to Center for Water-Efficient Landscaping at Utah State University (<a href="http://cwel.usu.edu/">http://cwel.usu.edu/</a>) for information on efficient landscape irrigation.
- A <u>Landscape Handbook</u> is available on the City's website. The handbook addresses irrigation techniques and lists recommended water-efficient plants.
- The City has adopted the International Plumbing Code (IPC) which requires installation of water-saving fixtures in new construction (Municipal Code: <u>15.08.050</u>). Maximum flow rates as defined by IPC 604.4 are as follows:
  - Shower head: 2.5 gpm at 80 psi
  - Sink faucet: 2.2 gpm at 60 psi
  - o Toilet: 1.6 gal per flush

- The City adopted a <u>new water rate structure</u> effective Jan. 1, 2014. Previous rates did not promote water conservation since customers were charged similarly regardless of their use. The new rates encourage reduced water use, especially by the largest users. The 2014 monthly rates are as follows:
  - o 0.75-in. service: \$11.00 min.; 5,000 gal allowance
  - o 1.0-in. service: \$19.00 min.; 5,000 gal allowance
  - o 1.5-in. service: \$32.00 min.; 5,000 gal allowance
  - o 2.0-in. service: \$47.00 min.; 5,000 gal allowance
  - o 3.0-in. service: \$89.00 min.; 5,000 gal allowance
  - o 4.0-in. service: \$136.00 min.; 5,000 gal allowance
  - o 6.0-in. service: \$267.00 min.; 5,000 gal allowance
  - o Metered hydrant use: \$3.00 per 1,000 gal
  - Excess water: \$2.25 per 1,000 gal between 5,000 and 30,000 gal and \$2.75 per 1,000 gal over 30,000 gal
- The City has instituted a program to replace old galvanized steel water services with new copper water services. To date, the City has replaced about 75% of these services and will continue to replace services as leaks are detected and as budget allows. Replacing galvanized pipes in City parks has reduced water use by an estimated 15%.
- Existing City code provides for emergency limitation of water use when necessary.
  - o 13.52.050 Mayor's proclamation of water use limitation.

    In time of scarcity of water or whenever it shall be deemed necessary by the City Council, the Mayor shall, by proclamation, limit the use of water to such extent as may be necessary for the public good. Providing, however, that such restrictions and limitations are not discriminatory and are made on a reasonable basis. It is unlawful for any person by himself, family, servants or agents to violate any such proclamation, and in addition to any other penalties which may be imposed, the water shall be turned off and not turned on again until the payment set by resolution of the City Council for each violation has been made.
- Existing City code prohibits the wasting of water.
  - o 13.56.070 Waste prohibited.

It is unlawful for any water user to waste water, or to allow tanks, air conditioning units or similar equipment to leak or overflow, or to wastefully run water from hydrants, faucets or stops, or through basins, water closets, urinals, sinks or other apparatus, or to use the water for purposes other than those for which he has paid or to use water in violation of the rules and regulations for controlling the water supply and the provisions of this chapter.

### PROPOSED ADDITIONAL CONSERVATION MEASURES

The City of South Salt Lake proposes to implement the following additional Water Conservation measures:

- The City will consider purchasing leak detection equipment and performing a leak detection survey. This survey would be followed by the implementation of the ongoing pipeline replacement program for leaking pipelines.
- The City is currently developing a commercial landscape ordinance to encourage water conservation. Sections relevant to water conservation include the following:
  - O 17.07.050.C Drought Tolerant Species. Climatic conditions in Salt Lake County are generally arid, and the selection of plant species suited to dry conditions is allowed and appropriate. The State of Utah has compiled a list of "WaterWise" plants which can be accessed at <a href="http://www.waterwiseplants.utah.gov">http://www.waterwiseplants.utah.gov</a>. Drought tolerant plants shall be from transplants and not seeded on site.

- 17.07.050.G.8 Water Conservation.
   Landscape design pursuant to the requirements of this chapter should be done with water conservation in mind because of population growth, limited available water and the climatic limitations of Salt Lake County. While irrigation systems are required for certain landscaping and may be desirable for other applications, all irrigation systems shall be designed for efficient use of water.
- The City will consider reevaluating its water rate structure to further promote water conservation.
- The City will continue its program to replace old galvanized steel water services with copper water services.
- The City will continue to monitor overall system water loss and institute measures to address unaccounted water.

