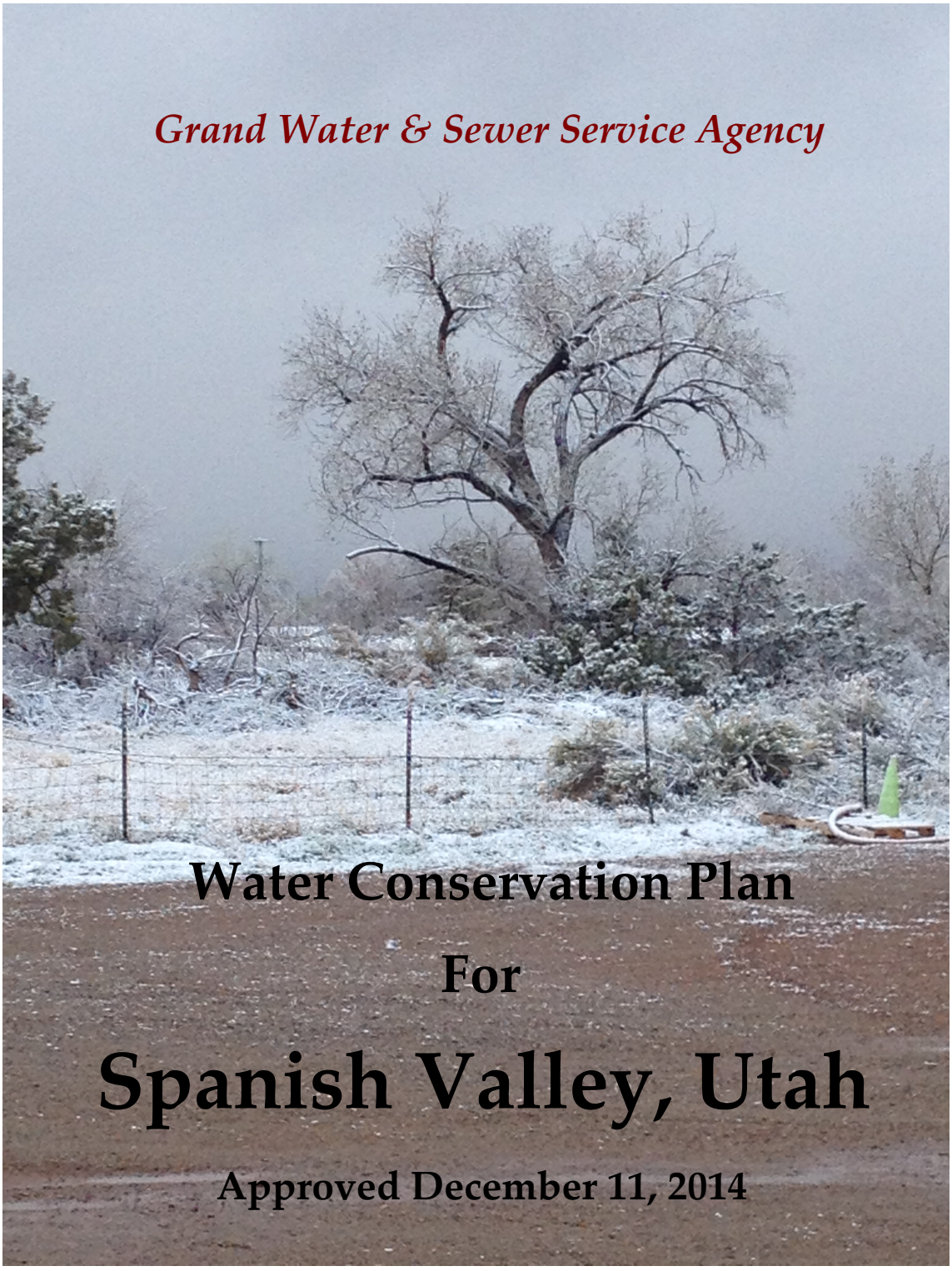
Grand Water & Sewer Service Agency



Water Conservation Plan

For

Spanish Valley, Utah

Approved December 11, 2014

TABLE OF CONTENTS

INTRODUCTION

In order to encourage the proper and sensible use of water and to preserve resources needed for the future of Spanish Valley, the Grand Water & Sewer Service Agency (Agency) presents this Water Management and Conservation Plan. This plan is written to address the concerns of citizens and leaders of Spanish Valley and the State of Utah and to comply with the State of Utah Water Conservation Plan Act. The Agency represents Grand County Water Conservancy District, Grand County Special Service Water District, and Spanish Valley Water & Sewer Improvement District through an interlocal agreement. This plan constitutes the Water Conservation Plan for the districts.

1 – DESCRIPTION OF SPANISH VALLEY AND ITS WATER SYSTEM

The Grand Water & Sewer Service Agency provides drinking water and untreated agricultural water to the unincorporated area of Spanish Valley, south of the City of Moab in Grand County, Utah. The population of the Agency's service area is approximately 3,750 as of the 2010 census. Currently, the Agency provides water to 1,675 residential, 95 commercial, 23 municipal and industrial (M&I), 165 irrigation, and 10 secondary connections.

The climate of Spanish Valley is high desert with a mean annual precipitation of approximately 8 inches. Little of the precipitation that falls on Spanish Valley enters the groundwater system. The main contributor to groundwater and surface streams is snowfall in the La Sal mountains. Average annual water-year precipitation at the La Sal mountain Snotel Site (#572) at elevation 9560 ft. is 33 inches.

Spanish Valley is a mix of suburban and rural development. Population is most dense and lot size smallest near the Moab City limits. Population density thins as one moves south through the valley. This area of lower density has experienced the most growth in the system over the past decade. Agricultural land is mostly to the south, however, there are farms and fields scattered the length of the entire valley.

