SPRING CREEK UTILITIES CO.

WATER CONSERVATION PLAN

August 2012

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I. INTRODUCTION (NRS 540.121)

The Spring Creek Valley has a typical high desert climate, which is defined as a desert climate with hot summers and cold winters with very low humidity. Wise use of water enables the utility to optimize use of its existing system. Water conservation is a vital part of an Integrated Resource Plan (IRP). Water conservation can influence customer utility bills, the need for future facilities or timing of those facilities, drought protection for the community, and the rate at which new resources are needed. There has been a process of developing and implementing conservation programs over the past years by Spring Creek Utilities Co. (SCUC[1] or the Utility). SCUC submitted a water conservation plan to the Division of Water Resources (DWR) which was approved in January of 2008. Subsequently, SCUC submitted an updated water conservation plan to the Public Utilities Commission of Nevada (PUCN) through the IRP process in 2009. At the end of 2009, SCUC entered into an Administrative Order with the Nevada Division of Environmental Protection (NDEP), Bureau of Safe Drinking Water (BSDW) which also requires an updated water conservation plan. The Utility supplies water for municipal and domestic purposes and, by state law (as defined below), is required to submit a water conservation plan for its service area to the State. This plan submitted herewith is intended to be the updated water conservation plan for these three regulatory bodies in accordance with NRS 540.121 through 540.151.

> ***NRS 540.121 "Supplier of water" defined.***
> ***As used in NRS 540.121 to 540.151, inclusive, "supplier of water" includes, but is not limited to:***
>
> 1. ***Any county, city, town, local improvement district, general improvement district and water conservancy district;***
> 2. ***Any water district, water system, water project or water planning and advisory board created by a special act of the Legislature; and***
> 3. ***Any other public or private entity that supplies water for municipal, industrial or domestic purposes. The term does not include a public utility required to adopt a plan of water conservation pursuant to NRS 704.662. (Added to NRS by 1991, 520)***

In developing its water conservation strategies, there are several planning objectives which the Utility seeks to achieve. The Utility conservation efforts satisfy NRS 540.121 through 540.151 by implementing conservation programs which provide:

a) Methods of public education to (1) increase public awareness of the limited supply of water in the State and the need to conserve water, and (2) encourage reduction in the size of lawns and encourage the use of plants which are adapted to arid and semiarid climates;

b) Other specific conservation measures required to meet the needs of the service area, including, but not limited to, any conservation measures required by law;

c) Management of water to (1) identify and reduce leakage in water facilities, inaccuracies in water meters and high pressure in water supplies, and (2) increase the use of effluent (where applicable); and

d) A contingency plan for drought conditions which ensures a supply of potable water.

[1] A List of Abbreviations is contained in **Appendix A.**

Figure 1: Balanced Conservation Plan

To satisfy the objectives of NRS, the Utility's water conservation plan consists of four categories which address: public education, other conservation measures, system management, and conservation during drought periods. These objectives are outlined in **Table 1**. The first three objectives are directly addressed in the body of this Water Conservation Plan. The fourth, the Drought Plan, is contained in **Appendix B.** The Utility intends to continue the programs listed and described herein unless required to do otherwise or as conditions change which would redirect activities towards measures which enhance the Utility's conservation measures.

Table 1: Conservation Measures

Conservation Strategy	Water Conservation Plan Reference	Conservation Measure	Potential Water Conserved	Cost to Implement (Estimated)
Public Education	III. A. 1. a.	Community Outreach	Not quantified[1]	$2000 Annually
	III. A. 1. b.	Home Water Audit	Not quantified[1]	$500 Annually
	III. A. 1. c.	How to Read Your Meter	Not quantified[1]	$100
	III. A. 1. d.	Informative Billing	Not quantified[1]	Cost of Doing Business
	III. A. 1. e.	www.uiwater.com	Not quantified[1]	Negligible
	III. A. 1. g.	School Programs	Not quantified[1]	$100
	III. A. 1. h.	Xeriscape & Landscape	Not quantified[1]	$100
Other Water Conservation Measures	III. A. 2. a.	Assigned Day Watering	Not quantified[1]	Negligible
	II.	Community Partnering	Not quantified[1]	$500 Annually
	IV. B. 1. a.	Bill Credits Ultra-Low Flush Toilets	4,500 gallons per capita annually[2,3]	$1,100[4]
	IV. B. 1. b.	Bill Credits High Efficiency Washers	5,100 gallons annually per non-HEMW replacement[1]	$1,120[5]
	III. A. 2. a.	Fines	Not quantified[1]	Offset
	III. B.	Water Rate Setting	Not quantified[1]	Cost of Billing and Rate Case

System Management	III. A. 3. a.	Meter Replacement Program	Not quantified[1]	TBD
	III. A. 3. b.	SCADA	Not quantified[1]	Cost of Doing Business
	III. A. 3. c. and e.	System audits, Leak Detection, and Repair	2.5% reduction in unaccounted for water per year[6]	$75,500 Every 3 Years
	III. A. 3. d.	System Pressure Standards	Not quantified[1]	From 2009 IRP
	III. A. 3. f.	Standards and Specifications	Not quantified[1]	Cost of Doing Business
	III. A. 3. g.	Line Locates	Not quantified[1]	Cost of Doing Business
	III. A. 3. h.	Unauthorized Use of Utility Water	Not quantified[1]	Offset by Fines
Drought Plan	**III. A. 4 Appendix B**	Drought Plan	Not quantified[1]	Negligible

[1]Amy Vickers, *Handbook of Water Use and Conservation,* p. 408

[2]Assumes most pre-1994 toilets in Spring Creek installed between 1980 and 1994.

[3] Based on Table 2.2, Amy Vickers, *Handbook of Water Use and Conservation,* p. 25

[4]Assumes 20 toilets purchased per year at $50 credit + $5 admin.

[5]Assumes 14 washers purchased per year at $75 credit + $5 admin.

[6]Based on need to reduce current average unaccounted-for amount of 23% to 10% over time.

The effectiveness of non-quantifiable measures can be determined once a comparison with historical water use can be made. Future water use data that is gathered after the implementation of conservation measures can be compared to historical data to determine the amount of water conserved. This will be reported in the 2015 IRP and will more accurately provide estimated water savings for specific conservation measures.

The Utility is a privately owned, public utility which provides water to its customers on a "business" basis and as such is under the direct jurisdiction of the PUCN. A portion of NRS 704.001 is shown below illustrating the general purpose and policy as enacted by the Legislature.

> ***NRS 704.001 Purpose and policy of Legislature in enacting chapter. It is hereby declared to be the purpose and policy of the Legislature in enacting this chapter:***
>
> 1. ***To confer upon the Commission the power, and to make it the duty of the Commission, to regulate public utilities to the extent of its jurisdiction;***
> 2. ***To provide for fair and impartial regulation of public utilities;***
> 3. ***To provide for the safe, economic, efficient, prudent and reliable operation and service of public utilities;***
> 4. ***To balance the interests of customers and shareholders of public utilities by providing public utilities with the opportunity to earn a fair return on their investments while providing customers with just and reasonable rates; and...***

Per NRS 704.662, Subsection 4, before the Utility can implement any rules, regulations, or fees they will have to be approved by the PUCN (which can be a lengthy process involving several hearings). As indicated above, SCUC currently has a PUCN approved Water Conservation Plan.

> ***NRS 704.662 Plan of water conservation: Requirement and procedure for adoption; review by Commission; election to comply with plan adopted by Commission***
>
> 1. ***The plan must be approved by the Commission before it is put into effect.***

The Spring Creek water and wastewater systems are owned by Spring Creek Utilities Co. (SCUC), a wholly owned subsidiary of Utilities, Inc. (UI), a private, investor-owned, national water and wastewater utilities owner and operator. SCUC operates the system with an average of five operations personnel, a manager in Spring Creek including administrative assistance, and support and customer service staff in Pahrump, Nevada, as well as throughout the nation via the UI network.

The rural community of Spring Creek, Nevada is located approximately 10 miles southeast of Elko, Nevada on Lamoille Highway (State Route 227). The community covers an area approximately 8 miles east-west by 9 miles north-south. The site was subdivided into 5,420 large lots, ranging in size from about 1 to 10 acres. SCUC maintains two public water systems, one serving the Mobile Home Section (the 200 Tract), and a separate water system serving the Housing Section (the 100, 300, and 400 Tracts). A total of approximately 3,750 customers are currently being served.

The Spring Creek water system consists of more than 140 miles of piping. Generally, transmission piping is 6 to 12 inches in diameter. However, a large portion of the distribution piping is 2, 3, and 4 inch diameter PVC. Twelve groundwater wells supply water to the system and storage is contained in 10 water tanks.

This plan includes information to help water customers in the Utility service area continue to conserve water. The plan can be used as a resource to implement and measure the effectiveness of conservation efforts and can provide a planning guide for future conservation

This plan is compliant with Nevada Revised Statutes (NRS) sections 540.121 through 540.151.

II. GENERAL REQUIREMENTS (NRS 540.131)

The Utility supplies water for municipal purposes and is required to submit a water conservation plan to the PUCN for approval. The Utility has previously submitted a water conservation plan and this is an update to that plan (as required by NRS). The following is the code from the water conservation portion of the Nevada Revised Statutes and it's applicability to Utility:

> ***NRS 540.131 Plan of water conservation: Procedure for adoption and updating of plan; review of plan by Section; joint plans permitted by certain suppliers; duties of local governing body.***
>
> 1. ***Except as otherwise provided in subsection 5, each supplier of water which supplies water for municipal, industrial or domestic purposes shall, on or before July 1, 1992, adopt a plan of water conservation based on the climate and the living conditions of its service area in accordance with the provisions of NRS 540.141, and shall update the plan pursuant to paragraph (c) of subsection 4. The provisions of the plan must apply only to the supplier's property and its customers. The supplier of water shall submit the plan to the Section for review by the Section pursuant to subsection 3.***
> 2. ***As part of the procedure of adopting a plan, the supplier of water shall provide an opportunity for any interested person, including, but not limited to, any private or public entity that supplies water for municipal, industrial or domestic purposes, to submit written views and recommendations on the plan.***

The Utility will provide an opportunity for any interested party to submit written views and recommendations on the plan. The Utility will review all of the public comments and make any revisions it deems necessary.

> 3. ***The plan must be reviewed by the Section within 30 days after its submission and approved for compliance with this section and NRS 540.141 before it is adopted by the supplier of water.***
> 4. ***The plan:***
>   ***(a) Must be available for inspection by members of the public during office hours at the offices of the supplier of water;***

The Utility will keep this water conservation plan available at its office during regular business hours for public viewing. In addition, Utility will post the Water Conservation Plan on its website www.uiwater.com. Members of the public are encouraged to review this Water Conservation Plan and provide written views and recommendations on the water conservation plan to Utility. These written views should be sent to the SCUC office.

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(b) May be revised from time to time to reflect the changing needs and conditions of the service area. Each such revision must be made available for inspection by members of the public; and

The Utility will revise this water conservation plan (as needed) to keep up with any changing needs and conditions of its service area. If any revisions are made to this water conservation plan, such revisions will have to be approved by the NDEP, DWR, and the PUCN and made available for inspection by members of the public in the Utility office during regular business hours.

(c) Must be updated every 5 years and comply with the requirements of this section and NRS 540.141.

Utility will update this water conservation plan at least every 5 years (in order to comply with NRS 540.141). It is anticipated that this Water Conservation Plan will be filed with the PUCN in March of 2012 and subsequently updated every three years from then, in compliance with Adopted PUCN Regulation R043-08:

RO43-08, Sec. 3.

1. *A public utility that furnishes water for municipal, industrial or domestic purposes or services for the disposal of sewage, or both, and which had an annual gross operating revenue of $1,000,000 or more for at least 1 year during the immediately preceding 3 years shall, on or before March 1 of every third year, in the manner specified by the Commission, submit a plan to the Commission to provide sufficient water or services for the disposal of sewage to satisfy the demand made on its system by its customers.*

5. Suppliers of water:
(a) Who are required to adopt a plan of water conservation pursuant to this section; and
(b) Whose service areas are located in a common geographical area may adopt joint plans of water conservation based on the climate and living conditions of that common geographical area. Such a plan must comply with the requirements of this section and NRS 540.141.

This water conservation plan is intended solely for use within the Utility service area boundaries and does not include a joint effort with any additional water suppliers. (However, portions of this Water Conservation Plan are incorporated into other UI affiliate water conservation plans.) While NRS does not specifically refer to Declaration of Reservations (DOR) of a Home Owners Association (HOA), SCUC does recognize that the HOA for Spring Creek, known as the Spring Creek Association (SCA), boundaries coexist almost in their entirety with SCUC's service territory, and therefore; the majority of their members are SCUC's customers. With this in mind, SCUC will endeavor to work with the SCA to incorporate like minded water conservation strategies.

Community Planning
SCA has a Committee of Architecture (COA) which presides over the SCA territory regarding aesthetics; providing instruction on buildings, permissible livestock, weed control, and general beautification.

