SPRINGVILLE CITY

WATER CONSERVATION PLAN

Springville

Community. Service. Reliability.

NOVEMBER 2011

SPRINGVILLE CITY

WATER CONSERVATION PLAN

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INTRODUCTION

Historically, the City of Springville has consistently met its primary goal of meeting the demands for water for its people. Engineering, master planning, and good civic leadership have been the keys for keeping the City on track. This plan will serve as a guide to the future in maintaining the same high quality level of service to Springville's residents.

The purpose of this plan is to assess the water conservation alternatives available to Springville City, to set reasonable and achievable goals to conserve water, and to identify the methods and measures which Springville City will take to reach these goals. This plan includes detailed alternatives available to reduce the amount of water used by Springville residents, businesses and Springville City Corporation.

The plan addresses future water needs and the City's ability to meet these needs. Springville City may choose the presented alternatives that best suit their interests, while attaining the predetermined goals. Once the conservation measures are implemented, the water system will be monitored to insure that the methods are effective in promoting water conservation. The plan takes into consideration the revised Water Conservation Plan Act of 2004 (House Bill 71, Section 73-10-32 Utah State Code Annotated) and therefore will be readdressed again within five (5) years.

1 – DESCRIPTION OF SPRINGVILLE CITY AND ITS WATER SYSTEM

Located in south-central Utah County, Springville City boundaries currently encompass an area of approximately 15 square miles. Based on the City's General Plan, the projected future annexation boundary covers an area of approximately 17 square miles. In addition to the area within the City's boundaries, the City's water system also serves drinking water to four subdivisions and a campground up Hobble Creek Canyon that are located outside the City limits.

CURRENT POPULATION AND CONNECTIONS

For much of its history, Springville's population remained fairly constant with periods of moderate growth followed by moderate population decline. During the period from 1990 to 2010, however, Springville experienced rapid growth. For example, during the 1990s, Springville's average annual growth rate (AAGR) was 4.6%. According to US Census data, the population of Springville City in 2010 was 29,466 while in 2000 the population was 20,424. This marks a 44.3% increase during this period, or an AAGR of 4.4%. During the last few years, however, due to the economic downturn the growth rate has fallen off. It is estimated that the current population of the City is approximately 30,000. Currently the City's water system provides water to approximately 7,500 residential, 420 commercial, 30 industrial, and 80 institutional metered connections. In addition to the metered connections there are approximately 70 unmetered connections from the City system to City-owned facilities.

Per the City's currently-adopted Drinking Water and Secondary Water Systems Master Plan (HAL, 2006), the city currently has 6,477 Residential ERCs (equivalent residential connections), and 2,136 non-residential ERCs and Nestles. The City also irrigates 1,642 acres of land in parks, public facilities, residential, commercial and industrial areas. Springville City's peak day demand flow is an estimated 12,090 gpm, and has an average yearly demand of 10,080 AF. (The City plans on updating their water master plan within the next year and anticipates that these numbers may change slightly.)

POPULATION ESTIMATES

Population estimates for the year 2030 have been projected for Springville City from several different sources, each using a different estimation method. For example, the Springville City Planning Department using a simple extrapolation of the average annual growth rate between 1950 and 2000 (which produces an acceptable low), calculated a 2030 population estimate of 48,609. Then, using an exponential extrapolation based on the regression of a logarithm of population against time (producing an acceptable high), the Planning Department calculated a 2030 population of 72,200. The Governor's Office of Planning on Budget, using a share extrapolation (which examines the City's growth as a share of the County's growth) estimated a 2030 population of 50,741. Finally, in the City's water master plan the population is predicted to reach between 57,000 (low) and 65,000 (high) based on the projected build-out land use. Taking an average of all of these estimates produces a 2030 estimate of 58,779. Springville's historic and projected population can be seen in Figure1.

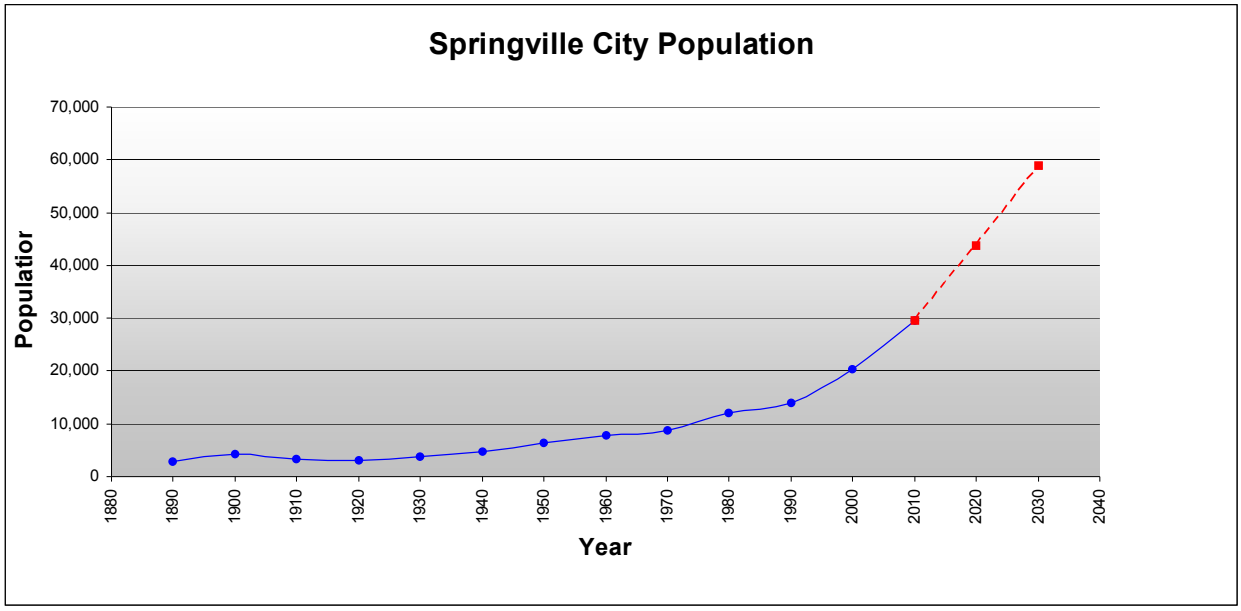

Figure 1 – Historic and Projected Population

Regardless of the method used, it is important to remember that projections are susceptible to change based on certain unforeseeable events such as changes in the economy, or natural or human-caused catastrophes. Many factors influence these projections, and the estimates shown may vary substantially from the actual population experienced.