The drinking water distribution system, source wells and storage facilities that serve Spanish Valley were initially installed in 1981. Additional source, storage, and distribution were added in 2002. The source of water is from four wells which are adjacent to the base of Johnson's Up-on-Top mesa *(Appendix A - Service Area Map).* The wells draw from the Glen Canyon aquifer which is recharged by La Sal mountain snowmelt and is an EPA designated Sole Source Aquifer. Well production capacity is 3,285 gallons per minute. Four million gallons of drinking water storage is provided by a one million gallon steel tank and a three million gallon reinforced concrete tank *(Appendix A - Service Area Map).*

The Sheley Tunnel / Ken's Lake pressurized irrigation system, also known as the Mill Creek Project, was completed in 1981. Water is diverted from Mill Creek through Sheley Tunnel to Ken's Lake, a 2,610 acre-foot capacity reservoir capable of producing 3,740 acre-feet of water annually *(Appendix A - Irrigation Service Area Map).*

Inventory of Water Resources

The Agency withdraws approximately 830 acre-feet of culinary water annually from its wells. This supplies the total water required to meet demands on the culinary system providing for both indoor and outdoor water uses. Irrigation and secondary water account for approximately 3,800 acre-feet through the Ken's Lake pressurized irrigation system and shallow wells.

Table 1
Water Rights Inventory

Water Right Number	**AF/Year**	**Source(s)**
Culinary Water		
05-3345	50.4	George White wells (GW)
05-148	24.0	
05-3343	472.608	
05-492	24.00	
05-3344	43.569	
05-681	92.296	
05-475	936.65	Spanish Valley/ Chapman wells
05-1062	28.35	GW, Spanish Valley/ Chapman wells
Total Culinary Rights	1,671.873 AF	
Irrigation Water		
05-1285	2,144.381	Irrigation wells
05-2802	110.0	Irrigation wells
05-5023	4,989.0	Mill Creek @ Sheley Tunnel
Total Irrigation Rights	7,243.381	

Water Budgets

The following table shows the amount of water delivered into the water system and the metered outflows to end-users for the years 2009 to 2013.

Table 2
Agency Water Budget - 2009 through 2013

Year	INFLOW (AF)		OUTFLOW (AF)				
	Wells	Total	Res	Com	M&I	Total	% Diff.
2009	1,006	1,006	703	122	NA	825	-17.99
2010	871	871	679	106	1	801	-4.52
2011	852	852	675	106	9	790	-7.28
2012	1,108	1,108	789	108	10	907	-18.14
2013	1,000	1,000	708	88	34	830	-17.00

Average losses from the system are just over 11 percent for the five years of record. A substantial leak was repaired in 2013 that should lower loss percent in the future. Most M&I water use was included in the residential and commercial use until 2013. The Agency identified all M&I customers in 2013 in its effort to provide more detailed information to the State.

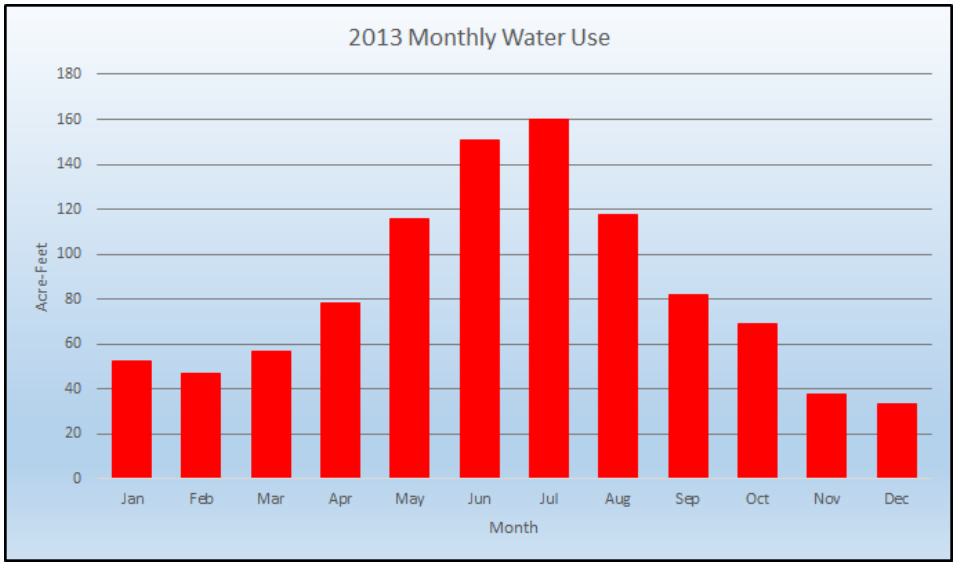
Present Water Use and Future Water Needs

When all uses of culinary grade water are compared with the number of people living in Spanish Valley in 2013, usage is 238 gallons of water per capita per day (gpcd). This is compared to the statewide average of 240 gpcd (185 gpcd potable, 55 gpcd secondary). The lost water from the above mentioned leak brought the average higher than normal. The Agency estimates losses on the leak were 29,630,000 gallons. If the lost water from that event is eliminated, gpcd use is 214 gpcd. If all loss is eliminated from the euqation, use is 198 gpcd.

The Residential Secondary Irrigation (RSI) program provides lower quality secondary water to 10 residential connections. 2013 use of the RSI system was 2.66 AF. The water is metered and available to any homeowner adjacent to the irrigation system pipeline. Any new subdivision is required to install a RSI system if it is located adjacent to the irrigation system or if it is located in an area where the Agency deems feasible for expansion of the system. RSI water use is not included in the total per capita number due to the small number of users and usage.