It shall be the general purpose of the COA to:[2]

- Maintain the high standards of the architecture and construction in our Community;
- Administer the DORs so that the general appearance of all buildings and/or grounds within SCA are kept within the architecture of the neighborhood and are not harmful to the public health, safety or general welfare of the neighborhood in which the buildings and/or grounds are located;
- Enhance the aesthetic properties and structural soundness of each developed tract; and,
- Determine, in each instance, whether property owners are in compliance with the covenants and conditions of the applicable DORs.

SCUC has established regularly set meetings with members of the SCA to discuss utility business, community concerns and water conservation strategies and implementation. This Joint Cooperation Committee of SCA members', including someone from the COA, has one of the goals being how to promote public awareness and aesthetically pleasing water wise landscaping.

> ***6. The board of county commissioners of a county, the governing body of a city and the town board or board of county commissioners having jurisdiction of the affairs of a town shall:***
> ***(a) Adopt any ordinances necessary to carry out a plan of conservation adopted pursuant to this section which applies to property within its jurisdiction;***

The Utility will continue to adopt Tariffs necessary to carry out the water conservation plan. All tariffs are subject to approval by the PUCN.

> ***(b) Establish a schedule of fines for the violation of any ordinances adopted pursuant to this subsection; and***

The Utility will include in its tariff a section on penalties/fines for unauthorized use of utility water. The Schedule of Fines will be subject to approval by the PUCN. Including these fines in its' Tariffs will allow the Utility to enforce the penalties and will encourage water conservation.

> ***(c) Hire such employees as it deems necessary to enforce the provisions of any ordinances it adopts pursuant to this subsection. (Added to NRS by 1991, 520; A2005, 2570; 2007, 1253).***

The Western Region of Utilities, Inc. has a Water Conservation Coordinator who provides support, education and training for Nevada and Arizona. In addition, Utility has a UI Compliance & Safety Manager assigned to the company who also provides water conservation coordination. The Utility's Regional Manager has overall

[2] Spring Creek Association, Committee of Architecture, Regulations, Policies and Procedures Manual, COA Adopted, August 2010, p. 28.

responsibility to ensure the implementation and enforcement of the Water Conservation Plan. Existing employees and individual members within the community report visible water wasting to the company. In addition, existing personnel are trained in conservation management practices and techniques (such has recognizing faulty meters and leaks) so that waste can be prevented and conservation related rules/regulations can be enforced.

III. CONSERVATION PROVISIONS/MEASURES (NRS 540.141)

A. Plan Inclusions

1. Public Education

The Utility will continue to implement public education programs to increase awareness of the limited supply of water in the State of Nevada and the need to conserve water (as required by NRS 540.141). The following is the code from the water conservation portion of the NRS and its applicability to the Utility:

> ***NRS 540.141 Required provisions of plan or joint plan of water conservation; review by Section; posting of plans and joint plans on Internet website.***
> ***1. A plan or joint plan of water conservation submitted to the Section for review must include provisions relating to:***
> ***(a) Methods of public education to:***
> ***(1) Increase public awareness of the limited supply of water in this State and the need to conserve water.***

A key objective of this plan is to increase public awareness for all customers: residential, commercial, governmental and industrial, of the limited supply of water in Nevada and the need to conserve water. A successful educational program provides information to the public which helps to motivate water users in their efforts to conserve water. The Utility will provide its customers with educational materials and resources including home & landscape guides which can be viewed and links to water conservation information on the UI website. Example water conservation educational materials are included in **Appendix C**. Regardless of the type of education resources which are used, the most important consideration is their content and if the information is disseminated successfully. Specific water conservation incentives addressing NRS 540.151 are included in Section IV of this plan.

a) Community Outreach

Utility has identified several venues for continuing public education:

- Utility Sponsored Town Halls
- PUCN Sponsored Consumer Sessions
- Public Comment periods at Community Meetings, and Board of County Commissioners (BOCC) Meetings
- Community Expositions
- Community Fairs
- www.uiwater.com
- Community Newsletters

The Utility continues to identify potential venues for public education and does not consider this list to be exhaustive. While all of these events may not be possible, the Utility will continue to make an attempt to provide public outreach at 4 community events annually. In addition, SCUC partners with Nevada Rural Water Association (NvRWA) to coordinate water conservation education. NvRWA has many materials available for education which have been invaluable to UI Nevada affiliates.

b) Home Water Audit

UI has developed a Home Water Audit which will be distributed by the Utility. The Utility personnel will be trained by the Water Conservation Coordinator on how to advise customers to complete the survey. It is the Utility's hope that by providing the audit and aiding in the completion of the survey, it will raise public awareness to simple measures to conserve water inside-the-walls (indoors) and outside-the-walls (irrigation). The Home Water Audit is included as **Appendix D.**

c) Informative Billing

Informative billing means including information on water bills which educates water users on their patterns of water use and the cost of water. UI implemented a new Customer Care and Billing System in the summer of 2008. The new bills produced by the new system convey the customers' billing, both in consumption and dollars for a 13 month period, as well as for the same month for the previous years. These new bills should increase the effectiveness of the approved tiered water rates. The new bills will enable customers to see a relationship between the level of their monthly water usage and its corresponding cost.

When customers have a clear understanding of that relationship, they can make informed decisions regarding steps which can be taken to reduce their consumption. Additionally, leaks in customers' homes can be quickly detected and corrected under a monthly meter reading and billing cycle as discussed further in Section 3 (e). An example of Informative Billing is included as **Appendix E.**

d) How to Read Your Meter

In addition to Informative Billing, the Utility also provides instructions to customers on how to read their own meter. Normally, all meters are read monthly by the utility. (Occasionally, meters may be read more often if there is an anomaly in the read or customer complaint. Occasionally, meters may be read less often due to conditions beyond the company's control such as weather.) Customers can monitor their consumption more often by reading their own meter. This will help them measure their water conservation efforts given at any singular moment and will provide an early alert to any leak they may have with their own plumbing. Instructions on how to read your meter are included in **Appendix F.**

e) www.uiwater.com

The Utility will continue to provide community education on water conservation to increase public awareness. In addition, conservation tips will be placed on the UI website, www.uiwater.com, seasonally. For instance, landscaping conservation tips should go out in the May/June months and continue throughout the summer; whereas, indoor conservation tips should go out during the months of September/October, and extreme cold weather conservation tips (contact information for frozen pipes, etc) should go out during December/January. Included in **Appendix G** are other websites customers can utilize to obtain valuable information on water conservation tips.

f) Impact of Public Awareness

Effective Water Conservation Plans are a partnership between the community and the Utility. Raising public awareness regarding the need to conserve and protect this precious resource, the impact conservation can have on rates and monthly consumption bills, the impact it has providing safe reliable drinking water is a key facet to this water conservation plan. With heightened public awareness, comes added conservation and more creative ways to conserve water. A seven year old boy from Reno, Nevada came up with an innovative water conservation strategy through noticing how high water pressure can impact water consumption by being aware of water as a precious resource. Without, conservation awareness, the creative step from noticing high water pressure, to tying it to water waste would not happen. (For more information on this topic, please see **Appendix H,** *Science Fair Project*.)

(2) Encourage reduction in the size of lawns and encourage the use of plants that are adapted to arid and semiarid climates.

g) School Programs

The State of Nevada is experiencing an economic climate where teachers have been asked to accept further responsibilities. While UI has reached out, led and participated in school programs such as Project Wet, this type of water conservation education requires the participation of the school personnel. The Utility will reach out to the school systems in the areas. Concurrently, the Utility will continue to promote water conservation to the youth in the area through educational materials, costume and interaction. Nevada is the driest state in the nation, and protecting our water resources will need to continue through the generations.

h) Xeriscape & Landscaping

Water usage is much higher in the summer than the winter in the SCUC service territory. Comparing January to August consumption for the past three years, we see and average increase in consumption of approximately 900% as depicted in **Table 2**[3].

Table 2: Winter vs. Summer Consumption

Year	January Consumption in Gallons	August Consumption in Gallons	Percentage Increase
2008	21,100,000	194,700,000	923%
2009	20,800,000	160,900,000	774%
2010	18,200,000	172,400,000	947%

[3] Table 2 uses rounded numbers and its only purpose is to depict the variance between summer and winter consumption.

Higher summer than winter consumption is indicative of increased outdoor use. For this reason, a landscaping program is a fundamental part of an effective water conservation plan. It is the Utility's intention to incorporate this Water Conservation Plan into its Tariffs by reference (with PUCN approval). Regardless, the Utility will encourage the reduction of outside water conservation through the use of Xeriscaping methods and by providing educational information on drought tolerant/native plants as well as conservation tips to its users. By definition, the term "Xeriscape" was coined to mean in water applied well controlled amounts and locations. It is about planting in water zones so that plants that need a like amount of water are planted together to avoid over-watering plants which require less. Xeriscape is not Lawn-Less; it is Less-Lawn. **Appendix I** gives a list of compatible shrubs, trees, and plants for the Utility service area. Through public education efforts, the Utility will encourage its customers to become more conscious about the types of plants which can be purchased that require the least amount of water and the locations where the plants are most suited for planting. In addition, Utility will educate its customers on Xeriscape landscaping and the use of planting in zones determined by the amount of water needed to avoid over watering. **Appendix J** is a UI adapted presentation created by NvRWA. The Utility also hopes to partner with community organizations to promote landscaping which are both attractive and water smart.

2. Other Specific Conservation Measures

(b) Specific conservation measures required to meet the needs of the service area, including, but not limited to, any conservation measures required by law.

a) Assigned Day Watering

Historically, SCUC has had issues with system deficiencies including pressure, capacity and supply. Since UI purchased SCUC in 1998, a multitude of system improvements have been implemented including the installation of tanks, wells, booster pumps, and piping. Before these improvements, SCUC implemented mandatory assigned day watering during summer peak demand months. With these improvements, SCUC now has the capability of providing peak demand, but continues assigned day watering as a water conservation measure.

Table 3: Assigned Day Watering Schedule

1. Customers with odd number street addresses may water only on Tuesday, Thursday and Saturday.
2. Customers with even number street addresses may water only on Monday, Wednesday and Friday.
3. No outdoor watering between the hours of 1:00 p.m. and 7:00 p.m.
4. No outdoor watering on Sundays.

In addition to Assigned Day Watering and limiting water hours to prevent heat of the day evaporation, consumers should also be mindful of other irrigation water wastes. Avoid watering on windy days. Avoid over watering; step on the grass, if it springs back, it doesn't need watering. Avoid run-off. Run-off not only wastes water, it can also pollute our water resources. Additional tips on water conservation tips for irrigation can be found in **Appendix J**.

b) Water Conservation and Arsenic

Water Conservation is especially critical to the residents of Spring Creek, not only to preserve the aquifers, but to ensure compliant safe drinking water. In 2001, the Environmental Protection Agency (EPA) changed the Arsenic Compliance Rule from 50 parts per billion (ppb) to 10 ppb with compliance due by January of 2006. This New Arsenic Rule is an unfunded federal mandate. While SCUC had 100% compliance with the old rule, with the change in the rule, SCUC had two tracts and 5 wells which exceeded the maximum contaminant (MCL) level for arsenic. SCUC has been diligently working to determine the best arsenic mitigation methodology to provide compliant drinking water at the lowest cost through consultation and approval processes with their regulators.

Tract 100

Tract 100 is connected to Tracts 300 & 400, which have wells with little or no (non-detect) arsenic content. These three tracts are collectively known as the Housing Section or Housing Tracts. **Figure 4** depicts the two SCUC water systems and the tracts within each water system.

Tract 100 has three wells, two of which (Wells #4 and #10) exceeded the MCL for arsenic the new rule.

- Well #4 has exhibited an arsenic range between 9 and 12 ppb.
- Well #10 has exhibited a range between 7 and 13 ppb.

SCUC implemented an Alternative Monitoring Plan (AMP) which was approved by NDEP on April 16, 2009 to bring the 100 Tract into compliance with the New Arsenic Rule. The AMP moves the sample point from the well head to a sample point in the distribution system before the first connection (or first customer service) to more accurately reflect the quality of water being received by consumers. As Tract 100 is a part of the Housing Water System, Wells #4 and #10 can be used nominally, if at all, in the winter when there is less demand. **Figures 2 & 3** show us for Wells #4 and #10 respectively since 2009. During the summer peak demand, which is approximately 9 times higher than winter demand, Wells #4 and #10 are used to meet this demand. The more water which can be conserved in the Housing Water System, the less Wells #4 and #10 will need be used and the greater the likelihood that Tract 100 can remain compliant without a need for expensive capital improvements to remediate arsenic.