# **CHAPTER 5 – IMPLEMENTATION PLAN**

This Water Conservation Plan renews the existing water conservation measures for at least the next five years. Existing and proposed water conservation measures will be implemented according to Table 5-1.

Table 5-1
Water Conservation Implementation Plan

Water Conservation Implementation Plan			
Conservation Measure	Implementation Plan		
Promote water conservation measures to City residents	<ul> <li>Advertise conservation measures through:</li> <li>The City's website (www.southsaltlakecity.org).</li> <li>The annual Water Quality Report.</li> <li>Bill stuffers.</li> <li>The City's monthly newsletter, On the Move (http://www.southsaltlakecity.com/city-government/city-newsletter).</li> <li>The annual "Night Out Against Crime" community event.</li> <li>The annual Huck Finn Day.</li> </ul>		
Require new development to install water saving plumbing fixtures	Check building plans for water saving fixtures during building permit reviews and enforce compliance through building inspections for new construction.		
Replacement of old leaking water services	Replace with copper water services as leaks are detected. Approximately 75% of the old galvanized steel services have been replaced to date.		
Prohibit the wasting of water	City Code: 13.56.070 Waste Prohibited  • Implemented when water waste is discovered		
Emergency limitation of water use	City Code: 13.52.050 Mayor's Proclamation of water use limitation  Implemented in times of scarcity of water or whenever deemed necessary by the City Council		
Perform leak detection survey followed by a pipeline replacement program	Public Works department will:  Evaluate necessity of a leak detection survey  Budget funding for survey as deemed necessary  Develop plan for replacement of leaking pipelines when discovered		
Adopt a commercial landscaping ordinance that promotes conservation	Building department is developing the ordinance to be adopted by the City Council. Building department will enforce installation of efficient landscape irrigation design.		
Assess the need to further modify water rates to promote conservation	Public Works will evaluate the effectiveness of recent water rate modifications in promoting water conservation. Public Works will evaluate the need for additional modifications to the rate structure.		

# **CHAPTER 6 – ADOPTION OF PLAN**

Pursuant to Section 73-10-32(2)(a) of the Utah Code (Appendix B), the City's governing body shall devote part of at least one regular meeting every five years to discussion and formal adoption of the Water Conservation Plan. Minutes of such meetings shall be included as an appendix to the Plan. The City shall also provide media access to the Plan and allow public comment on it. These actions serve to increase awareness of the Plan and encourage public involvement in its implementation, leading to a more effective water conservation effort.

### REFERENCES

City of South Salt Lake. 2011. Zoning map. Accessed March 17, 2014. https://www.southsaltlakecity.com/uploads/documents/Zoning 2.pdf. —. 2012. South Salt Lake Landscape Handbook. Accessed March 14, 2014. http://www.southsaltlakecity.com/uploads/documents/South SLC Landscape Handboo k 02.pdf. ——. 2013. City of South Salt Lake Municipal Code. Accessed March 17, 2014. http://library.municode.com/index.aspx?clientID=16638&stateID=44&statename=Utah. -. 2014a. Consolidated Fee Schedule of the City of South Salt Lake. Accessed March 14. http://www.southsaltlakecity.com/uploads/documents/2014 Jan CFS facility rates.pdf. 2014b. Water use data (source production and metered use) for 2011 and 2013. Email. from Marvin Taylor, May 5, 2014. Hansen, Allen & Luce, Inc. (HAL). 2009. City of South Salt Lake Water Conservation Plan (126.24.100). —. 2013. City of South Salt Lake Drinking Water Master Plan (126.27.200). Herbert, Gary R. 2013. "The Best Kind of Economic Recovery: 2013 State of the State Address." State of Utah Office of the Governor. Accessed March 17, 2014. http://www.utah.gov/governor/docs/stateofstate/2013StateoftheStateAddress.pdf. International Code Council. 2012. 2012 International Plumbing Code. U.S. Census Bureau. 2012. "Population and Housing Unit Counts, CPH-2-46 Utah." 2010 Census of Population and Housing, Washington, D.C.: U.S. Government Printing Office. Accessed March 14, 2014. https://www.census.gov/prod/cen2010/cph-2-46.pdf. Utah Automated Geographic Reference Center (AGRC). 2001. 2000 U.S. Census Bureau Data. Accessed March 13, 2014. http://gis.utah.gov/data/demographic/2000-census-data/. ——. 2011. 2010 U.S. Census Bureau Data. Accessed March 13, 2014. http://gis.utah.gov/data/demographic/2010-census-data/. Utah Code Annotated. n.d. Section 73-10-32. "Definitions—Water conservation plan required." Accessed March 12, 2014. http://le.utah.gov/code/TITLE73/htm/73 10 003200.htm. Utah Department of Natural Resources. 2014. Slow the Flow. Accessed March 17, 2014. http://www.slowtheflow.org/. Utah Division of Water Resources. 2001. Utah's Water Resources: Planning for the Future. Salt Lake City: Utah Department of Natural Resources, Accessed March 17, 2014.