The past several years of drought impacted the Agency's ability to provide RSI and Ken's Lake irrigation water to the customer. In 2012 irrigation water allotments were cut by 40%. In 2013 the allotments were cut by 60%. The wells that provide the RSI water were used extensively to supplement the Ken's Lake users. A majority of Ken's Lake irrigation use is agricultural covering roughly 700 acres.

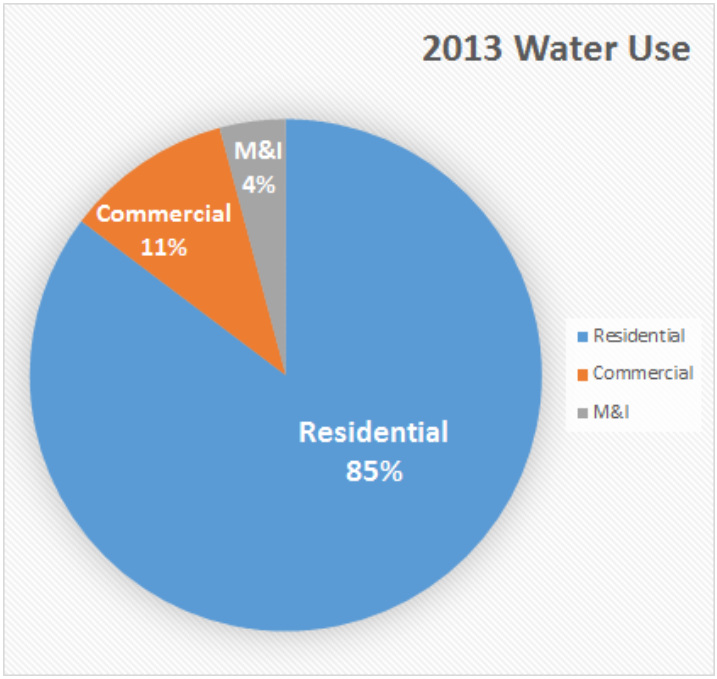
Culinary monthly water use for 2013 is shown in the following figure:



Due to the number of vacation homes and condominiums compared to year-round resident occupied housing units; the data is skewed for the per capita use calculation. The use per capita includes water use by seasonal residents who are not counted in the census. It also includes water used to landscape condominium complexes that are not 100% occupied by residents. April through October is the tourist season in Moab and on busy weekends the population can easily double. It is very likely that when non-residents are removed from the use, per capita water use would be well below the State's goal. The Agency is investigating ways to estimate non-resident use to better understand our community's needs.

As would be expected, the highest periods of water use are during the summer months. Historically, July has been the peak use month followed by June and August.

Culinary monthly water use by type for 2013 is shown in the following figure:



Growth Projections - Culinary System

The Annual Population Change Rate averaged 0.9% per year between 2009 and 2012 for Grand County. An estimate of Spanish Valley's expected future population growth through the year 2060 is shown in the following figure. Many factors influence this projection, and the estimates shown may vary substantially from the actual population experienced.

The population projection data is taken from the Governor's Office of Planning and Budget, Demographic and Economic Analysis (DEA) Section. This information is listed as the "Balance of Grand County" that does not include Castle Valley Town or Moab City. ***Population of the Agency's service area is slightly less.***

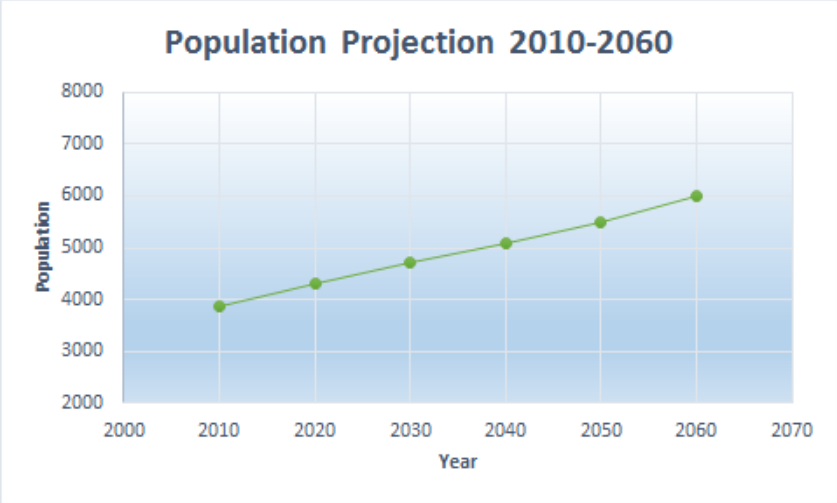


Table 3
Population estimates present to 2060

		Agency Estimate:
Current Population Estimate:	3,860	3,750
2020	4,310	4,188
2030	4,728	4,594
2040	5,083	4,939
2050	5,481	5,326
2060	5,984	5,815

New Development: Utah State University is in the planning phase of a new Moab campus that will be located in the Agency's service area. The Agency also anticipates construction of additional multiple family dwellings and commercial growth to accompany the development of the University. The Agency's mission is to: "utilize our expertise, knowledge, experience, and long range planning to secure and maximize the resources to protect our community's health and welfare by providing culinary water, irrigation water, and wastewater collection services with a committment to efficiency, sustainability, safety and public awareness." The mission is maintained through all stages of new development.

Peak demand: The peak daily demand on the drinking water system is 2.8 million gallons. The peak monthly demand was in July of 2013 when 52,129,000 gallons were delivered. The peak year was 2012 with 295,946,000 gallons of metered usage.