Figure 2: Well 4 Historic Monthly Use

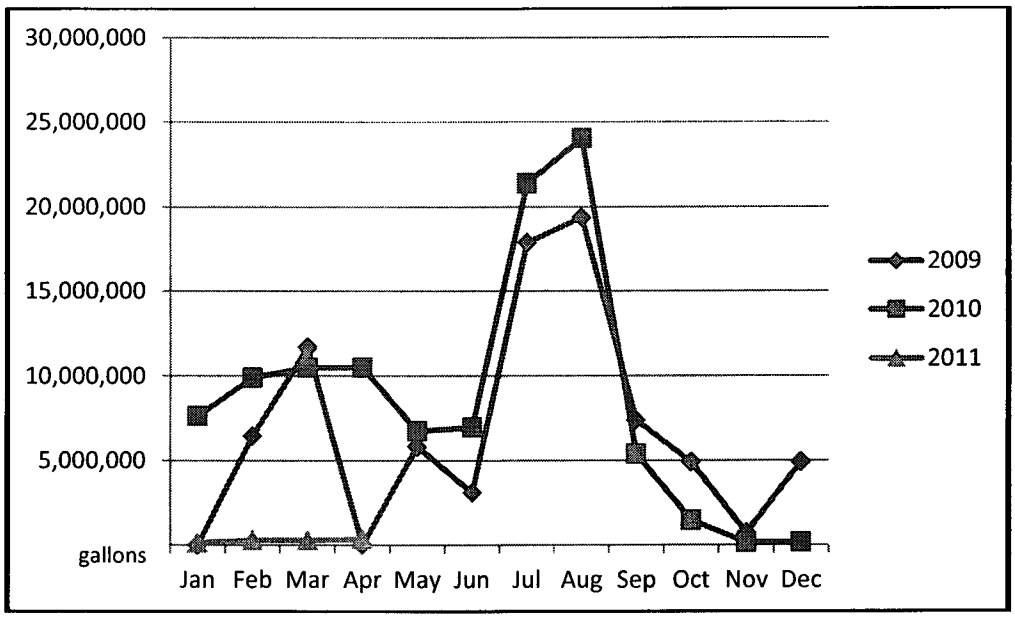


Figure 3: Well 10 Historic Monthly Use

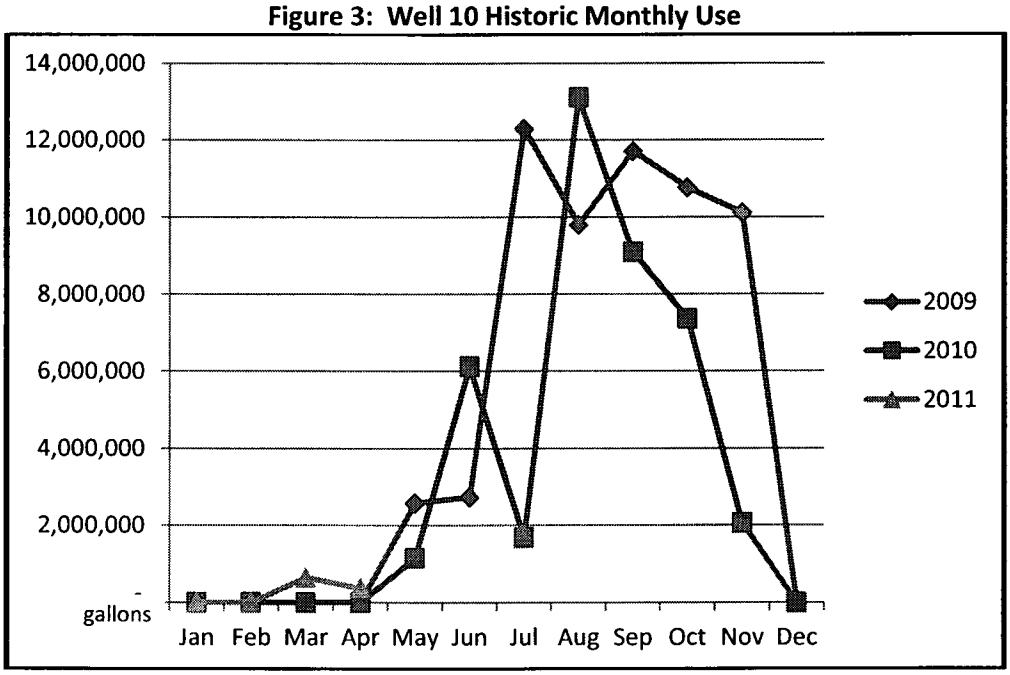
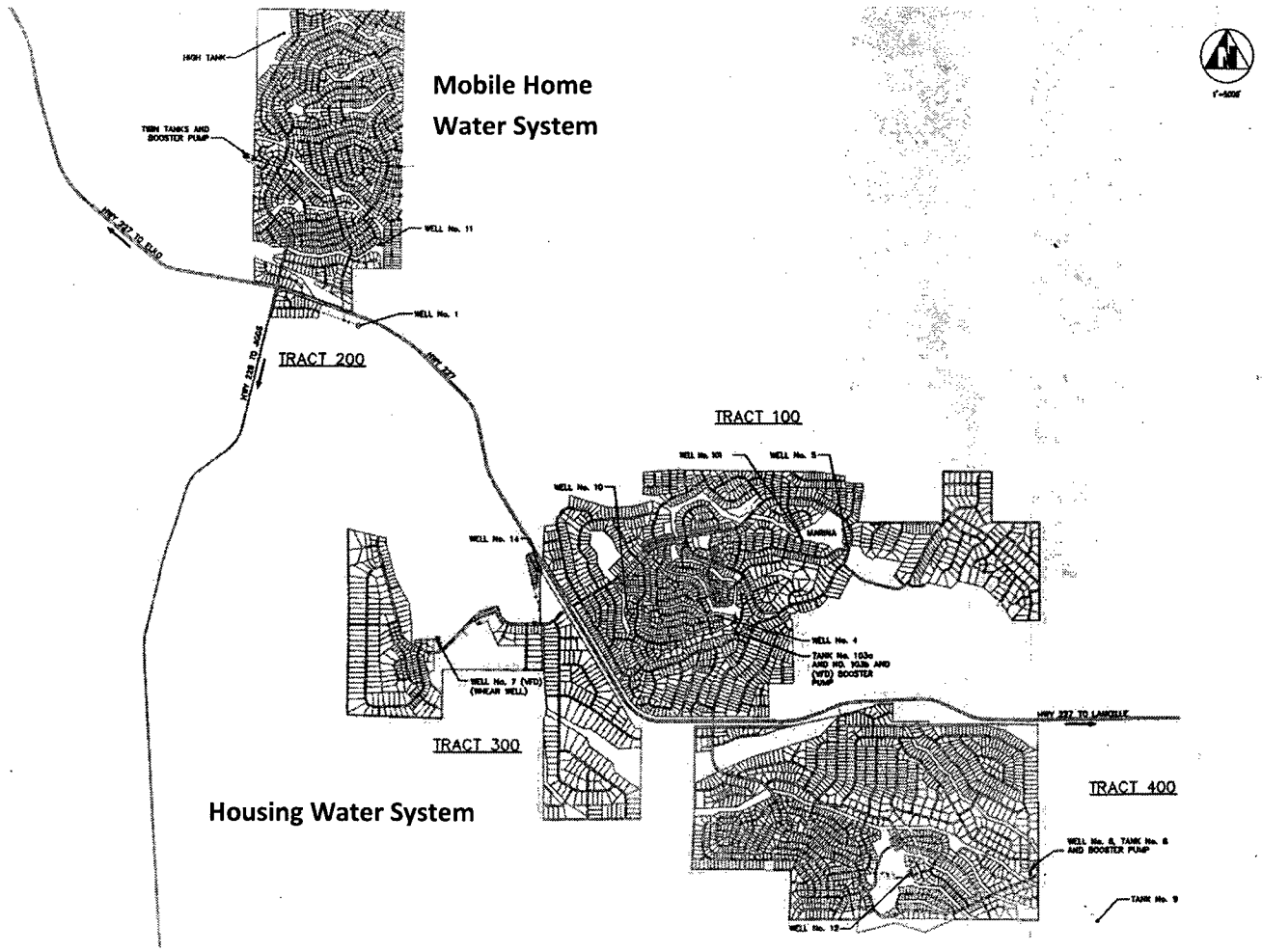
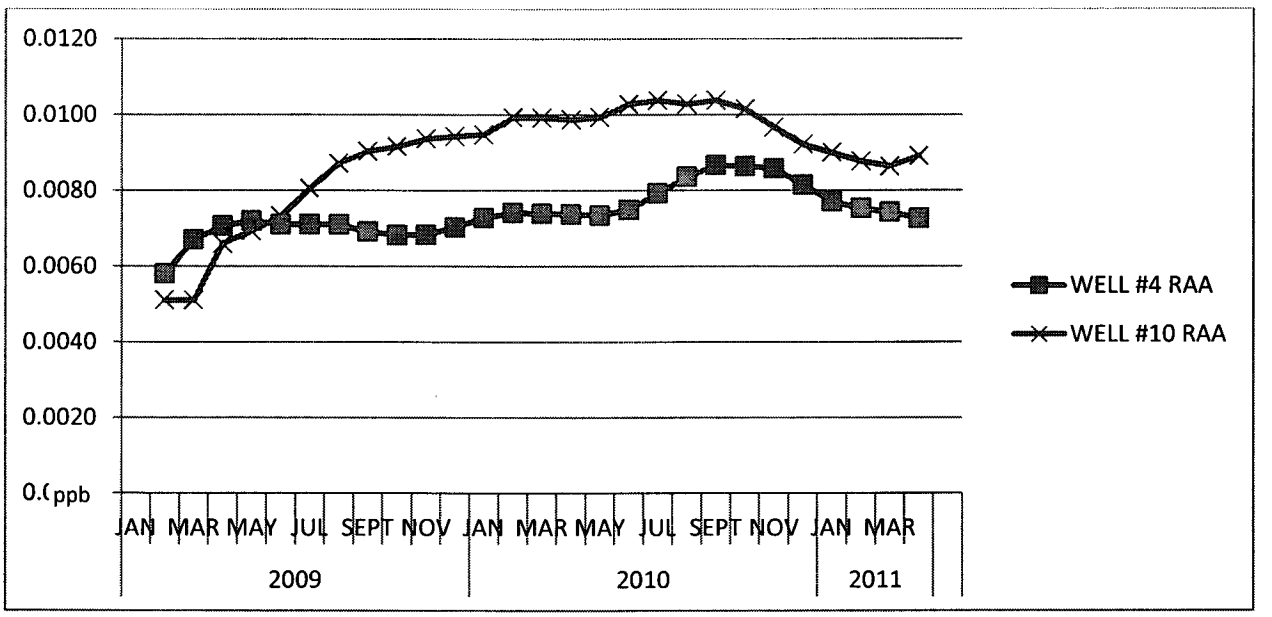


Figure 4: SCUC Water Systems



Use of wells which contain arsenic can be directly attributable to the arsenic level within a water system. **Figure 5** depicts the impact of being able to run wells which have an arsenic level which exceeds the MCL less through the Utility's planned management and the water conservation efforts progress in the reduction of consumption.

Figure 5: Arsenic Concentrations in the 100 Tract



Tract 200

Tract 200 is a stand-alone system known as the Mobile Home System or Mobile Home Section. Tract 200 has three wells, all of which (Wells #1, #3 and #11) exceeded the MCL for arsenic under the new rule.

- Well #1 has exhibited an arsenic range between 14-25 ppb.
- Well #3 has exhibited an arsenic range between 31-46 ppb.
- And, Well #11 has exhibited an arsenic range between 25 -34 ppb.

With all the wells in the water system in exceedence of the arsenic MCL, there is not a solution without providing treatment to the existing wells or transporting compliant water to replace the wells. (SCUC is currently under Administrative Order with NDEP BSDW to provide water which meets the new MCL no later than December 31, 2011.) However, like Tract 100, the implementation of an AMP and placing the well with the highest arsenic concentration (Well #3) in standby mode as long as possible and still meet demand does lower the arsenic concentration for the residents of Tract 200. **Figure 5** shows the history of Well #3 in Standby mode. **Figure 6** shows the arsenic concentrations in Tract 200. **Figure 7** is the correlation between arsenic and Well #3 in operation. **Figure 8** and **Figure 9** show Wells #1 and #11 comparatively.