http://www.water.utah.gov/waterplan/SWP pff.pdf.

Department <a cgi-bin="" href="http://www.w&lt;/th&gt;&lt;th&gt;of Natural Revaler.utah.go&lt;/th&gt;&lt;th&gt;Conservation Pla&lt;br&gt;esources. Access&lt;br&gt;v/M&amp;I/plan7-14-03&lt;/th&gt;&lt;th&gt;ed March 17,&lt;br&gt;3.pdf.&lt;/th&gt;&lt;th&gt;2014.&lt;/th&gt;&lt;th&gt;&lt;/th&gt;&lt;th&gt;•&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;th colspan=10&gt;Utah Division of Water Rights. 2014. Public Water Supplier Information for South Salt Lake Culinary Water. WUSEVIEW Water Records/Use Information Viewer. Accessed March 12, 2014. &lt;a href=" http:="" wuseview.exe?modinfo='Pwsview&amp;SYSTEM_ID=1339"' www.waterrights.utah.gov="">http://www.waterrights.utah.gov/cgi-bin/wuseview.exe?Modinfo=Pwsview&amp;SYSTEM_ID=1339</a> .						
Utah Governor's Off Projections."	fice of Manaç ' Accessed N	gement and Budgo Narch 13, 2014. <u>ht</u>	et (GOMB). 2 tp://governor	2012. "2012 .utah.gov/D	2 Baseline DEA/projection	ons.html