Water Sources

The following wells are developed for drinking water production:

Source	Discharge
George White Well #4	1060 gpm
George White Well #5	650 gpm
Chapman Well	1350 gpm
Spanish Valley Well	225 gpm

The following wells are developed for secondary/irrigation water production:

Source	Discharge
Beeman Well	1,000 gpm
Schumaker Well #1	450 gpm
Schumaker Well #3	350 gpm
Cemetery Well*	150 gpm
Lance Well	170 gpm
Petty Well	150 gpm
Andrea Well - Undeveloped	300 gpm

The above sources have been developed to provide supplemental water to Moab Irrigation Company or the pressurized irrigation system. Pumping of these wells maintains diversions to Ken's Lake. Of these wells, the Schumaker Well #3 and the Andrea Well have the potential to be developed for culinary use.
*- under contract with Moab City

Projected supply to 2050

The population estimate for 2050 is 5,326. At present consumption of 238 gpcd, customers would use 462,669,620 gallons per year or 1420 Acre-Feet per year. The Agency presently has 1671 Acre-Feet per year designated for culinary use. It is likely that many of the agricultural areas would become residential and therefore use Ken's Lake water for secondary purposes. This would considerably extend the pristine culinary source and its storage. It would also alter the gpcd use goal to include secondary water.

The table below demonstrates delayed supply of water if goals of the WCP are achieved and maintained.

Table 4
Projected Supply Delay

Year	Population	Present Use	10% Reduction	AF Delayed
2014	3751	1000	899	101
2020	4188	1116	1004	113
2030	4594	1225	1101	123
2040	4939	1317	1184	133
2050	5326	1420	1276	143
2060	5815	1550	1394	156

It is recognized that questions remain regarding the total **quantity** of water available from ground water aquifers. The Agency, along with other stakeholders, is participating in a three year study by the USGS to produce a Groundwater Management Plan. The Agency hopes to have a more definitive understanding of its needs for the population estimate of 2050 at the study's completion in 2018.

Growth Projection - Irrigation/Secondary System

Growth on the irrigation water system has changed little over the years. All water originally developed for the Mill Creek Project is allocated. New connections are made as large water users subdivide their land and/or transfer portions of their allotments. New transfers of Moab Irrigation Company stock are no longer permitted into the lake.

The conversion of agricultural land to more suburban/urban uses will affect the irrigation system over time. The RSI system is anticipated to grow at a slower rate than the average culinary connection rate due to the smaller area it covers. The Agency believes that employing a system-wide secondary system will help to preserve and extend the usage of our pristine culinary aquifer.

Irrigation water peak use also occurs during mid-summer months. Irrigation water use differs from drinking water use in that the water demand is based on crop need and no winter use is required. The pressurized irrigation system from Ken's Lake is deactivated and drained each winter. The period of use on the irrigation system is typically March 15 through November 1. The majority of agricultural users in the valley grow alfalfa. However, there are several customers growing other crops such as grapes and commercial vegetable gardens.

The U.S. Agriculture Stabilization and Conservation Service provides data on net irrigation required by alfalfa in Spanish Valley which equates to irrigation demand.

Table 5
Irrigation Demand

Month	% Irrigation Required	Delivery Rate of 3,740 AF per year
March	1.2%	45 AF
April	7.0%	262 AF
May	13.4%	501 AF
June	19.9%	744 AF
July	23.7%	886 AF
August	18.4%	688 AF
September	11.6%	434 AF
October	4.7%	176 AF
Total	**100%**	**3,740 AF**

Irrigation water deliveries are dependent upon surface water flows in Mill Creek. The amount of water available for a given year is therefore dependent upon the mountain snowpack accumulated over the winter months. Years of below normal precipitation can cause insufficient water to be available for irrigation needs. Since the Mill Creek Project was completed in 1981 eight years, 1989, 1990, 1994, 2002, 2003, 2009, 2012 and 2013 have provided water less than that required. During years of insufficient water the Agency is able to pump water to the irrigation system to supplement surface water flows. If restrictions to irrigation use are required, all customers' water use is reduced on an equal basis. Use in excess of restricted amounts results in service disconnect.

2 -WATER CONCERNS, CONSERVATION MEASURES AND GOALS

- Newer homes predominantly use native, low-water plants and xeriscaping. Older homes still have water intensive lawns and trees. Many customers cannot afford to completely redesign their landscaping and must continue to use water to keep the existing landscaping alive.
- Citizens who would otherwise be able to connect to the RSI system lack the money to pay for the connection to the system or are unaware that the opportunity exists.
- Some citizens lack information and understanding of landscaping water requirements and efficient water-use habits and practices: Few residents know how much water is required to maintain healthy landscaped areas and how to consistently use water efficiently indoors. Some citizens' irrigation and indoor practices are based on convenience rather than plant needs and water supply considerations.
- Water loss on the system raises the per capita use amount significantly. A large leak event has a greater effect on per capita use in a small population compared to a large population.
- A large transient population skews the data for the per capita use calculation.

Each concern above represents an opportunity. Aside from replacement of high water-use landscaping, the opportunity exists to solve the above problems through a well-thought-out education program. The local USU extension office is a valuable resource and the Agency believes that working with them to reach out to all citizens of Spanish Valley is a worthwhile endeavor. Many of the citizens of Spanish Valley are already conservation-minded. Many of them express deep concerns over our aquifer and its sustainability. The local newspaper regularly reports on drought situations and published several articles about the Groundwater Management Plan study. The Agency feels that conservation education efforts would be well received by our citizens.