INVENTORY OF WATER SOURCES

The City currently receives drinking water from four (4) springs and six (6) wells. The springs are located east of the City in Hobble Creek Canyon and Spring Creek Canyon, while the wells are located within City limits. In addition to groundwater supplied by the springs and wells, water for outdoor uses is provided in several areas through irrigation shares via flood irrigation.

The Utah Division of Drinking Water recommends that spring flows be rated at the low flow during an 80 percent of average precipitation year. An 80 percent of average precipitation year produces a lowest monthly average flow of 15,426 gpm. It was decided by City staff, however, that the City should be conservative and instead plan for the worst case scenario. The summer of 2003 had the lowest spring flow averages on record with the water sources producing a lowest monthly average of 10,768 gpm and total year demand of 9,852 acre-feet.

Since that time (2003), the production capacity of the 400 South Well was increased from 1,500 gpm to 3,000 gpm, and the City completed drilling a new well on Canyon Road equipped to pump 2,000 gpm with an average flow of 1,500 gpm. These additions bring the lowest monthly average flow to 13,768 gpm. Table 1 summarizes the City's existing water sources and capacities.

Table 1 – Existing Water Source Capacities

Source	Average Flow (gpm)	80% Precipitation Year Average Flow (gpm)	Summer 2003 Lowest Monthly Average (gpm)	Total Year 2003 Demand (acre-feet)
Bartholomew Springs	2063	1204	448	1663
Burt Springs	1330	1346	766	1892
Konold Springs	220	220	220	361
Spring Creek Canyon Springs	1659	1086	764	1314
200 North Well	3000	3000	3000	545
400 South Well	3000	3000	3000*	886
900 South Well	3000	3000	3000	2823
1000 South Well	650	650	650	174
Canyon Road Well	1500	1500	1500**	0**
Evergreen Well	420	420	420	194
TOTAL	**16,842**	**15,426**	**13,768**	**9,852**

* Production capacity of the 400 South Well was increased to 3,000 gpm in 2005
** Canyon Road Well was first placed into service for the 2008 water season

WATER BUDGET

The water budget for Springville City since 1992 is contained in Table 2 (data for the year 2003 was not available.) It should be noted that the large difference between the water use and spring and well production may be attributed to several factors. Principally, while spring flows are metered prior to entering the water storage tank, during times of high spring flow and lower water use the tanks are allowed to overflow back into the natural drainage channel and this overflow is not metered. Other explanations for these differences include unmetered flow and leaks within the distribution system.

Table 2 – Water Budget

Year	Inflow (ac-ft)			Use (ac-ft)	Difference	
	Springs	Wells	Total		ac-ft	%
2010	5210.7	3193.1	8403.8	7107.0	1296.8	15%
2009	6902.1	1899.8	8801.9	7196.5	1605.4	18%
2008	6586.0	4731.3	11317.3	8052.8	3264.5	29%
2007	8291.6	5895.9	14187.5	11545.6	2641.9	19%
2006	16661.6	1500.5	18162.1	7774.7	10387.4	57%
2005	9964.4	2310	12274.4	6682.4	5592	46%
2004	7191.5	4183.2	11374.7	7030.9	4343.8	38%
2002	6095.8	4181.3	10277.1	7041.3	3235.8	31%
2001	6228.1	5014.3	11242.4	11248.6	-6.2	0%
2000	7772.3	4270	12042.3	7845.4	4196.9	35%
1999	9039.1	1739.3	10778.4	6526.1	4252.3	39%
1998	11476	357.9	11833.9	7105.0	4728.9	40%
1997	10124	1060.9	11184.9	6653.8	4531.1	41%
1996	10035	1278.1	11313.1	10186.3	1126.8	10%
1995	10353	506.1	10859.1	8326.5	2532.6	23%
1994	5900	2664.9	8564.9	5877.3	2687.6	31%
1993	6280.9	940.7	7221.6	5193.5	2028.1	28%
1992	4425.3	3373.2	7798.5	4353.5	3445	44%

The average monthly production of the wells and springs has been illustrated in Figure 2.

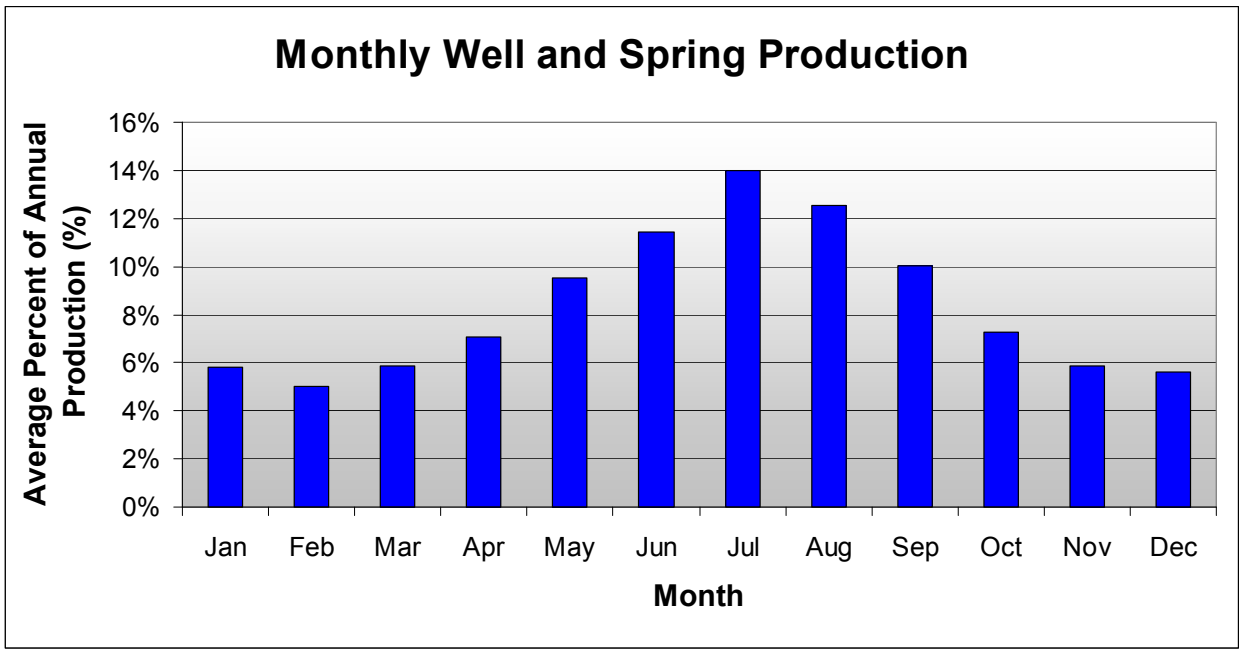

Figure 2 - Average Water Use by Month in AF Based on Well and Spring Production

A breakdown of the water usage for 2010 is shown graphically in Figure 3.