# **APPENDIX A**

Drinking Water System Data



City of South Salt Lake Drinking Water System Data

Provided by City, 5/5/2014 Calculated 5/5/2014 RBS

2008	January	February	March	April	May	June	July	August	September	October	November	December	Total
Water Produced or Purchased (gal)	59,999,167	52,756,664	55,710,869	57,565,998	86,698,021	105,503,327	140,189,736	135,629,419	90,897,312	59,772,151	47,870,324	68,023,724	960,616,711
Water Delivered (gal)	48,062,000	39,574,000	42,754,000	51,508,000	79,556,000	112,297,000	132,055,000	115,353,000	87,036,000	50,831,000	44,963,000	41,267,000	845,256,000
Difference (gal)	11,937,167	4,694,664	16,136,869	14,811,998	35,190,021	25,947,327	27,892,736	3,574,419	-24,455,688	-27,263,849	-2,960,676	23,060,724	115,360,711
Percent Difference	19.9%	8.9%	29.0%	25.7%	40.6%	24.6%	19.9%	2.6%	-26.9%	-45.6%	-6.2%	33.9%	12.0%
Water Produced or Purchased (ac-ft)	184.1	161.9	171.0	176.7	266.1	323.8	430.2	416.2	279.0	183.4	146.9	208.8	2948.0
Water Delivered (ac-ft)	147.5	121.4	131.2	158.1	244.1	344.6	405.3	354.0	267.1	156.0	138.0	126.6	2594.0
Difference (ac-ft)	36.6	14.4	49.5	45.5	108.0	9.62	85.6	11.0	-75.1	-83.7	-9.1	70.8	354.0
Percent Difference	19.9%	8.9%	29.0%	25.7%	40.6%	24.6%	19.9%	2.6%	-26.9%	-45.6%	-6.2%	33.9%	12.0%
2011	January	February	March	April	Mav	June	July	August	September	October	November	December	Total
Water Produced or Purchased (gal)	27,450,000	27,086,000	48,464,000	52,370,000	57,530,000	84,236,000	121,981,000	122,668,000	102,344,000	63,253,000	47,330,000	52,141,000	806,853,000
Water Delivered (gal)	39,148,000	34,096,000	38,776,000	38,546,000	52,652,000	91,170,000	105,095,000	114,063,000	81,549,000	44,821,000	43,032,000	27,811,000	710,759,000
Difference (gal)	-11,698,000	-7,010,000	9,688,000	13,824,000	4,878,000	-6,934,000	16,886,000	8,605,000	20,795,000	18,432,000	4,298,000	24,330,000	96,094,000
Percent Difference	-42.6%	-25.9%	20.0%	26.4%	8.5%	-8.2%	13.8%	7.0%	20.3%	29.1%	9.1%	46.7%	11.9%
Water Produced or Purchased (ac-ft)	84.2	83.1	148.7	160.7	176.6	258.5	374.3	376.5	314.1	194.1	145.3	160.0	2476.1
Water Delivered (ac-ft)	120.1	104.6	119.0	118.3	161.6	279.8	322.5	350.0	250.3	137.6	132.1	85.3	2181.2
Difference (ac-ft)	-35.9	-21.5	29.7	42.4	15.0	-21.3	51.8	26.4	63.8	56.6	13.2	74.7	294.9
Percent Water Loss	-42.6%	-25.9%	%0.02	26.4%	8.5%	-8.2%	13.8%	7.0%	20.3%	29.1%	9.1%	46.7%	11.9%
20043	racinal	Fohrion	Morch	lind	VeM	gail	vlul	Audio	Sentember	October	November	December	Total
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Water Produced or Purchased (gal)	58,092,000	51,419,000	55,786,000	29,999,000	94,932,000	115,268,000	128,348,000	126,697,000	90,902,000	69,716,000	39,060,000	57,235,000	947,454,000
Water Delivered (gal)	40,448,000	34,288,000	34,780,000	44,359,000	88,666,000	111,924,000	147,499,000	112,692,000	66,366,000	47,392,000	35,338,000	39,233,000	802,985,000
Difference (gal)	17,644,000	17,131,000	21,006,000	15,640,000	6,266,000	3,344,000	-19,151,000	14,005,000	24,536,000	22,324,000	3,722,000	18,002,000	144,469,000
Percent Difference	30.4%	33.3%	37.7%	26.1%	%9.9	2.9%	-14.9%	11.1%	27.0%	32.0%	9.5%	31.5%	15.2%
	Reproductive programme in the second	Secretarions	Abermanian	· Contraction of the Contraction		American contraction of the second contracti	Assessment of the Party of the		Processor and pr	Section of the sectio	reministration and the second contraction of		and in constitution of the second second second second

2907.6 2464.3 443.4 15.2%

175.6 120.4 55.2 31.5%

119.9 108.4 11.4 9.5%

214.0 145.4 68.5 32.0%

279.0 203.7 75.3 27.0%

388.8 345.8 43.0 11.1%

393.9 452.7 -58.8 -14.9%

353.7 343.5 10.3 2.9%

291.3 272.1 19.2 6.6%

184.1 136.1 48.0 26.1%

171.2 106.7 64.5 37.7%

157.8 105.2 52.6 33.3%

178.3 124.1 54.1 30.4%

Water Produced or Purchased (ac-ft)