Water Conservation Goals

In pursuit of solutions to the problems identified previously, and in concert with the Agency's mission, the following goals have been identified:

- ***Goal #1*** **– Reduce Spanish Valley's per capita use by ten percent (10%) over the next five years.** The short-term goal of 212 gpcd is appropriate until accurate transient population numbers are obtained.
- ***Goal #2*** **– Maintain a financially viable water system.** The water pricing system should encourage customers to reduce use without creating a revenue shortfall.
- ***Goal #3*** **– Implement and maintain a more aggressive consumer education program.** Customers will be provided with various conservation literature via targeted mailings, the Agency website, monthly billing messages and local advertisements.
- ***Goal #4*** **– Reduce culinary water system losses.** Although catastrophic events may occur, it is our goal to: consistently maintain, prevent damage to, and repair the water system in a timely manner.
- ***Goal #5*** **– Collect data on transient populations and water use.** Agency staff will endeavor to collect information on second homes and nightly rentals in the valley in order to better understand our community's needs.

3 – CURRENT CONSERVATION PRACTICES

In order to solve the problems identified above and take advantage of the many associated opportunities, specific water conservation measures must be identified and evaluated. The Agency has already implemented several water conservation measures; these, along with additional measures that will effectively solve the Agency's water concerns, are discussed below.

The Agency's conservation measures and programs shall fulfill two objectives (from 2009):

1. To encourage long-term water conservation mindset for all citizens on a day-to-day basis.

2. To enforce water conservation during times of emergencies and/or drought.

Daily Conservation

Grand Water & Sewer Service Agency recognizes that the amount of water conserved by each connection is dependent upon the type of activity that a connection serves. Each commercial connection may have a differing ability to conserve. Conservation for residential connections is largely dependent upon the lifestyle of each resident, and increased conservation may require lifestyle changes. While it is not the Agency's intent nor purpose to dictate individual lifestyle choices the Agency enacted measures and programs which encourage and reward choices which result in the conservation of water.

Daily Conservation - Outdoor watering

Watering during the heat of the day between 10:00 a.m. and 6:00 p.m. is recognized as inefficient use of outside water. Water users are informed periodically by use of mailings, bill inserts, brochures, and news media.

Daily Conservation - Meter replacement and leak repair

In 2005-2006 the Agency implemented a system-wide meter replacement program. Meters are read monthly and repaired/replaced as needed. The Agency began installing "smart meters" in 2009. The meters retain usage data and generate reports on continuous and intermittent leaks at each residence. Residents are notified immediately if a leak is believed to be present. Agency staff also reviews high water usage reports monthly and contacts residents if their usage is atypical.

In 2011 the Agency replaced nearly all of the irrigation system meters with programmable sonic meters. A yearly meter fee was implemented and a "meter replacement fund" was established. Life expectancy of the meters is ten years. The older style meters were inaccurate at lower flows. The new meters eliminated this problem.

Agency staff repairs any and all system leaks without delay. Supervisory Control and Data Acquisition (SCADA) systems monitor flows. Reports are reviewed daily and any anomolies are investigated immediately.

Daily Conservation - Consumer Education

Agency staff and board of directors believe that conservation is a learned behavior. Monthly billing messages go out to all customers that always include a conservation message. A variety of brochures and pamphlets are available to the public at our office. Free rain gauges are available to help customers determine sprinkler applications. Staff frequently directs citizens to the various Utah state resources for water conservation. The Agency website contains a conservation page with many useful links to state and national conservation resources. The present consumer education program is helpful to citizens that come to the office seeking informaion, however, we believe the program would be more effective if staff sent the materials directly to the customer.

Times of Emergency and Drought

The Agency has an Emergency Management Plan that identifies procedures for water management in times of drought and emergencies. The plan is maintained in the Agency office.

4 – CURRENT PRICING STRUCTURE

Designing an appropriate rate schedule is a complex task. Rate design is a process of matching the costs of operating the water system to the unique economic, political and social environments in which the Agency provides its service. The cost of delivering the service must be evaluated and understood. Each water system has unique assets and constraints. Based on the characteristics of the system, and past capital and operating costs, revenue requirements can be estimated.

The Agency board adopted a conservation oriented water rate structure more than a decade ago. Increases have been made periodically to encourage water conservation and maintain a financially viable water system.

Table 6
Current Water Rates

Type:	**Increasing Block Rate**
Base Charge:	**$19.50/month**
Base Allocation:	**0 Kgal/month**

Amount of Water	Rate
0 to 8,000 gal	$0.60 / Kgal
8,001 to 15,000 gal	$1.40 / Kgal
15,001 + gal	$2.00 / Kgal

The ascending or increasing block rate is designed to encourage conservation by increasing the cost per thousand gallons as usage increases. The Agency board has consistently increased the upper usage tier to encourage outdoor water conservation.

Table 6
Historic Water Rates

Year	Base Rate	1st tier per 1000 gal	Gallons	2nd tier per 1000 gal	Gallons	3rd tier per 1000 gal	Gallons
2000	$11.00	$0.50	0-10k	$0.75	11-15k	$1.25	16k+
2004	$13.50	$0.50	0-10k	$0.75	11-15k	$1.25	16k+
2007	$14.50	$0.50	0-10k	$0.75	11-15k	$1.50	16k+
2009	$16.00	$0.60	0-10k	$0.90	11-15k	$1.80	16k+
2011	$18.50	$0.60	0-10k	$0.90	11-15k	$1.80	16k+
2012-present	$19.50	$0.60	0-8k	$1.40	9-15k	$2.00	16k+

Irrigation Water Rates

Irrigation water rates are set to encourage correct use of water on irrigated agriculture. This is done by penalizing water use in excess of the irrigation demand. Irrigation water rates are as follows:

AF Required	Price/Acre-Foot
0 - 4.9 AF	$50.16/AF or $143.33 - minimum bill
5 - 14.9 AF	$44.08/AF
15 - 24.9 AF	$41.00/AF
25 - 49.9 AF	$39.62/AF
50 - 124.9 AF	$31.75/AF
125 AF and up	$29.77/AF
Use over required	$143.33/AF

Water rates are reviewed on an annual basis. The review includes a determination that the rate structure is meeting the financial requirements of the Agency as well as the effectiveness of its conservation aims. The Agency Manager (Conservation Coordinator) makes recommendations concerning conservation goals to the Agency board annually.

