

RESOLUTION No. 10-02

ROLL CALL

VOTING	YES	NO
G. WAYNE ANDERSEN <i>Mayor</i> <i>(votes only in case of tie)</i>		
ROD DART <i>Councilmember</i>	X	
RICHARD M. DAVIS <i>Councilmember</i>	X	
STEVE LEIFSON <i>Councilmember</i>	X	
JENS P. NIELSON <i>Councilmember</i>	X	
KEIR A. SCUBES <i>Councilmember</i>	X	

I MOVE this resolution be adopted: Steve Leifson
City Council person

I SECOND the foregoing motion: Rod Dart
City Council person

RESOLUTION No. 10-02

**A RESOLUTION AMENDING THE SPANISH FORK CITY
WATER CONSERVATION PLAN**

WHEREAS, Spanish Fork City operates a culinary water system; and

WHEREAS, Spanish Fork City has adopted a water conservation plan in order to
be eligible for grants and loans from the State of Utah for water projects; and

WHEREAS, the City Council understands the pressing need to use water in a

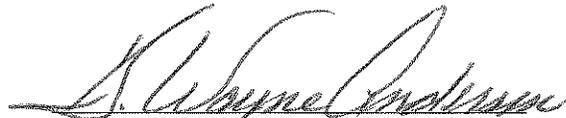
more efficient manner to allow for future sustained growth of the community; and

WHEREAS, the water conservation plan should be updated on a regular basis so that it remains current with growth, environmental standards, and newer technology;

NOW, THEREFORE, be it resolved by the Spanish Fork City Council as follows:

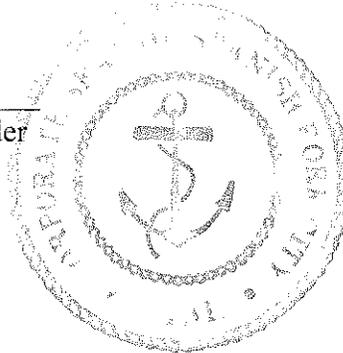
1. Spanish Fork City hereby amends its water conservation plan, attached hereto as exhibit A.
2. The plan will be amended no less than every five years and will continue to play a vital role in the future development of Spanish Fork City, Utah.
3. This resolution is effective immediately.

DATED this 16th day of February 2010.


G. WAYNE ANDERSEN, Mayor

Attest:


KIMBERLY ROBINSON, City Recorder





SPANISH FORK CITY

WATER
CONSERVATION
PLAN

(HAL Project No.: 348.04.100)

February 2010

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CHAPTER II

WATER SYSTEM DESCRIPTION

Spanish Fork City, located in the south central portion of Utah County, had an estimated population of about 31,500 people in 2008 according to the US Census Bureau. The service area for the culinary water system has an estimated population of about 34,000 while the population of the pressurized irrigation system service area is about 32,000. Providing water to meet the needs of its citizens has always been a top priority of City leaders and planners. This priority has resulted in a well maintained and operated water system. The pressurized irrigation system was installed in 2002 to conserve drinking quality water and to provide customers with water at a lower cost. Currently, the Spanish Fork Municipal Water System serves the entire City with some additional homes on the periphery of the City. The distribution of these connections is shown in Table II-1.

**TABLE II-1
CURRENT WATER SYSTEM CONNECTIONS (AS OF 2009)**

CONNECTION TYPE	CULINARY WATER SYSTEM	PRESSURIZED IRRIGATION SYSTEM
Residential	9,382	7,590
Commercial	567	276
Industrial	30	4
Institutional	75	1
TOTAL	10,054	7,871

Spanish Fork City residents and their leaders place a high value on open space. Spanish Fork City presently has almost 400 acres in parks, golf course, cemetery and sports fields. Open grassed areas around schools and churches bring the total acreage in open grassed areas to over 500 acres.

Spanish Fork City is presently receiving an above average portion of the county's residential, commercial and industrial growth. This growth is causing changes in the way the land within the City limits is being utilized and straining the ability of the present water supply and delivery system to meet demands. Through careful planning and efficient utilization of available water supplies these increased needs can and will be met.

INVENTORY OF WATER RESOURCES

Spanish Fork City has been withdrawing approximately 9,000 acre-feet of water annually from four springs located in the Spanish Fork River drainage and wells located throughout the City. This has supplied the total water required to meet demands on the culinary water system which provides for both indoor and outdoor water uses. Spanish Fork City installed a city-wide pressurized irrigation system in 2002 which reduces the demand on the culinary water supply.