Water Delivered (ac-ft) Difference (ac-ft) Percent Difference

# **APPENDIX B**

Utah Code 73-10-32

### 73-10-32. Definitions -- Water conservation plan required.

- (1) As used in this section:
- (a) "Board" means the Board of Water Resources created under Section 73-10-1.5.
- (b) "Division" means the Division of Water Resources created under Section 73-10-18.
- (c) "Retail" means the level of distribution of culinary water that supplies culinary water directly to the end user.
  - (d) "Retail water provider" means an entity which:
  - (i) supplies culinary water to end users; and
  - (ii) has more than 500 service connections.
- (e) "Water conservancy district" means an entity formed under Title 17B, Chapter 2a, Part 10, Water Conservancy District Act.
- (f) "Water conservation plan" means a written document that contains existing and proposed water conservation measures describing what will be done by retail water providers, water conservancy districts, and the end user of culinary water to help conserve water and limit or reduce its use in the state in terms of per capita consumption so that adequate supplies of water are available for future needs.
  - (2) (a) Each water conservation plan shall contain:
- (i) a clearly stated overall water use reduction goal and an implementation plan for each of the water conservation measures it chooses to use, including a timeline for action and an evaluation process to measure progress;
- (ii) a requirement that each water conservancy district and retail water provider devote part of at least one regular meeting every five years of its governing body to a discussion and formal adoption of the water conservation plan, and allow public comment on it;
- (iii) a requirement that a notification procedure be implemented that includes the delivery of the water conservation plan to the media and to the governing body of each municipality and county served by the water conservancy district or retail water provider; and
- (iv) a copy of the minutes of the meeting and the notification procedure required in Subsections (2)(a)(ii) and (iii) which shall be added as an appendix to the plan.
  - (b) A water conservation plan may include information regarding:
- (i) the installation and use of water efficient fixtures and appliances, including toilets, shower fixtures, and faucets;
- (ii) residential and commercial landscapes and irrigation that require less water to maintain;
- (iii) more water efficient industrial and commercial processes involving the use of water;
  - (iv) water reuse systems, both potable and not potable;
  - (v) distribution system leak repair;
- (vi) dissemination of public information regarding more efficient use of water, including public education programs, customer water use audits, and water saving demonstrations:
  - (vii) water rate structures designed to encourage more efficient use of water;
  - (viii) statutes, ordinances, codes, or regulations designed to encourage more

efficient use of water by means such as water efficient fixtures and landscapes;

- (ix) incentives to implement water efficient techniques, including rebates to water users to encourage the implementation of more water efficient measures; and
  - (x) other measures designed to conserve water.
- (c) The Division of Water Resources may be contacted for information and technical resources regarding measures listed in Subsections (2)(b)(i) through (2)(b)(x).
- (3) (a) Before April 1, 1999, each water conservancy district and each retail water provider shall:
- (i) (A) prepare and adopt a water conservation plan if one has not already been adopted; or
- (B) if the district or provider has already adopted a water conservation plan, review the existing water conservation plan to determine if it should be amended and, if so, amend the water conservation plan; and
- (ii) file a copy of the water conservation plan or amended water conservation plan with the division.
- (b) Before adopting or amending a water conservation plan, each water conservancy district or retail water provider shall hold a public hearing with reasonable, advance public notice.
  - (4) (a) The board shall:
- (i) provide guidelines and technical resources to retail water providers and water conservancy districts to prepare and implement water conservation plans;
  - (ii) investigate alternative measures designed to conserve water; and
- (iii) report regarding its compliance with the act and impressions of the overall quality of the plans submitted to the Natural Resources, Agriculture, and Environment Interim Committee of the Legislature at its meeting in November 2004.
- (b) The board shall publish an annual report in a paper of state-wide distribution specifying the retail water providers and water conservancy districts that do not have a current water conservation plan on file with the board at the end of the calendar year.
- (5) A water conservancy district or retail water provider may only receive state funds for water development if they comply with the requirements of this act.
- (6) Each water conservancy district and retail water provider specified under Subsection (3)(a) shall:
- (a) update its water conservation plan no less frequently than every five years; and
- (b) follow the procedures required under Subsection (3) when updating the water conservation plan.
- (7) It is the intent of the Legislature that the water conservation plans, amendments to existing water conservation plans, and the studies and report by the board be handled within the existing budgets of the respective entities or agencies.

Amended by Chapter 329, 2007 General Session