5 – ADDITIONAL CONSERVATION MEASURES

In order to effectively meet Spanish Valley's future water needs and solve all the water concerns identified, additional and more specific water conservation measures are required. These include more aggressive consumer education and water loss prevention programs, and increased customer participation on the secondary system.

Meter Replacement and Leak Detection Program

Over time, all meters become less accurate in recording actual flows. Meters are read monthly and replaced promptly when they are damaged or reading incorrectly. The Agency has a goal of testing ten percent of active water meters each year and replacing them as needed.

Staff currently has an aggressive leak detection program. Many of the losses on the system are known losses. The unknown source of loss is where the Agency would like to gain some ground. Master meters will be calibrated per factory recommendations. Losses are tracked monthly. Unknown losses above seven percent will be investigated immediately.

Water Rates

The Agency board reviews water rates annually. Current rates are appropriate to maintain a financially viable water system. This practice will continue in the future and rates will be adjusted as needed.

Consumer Education Program

The Agency intends to increase consumer education each year for the next five years. A plan is being developed to reach out to residents with older landscaping to help with outdoor water conservation education and the availability of the secondary system as appropriate. More resources will be given to new customers in a "new customer" mailing. Agency staff is looking at education opportunities at the local elementary school to provide educational materials for indoor water conservation. We are investigating providing property management companies with literature to place in nightly rental properties to help educate tourists of the challenges we face in the desert. In addition, the Agency office will have posters on display showing the important role conservation plays in each of our daily lives. We want the community to know the Agency is committed to this goal. A local weekly publication puts out free "community notes". Agency staff intends to provide them with a list of timely water conservation tips to place throughout the year. Many ideas have been discussed, however, one theme remains constant - continual, increased conservation efforts over time.

Plans and Studies

The Agency is participating in a three year Groundwater Management Plan study to be completed in 2018. A comprehensive evaluation of the "water budget" will enable the Agency to better prepare for future population growth.

The Agency is considering funding sources for a new Water Master Plan to replace the nearly 20 year-old plan in place presently. An update of this plan will give a more realistic outlook on future growth in the Valley and will take into consideration many factors that were not present in 1995.

Water Conservation Resolution

Agency staff will prepare a time-of-day watering resolution in the near future. Grand County presently has ordinances in place regarding native and water-wise plantings for new construction. The Agency has no ordinances/resolutions in place at this time.

Water Conservation Coordinator

The Agency board, by adopting this Conservation Plan, designates the Agency Manager as the Conservation Coordinator for Grand Water & Sewer Service Agency. The Conservation Coordinator will report to the board annually in a designated section of the Annual Report and at the request of the Board to report on the efficacy of and progress of conservation practices from time to time.

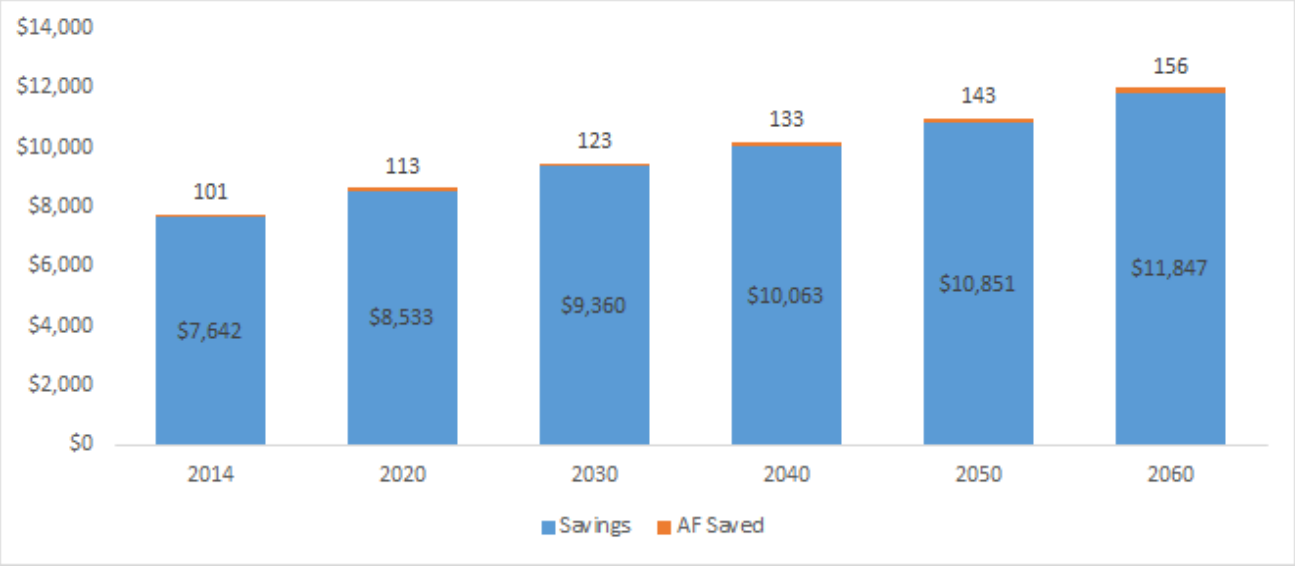
6 – COST ANALYSIS

The Agency will strive to reach all goals mentioned earlier. The costs and benefits of reaching these are discussed below.