The City owns shares of stock in several local canal companies. The City also owns several water rights in the Spanish Fork River and in underground wells. Table II-2 summarizes the City's water sources.

**TABLE II-3
WATER DELIVERIES BY CUSTOMER TYPE (2009)**

COSTUMER TYPE	CULINARY WATER SYSTEM WATER USE (acre-feet)	PRESSURIZED IRRIGATION SYSTEM WATER USE (acre-feet)
Residential	1,974	2,517
Commercial	195	340
Industrial	117	204
Institutional	339	589
Total	2,625	3,650

Based on the 2009 service area population estimate of 34,000 people for the culinary water system, the per capita water is 129 gallons per capita per day (gpcd). Based on the 2009 service area population estimate of 32,000 people for the pressurized irrigation system, the per capita water is 126 gallons per capita per day (gpcd). Together, the combined per capita water use for Spanish Fork City is 255 gpcd. This represents an increase from the 235 gpcd value from 2001. This evidence should not be seen as a failure of current water conservation measures, rather it should invigorate the effort to continue existing conservation measures while implementing additional practices to reach conservation goals. Spanish Fork City's water use is still slightly lower than the State of Utah average of 260 gpcd.

Table II-4 compares the water supplied to both the culinary water and pressurized irrigation systems to the metered water use for the years 2007, 2008 and 2009. Based on this table, about 40% of the water supplied by the City's culinary water sources is unaccounted for. The pressure irrigation system appears to have very little water unaccounted for. Possible explanations for the unaccounted water use include leaks in the distribution system, meter inaccuracies, and miscellaneous unmetered water use (such as pipe line flushing, construction activities, etc.).

**TABLE II-4
COMPARISON OF WATER SUPPLIED TO METERED WATER USE**

TYPE	2007	2008	2009
CULINARY WATER SYSTEM			
Water Supplied (acre-feet)	4,239	4,589	4,901
Water Metered (acre-feet)	2,733	2,706	2,625
Accounted for Waste (acre-feet)	-	-	289
% Unaccounted for Waste	36%	41%	41.0%
PRESSURE IRRIGATION SYSTEM			
Water Supplied (acre-feet)	3,960	4,190	4,522
Water Metered (acre-feet)	3,911	4,098	3,651
Accounted for Waste (acre-feet)	327	528	369
% Unaccounted for Waste	-	-	11%

CHAPTER III

CONSERVATION ISSUES AND GOALS

WATER METERING AND PIPELINE REPLACEMENT

Spanish Fork City currently meters water use at almost all connections and reads meters on a monthly basis on both the culinary water system and pressurized irrigation system.

Spanish Fork City has a current program to replace and/or upsize old or undersized water pipelines along streets that need to be re-constructed. The City also replaces meters and laterals that are found to be leaking or defective. These projects are implemented as City budget allows. The City is also planning to complete master plans for both water systems to identify pipeline deficiencies and inefficiencies.

CURRENT WATER RATE STRUCTURE

Spanish Fork City's pressurized irrigation system rate structure is summarized in Table III-1. The culinary water system rate structure is summarized in Table III-2. The City plans to reassess water rates to promote additional water conservation.

**TABLE III-1
WATER RATE STRUCTURE FOR PRESSURIZED IRRIGATION SYSTEM**

METER SIZE	MONTHLY BASE SERVICE FEE
3/4" or 1"	\$13.25
1.5"	\$25.98
2"	\$41.69
3"	\$94.80
4"	\$162.59
\$0.92 per 1000 Gallons	

**TABLE III-2
WATER RATE STRUCTURE FOR CULINARY WATER SYSTEM**

RATE TYPE	RATE ¹
Base Rate	\$10.00
Metered Residential Rate (per 1000 gallons)	\$1.19
Commercial Rate	\$1.19
Non-Residents Base Rate	\$13.60
Non-Residents Residential Rate (per 1000 gallons)	\$2.46

¹ For units with and without pressurized irrigation

CHAPTER IV

CONSERVATION MEASURES AND IMPLEMENTATION

Spanish Fork City believes that water conservation is an important factor for allowing the City to meet water demands into the future. Although the City does not have an appointed water conservation coordinator, City staff are aware of the conservation goals of the City and works together to implement these goals.

EXISTING CONSERVATION MEASURES

Table IV-1 identifies water conservation measures that are currently being implemented by Spanish Fork City. The measures will continue to be implemented according to the plan indicated in Table IV-1. It is not known if existing conservation measures have been effective given the increase in per capita water use since 2001 and the uncertainties regarding the high loss rates included in those figures.