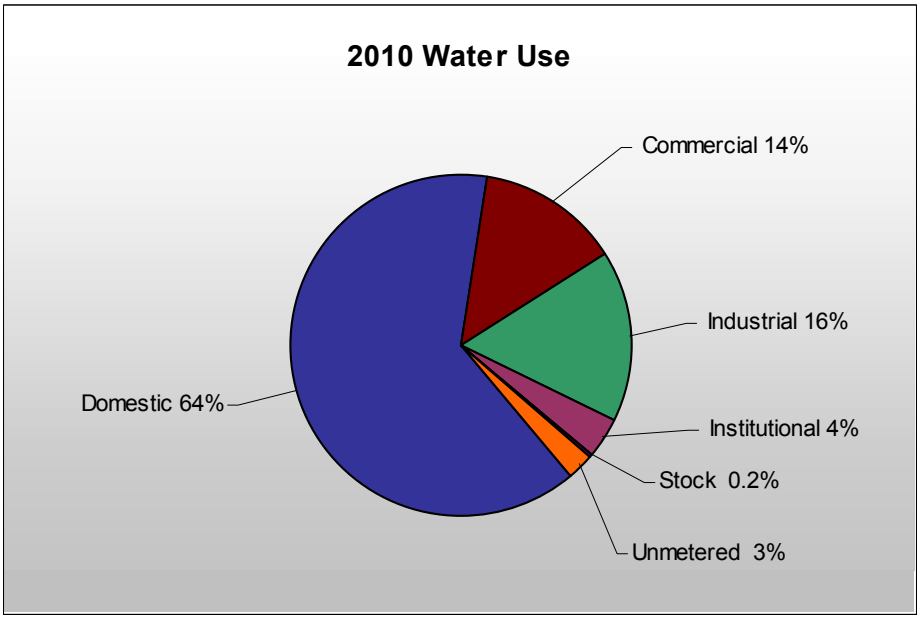

Figure 3 – 2010 Water Use by Type

PER CAPITA USAGE

Per capita usage (typically measured in gallons per capita per day, GPCD) is a method utilized internationally to measure water use by drinking water suppliers. Per capita usage gives us an average per person usage for all uses per day. This, of course, does not mean that every person uses that much water. Instead, it is a per capita average of all water withdrawn from the City's water system for domestic, commercial, industrial, and thermoelectric power uses, as well as water lost in collection and distribution systems, public use (water for fire fighting, street washing, municipal parks, and swimming pools). It is used to determine conservation potential and track the results of conservation program implementation, as well as to provide a measuring stick between different water suppliers.

Per capita water use is calculated by dividing the total annual volume of water supplied through the City's public water system by the estimated population served by the water system, and then dividing this figure by 365 to determine a daily average per person, i.e.,

Total usage (gallons/year) / (365 days / year) / population = gallons / capita / day (GPCD)

The per capita water use for Springville since 1992 is shown in the Table 3 and is illustrated in Figure 4.

Table 3 – Per Capita Use

Year	Annual Use (ac-ft)	Population	Per Capita Use (GPCD)	5-year Avg. Use (GPCD)*
2010	7,107.0	29,466	215	271
2009	7,196.5	28,562	225	275
2008	8,052.8	27,658	260	283
2007	11,545.6	26,753	385	287
2006	7,774.7	25,849	268	304
2005	6,682.4	24,945	239	319
2004	7,030.9	24,041	261	330
2002	7,041.3	22,232	283	344
2001	11,248.6	21,328	471	352
2000	7,845.4	20,424	343	360
1999	6,526.1	19,777	294	378
1998	7,105.0	19,129	331	382
1997	6,653.8	18,482	321	374
1996	10,186.3	17,834	510	361
1995	8,326.5	17,187	432	N/A
1994	5,877.3	16,540	317	N/A
1993	5,193.5	15,892	292	N/A
1992	4,353.5	15,245	255	N/A