Benefit of Reaching Goals:

Although four different goals are mentioned in section two above, three of those goals truly aid in achieving goal number one - ***Reducing per capita water use by 10% in five years***. Benefits of reducing per capita water use by ten percent are measured as the savings due to reduced electrical costs associated with pumping water. By reducing potable water use from 235 gallons per capita day (gpcd) to 212 gpcd, more than 100 acre-feet of water will be saved each year. In 2013 water produced cost $75.80/acre-foot. A difference of 100 acre-feet would save an estimated $7,580.00. That number is slightly inflated as pumping surcharges remain the same regardless of pumped amount in a month. Therefore, with less water pumped, the amount per acre-foot is increased. Staff currently tracks electrical power costs monthly and will report future financial savings. It is the goal of the Agency to extend the use of our pristine culinary water resource and all conservation is valuable despite its monetary value.

The graph below shows potential water saved in AF and the annual cost savings in pumping charges at a 10% decrease in per capita water use.



Savings will be measured based on monthly water production, metered use, and power costs. The results will be compiled annually in the Agency Annual Report and summarized in the next update of the WCP.

Cost of Reaching Goals:

The costs incurred to achieve this benefit are mostly the costs associated with goals 2, 3 and 4. Anticipated expenses are budgeted for leak detection and educational materials. The cost of replacing water meters is not counted in the cost of conservation because it is a standard operational procedure and not solely a conservation measure. The 2015 budget contains $2,500 for education expenses. Leak detection monies will come from the water operations budget.

The Groundwater Management Plan will cost the Agency $10,000 per year for the years 2015, 2016 and 2017.

The Agency is presently seeking grant funding for a Water Master Plan. Agency financial participation is undetermined at this time.

7 – IMPLEMENTING AND UPDATING THE WATER CONSERVATION PLAN

To insure the goals outlined above are reached, appropriate tasks must be determined, responsibility fixed with the logical person or department, and a time line set for completion of each task. The Water Conservation Committee recommended the Agency Manager to supervise and lead the water conservation program as the Water Conservation Coordinator. The board authorized the appointment and will have responsibility for providing funding for the measures outlined in this plan. Agency staff will be responsible, under the supervision of the Water Conservation Coordinator, to carry out the necessary tasks within the appropriate time constraints.

This WCP was placed on the December 11, 2014 agenda and adopted by the Agency Board. The Board of Directors is comprised of district members. The districts are abbreviated as follows: Grand County Water Conservancy District (GCWCD), Spanish Valley Water and Sewer Improvement District (SVWSID), Grand County Special Service Water District (GCSSWD). The board consists of the following members:

– Dan Pyatt, GCWCD, President
– Gary Wilson, SVWSID and GCSSWD, Vice President
– Brian Backus, GCWCD
– Kyle Bailey, City Council representative - GCSSWD
– Leon Behunin, SVWSID
– Mike Holyoak, SVWSID and GCSSWD
– Pat Holyoak, County Council representative - GCSSWD
– Jerry McNeely, GCWCD
– Preston Paxman, GCWCD
– Tom Stengel, SVWSID and GCSSWD
– Rex Tanner, GCWCD
– Dale Weiss, SVWSID

It was also recommended the Water Conservation Coordinator make annual reports to the board on progress toward WCP goals.. The WCP will be revised and updated as required to meet changing conditions and needs. This plan will also be updated and resubmitted to the Utah Division of Water Resources in 2019, as required. The resolution for the WCP is attached as Appendix B.

7 - Implementation, Monitoring and Evaluation

Implementation Procedure

Assign Responsibility Agency Manager

Budget: Projected Costs $2500.00 Fund: Education

Schedule: Begin Date 2015 End Date None

Public Involvement The public will recieve educational materials

Monitoring & Evaluation

Evaluation Schedule: (Monthly) Quarterly Annually Other

Data to Be Gathered Water use and loss data on both targeted customers and system wide

Evaluation Process Compare metered use to previous use of targeted customers. Also, compare metered use with water production monthly.

Plan Update

All monthly observations will be summarized in the Agency's Annual Report. A summary of the implementation process will be included. The WCP will be updated as required.