**TABLE IV-1
EXISTING CONSERVATION MEASURES**

CONSERVATION MEASURE	IMPLEMENTATION PLAN
<u>PUBLIC EDUCATION:</u> Promote water conservation measures to City residents through public education. (See Appendix for public education material.)	Advertise conservation measures through: <ul style="list-style-type: none"> • The City's website. • The City Newsletter • Links to water conservation websites on City's website.
<u>RECOMMEND WATER SAVING FIXTURES:</u> City has recommended water saving plumbing fixtures through their public education program.	Educate citizens about the potential water savings from water saving plumbing fixtures.
<u>REPLACEMENT PROGRAM FOR OLD PIPELINES:</u> City replaces pipelines when necessary	Replace old/undersized pipelines: <ul style="list-style-type: none"> • whenever a street is redone, • according to master planned projects, • as leaks are detected.
<u>REPLACEMENT OF OLD WATER METERS:</u> New efficient meters with touch-read sensors installed at all connections	All water meters have been replaced: <ul style="list-style-type: none"> • within the past 9 years.
<u>INSTALLATION OF WATER METERS ON PI SYSTEM:</u> New meters installed at all PI customer connections	Water meters added to PI system when implemented: <ul style="list-style-type: none"> • Reduces water consumption (compared to non-metered systems)
<u>RESTRICT WATER USE FOR PUBLIC LANDSCAPED AREAS:</u> Practice water-wise irrigation for City owned facilities.	Sprinkler irrigation of public landscaped areas is: <ul style="list-style-type: none"> • adjusted based on weather, • performed during the cooler parts of the day.
<u>PROVIDE SECONDARY SOURCE FOR IRRIGATION:</u> City provides pressurized irrigation system that helps conserve culinary water	Maintain and manage the pressurized irrigation system. Metering the system helps conserve a large amount of water as customers pay for use versus a flat rate.

APPENDIX



E-SERVICES

DEPARTMENT

MAYOR & CITY COUNCIL

PUBLIC MEETINGS

NEWS & EVENTS

RESOURCES

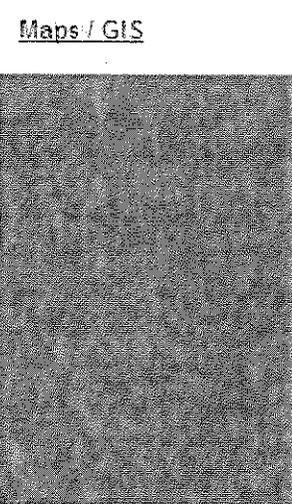
ABOUT THE CITY

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Pressurized Irrigation

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 - [Solid Waste](#)
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 - [Storm Drain](#)
 - [Streets](#)



Outdoor Water Conservation

[Spanish Fork City Water Conservation Plan - 2004](#)
[Utah Water Conservation Plan](#)
[Indoor Water Conservation](#)

Water Conservation Tips

- Avoid watering during the heat of day or during times of wind. This will reduce water loss to evaporation.
- It is better to water during the heat of the day then when there is wind because wind will evaporate water 6 times faster than the sun.
- As the weather changes adjust your watering schedule accordingly.
- Aerate your lawn to increase the amount of water the ground soaks in. This is best done in the spring or fall.
- Water your lawn separately from other landscaped areas.
- Invest in a rain switch or moisture sensor.
- Place mulch in planting beds to reduce evaporation.
- Leave small grass clippings on the lawn as a nutrient source or invest in a mulching lawn mower.
- Fertilize lawn in the late fall with a slow release fertilizer. Do not over fertilize.
- Use hardscape landscaping such as patios, walks, statuary, pavers, etc.
- Plant drought resistant trees and plants. Ask a local nursery about Utah-friendly landscape materials.
- Control weeds. Weeds use a lot of water.
- Increase the mowing height of your lawn mower. Longer grass grows deeper roots, uses less water and stands the stresses of hot dry weather better.
- Use a shut-off spray nozzle on your hose to wash the car.
- Clean driveways, patios and decks with a broom instead of a hose.
- Check for leaks. A leaking sprinkler system or hose bib can waste a significant amount of water. To check for leaks turn everything off that uses water. Check your pressurized irrigation meter and write down the current reading (include tenths of a cubic foot). Then check the meter again after one hour. If the meter has changed you have a leak.

The following web sites will give you more information on water conservation:

- <http://extension.usu.edu/files/natrpubs/nrwo03.pdf>
- www.conservewater.utah.gov
- www.slowtheflow.org
- www.awwa.org/advocacy/learn/
- <http://www.awwa.org/Advocacy/learn/conserve/>
- www.utahschoice.org