* Moving average of GPCD water use for five years ending with the year indicated

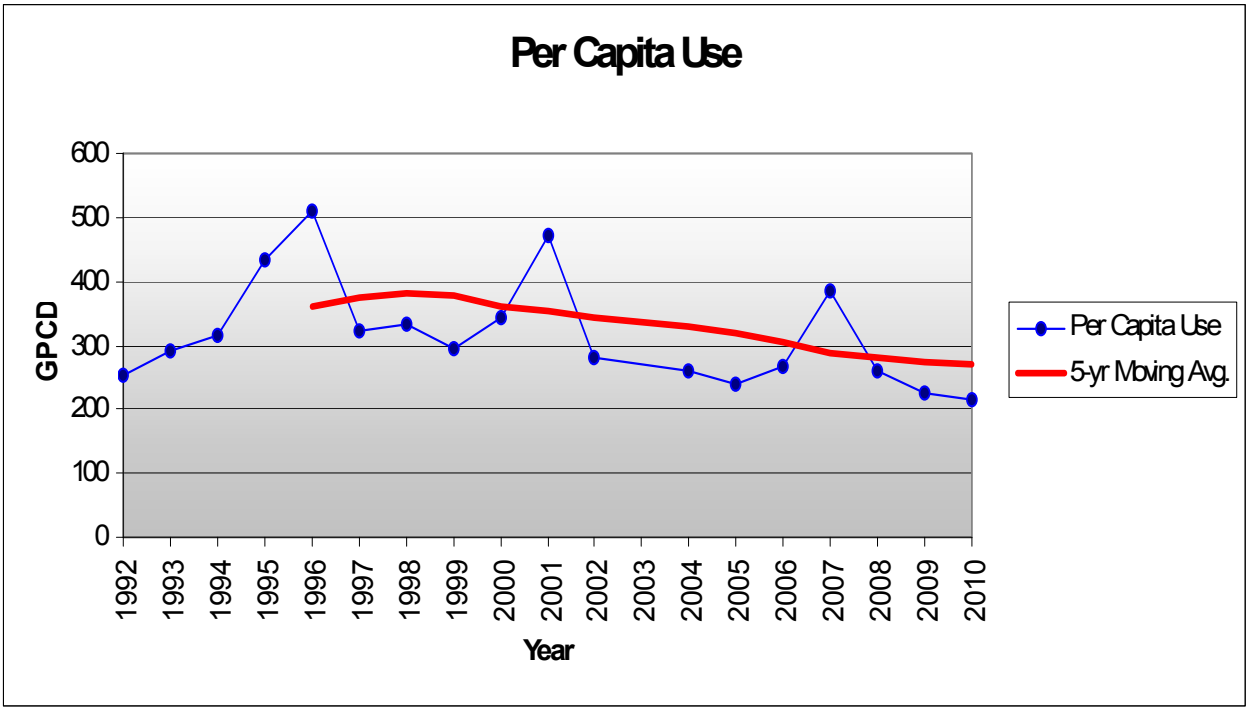

Figure 4 – Per Capita Use and 5-yr Moving Average

As can be seen in Table 3, and more dramatically in Figure 4, the City's per capita usage varies substantially from year to year. This is most likely due to changes in the weather cycle. Years of higher temperatures and lower precipitation result in both higher outdoor usage due to increase turf watering, as well as indoor usage for evaporative coolers. Years of lower temperatures and higher precipitation, on the other hand, result in reduced water usage. Because the year-to-year results vary, it is useful to look at a moving multi-year average in order to see true per capita usage trends. To this end, the 5-year moving average was also calculated and plotted and can be seen in Table 3 and Figure 4. As can be seen, the general trend of the City's per capita usage is moving downward indicating that the conservation measures being used by the City are effective.

EXISTING WATER RIGHTS

Springville City currently owns a number of water rights that are designated for municipal use which are tied to the water sources identified above. Tables 4 and 5 present summaries of the current municipal, irrigation, and stock water rights held by the City. The City also owns water shares through irrigation companies. These water shares are listed and quantified in Table 6.

Table 4 – Municipal Water Rights

Water Right Number	Flow (cfs)	Volume (ac-ft)	Notes
51-1111 (a26443) also includes 51-6666, 51-6990, 51-7242	0.4405	102.9	City Wells
51-1455 (a28365) also includes 51-1486, 51-1493	11.000	Undetermined 7,963.636*	City Wells
51-2530 (a29656) also includes 51-3679	6.022	144.28	City Wells
51-2780 (a28366)	3.000	439.03	City Wells
51-5224	8.000	Unevaluated 2,038.24**	Hobble Creek (used for City's Plat A irrigation system)
51-5328	1.000	723.967*	Jurg Springs
51-5329	5.500	Unevaluated 3,982.00* 2,069***	Burt Springs
51-5330	0.400	289.587*	Konold Springs
51-5520 #	4.000	1,068 #	Bartholomew Springs
51-6027 same water as 51-1028 (power generation)	5.500	Unevaluated 3,982.00* 1,947***	Spring Creek Canyon Springs
51-6970 (a28367) also includes 51-1024, 51-1025, 51-1088	3.280	1,745.78	City Wells
51-7463 (a24494)	unevaluated	37.2	Little Spring Creek (for use in pressurized irrigation system)
	Total:	**18,568.62**	Using 10-yr average spring flows

* Potential volume if sources are able to produce designated flow rate year round. Actual volume may be limited by either source capacity (i.e., a spring may not be able to produce the designated flow rate year round) or by demand.

** W.U.C. indicates that 8 cfs is diverted 24 hours for 5 days out of each 8-1/3 days from April 1 to October 31. This would equal 128.45 days with an estimated volume of 2,038.24 ac-ft.

*** 10-year average yield of the spring from 1999-2009

\# Springville Irrigation Company water right used by Springville City based on City ownership of 267 shares. Each share equals 4 ac-ft resulting in an annual volume of 1,068 ac-ft.

Table 5 – Irrigation and Stock Water Rights

Water Right Number	Flow (cfs)	Volume (ac-ft)	Notes
51-1001	0.243	40.45*	Cedar, Kolob & Mud Springs
51-1322+	4.57	Unevaluated	Underground water drain
51-1401	3.29	39.24	Underground water
51-3775	0.015	Unevaluated <10	Underground well
51-4255	0.045	8.55*	Unnamed spring stream
51-5230	6.0	20	Roundy Springs
51-5450	2.97	13.796*	Little Spring Creek
51-5454	0.5	33.56*	Right Fork Little Spring Creek
51-5457	0.5	20.0*	Right Fork Little Spring Creek
51-6025	6.5	498.52**	Hobble Creek / Highline Ditch
51-6212	7.0	6.08*	Spring Creek, Canyon Creek
51-6219	7.0	114.678*	Spring Creek, Canyon Creek
	Total:	**804.87**	Does not include 51-1322, assumes 10 ac-ft for 51-3775, & maximum volume for 51-6025

* Calculated based on a duty application of 4 ac-ft/irrigated acre, 0.45 ac-ft/family, and 0.028 ac-ft/animal unit

** This is the maximum possible volume calculated based on irrigation of 122.53 acres and stockwatering of 300 ELUs. However, this right is supplemented with an unspecified quantity of Strawberry water which may reduce the volume of the right.

+ Change application a28531 has been submitted to the State Engineer, requesting to change the point of diversion to City Wells, as well as to change the use to municipal from irrigation. The State Engineer has not yet acted upon this application. This right is part of 20 different supplemental groups and no sole supply has been evaluated at this time. It is believed that the sole supply for this right may be small.