Figure 6: Well 3 Historic Monthly Use

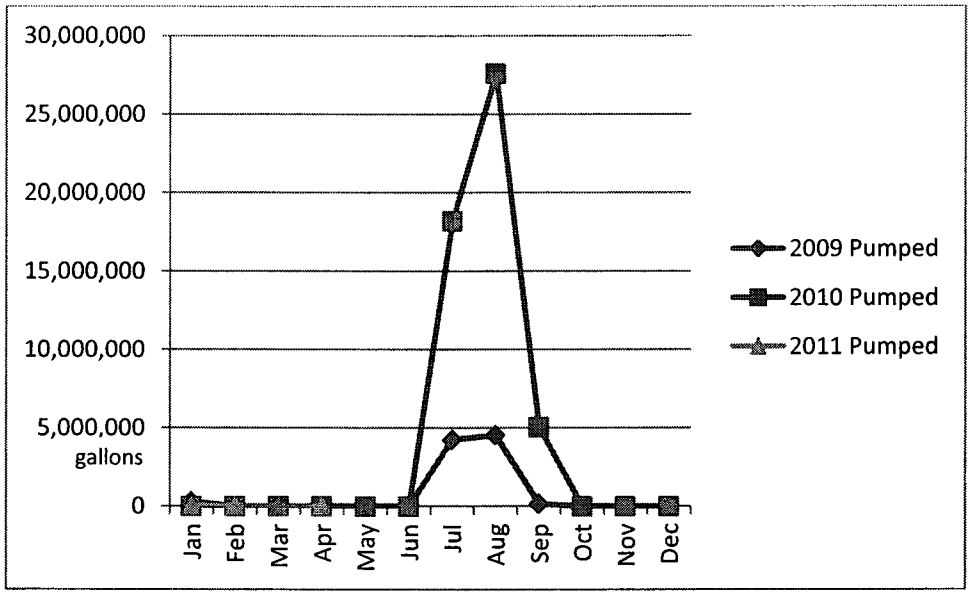


Figure 7: Well 3 Arsenic Concentrations

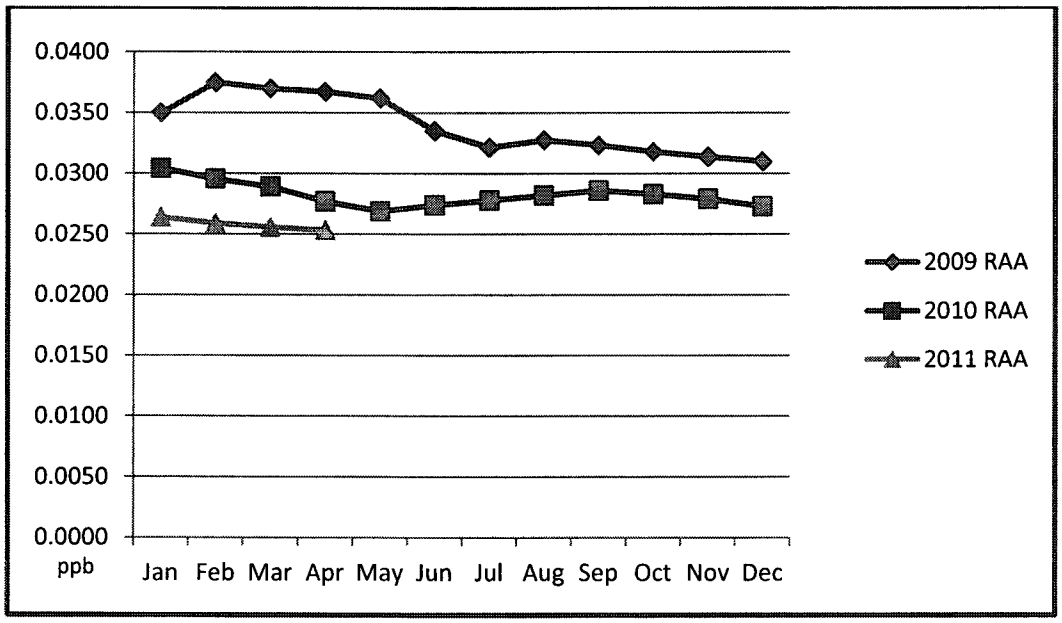


Figure 8: Well 1 Historic Monthly Use

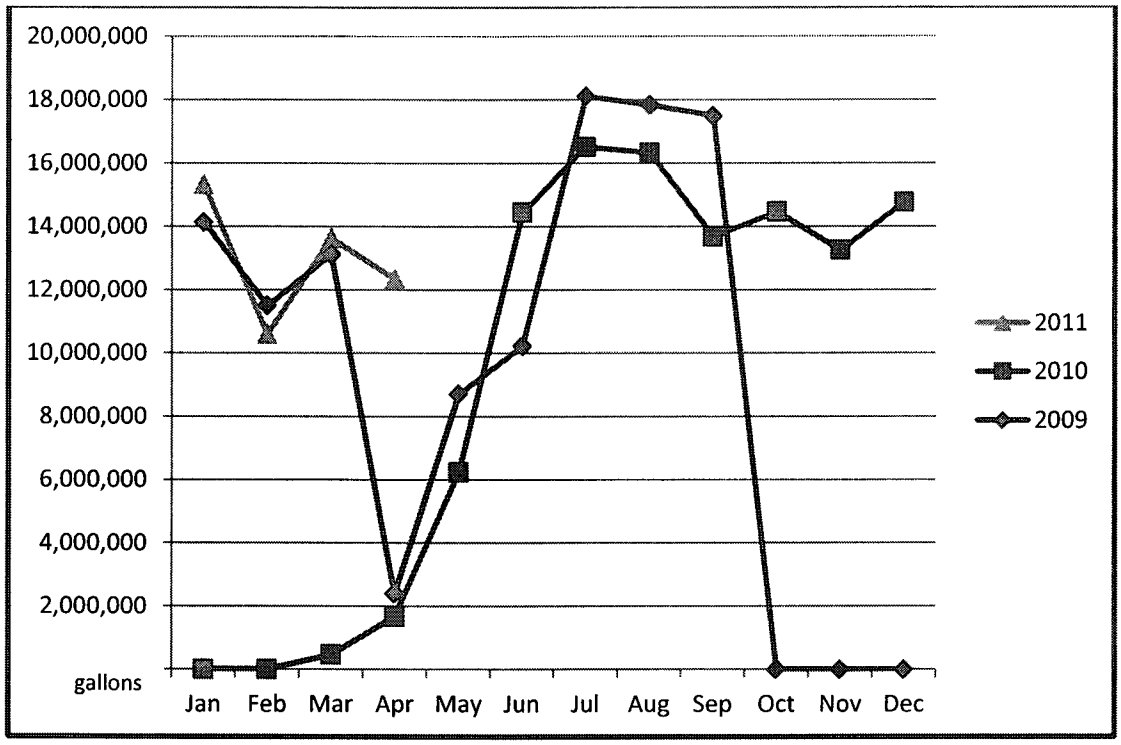


Figure 9: Well 11 Historic Monthly Use

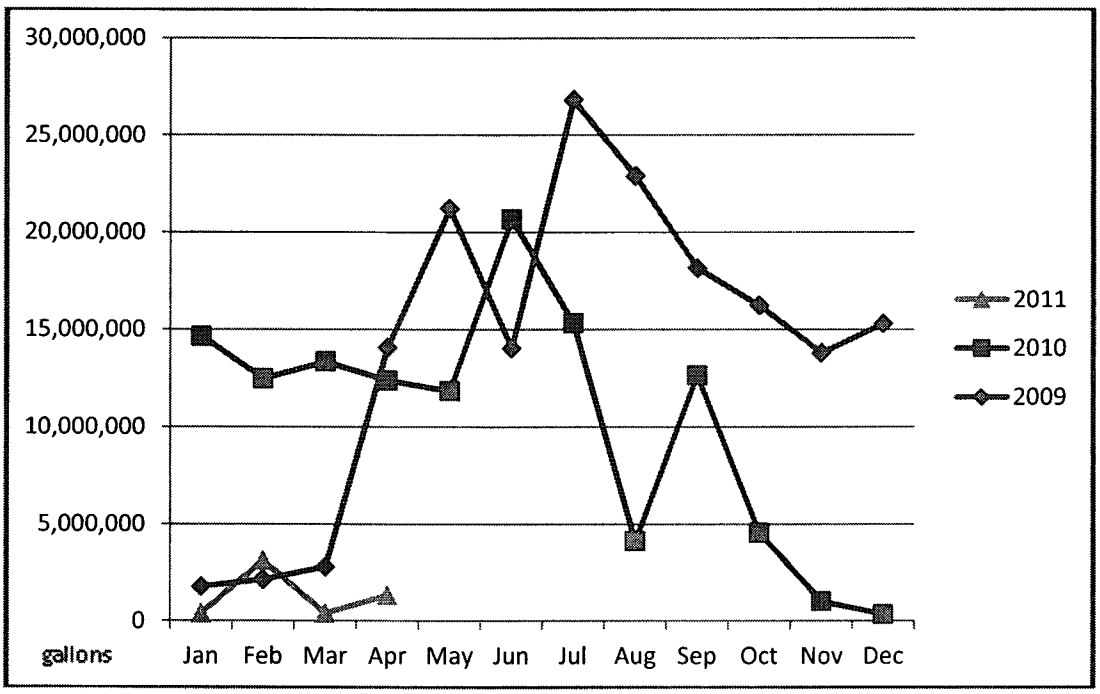
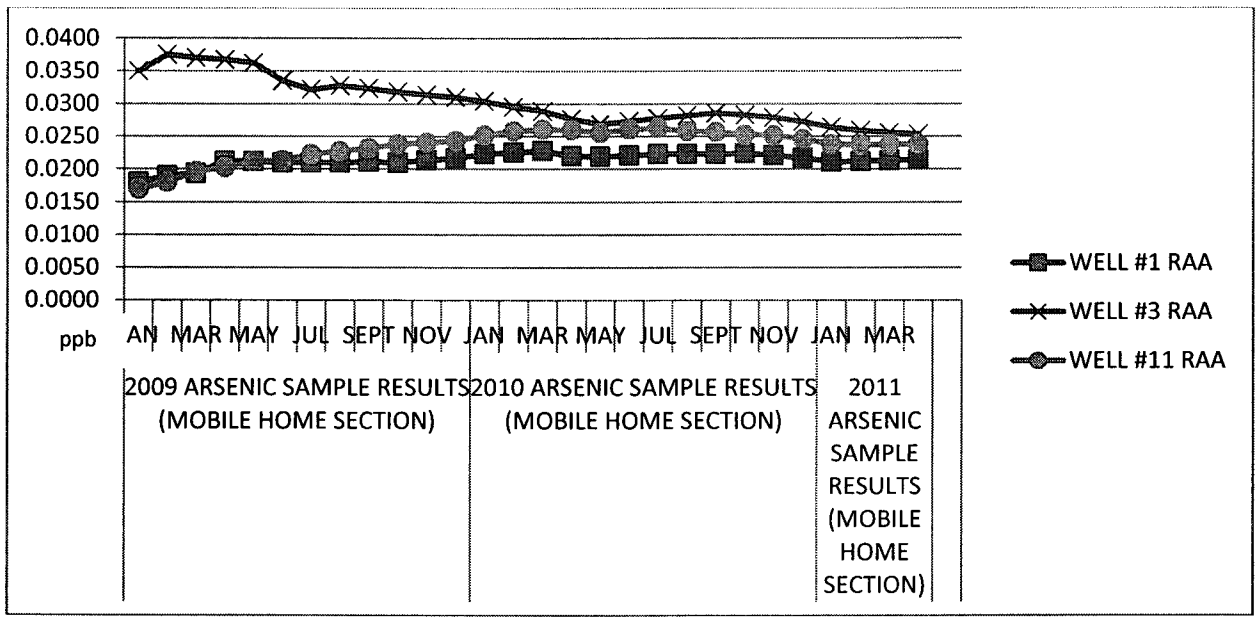


Figure 10: Arsenic Concentrations in the 200 Tract



3. System Management

(c) The management of water to:

(1) Identify and reduce leakage in water supplies, inaccuracies in water meters and high pressure in water supplies; and

a) Meter Replacements

All customers in the Utility service area are metered. Meters are replaced when damaged or age impaired. (SCUC currently averages approximately 100 meter exchanges annually.) When necessary, meters are tested for accuracy pursuant to tariff Rule No. 19. In addition, with the implementation of CC&B, meter readers can input a code into their meter reading handheld device to note any issues with meter reading so that the situation can be corrected or the meter replaced. Examples of these codes, corresponding issues and the Utility's response are in **Table 4**. A meter replacement plan was submitted to the PUCN as a part of Docket 09-03003 and is attached as **Appendix K**.

Table 4: Handheld Codes for Meter Issues

Code	Description	Activity Generated
AP	Animal Present	Create SIO FA
BU	Meter Buried/Overgrown	Create SIO FA
CL	Cannot Locate Meter	Create SIO FA
GL	Glass Broken/Fogged	Create Exchange Field Activity
LG	Locked Gate	Create SIO FA
LK	Leak at Property	Create SIO FA
MD	Meter Damaged	Create Exchange Field Activity
MF	Meter Flooded	Create SIO FA
MI	Meter Inaccessible	Create SIO FA
ML	Meter Leaking	Create SIO FA
MM	Meter Missing	Create SIO FA
MS	Meter Stuck	Create Exchange Field Activity
SL	Seal Broken	Create SIO FA
TP	Suspect Tampering	Create SIO FA

b) SCADA

The Utility utilizes Supervisory Control and Data Acquisition (SCADA) to alert operators of any potential malfunctions of the tanks, wells and booster station to minimize losses in the system caused by such malfunction such as a tank over flow.

c) System Leak Study

In 2008, SCUC performed a Leak Study of the systems. SCUC engaged the services of ME Simpson who, using multiple technologies, conducted a study of water loss from the SCUC system. The study found 12 leaks (2 main, 2 valve and 8 service connections). One of these leaks was on the customer's side of the meter. SCUC sent notice to the customer and requested that repairs be made. SCUC immediately repaired the other 11 leaks for which it had responsibility.