Appendix A
Maps

Grand Water & Sewer Service Agency
Service Area Map

Lance/Petty/Cemetery Irrigation Wells

Schumaker Irrigation Wells #1 and #3

George White Well #5

Johnson's Up On Top Mesa

George White Well #4

GW Booster Pump - to 3mg tank

1mg tank

Andrea Well - Undeveloped

Chapman Well

3mg tank

Spanish Valley Well

Beeman Irrigation Well

Legend

Culinary Water Lines

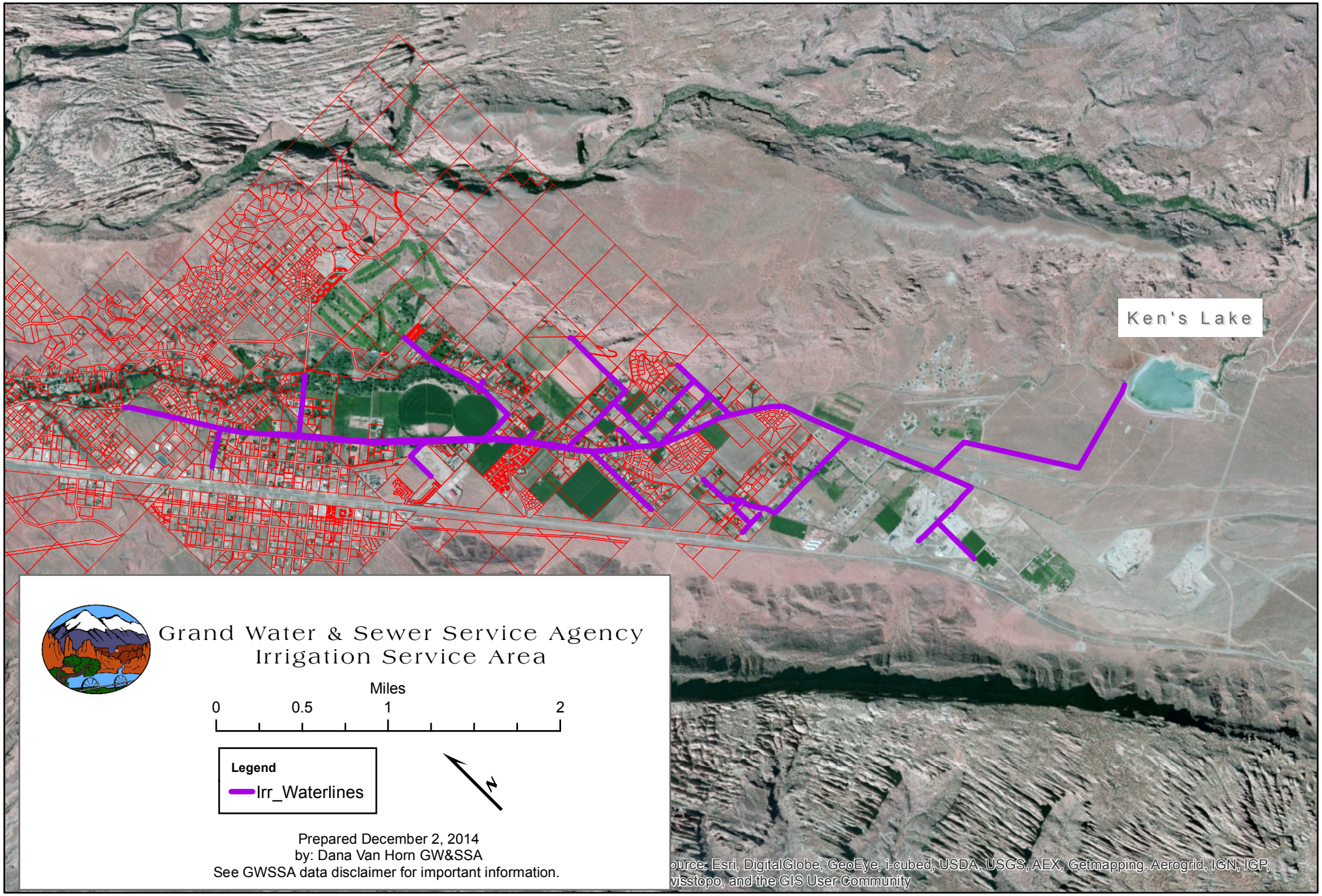
SIZE_

- 10
- 12
- 14
- 16
- 2
- 4
- 6
- 8

N

0 0.4 0.8 1.6 Miles

Prepared December 2, 2014
by: Dana Van Horn GW&SSA
See GWSSA data disclaimer for important information.


Ken's Lake
Grand Water & Sewer Service Agency
Irrigation Service Area
Miles
0
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Prepared December 2, 2014
by: Dana Van Horn GW&SSA
See GWSSA data disclaimer for important information.
ource: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP,
visstopo, and the GIS User Community

Appendix B
WCP
Resolution

WATER CONSERVATION PLAN
for

GRAND WATER & SEWER SERVICE AGENCY

RESOLUTION 2014-12-11

A RESOLUTION ADOPTING THE 2014 WATER CONSERVATION PLAN AND AMENDING AGENCY POLICY PERTAINING TO THE ADOPTION OF A WATER CONSERVATION PLAN.

BE IT RESOLVED BY THE GRAND WATER AND SEWER SERVICE AGENCY, formed by and between the Spanish Valley Water and Sewer Improvement District, the Grand County Water Conservancy District and the Grand County Special Service Water District, bodies politic duly organized under the State of Utah pursuant to the provisions of the Utah Interlocal Cooperation Act 11-13-1 of the Utah Code.

AND Through the terms of the Interlocal Agreement forming the Agency, the Districts conferred and delegated to the Agency all rights, duties, powers, privileges, and authority which under the laws of the State of Utah are exercised or may be capable of being exercised by each of the respective Districts.

A. WHEREAS, The Grand Water & Sewer Service Agency operates a culinary water system; and
B. WHEREAS, the Agency Board of Directors understands the pressing need to use water in an efficient manner to allow for future sustained growth of the community;

NOW, THEREFORE, IT IS RESOLVED BY THE BOARD OF DIRECTORS OF GRAND WATER & SEWER SERVICE AGENCY, MOAB, UTAH:

Section 1.5 of the Agency Utility Rules and Regulations is hereby to read as follows:

Section 1.5 Water Conservation Plan
The water conservation plan of Grand Water & Sewer Service Agency, adopted on the 7th day of January, 2010, and revised on this 11th day of December, 2014, is hereby readopted. 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 Valley.

Adopted by the Grand Water and Sewer Service Agency December 11, 2014 by the following vote:

Aye: Pyatt, Wilson, Weiss, Behunin, Holyoak, Stengel, Tanner, Backus, Paxman, P. Holyoak
Nay: _____
Absent: McNeely and Bailey
ATTEST:

Mark Sovine

Mark Sovine, Secretary/Treasurer

Dan Pyatt, President