Table 6 – Irrigation Company Shares Owned by Springville City

Irrigation Company	Water Allocated (acre-feet/share)	Shares Owned by Springville City	Water Allotment (acre-feet/year)
Springville Irrigation	4.00	1430.56*	5722.23
Mill Pond	4.37	147.58	644.92
Wood Springs	4.0	118.00	472.00
Big Hollow	6.17	12.00	74.02
Matson Springs	4.00	17.00	68.00
East Bench Canal	4.00	22.00	88.00
Coffman Springs	4.00	11.64	46.56
East Jordan	4.00	10.00	40.00
Mapleton Irrigation	4.00	0.38	1.52
Wash Creek	4.00	5.00	20.00
		Total:	**7,177.25**

* Total number of shares owned by Springville City, as provided in a summary from the City dated September, 2004, in the Springville Irrigation Company is 1465.88 shares. However, Springville Irrigation Company assumes that 267 shares are tied to the water right (WR 51-5520) used by Springville City for Bartholomew Springs. This has already been included in Table 4.

Based on the summaries included in Tables 4, 5 and 6, the City currently holds more than 26,550 acre-feet of water rights that are used or may be used in the future in either the drinking water system or the pressurized irrigation system. However, only 18,568.62 acre-feet are currently designated for municipal use. Some of the irrigation rights have "unevaluated" water right volumes. Water right 51-1322 is part of twenty supplemental groups and sole supply has not yet been determined. It is believed that the actual volume of this right may be small. Water right 51-3775 is believed to have less than ten acre-feet. Water right 51-6025 is for irrigation of 122.53 acres and stockwatering of 300 livestock units. However, this right is supplemented with an unspecified quantity of Strawberry water which may reduce the volume of the right available for municipal use.

FUTURE WATER RIGHTS

The City requires that water rights be turned over to the City as a condition of issuing a building permit on an undeveloped parcel of land (see Springville City Code 11-3-307 and 11-6-124 included in the Appendix). This is to help ensure that the City acquires sufficient water rights to meet the water needs of its residents. It is estimated that approximately 1,800 acres remain to be developed within the City's existing boundary. City code requires building permit applicants to transfer one equivalent share of Springville Irrigation Company water for each acre applicable to the building permit. Since Springville Irrigation Company shares are valued at 4.0 acre-feet/share, it is estimated that the City could receive an additional 7,200 acre-feet of water from new development with the City's current boundary.

PRESENT WATER USE AND FUTURE WATER NEEDS

The existing and future source requirements for indoor and outdoor use were calculated in the City's Water master plan based on the existing connections and existing irrigable acres and the projected future build-out and irrigable acreage. Build-out projections were based upon the City's general plan and development code which include current and projected zoning, minimum lot sizes allowed by zone, percentage of land area irrigated by zone, and potential annexation areas. The values can be seen in Table 7 and Table 8.

Table 7 – Existing Source Requirements

Units	Peak Day Demand Flow	Average Yearly Demand Volume
INDOOR		
6,477 Residential ERC w/in City Boundary	3,598 gpm	2,902 ac-ft
188 Residential ERC in Hobble Creek Canyon	103 gpm	84 ac-ft
2,136 Non-Residential ERC plus Nestles	1,990 gpm*	2,252# ac-ft
OUTDOOR		
1,642 Irrigable Acres w/in City Boundary	6,502 gpm	4,926 ac-ft
103 Irrigable Acres in Hobble Creek Canyon	408 gpm	309 ac-ft
Total	**12,601 gpm**	**10,473 ac-ft**

* This existing demand includes the peak day flow from Nestles of 803 gpm
# This existing demand includes a yearly volume from Nestles of 1,295 ac-ft

Table 8 – Future Water Source Requirements

Units	Peak Day Flow	Average Yearly Volume
INDOOR		
16,992 Residential ERC	9,440 gpm	7,612 ac-ft
240 Residential ERC in Hobble Creek Canyon	133 gpm	108 ac-ft
8,823 Non-Residential ERC plus Nestles	5,705 gpm*	5,248 ac-ft #
OUTDOOR		
3,935 Irrigable Acres w/in City Boundary	15,583 gpm	11,805 ac-ft
110 Irrigable Acres in Hobble Creek Canyon	436 gpm	330 ac-ft
Total	**31,297 gpm**	**25,103 ac-ft**

* This existing demand includes the peak day flow from Nestles of 803 gpm
# This existing demand includes a yearly volume from Nestles of 1,295 ac-ft

2 – WATER PROBLEMS AND GOALS

IDENTIFIED PROBLEMS

Springville City is concerned with water waste in three main areas: indoor, outdoor and system wide losses. Together, these issues could cause future shortages due to the City's growing population if not addressed.

- The City is seeing a change in demographics as their agricultural areas are turning into residential subdivisions. This change emphasizes the need to inform all residents, but especially new residents, about indoor conservation practices. Residents lack information and understanding of landscaping water requirements and efficient water-use habits and practices.

- Along with indoor use, residential outdoor use is also a large concern. It is well documented that water used to irrigate turf grass drives summer water use to its peak during the summer months. Much of the City's clean culinary water is wasted through over watering. Most residents' irrigation practices are based on convenience rather than plant needs.

- Springville City has many aging water lines that are contributing to the water losses seen in the City. In addition, many meters have been in service for more than 10 years and are providing inaccurate data due to age and obsolescence.

To promote conservation, Springville City has set goals in each of these three key problem areas. To this end, the City has, and continues to implement several conservation measures to reduce water waste. As previously noted and shown in Table 3 and Figure 4, these measures have already reduced per capita usage.

WATER CONSERVATION GOALS

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

- Reduce the City's water usage such that the 5-year moving average of per capita usage will be at or below the state's goal of 240 gpcd. The City's goal is to meet this goal within five years.

- Continue to support the current conservation measures that have brought the City success in reducing the water used (gpcd). (These measures are defined in Chapter 3.)

- Inform new residents of water conservation practices for indoor and outdoor use.

- Conserve culinary water by using secondary water for irrigation where financially viable.

3 – CONSERVATION MEASURES

CURRENT CONSERVATION MEASURES

Springville City is already implementing an aggressive conservation plan that has reduced the overall water as illustrated previously in Table 3 and Figure 4. This plan includes conservation measures focused on outdoor use, indoor use and system wide losses. The existing conservation measures that have been implemented within the City include the following:

- Promoting the "Slow the Flow Program" sponsored by the State, which includes educational brochures, free water audits and checks, and free water wise landscaping seminars.
- Requiring low flow indoor fixtures as required in the plumbing code on all new construction.
- Using, evaluating, and periodically refining the water rates structure that charges users using a tiered rate structure which both promotes water conservation and continues to keep the water system viable.
- Replacing galvanized steel water service lines with copper and polyethylene pipe.
- Requiring leak-detection testing for all water lines prior to new overlays of asphalt.
- Performing annual leakage surveys to identify unsurfacing leaks on main pipelines and services, especially in older areas of the water system.
- Replacing water meters with new, more efficient meters.