Water loss audits will be done every three years until non-revenue water is within an acceptable range. Per the testimony of Janelle Thomas, Water Engineer on Staff with the PUCN, in Docket 09-12017, non-revenue water should be less than 15%.

d) System Pressures

System pressures should be maintained within AWWA standards of 40-100 psi throughout the system during maximum day demand. When pipe breaks occur and pressure in the system drops below 20 psi, a precautionary boil order is issued until bacterial testing can be completed and results are confirmed. The public is notified as soon as possible once the problem is identified and is kept updated as to when the precautionary boil order is lifted.

Several major construction projects have been undertaken to maintain more consistent system pressures during times of peak demand. These projects included replacing a total of 8.45 miles of pipe to increase main sizes in the 100, 300, and 400 Tracts, adding 4.61 miles of new pipe in the 200 Tract, upgrading and expanding a booster-pump station in the 200 Tract, and installing new storage-tanks in the 200 and 400 Tracts.

Pressures in SCUC are generally high in many sections of the service territory primarily because of the hilly terrain. Pressure issues in the Housing and Mobile Home Systems are addressed in the first SCUC IRP Preferred Plan in 2009. (The preferred plan is the strategy for outlying years 4 – 20. The Action Plan is the first 3 years and capital improvements are focused on arsenic remediation in Tract 200.) As noted in the 2009 IRP, CIP 5, the overall solution to high pressure is to add additional pressure zones. Pressure issues will continue to be addressed in future IRPs.

e) Leaks

All leaks in the SCUC systems are repaired upon notification. However, leaks also occur on the Customers' side of the meters as well. When meters are read by the Utility's Field Technician, the handheld device, in which the meter read is entered, will send an immediate alert to the field operator if the read is out of range. In addition, the Utility's Customer Care and Billing Program (CC&B) automatically sends a Field Order for a re-read when the read indicates abnormally high consumption, where the operator will check the read and the leak indicator. The leak indicator is a spoke or triangle on the meter face which spins when water in moving through the meter. If the consumption is raising, the field operator may either have personal customer interaction or leave a door tag to notify the customer of a possible leak (depending on the judgment of the field technician and signs of normal consumption such as irrigation). Customers may also notify the Utility of high consumption. Customers can use Informational Billing (Section 3 A 1 c) to assist in assessing their usage pattern and the possibility of leaks. Again, a re-read will be done and the leak indicator checked.

Upon request of the Customer, or when the Utility feels it is warranted, a trained field operator will go to the premise to conduct a leak detection inspection. A Home Water Audit (**Appendix D**) and information on How to Read Your Meter (**Appendix F**) will be provided to all residential customers who request a leak detection inspection. (**Appendix F** also provides information on how a customer can use the leak indicator on a meter to detect leaks themselves,)

f) Standards and Specifications

The Utility has developed Standards and Specifications. These detailed construction standards assure that the distribution systems meet or exceed industry standards, including water systems pressure zones, main sizes, service line installations and materials. In addition, soils testing and compaction testing are done prior to installation to identify any potential threats to the distribution systems integrity.

g) Line Locates

Interagency collaboration speeds leak repairs through fast-tracking line location ("call-before-you dig") and prompt repair. In addition, these line locates prevent damage to underground infrastructure inadvertently caused by digging.

h) Unauthorized Use of Utility Water

Use of water without dedicated water rights or without an active application for service is illegal. The Utility continues to audit to identify and correct unauthorized water use. Examples of unauthorized use include, but are not limited to: unmetered water consumption, consumption without applying for service per Water Tariff Rule No. 3, construction consumption (a.k.a. temporary or construction fire hydrant consumption) without applying for temporary service, connection or reconnection of service without utility authorization, etc. Turning a Utility meter on or off is considered tampering. Only the Utility authorized personnel are permitted to handle a water meter. Purposefully preventing a meter from being accurately read through blockade, hazard or other means is prohibited. The Utility will file with the PUCN for fines/penalties to be implemented in their next general rate case (GRC) as an enforcement measure for unauthorized use and/or meter tampering of Utility water. The recommended fine structure will be as follows and is incorporated into this plan without further revision upon PUCN approval.

1st Offense - $25.00 per day
2nd Offense - $50.00 per day
3rd Offense - $100.00 per day
4th Offense - $250.00 per day

Each day or portion thereof during which a violation continues may constitute a separate offense. In addition, any person, customer or legal entity who has been previously warned is subject to the next penalty level.

(2) Where applicable, increase the reuse of effluent.

4. Water Reclamation

UI is a national leader in the reclaim of effluent water and recognizes its importance to water conservation's overall environmental impact. SCUC currently has approximately 86 sewer customers, 5 of whom are on individual septic systems. The wastewater treatment plant has a permitted capacity of 49,999 gallons per day (gpd) and operating at approximately half capacity. The current limited quantity of effluent does not warrant the capital investment (not even the expense of preliminary engineering) to provide reuse options for effluent, nor would it create any significant water savings. Should growth occur which would warrant reclamation consideration, such as that of a large subdivision development, SCUC will follow the parent company's lead in recognizing reclaim's importance.

5. Drought Plan and Interruption of Water Supply

(d) A contingency plan for drought conditions that ensures a supply of potable water.

The primary goal of water conservation is to ensure that there is sufficient water for essential public health and safety needs at all times. The climate in Northern Nevada is arid and subject to periodic droughts that can vary in duration. The Utility relies completely upon ground water (as opposed to surface water) to provide safe reliable drinking water to its customers. The impact of droughts can be particularly difficult to measure in the immediate. In fact it can take several years or even thousands of years to realize the impact of a severe drought. Nonetheless, it is wise for us today to protect water resources for generations to come.

The SCUC Drought Plan (approved by the State of Nevada DWR as a part of the Water Conservation Plan) addresses watering restrictions in accordance with tariff No. Rule 23, Sections E through J:

a) Restrictions on Outdoor Water Use

E. RESTRICTIONS ON USE OF OUTSIDE WATER

It is in the public interest to conserve water. Subject to implementation by the Utility pursuant to Section C, one or more the conditions set forth in Section D and E will apply to the outside use of water within the housing or mobile home section:

1. *Customers with odd number street addresses may water only on Tuesday, Thursday and Saturday.*
2. *Customers with even number street addresses may water only on Monday, Wednesday and Friday.*
3. *No outdoor watering between 1:00 p.m. and 7:00 p.m.*
4. *No outdoor watering on the 31st of the Sundays.*

F. RESTRICTIONS ON USE OF RECREATIONAL WATER

1. *Recreational Water shall be exempt from Section E of this rule. Use of Recreational Water shall occur on a schedule set by a written agreement between the Utility and the Spring Creek Association or its successor in interest. In the event that no such agreement is reached, the use of Recreational Water shall be governed by Sections E and G of this rule.*
2. *Violation of Section E shall be enforced in a manner consistent with Sections H and I of this rule, except that notice to the Spring Creek Association shall be complete by leaving a copy of the notice with the Association's President, any board member, or the Association's counsel.*

G. EXCEPTIONS AND APPLICATION PROCEDURE

Consideration of written applications for exceptions regarding restrictions on outside use of water set forth in Section E above shall be as follows:

1. *Written applications for exceptions shall be accepted and may be granted by the Utility's on-site supervisor.*
2. *Denials of applications may be appealed in writing to the Utility's General Manager.*

3. *Grounds for granting such applications shall include:*
    a) *Hand watering for the purpose of preserving law or shrubbery so that vegetation does not die;*
    b) *Testing of landscape irrigation systems provided that the person performing the test is present to observe system performance;*
    c) *New landscaping or lawn planted within the preceding 45 days.*

H. ENFORCEMENT

Violation of Section E through F will result in the issuance of a notice advising the Customer that he/she is not in compliance with the Utility's rules and regulations and is subject to disconnection for subsequent violations. Any such notice shall be delivered to the Customer either by leaving a notice at the residence with the Customer; or by leaving a copy of the notice attached to the front door or main entrance of the Customer's residence or place of business and mailing a duplicate notice by certified mail to the Customer.

A second violation of Section E through F within five (5) days of the first notice of violation, and without an approved exception, shall result in termination of the Customer's service in accordance with the Utility's rules and regulations. All usual reconnect fees and procedures shall apply to terminations authorized by this section.

I. NOTICE

The enforcements set forth in Section H and I above shall not be implemented by the Utility, except in cases of emergencies, prior to the expiration of three (3) days notice in conformance with Rule 4 of this Tariff. Notice shall be deemed given three (3) days after mailing, first class postage pre-paid from Elko County, Nevada.

The Utility will maintain an adequate supply of potable water. This includes the implementation of a detailed staged contingency plan for drought conditions. The Utility's Drought Plan is contained in **Appendix B**.

All water supplied by the Utility comes from groundwater sources. Because of this it is difficult to determine the effect of a drought year on the groundwater system and the consequences of a drought may not be detected in the water table until several years after the drought.

b) Interruption of Water Supply Overview

The SCUC service area relies entirely on groundwater. Several factors that would affect the reliability of SCUC's groundwater are water quality, system problems, and legal problems.

The wells in the 200 Tract have levels of arsenic that exceed the MCL. Arsenic treatment is currently being installed at each of the 200 Tract wells.

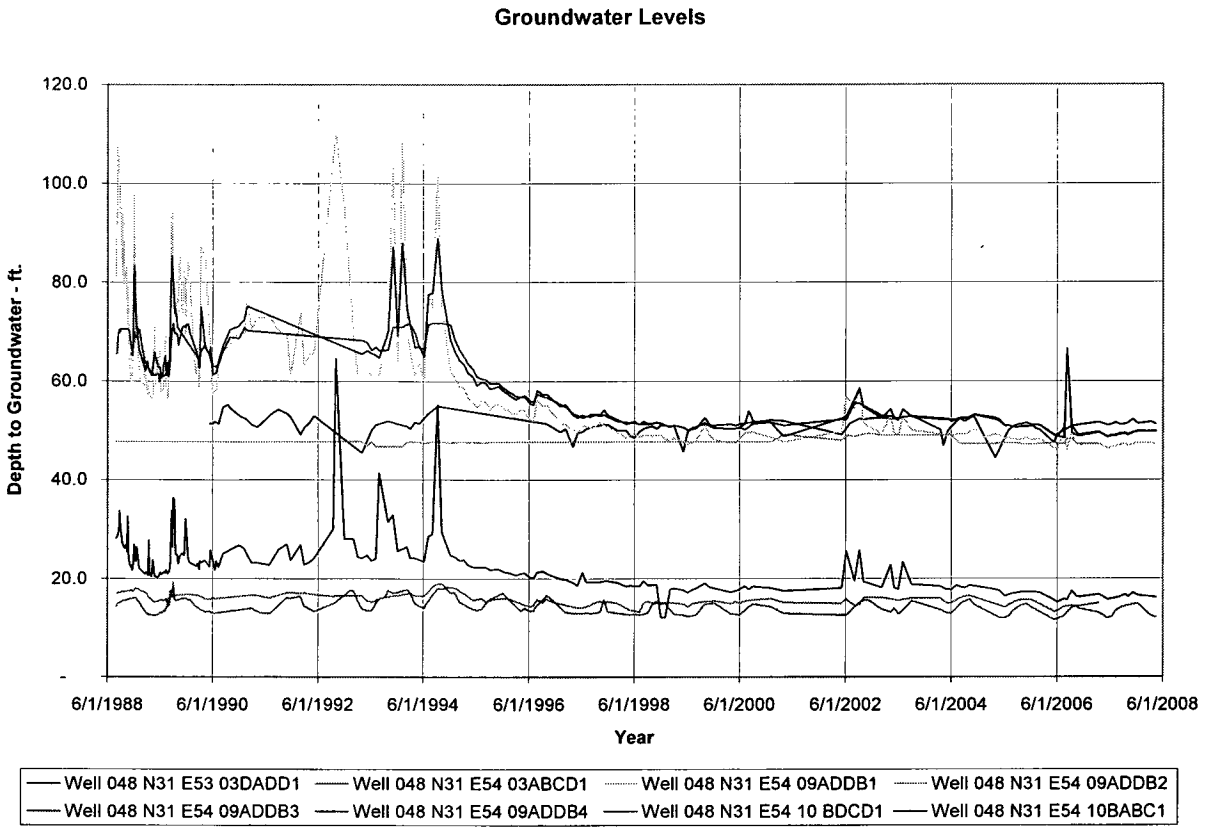
Additionally, there may be future changes in current law and regulations pertaining to other water quality constituents or the possibility of the United States Environmental Protection Agency (USEPA) reducing the arsenic level to non-detect could affect the water reliability. There are pressures in the USEPA to reduce the arsenic level to non-detect. This would affect at least 4 additional wells in the Housing Section. If the USEPA were to reduce the arsenic level to non-detect or if MCLs were reduced for other constituents, SCUC would have to consider new source, possibly in the 400 Tract or treatment on the existing wells.

c) Historical Affects of Drought

Another factor affecting reliability of the groundwater supply is the trend in pumping water levels. From early 2001 through early 2005, Elko County was continually listed under abnormally dry to extreme drought conditions, according to the U.S. Drought Monitor, a drought gauge maintained by the United States Department of Agriculture (USDA), National Weather Service and the Drought Mitigation Center at the University of Nebraska.

Although drought conditions existed, ground water levels have remained relatively constant since 1998. Between 1988 and 1997 several wells recorded substantial drawdown. However, since 1997, ground water levels in those wells have been relatively constant with no further drawdown, as shown in Figure 11.

Figure 11 Hydrological Basin 048 Groundwater Elevation



Source: Nevada Division of Water Resources - Water Level Database

d) Maintenance Program

The third factor affecting reliability is equipment availability. SCUC has an active preventive maintenance program and outages due to equipment breakdowns have not been frequent enough to affect the supply.

e) Catastrophic Interruption

SCUC has an Emergency Response Plan (ERP) and a Vulnerability Assessment (VA) on file with the State of Nevada, Department of Public Safety, and Division of Emergency Management. In addition, SCUC also has an Emergency Response Manual. All three of these documents are updated annually. They are kept in the SCUC office and the Regional Manager is responsible for updating them as necessary to accommodate new facilities, equipment, and technologies. In addition, all maps and schematics are kept secured at the office. The Emergency Response Manual, backflow program, valve maintenance program, and well and storage site inspection procedures are designed to assure that, in the event of an emergency, an affected location can be isolated and appropriate measures can be taken to minimize the time that a customer may be left without safe drinking water.

The plan, assessment, and manual also provide consolidated access to emergency response teams, public notification partners, county and city officials, 24-hour response contractors, and other local support. The procedures for response are recorded for different categories of emergencies: natural and man-made.

In addition, as a subsidiary of UI, SCUC has the advantage of operator and equipment support from approximately 500 utility systems within the company. A satellite phone is available at the Western Regional Office in Pahrump, Nevada, and the Regional Director can determine the necessity of having additional phones sent from other regions in UI.

Unfortunately, UI has had more than table top exercises to train for disaster-related emergencies. There have been several incidents where the UI team has united to overcome the damage caused by disaster, notably Hurricane Katrina. Because UI can combine skills, manpower and emergency equipment the communities served by UI on the north shore of Lake Pontchartrain, Mandeville, Covington, and Slidell, still had operational sewer and water facilities even with the flooding and power outages. These same resources are available to SCUC.

f) Regional Power Outage

Large-capacity storage tanks and booster pumps with back-up generators which provide flow to all parts of the system protect the system from emergencies resulting from power outages. SCUC has ten emergency generators. All emergency generators all are equipped with an automatic switchover with a 5 minute delay. The generators are located at the following sites:

- Tank #106
- Wastewater Treatment Plant (Portable)
- Well #8
- Well #12
- Well #4
- Well #5
- Well #10
- Twin Tanks Booster Pumps
- Well #101
- Well #9

Wells #7 and #14 in the 300 Tract are not provided with an alternative supply of power in the event of an electric supply outage.

Currently, there are no wells in the 200 Tract with back-up power. IA generator is planned for the 200 Tract as it is a stand-alone system and site specific arsenic treatment facilities were recently placed in service.

The generators are exercised and maintained according to the SCUC Generator Operation and Exercising Standard Operating Procedure which is attached as Appendix C to the Emergency Response Manual. Should a sustained regional power outage occur, generators from other UI companies can be brought to Spring Creek to supplement the power. The SCUC Standards and Specifications require generators for all new facilities which require power.

g) Earthquake or Other Natural Disaster

Earthquakes and severe storms are a possibility for Spring Creek. In the event of a foreseeable natural disaster, pre-event planning is done with all SCUC operators and other key staff to coordinate the emergency response.

The most likely damage to occur from natural disaster is main breaks. Disruption of service due to main breaks is lessened by stocking a sufficient inventory of repair materials. SCUC has a contractor on call 24 hours a day; 7 days a week for emergency line repairs. Breaks are isolated through the operation of valves and repaired.

If pressure drops below 20 psi, a precautionary boil order is issued (Appendix A to the Emergency Response Manual) and the repaired main is disinfected and flushed per AWWA Standard C601. Two successive samples are taken to ensure safe drinking water.

Should loss of storage occur from an earthquake (or any other reason) the affected tank can be isolated from the distribution system and the wells can pump directly into the system. Should the loss of a well occur due to the well casing collapsing in an earthquake (or any other reason), SCUC has other wells in service or available to be called into service.

In the event that SCUC is not able to fulfill all the system requirements with available resources, reduction of non-essential system needs is possible and in accordance with the tariff approved by the PUC for construction, irrigation, and industrial customers. Procedures for curtailment are in the Emergency Response Manual.

h) Man-Made Disaster

Man-made disasters can come in many forms. Fortunately, SCUC has never experienced civil riots or acts of terrorism. Minor acts of vandalism have occurred, such as graffiti. Should a man-made disaster affect the infrastructure, the same procedures are followed with the local law enforcement being notified.

The most likely sources of contamination of water supplies are as a result of backflow loss of pressure in the system, though unprotected cross connection or after a break in the main. Purposeful intrusion into the system is guarded through fences, inspections and locks. Contamination of the water supply is protected by:

- Frequent monitoring and testing of water for bacteria.
- Recording of customer complaints regarding water quality.

- Working chlorinators at Well #1, Well #3, Well #4, Well #5, Well #7, Well #8, Well #9, Well # 10, Well #11, Well #12 and Well #101.

- Active backflow prevention requiring routine monitoring of all new customer service applications and backflow prevention assemblies for potential cross connections.

- Ability to isolate segments of the water distribution system through use of valves.

The SCUC Tariff Rule No. 15 provides for Cross-Connection Prevention

> Where any water pipe on a Customer's premises is cross-connected to another source of water supply, the Utility may refuse or discontinue service until there shall be installed at the expense of the Customer suitable protective devices, approved by the Utility, to protect against back-flow into the Utilities system, as required by the governmental authorities having jurisdiction. Customer or Applicant will own and maintain said cross-connection protective device(s) and provide to Utility each year the annual inspection report by a licensed cross-connection inspector.

Utilities, Inc. has created a Cross-Connection Control program and corresponding manual for all systems in the State of Nevada. Cross-connections between a potable water system and non-potable sources of contamination represent a threat to public health. This program is designed to maintain the safety and potability of the water in the supply and distribution system by preventing the introduction, by backflow, of any foreign liquids, gases or other substances into the supply system.

i) Analysis of the Effect of Water Shortages on Revenue and Expenditures

During drought conditions, utilities focus on reducing the volume of water used by its customers while maintaining adequate revenues to meet system revenue requirements. To deal with this situation, utilities could consider obtaining approval of surcharge funded rate stabilization funds established to provide revenue during years of low water supply availability, or implementation of a form of drought pricing aimed at recovering revenue shortfalls, or a combination of both.

Nevada has a State Drought Plan which establishes an administrative coordinating and reporting system between agencies that should be involved in providing assistance to help mitigate drought impacts. This Plan does not establish specific conservation measures for local entities nor does it affect existing water rights. Drought mitigation measures can be enacted when the State's Drought Review and Reporting Committee declares a drought condition. SCUC would rely on the State's guidance in defining the severity of the drought and when the drought declaration ends. Ultimately, SCUC will be responsible for determining the level reduced production required to address local drought conditions.

To circumvent the effects that a reduction in water supply and thus a reduction in delivered water would cause, drought rates could be implemented, subject to the approval by the PUCN, to achieve a targeted reduction in water use proportionate to the severity of a drought. Obviously, some costs would also decrease – the majority of which would be power and chemical costs associated with pumping and treating less water. However, the fixed operating costs would continue and need to be recovered thereby making it imperative that the utility be allowed the opportunity to implement some form of drought rate stabilization. Such rates could take the form of a surcharge added to the utility's existing rate structure, or a separate rate structure implemented during the water shortage. Some examples of drought pricing options include:

- General rate surcharges
- Individualized rate surcharges
- Class-based rate surcharges
- Targeted rate increases
- Marginal cost rates

Drought rates could include more than one of the options above depending on the severity of the drought, and would not be permanent. The rates would be increased in increments as the drought becomes more severe and, decreased in increments as the drought situation improves. When the drought ends, the pre-drought rates would be reinstated.

In planning for droughts and other water supply reduction conditions, a utility should anticipate revenue effects in order to project realistic revenue requirements. For the purpose of this IRP, SCUC has prepared an analysis estimating revenue shortfalls associated with a 25% and 50% reduction in water supply availability. Revenue estimates are based on 2011 metered water use data as well as production well operating costs (i.e. power and chemicals). The table below presents the estimated revenue shortfall based on these criteria.

Estimated Revenue Difference

	Revenue	Revenue Difference	Operating Cost Difference	Revenue Shortfall
2011 Revenue Estimate	$ 1,955,210			
25% Reduced Use	$ 1,462,062	$ 493,148	$ 89,117	$ 404,032
50% Reduced Use	$ 968,913	$ 986,297	$ 155,954	$ 830,343

The revenue was calculated based on service size and the present rate structure, which includes volumetric rates of $2.15/1000 gallons for the first 7,000 gallons of usage, and $2.76/1000 gallons for all usage over 7,000 gallons. The 2011 revenue estimate was calculated, followed by estimated revenue based on a 25% and 50% reduction in consumption. Operating costs were estimated similarly. The table below shows the baseline 2011 operating costs for power and chemicals which are assumed to be associated with production well pumping. The 2011 operating costs were reduced by 25% and 50% accordingly.

Operating Costs					
	Power		Chemical	Operating Cost Difference	
2011	$	338,036	$ 18,430		
25% Reduced Production	$	253,527	$ 13,823	$	89,117
50% reduced Production	$	190,145	$ 10,367	$	155,954

The estimated revenue shortfall is seen as the difference between the revenue difference and the operating cost difference. This analysis provides only an estimate of SCUC's revenue shortfall under these specific conditions using 2011 data. This analysis does not include the effect of unaccounted for water in lost revenue. A reduction in water production of 50% would actually result in a reduction in water use, and therefore revenue, of greater than 50% based on the amount of system water loss.

SCUC has developed an emergency drought plan which was approved by the State of Nevada in January of 2008. The plan addresses events that would trigger drought pricing as well as established conservation measures aimed to enhance the efficient use of water by its customers. SCUC understands the importance of having a drought pricing plan adopted in advance of a drought situation, including addressing ease of implementation and customer acceptance. SCUC is willing to work with the PUCN in determining feasibility and trigger events, as well as, designing drought pricing options which would be revenue neutral and not penalize customers for essential water usage, but at the same time, promoting conservation during a drought.

j) Drought and Water Supply Interruption Plan

Table 5 – Drought Stages

DROUGHT STAGE	PUBLIC AGENCY ACTIONS	REQUESTED CONSUMER ACTIONS	PENALITIES FOR EXCESSIVE USE
Stage I Minimal 15% reduction in total water production	1. Notify all customers of the water reduction 2. Mail or publicize information to customers explaining the importance of significant water use reductions. 3. Provide technical information to customers on ways to improve water use efficiency. 4. Remind customers of the need to save water (conduct media campaign). 5. Water Conservation Program – Enforcement of existing water conservation program as listed below with heavy enforcement from April through October. a. Outdoor water use prohibited daily from 1:00 p.m. to 7 p.m. b. Outdoor water use permitted 3 days per week. Odd addresses: Tuesday, Thursday, and Saturday. Even addresses: Monday, Wednesday, and Friday. (Some activities exempted by Tariff Rule 8.) c. Vehicle, boat, and equipment washing requires an on/off nozzle on hose. d. Washing asphalt, concrete or building exteriors prohibited without permission. e. Prohibit irrigation flooding and water running or spraying off property. f. Leaky faucets, sprinklers or plumbing fixtures to be repaired within 24 hours. g. Re-circulating pumps required on evaporative coolers. h. Restaurants encouraged to serve water on request.	Residential Customers 1. Implement voluntary water use reductions (15%). 2. Adhere to Water Conservation Program. Commercial, Industrial, and Governmental Customers 1. Implement actions listed under Residential Customers. 2. Improve cooling efficiency.	1. Two warnings "Notice of Violation." 2. Levy penalties for water wasting and/or unauthorized use of utility water: $25 - first offense; $50 - second offense; $100 - third offense; $250 - fourth offense and subsequent offenses. Each day of non-compliance is considered a separate offense. 3. Discontinue water service and Turn On / Off fees.