CURRENT PRICING STRUCTURE

The City's Water Board recently completed a study evaluating water rates. In their evaluation the Water Board considered several factors including the following: revenue and rate stability, equity and fairness, affordability, water conservation, and simplicity.

Based on their analysis it was determined that a tiered rate structure for residential users would help to promote water conservation, help reduce peak water usage, and help keep the water system sustainable. The City's current rate structure is included in the Appendix (Resolution No. 2011-25) and is summarized in Table 9.

Table 9 – Current Residential Water Rates

Type:	Increasing Block Rate	
Base Charge:	$10.00 / month	
Base Allocation:	5,000 gallons / month	
Usage (gallons / month)	**Tier**	**Rate (per 1,000 gallons)**
5,001 to 20,000	1	$0.95
20,001 to 60,000	2	$1.50
60,001 to 100,000	3	$2.00
100,001 to 150,000	4	$2.50
150,001 to 200,000	5	$3.00
> 200,000	6	$4.00

WATER CONSERVATION PLAN

To help meet their future culinary water demands, Springville City will continue the existing water conservation measures listed and implement a new secondary water system. Although several other alternatives were investigated, it was decided that a secondary water system was both the most economical and the most practical option for the City to conserve future culinary supplies for indoor uses.

In the City 2006 water master plan, several alternatives were assessed including installing secondary water in the entire city, installing secondary water in only certain sections of the City, or relying on culinary water for irrigation of all residential areas. After a thorough analysis, the City found it in its best interest to pursue a secondary water system that will be implemented only in new developing areas of the City. Implementation of the secondary water system is projected to save 6,495 acre-feet per year of culinary water at build out.

Springville City has already begun the process of installing a secondary water system in areas of new residential growth, namely the West Fields area west of 400 West Street. As part of its development standards, the City requires developers of all new subdivisions to install secondary water connections to each new lot that is developed. Once operational the secondary water can be used to irrigate in the summer months when the demand is greatest. In addition to reducing demand on the drinking water system which will reduce strain on the existing system and push off otherwise-needed improvements, the secondary water system will also help the City reduce expenditures for treatment costs.

4 – IMPLEMENTING AND UPDATING WATER CONSERVATION PLAN

This water conservation plan renews the existing water conservation measures for at least the next five years. The City has already budgeted to continue upgrading galvanized steel service lines with copper and polyethylene pipe, to provide brochures to promote conservation methods, and to perform leak detection tests before new asphalt overlays are paved. They also require all new construction to use water efficient fixtures and enforce this through inspection and occupation permits. The secondary water system is being installed by developers in accordance with the requirements established by the City.

The City has been working diligently on acquiring funding through the means of federal grants to aid in the cost of constructing a secondary water system. Within the next five years, the secondary water system should be delivering secondary water to the new subdivisions in the West Fields area. Final designs of the secondary system have not been completed, but the water rights necessary to provide the irrigation water in the immediate future have already been obtained by the City.

The responsibility of assuring the conservation goals are met and that the conservation methods are executed will be assigned by the Public Works Director and annual meetings will be held to review the plans and goals to verify each goal is being obtained and to make any changes that are necessary to the water conservation plan.

APPENDIX

SELECTED SECTIONS FROM THE SPRINGVILLE MUNICIPAL CODE

11-3-307 Water Rights.
No water rights need be tendered at the time of annexation. At any time development occurs on any property annexed, the owner or developer of the property must tender water shares to the City in accordance with Springville City Code.

11-6-124 Tendering of Water Rights Prior to Issuance of Building Permit.
Unless water rights have been tendered subsequent to Section 11-3-307, the City Council shall require, as a condition of the issuance of a building permit, the conveyance to the City water rights capable of producing an annual quantity of water not less than the annual quantity which would be produced by an equivalent first class right of Springville Irrigation Company. Said water right must be in the amount of one share per acre of land for which the building permit is being issued. This requirement shall only apply to new construction, shall not apply to any property within Plat 'A', and shall be prorated for all property less than one acre, on a per acre basis.

Enrolled Copy **H.B. 71**

WATER CONSERVATION PLANS

2004 GENERAL SESSION

STATE OF UTAH

Sponsor: Judy Ann Buffmire

Ralph Becker
Duane E. Bourdeaux
Neil A. Hansen
Rosalind J. McGee
Carol Spackman Moss
David Ure
Stephen H. Urquhart

LONG TITLE

General Description:

This bill amends certain provisions related to water conservation plans.

Highlighted Provisions:

This bill:

- provides for publishing of a report identifying entities who do not have a current water conservation plan;
- requires that water conservation plans contain existing and proposed water conservation measures;
- requires that water conservation plans contain a description of the extent to which a retail provider will use certain measures to achieve its conservation goals;
- requires that water conservation plans contain a clearly stated water use reduction goal and implementation plan for each conservation measure, including a timeline for action and an evaluation process to measure progress; and
- requires that the Board of Water Resources' report be presented to the Natural Resources, Agriculture, and Environment Interim Committee at its November 2004 meeting.

Monies Appropriated in this Bill:

None

Other Special Clauses:

None

Utah Code Sections Affected:

AMENDS:

73-10-32, as last amended by Chapter 119, Laws of Utah 1999

Be it enacted by the Legislature of the state of Utah:

Section 1. Section **73-10-32** is amended to read:

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 [~~a person who~~] 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 17A, Chapter 2, Part 14, Water Conservancy Districts.

[~~(e) (i)~~] (f) "Water conservation plan" means a written document that contains [~~ideas, suggestions, or recommendations as to~~] existing and proposed water conservation measures describing what [~~can~~] will be done by [~~state and local governments,~~] 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.