DROUGHT STAGE	PUBLIC AGENCY ACTIONS	REQUESTED CONSUMER ACTIONS	PENALITIES FOR EXCESSIVE USE
Stage II Moderate 15% to 25% reduction in total water production	1. In addition to actions listed in Stage I, items 1, through 5, SCUC shall establish stricter water use reduction measures. 2. Water Conservation Program – Heavy enforcement each month (not limited to April through October with conservation officers working year round). a. Prohibit outdoor water use from 10:00 a.m. to 8:00 p.m. daily. b. Restrict outdoor water use to 2 days per week. c. Continue restrictions listed in Stage I, items 5.c. through 5.i. d. New landscaping to comply with existing and future landscape ordinances. 3. Request customers to voluntarily reduce water us by 25%. 4. Institute drought rates to cause further conservation. Explain new rate schedule to customers. 5. Forecast future actions. Explain further reductions planned in succeeding stages. 6. Reduce water use for street cleaning, water main and hydrant flushing, and landscaping around public buildings and parks.	Residential, Commercial, Industrial, and Governmental Customers. 1. Adhere to measures listed in Stage I, except implement voluntary use reduction by 25%. 2. Comply with landscaping ordinance for new landscaping.	1. One warning. 2. Levy penalties for water wasting and/or unauthorized use of utility water: $25 - first offense; $50 - second offense; $100 - third offense; $250 - fourth offense and subsequent offenses. Each day of non-compliance is considered a separate offense. 3. Discontinue water service and Turn On / Off fees.

DROUGHT STAGE	PUBLIC AGENCY ACTIONS	REQUESTED CONSUMER ACTIONS	PENALITIES FOR EXCESSIVE USE
Stage III Sever 25% to 35% reduction in total water production	1. Continue measures listed in Stage II, and include the following: a. Possibly hire a water conservation officer. b. Possibly enact mandatory retrofit of showerheads to low flow; and toilets to ultra low flow when building remodeling occurs. c. Require pool covers for all new pool permits. d. Prohibit the filling and running of water fountains. e. Reduce pressures in the systems where possible.	1. Manage water consumption to stay within water reduction goals. Suggest weekly water meter reading for metered customers.	1. Penalties listed in Stage II for unauthorized use of water.
Stage IV Critical 35% to 50% reduction in total water production	1. All of the Stage II measures intensified and include the following: a. Monitor water production weekly for compliance with necessary reductions. b. Require that no potable water supplied by the SCUC be used outdoors by residents, businesses, industries, hospitals/convalescent homes, schools, cemeteries, parks or landscape meters except for irrigating vegetable gardens (a maximum of twice weekly), bushes, and trees (a maximum of once weekly). Possibly require that groundcover, flowerbeds and turf to be irrigated with gray water. (Bushes and trees could be irrigated with gray water or re-claimed wastewater, also). c. Prohibit the filling of swimming pools. d. Possibly hire an additional water conservation officer.	1. Adhere to measures in Stage III. Reduce irrigation as listed in the Section listed under Public Agency Actions. Wash vehicles, boats, etc. at car washes utilizing recycled water. Delay new construction.	1. Penalties listed in Stage III for unauthorized use of water.

6) Schedule

(e) A schedule for carrying out the plan or joint plan.

Many of the components in this Water Conservation Plan are ongoing from previous water conservation efforts and strategies. The schedule for the components of this plan is shown in **Table 8** below.

TABLE 6: Water Conservation Implementation Schedule

Conservation Strategy	Conservation Measure	2010	2011	2012	2013	2014	2015
Public Education	Community Outreach	X	X	X	X	X	X
	Home Water Audit		X	X	X	X	X
	How to Read Your Meter		X	X	X	X	X
	Informative Billing	X	X	X	X	X	X
	www.uiwater.com	X	X	X	X	X	X
	School Programs		X	X	X	X	X
	Xeriscape & Landscape		X	X	X	X	X
Other Water Conservation Measures	Assigned Day Watering	X	X	X	X	X	X
	Community Partnering		X	X	X	X	X
	Bill Credits Ultra-Low Flush Toilets			X	X	X	X
	Bill Credits High Efficiency Washers			X	X	X	X
	Bill Credits Pool Covers			X	X	X	X

	Conservation Measure	2010	2011	2012	2013	2014	2015
	Tariff Modifications			X		X	
	Fines			X	X	X	X
	Water Rate Setting			X		X	
System Management	Meter Replacement Program	X	X	X	X	X	X
Drought Plan	SCADA	X	X	X	X	X	X
	System Leak Study		X			X	
	System Pressure Standards				X	X	X
	Leaks and System Repairs	X	X	X	X	X	X
	Unauthorized Use of Utility Water		X	X	X	X	X
	Standards and Specifications	X	X	X	X	X	X
	Line Locates	X	X	X	X	X	X
	Drought Plan	X	X	X	X	X	X

Some components of the plan, such as tariff modifications and water rate setting are scheduled by anticipated rate case years. Other new components are scheduled with the approval of this Water Conservation Plan and the PUCN approval of the IRP. While the Utility is continuously diligent in locating and repairing leaks as quickly as possible, leak studies are scheduled for every three years or until non-revenue water is at an acceptable level as to not warrant the expense. Most components will remain ongoing past the 5 years in the future depicted by this schedule.

7) Measures

(f) Measures to evaluate the effectiveness of the plan or joint plan.

There are many variables which influence water consumption: economic climate, weather, desire to conserve water, rates, conversation awareness, rules and regulations, environmental concerns, peer pressure, etc. A change in consumption can be measured at a point in time, such as from 2011 year end – 2012 year end. However, the change may be influenced by factors which are not a part of the Water Conservation Plan, such as weather or the economy. The success of a water conservation plan may take many years to realize through trending the effectiveness of the plan.

In addition, with a comprehensive Water Conservation Plan, it is difficult, if not impossible, to measure the impact of singular strategies within the plan. However, the overall goal of conserving water can be broken down into two objectives: the reduction of inside-the-wall use and the reduction of outside-of-the wall use. Some of the individual strategies may overlap both of these objectives (such us rate making), others may be directed at one or the other of the objectives (such as Xeriscape or plumbing retrofits). But, as the vast majority of water service connections are not measured separately between inside and outside use, it is most likely that the overall success of the plan will be able to be measured. Individual water conservation strategies will be measured through estimates based on what data is available.

It is the Utility's intention to file a rate case approximately every three years as required by the State for a company of its size. As part of a rate case, consumption is evaluated by experts. In general, the first tier in an inclining block rate structure is the amount of monthly consumption to be considered inside-the-wall use determined through winter consumption data. Any subsequent tier(s) are considered outside-the-wall use. As the Utility files general rate cases through the years, the tier levels will help measure the objectives and the consumption trend and will not only help measure the overall effectiveness of the Water Conservation Plan, but the inside the walls versus outside the walls strategies.

In addition, new water conservation programs such as bill credits, a specific estimate of savings can be evaluated based off of the replacement of "water hogs" with "water efficient" plumbing retrofits. The meter replacement program has been able to establish an estimate of water savings based on the age of the meter correlated with the average water loss of a meter of that age. Regardless, the true effectiveness of a water conservation plan (coupled with uncontrollable variables such as economy and weather) can truly only be measured as a whole. Did consumption (per person/capita) in the community reduce?

8) Estimated Water Savings

(g) For each conservation measure specified in the plan or joint plan, an estimate of the amount of water that will be conserved each year as a result of the adoption of the plan or joint plan, stated in terms of gallons of water per person per day.

Please see **Table 1**, in Section I, Introduction. It is difficult to determine the actual amount of water savings which can be achieved through conservation. As stated in Section III.1.f., *Measures*, being able to determine if specific individual strategies have met the estimated savings is difficult, if not impossible.

B. Conservation Rates

1. ***A plan or joint plan submitted for review must be accompanied by an analysis of:***
   (a) The feasibility of charging variable rates for the use of water to encourage the conservation of water.

Price can be an effective instrument for reducing water demand. Research has consistently shown that water users respond in an inverse manner to changes in the price of water – in general, as the price of water increases, water use decreases. This principal, however, may only hold true for discretionary water use, the portion of a person's water use beyond what is necessary to meet their perceived needs. Tiered-rate structures charge higher rates as water use increases. These rate structures encourage efficiency, while ensuring the affordability of water for essential uses.

Water users respond to changes in water rates by changing water use practices and implementing available water conservation measures. In the short-run, water users may respond by reducing car washing or their showering time. This short-run response is difficult to quantify. For the longer term, water users respond to rates by taking advantage of water conservation measures. These measures may include Xeriscape, reduction in lawn size, installing efficient appliances, exercising other water conservation best management practices. A common strategy for managing demand through pricing is the use of increasing block rates. Increasing block rates encourage water conservation by charging users higher rates for higher volume use.

All of the UI companies in the desert (Nevada and Arizona) have inclining block rates. The Utility will continue to recommend a tiered rate structure for metered customers to the PUCN. All of the Utility's customers are metered with utility bills divided between base rates and multiple tiered rates (as opposed to a flat rate), and therefore; the monetary incentive exists to conserve water.

(b) How the rates that are proposed to be charged for the use of water in the plan or joint plan will maximize water conservation, including, without limitation, an estimate of the manner in which the rates will affect consumption of water.

Water rates, as a conservation incentive, work to increase awareness about the financial value of reducing water use and can motivate users to implement water conservation measures. The two-tiered rate structure (currently utilized by SCUC) helps to encourage its users to become more conscious of the water that is being used by increasing the cost to use higher volumes of water. The existing SCUC water rates have been designed to charge users for the amount of water they actually use (First Tier) and to encourage conservation particularly with discretionary use (Second Tier).

In 2007, SCUC filed a GRC with the PUCN. The outcome of that rate case was a significant increase. **Figure 11** shows the difference in base rates before and after the 2007 GRC. **Figure 12** shows the difference in consumption rates before and after the 2007 GRC.

Figure 12: Before and After GRC Base Rates

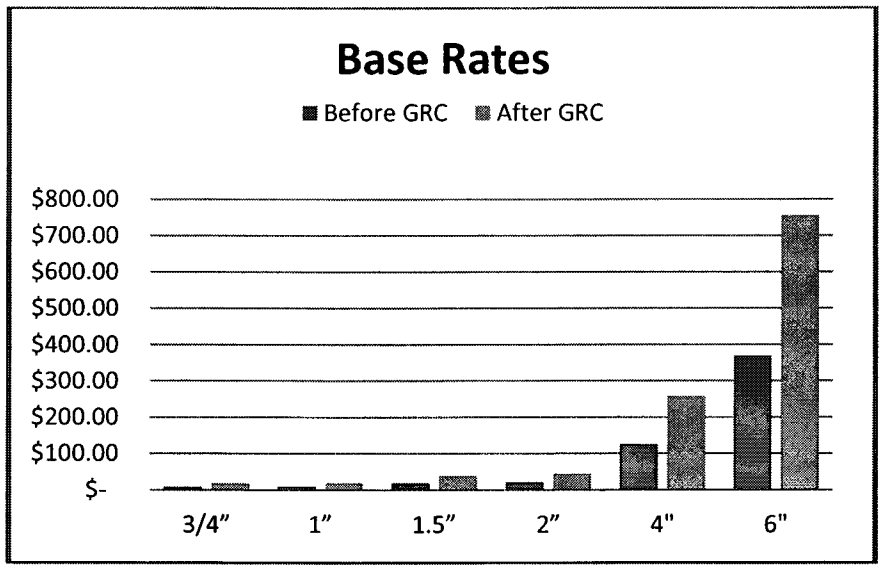
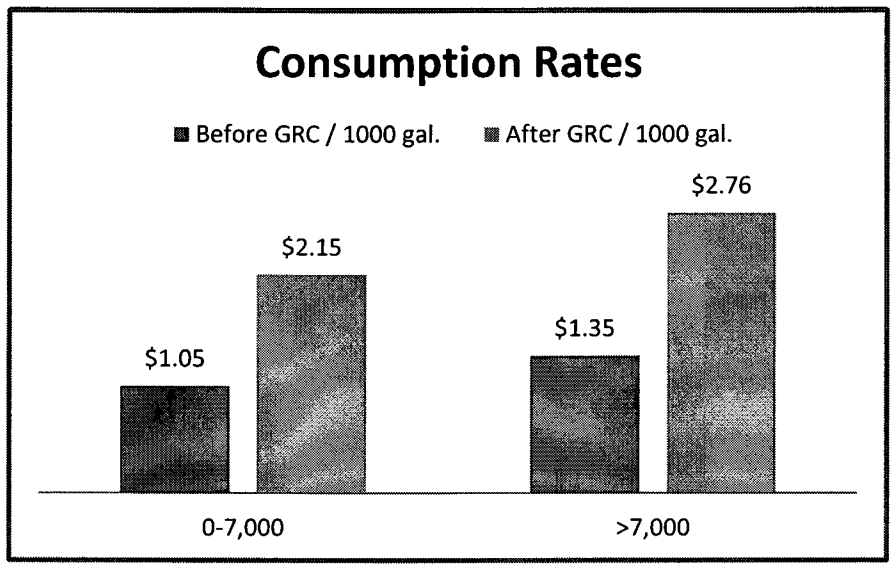


Figure 13: Before and After GRC Consumption Rates



The impact of this increase was a repression rate of 22%[4], saving approximately 200,000,000 gallons of water annually[5]. The Utility will continue to file regular GRCs with the PUCN recommending tiered rates. This is

[4] This was calculated by using the two full years adjacent to the rate case filing: 2007 & 2009, to ensure that both peak and low demand months were captured.