[~~(ii)~~] (2) (a) Each [~~"~~]water conservation plan[~~"~~] shall contain [~~recommendations for water saving measures that may include~~]:

(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:

[~~(A)~~] (i) the installation and use of water efficient fixtures and appliances, including toilets, shower fixtures, and faucets;

[~~(B)~~] (ii) residential and commercial landscapes and irrigation that require less water to maintain;

[~~(C)~~] (iii) more water efficient industrial and commercial processes involving the use of water;

[~~(D)~~] (iv) water reuse systems, both potable and not potable;

[~~(E)~~] (v) distribution system leak repair;

[~~(F)~~] (vi) dissemination of public information regarding more efficient use of water, including public education programs, customer water use audits, and water saving demonstrations;

[~~(G)~~] (vii) water rate structures designed to encourage more efficient use of water;

[~~(H)~~] (viii) statutes, ordinances, codes, or regulations designed to encourage more efficient use of water by means such as water efficient fixtures and landscapes;

[~~(I)~~] (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.

[~~(J) 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).

[~~(2)~~] (3) (a) Before April 1, 1999, each water conservancy district under Title 17A, Chapter 2, Part 14, Water Conservancy Districts, and each retail water provider shall:

(i) (A) prepare [~~or~~] 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.

[~~(3)~~] (4) (a) The board shall:

[~~(i) study ways to implement the water conservation plans of the water conservancy districts and the retail water providers;~~]

[~~(ii) develop recommendations on how to implement those plans; and~~]

(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 [~~its recommendations~~] 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 [~~1999~~] 2004.

[~~(b) The board's report to the Natural Resources, Agriculture, and Environment Interim Committee may include a recommendation:~~]

[~~(i) that each water conservancy district and retail water provider devote part of at least one regular meeting of its governing body to a discussion of the water conservation plan and allow public comment on it;~~]

[~~(ii) to implement a notification procedure 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;~~]

[~~(iii) that certain eligibility requirements, including the adoption of a water conservation plan, be met before a water conservancy district or retail water provider may receive any state funds for water development;~~]

[~~(iv) for the coordination of conservation and drought management plans; and~~]

[~~(v) regarding any other measure designed to conserve water.~~]

(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.

[~~(4)~~] (6) Each water conservancy district and retail water provider specified under Subsection [~~(2)~~] (3)(a) shall:

(a) update its water conservation plan no less frequently than every five years; and

(b) follow the procedures required under Subsection [~~(2)~~] (3) when updating the water conservation plan.

[~~(5)~~] (7) It is the intent of the Legislature that the water conservation plans, amendments to existing water conservation plans, and the [~~study~~] studies and [~~recommendations~~] report by the board be handled within the existing budgets of the respective entities or agencies.

SPRINGVILLE CITY

RESOLUTION NUMBER: **#2011-25**

SHORT TITLE: A RESOLUTION ESTABLISHING RATES AND FEES FOR USE OF SPRINGVILLE CITY MUNICIPAL CULINARY WATER SYSTEM

PASSAGE BY THE CITY COUNCIL OF SPRINGVILLE CITY
ROLL CALL

NAME	MOTION	SECOND	FOR	AGAINST	OTHER
Phillip Bird			X		
Benjamin Jolley					absent
Dean Olsen	X		X		
Mark Packard					absent
J. Niel Strong		X	X		
	TOTALS		3		2

This resolution was passed by the City Council of Springville City, Utah on the 4th day of October, 2011, on a roll call vote as described above.

Approved and signed by me this 4th day of October, 2011

Wilford W. Clyde, Mayor

ATTEST:

Venla Gubler, City Recorder

Resolution No. 2011-25

A RESOLUTION ESTABLISHING RATES AND FEES FOR USE OF SPRINGVILLE CITY MUNICIPAL CULINARY WATER SYSTEM

WHEREAS, Section 4-2-5 of the Springville City Code directs the City Council to establish by resolution water rates and fees for customers of the water system of Springville City; and

WHEREAS, Springville City and the Springville City Water Board have completed a study evaluating water rates; and

WHEREAS, a new rate structure is suggested taking into consideration the following goals: revenue and rate stability; equity and fairness; affordability; water conservation; and simplicity; and

WHEREAS, a tiered rate structure will promote water conservation and help reduce peak water usage;

NOW, THEREFORE, BE IT RESOLVED by the City Council of Springville, Utah that:

Section 1: Users of water from the City culinary water system shall pay the following charges and rates for water, which shall be the sum of the following:

Residential Units within the Springville City boundaries with a Meter

1. The following fees are applicable for water usage after the winter usage reading is made sometime in March and until a pre-winter reading is made sometime in October:

(a) $10.00 minimum base fee each bill. One bill will be sent each month. The monthly reading will be rounded down to the nearest thousand; and
(b) Usage set forth herein will be rounded to the nearest hundredth after calculation; and
(c) There will be no charge for the first 0.16666 thousand gallons times the number of days in the monthly reading cycle for the monthly bill; and
(d) There will be a charge of $0.95 for each thousand gallons or portion thereof for the next 0.50 thousand gallons times the number of days in the monthly reading cycle; and
(e) There will be a charge of $1.50 for each thousand gallons or portion thereof for the next 1.33333 thousand gallons times the number of days in the monthly reading cycle; and
(f) There will be a charge of $2.00 for each thousand gallons or portion thereof for the next 1.33333 thousand gallons times the number of days in the monthly reading cycle; and

(g) There will be a charge of $2.50 for each thousand gallons or portion thereof for the next 1.66666 thousand gallons times the number of days in the monthly reading cycle; and

(h) There will be a charge of $3.00 for each thousand gallons or portion thereof for the next 1.66666 thousand gallons times the number of days in the monthly reading cycle; and

(i) There will be a charge of $4.00 for each thousand gallons or portion thereof for any amounts above 6.66666 thousand gallons times the number of days in the monthly reading cycle.

2. The following fees are applicable during the winter months between the October pre-winter reading and March reading. Meters are not read monthly:

(a) $10.00 minimum base fee each month will be charged on the monthly bill; and

(b) The total amount of water used during the winter will be read and rounded down to the nearest thousand gallons in March of each year. The user will not be charged for 5,000 gallons times the number of months between readings; and

(c) There will be a charge of $1.05 for each thousand gallons or portion thereof used in excess of the amount set forth in subsection (b) above on the March bill.

Commercial, Industrial, or Residential with a Master Meter

1. Industrial water users are defined as any customer connected to the City's culinary water system that uses in excess of 10,000,000 gallons per month. Rates shall be in accordance with the City's Comprehensive Fee Schedule.

(a) A $12.00 minimum base fee will be billed each month.
(b) An additional fee of $1.26 for each one-thousand gallons will also be billed.

2. Commercial water users are defined as any non-industrial or non-residential customer connected to the City's culinary water system.

(a) A $10.40 minimum base fee will be billed each month.
(b) An additional fee of $1.09 for each one-thousand gallons will also be billed.

3. Residential water users served by a Master Meter are defined as residential water customers within or outside the City boundaries that are connected to the City's culinary water system via a Master Meter, but served by a private water system serving multiple (greater than three) residences.

~~(a) The rates and fees for residential water users served through a Master Meter shall be the same as Commercial water users.~~

(a) The rates and fees for residential water users served through a Master Meter shall be computed by taking the total monthly reading and dividing it by the number of residential water connections served by the respective Master Meter. This calculated individual volume will be applied to the tiered rate structure for City residents and calculated as if they were individual residences. The individual volume billings associated with the Master Meter will then be summed and a single invoice will be sent to the association responsible for the Master Meter. To assure that the amount billed accurately reflects the number of users served through a Master Meter, the City, from time to time will audit the number of users connected through each Master Meter.

Outside City Limit Customers

1. The fees for use of the municipal culinary water system for all users located outside corporate limits of the City shall be in an amount the same as city residents.

~~2. The rates and fees for residential water users outside the City boundaries served through a Master Meter shall be the same as Commercial water users.~~

2. The rates and fees for residential water users outside the City boundaries served through a Master Meter shall be computed by taking the total monthly reading and dividing it by the number of residential water users served by the respective Master Meter. This calculated individual volume will be applied to the rate structure for City residents and calculated as if they were individual residences. The individual volume billings associated with the Master Meter will then be summed and a single invoice will be sent to the association responsible for the Master Meter. To assure that the amount billed accurately reflects the number of users served through a Master Meter, the City, from time to time will audit the number of users connected through each Master Meter.

Section 2: The rates and fees set forth in this resolution may be adjusted from time to time on the City's Comprehensive Fee Schedule and shall become effective for any billing mailed after January 1, 2012.

Section 3: Any user of the culinary water system may petition the City Council for adjustment of the fees and rates charged to that user. The City Council reserves the right to adjust any such rate or fee if it determines that the same is unfair or discriminatory based on the nature of the particular use of the water system.

Section 4: This resolution ~~replaces~~ amends Resolution #2011-14.

Adopted this 4th day of October, 2011.

Wilford W. Clyde, Mayor

Attest:

Venla Gubler, City Recorder

THIS DOCUMENT IS INTENDED FOR INFORMATION PURPOSES ONLY.
APPROVED MINUTES MAY BE VIEWED AT WWW.SPRINGVILLE.ORG WHEN THEY ARE APPROVED BY THE COUNCIL AND PUBLISHED.

SUMMARY OF THE REGULAR MEETING OF THE SPRINGVILLE CITY COUNCIL DECEMBER 6, 2011 – 7:00 PM

CALL TO ORDER

INVOCATION AND PLEDGE

APPROVAL OF THE MEETING'S AGENDA

APPROVAL OF THE MINUTES

MAYOR'S COMMENTS

CEREMONIAL AGENDA

1. Presentation of the December 2011 Mayor's Recognition Awards – Suzy Young, ASAP Coordinator

PUBLIC COMMENT

CONSENT AGENDA*

2. Approval of all City purchase orders properly signed (Springville City Code §2-10-110(5))
3. Approval of a Resolution setting the 2012 meeting schedule for City Council, Commissions, Boards, and Committees – Venla Gubler, City Recorder
4. Approval of an annual 5-percent increase to the San Miguel Valley Corporation ground lease rate at the Spanish Fork/Springville Airport– Cris Child, Airport Manager
5. Approval of a revision to the Wetlands Mitigation Agreement with Jerry Grover for the Spanish Fork/Springville Airport Runway Expansion Project – Cris Child, Airport Manager
6. Approval of an amendment to the Airport Manager's Contract – Bruce Riddle, Finance Director

APPROVED

REGULAR AGENDA

7. Consideration of a request to approve the Springville City Water Conservation Plan – Brad Stapley, Public Works Director

APPROVED

8. Consideration of the Audit Report for Fiscal Year 2011 – Bruce Riddle, Finance Director

APPROVED

MAYOR, COUNCIL AND ADMINISTRATIVE REPORTS

CLOSED SESSION

9. *The Springville City Council may temporarily recess the regular meeting and convene in a closed session to discuss pending or reasonably imminent litigation, and the purchase, exchange, or lease of real property, as provided by Utah Code Annotated §52-4-205*

ADJOURNMENT

8. **Consideration of a request to approve the Springville City Water Conservation Plan** – Brad Stapley, Public Works Director

Director Stapley introduced the item by stating that the Council had discussed the Water Conservation Plan at a previous Work/Study Meeting. He presented a video about the need to save water that had been created by "Slow the Flow.Org." He noted that this Council had approved a previous conservation plan five years ago in accordance with the State of Utah, Water Conservation Act of 2004. The purpose of the act is to assess the water conservation alternatives available to the City, to set responsible and achievable goals to conserve water, and to identify methods to reach these goals. He reported that Springville City's population is expected to double in the next 20 years, and although Springville City lives up to its name and has adequate reserves, most of the available culinary water is used for watering lawns.

Director Stapley presented a graph showing the per capita water use in Springville. He noted that the five year moving average is going down. He reported that the State goal is to reduce water use to 240 gallons per capita per day. Springville City's current per capita use per day is 271 gallons, so the City is on the right track. He expects the City to reach the State goal within the next five years.

Director Stapley presented the goals of this water conservation plan. The first one is to reach the state goal of 240 gallons per capita per day within the next five years. The second is to continue current conservation measures. The third is to inform residents of conservation practices. The fourth is to work on a secondary irrigation system. Current conservation measures in the city's plan are the "slow the flow" program, promotion of the installation of low flow indoor fixtures, new plumbing, a tiered water rate structure, the replacement of old galvanized service lines, leak detection testing, and the replacement of old water meters.

Mayor Clyde asked if there were any questions. There was none.

COUNCILMEMBER STRONG MOVED TO ADOPT THE SPRINGVILLE CITY WATER CONSERVATION PLAN 2011 AS PREPARED BY THE CITY'S PUBLIC WORKS ENGINEERING DIVISION. COUNCILMEMBER JOLLEY SECONDED THE MOTION, AND ALL PRESENT VOTED AYE.