[5] Other water conservation practices may have had a small contribution this reduction in consumption.

particularly important to promote water conservation for large consumers, such as areas of large landscaping. While education, system management and other conservation measures may approach practical limitations for increased water conservation gains, rates, on the other hand, have the long-term potential to continue to influence demand. Rates are an important conservation measure, but should be balanced with the fact that public water agencies also have an obligation to protect the viability of the Utility's ability to continue to provide safe reliable drinking for the well being and vitality of the communities they serve.

2. ***The Section shall review any plan or joint plan submitted to it within 30 days after its submission and approve the plan if it is based on the climate and living conditions of the service area and complies with the requirements of this section.***
3. ***The Chief may exempt wholesale water purveyors from the provisions of this section which do not reasonable apply to wholesale supply.***
4. ***To the extent practicable, the State Engineer shall provide on his internet website a link to the plans and joint plans that are submitted for review. In carrying out the provisions of this subsection, the State Engineer is not responsible for ensuring, and is not liable for failing to ensure, that the plans and joint plans which are provided on his internet website are accurate and current. (Added to NRS by 1991, 521; A 2005, 2571; 2007, 1254)***

IV. CONSERVATION INCENTIVES (NRS 540.151)

NRS 540.151 Supplier of water required to adopt plan to provide certain incentives; procedure for adoption of plan; adoption of joint plans permitted.

1. ***Except as otherwise provided in subsection 5, each supplier of water which supplies water for municipal, industrial or domestic purposes shall adopt a plan to provide incentives:***
   (a) To encourage water conservation in its service area;

A. Overview of Conservation Incentives

Water conservation incentives are defined as methods which motivate water users to implement conservation/efficiency measures. In itself, conservation incentives (like public education) do not directly save a single drop of water; they increase the customer awareness about the value of reducing water. Increasing public awareness about the value of reducing water will lead to users making behavioral changes which will result in the increase implementation of conservation measures which directly save a quantifiable amount of water. Conservation incentives are classified into three categories: environmental, financial and regulatory. Examples of water conservation incentives are listed below:

Environmental

Preservation of water as our natural resource, protection of our natural resource through reduction in pollutants in run-off water, reduced pumping from well(s) containing contaminants such as arsenic, etc. Depleting reservoirs and groundwater can put water supplies, human health and the environment at risk. Lower water levels can contribute to higher concentrations of natural or human pollutants. Using water more efficiently helps maintain supplies at safe levels, protecting human health and the environment.

Financial
Particularly in difficult economic times, the financial incentives to reduce monthly bills and keep rates from rising (through the need for additional capital investments for tanks and wells) are a powerful conservation incentive. Additionally, bill credits, conservation designed water rate structures, incentives or surcharge fees, developer rebates/compensations for water savings achieved, etc. can be designed as added financial incentive.

Regulatory
Through the Utility's regulators, rules can be established which provide added water conservation incentives: off-day watering schedules, water waste penalties, water rate structures, pollution prevention requirements, bill credits, fines/penalties, water rights requirements, etc. As a regulated utility, the Utility will continue to work with the PUCN to include water conservation measures in the Utility's tariff.

b) To retrofit existing structures with plumbing fixtures designed to conserve the use of water; and

B. Specific Incentive Programs

1. Incentives for Plumbing Retrofit

If every person and business United States installed water efficient appliances, the country would save more than 3 trillion gallons of water. Nevada residents can also help by using water efficiently in their homes. For example, if every home in Nevada replaced older, inefficient showerheads with WaterSense labeled models, it could save more than 6 million gallons of water per day. That's enough water to fill the famous Bellagio Fountains in Las Vegas nearly 100 times a year. Additionally, it could save $13 million in water bills and $30 million in energy costs associated with heating water.[6]

Most people realize that hot water uses a lot of energy, but supplying and treating cold water requires a significant amount of energy, too. American public water supply and treatment facilities consume about 56 billion kilowatt-hours per year—enough electricity to power more than 5 million homes for an entire year. By reducing household water use, not only is water conserved, but energy consumption reduced, which can, in fact, help positively impact climate change.

- If one out of every 100 American homes retrofitted with water-efficient fixtures, the country could save about 100 million kWh of electricity per year—avoiding 80,000 tons of greenhouse gas emissions. That is equivalent to removing nearly 15,000 automobiles from the road for one year!
- If 1 percent of American homes replaced their older, inefficient toilets with WaterSense labeled models, the country would save more than 38 million kWh of electricity—enough to supply more than 43,000 households' electricity for one month.
- Letting your faucet run for five minutes uses about as much energy as letting a 60-watt light bulb run for 14 hours.

[6] www.epa.gov

The Utility provides educational materials which inform its users on the importance of water savings through the retrofitting of old plumbing fixtures. The most recent Federal plumbing standards are shown in **Table 9**. The table depicts that there are plumbing fixtures available which will increase water efficiencies through plumbing retrofit. **Appendix L** lists EPA water usage benchmarks for typical residential uses. **Appendix M** is a list of water saving hardware which can be purchased relatively inexpensively.

Table 7: Federal Plumbing Standards

Device	EPA	
	Manufacture	Effective Date
Shower Heads	2.5 gpm	1/1/94
Lavatory Faucets	2.5 gpm	1/1/94
Sink Faucets	2.5 gpm	1/1/94
Metering Faucets		1/1/94
Tub Spout Diverters	Not included in EPA	
Residential Toilets	1.6 gpf	1/1/94
Flushometer Valves	1.6 gpf	1/1/97
Commercial Toilets	1.6 gpf	1/1/97
Urinals	1.0 gpf	1/1/94

Environmental Incentive

The environmental incentive is consistent throughout each water conservation methodology. However, the Utility believes that public awareness, such as understanding the amount water consumption used by appliances and fixtures will promote conservation. Therefore, the Utility will continue to educate its customers on this facet of water conservation.

Financial Incentive

The financial incentive is consistent throughout each water conservation methodology through the implementation of water conservation rates and the avoidance of investment for additional capacity and supply facilities, which in turn would go into rates.

Regulatory Incentive

It is the policy of the Utility and this Water Conservation Plan to encourage water efficiencies including the retrofitting of existing structures with plumbing fixtures designed to conserve the use of water to our customers.

a) Bill Credit for High Efficiency Toilets

Leaking toilets are one of the biggest culprits of indoor water waste which can be relatively easy and inexpensive to fix on the users side. The Utility provides informational instructions on how to check for leaks with food coloring or dye tablets and amounts of water which can be saved through the user retrofitting any toilets which are leaking.

The Utility will also provide the added incentive to install High Efficiency Toilets (HET) designated to be a WaterSense product by the EPA by providing a rebate in the form of a bill credit. Toilets use up to 30% of the water consumed inside one's home. By making the switch to an EPA approved WaterSense toilet, customers can save money on their monthly bill and protect our natural resource. Small residential customers (single family residents or multi-family residences up to four units) who install an HET at the Utility service address are eligible for the bill credit. **Appendix N** provides copies of the application for the bill credit, the toilets which are eligible for a bill credit, the terms and conditions of the bill credit and a FAQ sheet.

b) Bill Credit for Water Efficient Washing Machines

After toilets, washing machines are the second greatest water user in the typical North American household, accounting for 22 percent of the indoor water use. High-efficiency washers use approximately 25 gallons per load versus 40 to 50 gallons per load for older machines. The next washing machine you buy will have an enormous impact on the amount of water you will use over the next 10 years. That's why the Utility will offer a rebate on your water bill when you buy a qualifying water efficient washing machine designated an Energy Star appliance by the EPA. With a high efficiency washer, you can:

- Save Soap
- Save Wear and Tear on Clothing
- Save Drying Time
- Save Energy
- Save Money
- **Save Water**

High-efficiency washing machines (HEWM) use half the water of traditional top loaders. And, the continuous but gently tumbling action gets clothes cleaner without the wear and tear of an agitator. Therefore, the Utility will provide the added financial incentive to retrofit existing structures with plumbing fixtures designed to conserve the use of water; through the implementation of a bill credit for high-efficiency washing machines. Small residential customers (single family residents or multi-family residences up to four units) are eligible for the bill credit when purchasing and installing an HEWM at a premise receiving service from the Utility. **Appendix O** provides copies of the application for the bill credit, the high-efficiency washing machines which are eligible for a bill credit, the terms and conditions of the bill credit and a FAQ sheet.

c) For the installation of landscaping, which uses a minimal amount of water.

2. Incentives for Water Efficient Landscaping

The Utility encourages the installation of landscaping which uses a minimal amount of water. (Please see Section III. 1. a) Xeriscape and Landscaping and **Appendices F and G**.)

Environmental Incentive

The environmental incentive is consistent throughout each water conservation methodology. However, the Utility believes that public awareness, such as understanding how to landscape using less water and still be aesthetically pleasing, will promote water conservation. Therefore, the Utility will continue to educate its customers on this facet of water conservation.

Financial Incentive

The Financial incentive is consistent throughout each water conservation methodology through the implementation of water conservation rates and the avoidance of investment for additional capacity and supply facilities, which in turn would go into rates.

Regulatory Incentives

Regulatory conservation incentives include tariffs on outdoor water irrigation scheduling, water wasting, and a schedule of penalties/fines which will be implemented to enforce the violation of any water wasting within its service area, water right "credits" for new developments which implement water wise landscaping. The Utility has submitted for PUCN approval new tariff rules on water conservation and water rights to incorporate these incentives.

Consideration is being given for the Utility to provide definitions of "water waste" in its Tariffs and provide warnings for such defined "water waste." The Utility has included educational materials on Xeriscaping methods, types of water smart plants which grow well in the area, and the difficulty in watering small strips/odd shaped turf, etc. in this water conservation plan to encourage its users to become more conscious about the types of plants to purchase and locations to place them.

The Utility is responsible for creating Tariffs within its service area, however; the PUCN must approve these Tariffs before the Utility can implement them. The intent of these future proposed water rules and regulations is to restrict use if it is found that water is being wasted or to limit water use during water shortages and drought conditions, and to provide broad-spectrum water conservation measures.

The Utility is also planning tariff revisions which include a reduction in water rights dedication for single family residence lots which install and maintain water conservation measures.

The supplier of water may request assistance from the Section to develop its plan.

2. ***As part of the procedure of adopting a plan, the supplier of water shall provide an opportunity for any interested person to submit written views and recommendations on the plan.***
3. ***The supplier of water shall file a copy of the plan with the Section for informational purposes.***

4. *The plan:*

   (a) Must be available for inspection by members of the public during office hours at the offices of the supplier of water; and

   (b) May be revised from time to time to reflect the changing needs and conditions of the service area. Each such revision must be made available for inspection by members of the public.

5. *Suppliers of water:*

   (a) Who are required to adopt a plan for incentives pursuant to this section; and

   (b) Whose service areas are located in a common geographical area, may adopt joint plans. (Added to NRS by 1991, 522; A 2005, 2571)

V. CONCLUSION

The Utility has designed this Water Conservation Plan to be a balanced plan incorporating Public Education, Systems Management, Drought Plan and Other Specific Conservation Measures to maximize water conservation. The overall success of a water conservation plan is dependent upon the Utility and consumers participating alike. This Water Conservation Plan will be presented to DWR, NDEP and the PUCN for approval. Upon written notice of approval, those notifications will be included as **Appendix P.** Appendix R provides a cross reference to how this plan ties to the PUCN Adopted Regulation R043-08, Section 30. Other PUCN Adopted Regulation R043-08 requirements have been and will be included in subsequent Integrated Resource Plan filings.

For more tips on how to conserve water, please see in **Appendix R,** and remember to be water wise throughout your daily activities. It will preserve and protect our water resources and lower your bill month after month.

APPENDIX A — LIST OF ABBREVIATIONS

AMP	Alternate Monitoring Plan
AWWA	American Water Works Association
BOCC	Board of County Commissioners
BSDW	Bureau of Safe Drinking Water
CC&B	Customer Care & Billing System
CEE	Consortium for Energy Efficiency
CIP	Capital Improvement Plan
COA	Committee of Architecture
DOR	Declaration of Reservations
DWR	Division of Water Resources
EPA	Environmental Protection Agency
FAQ	Frequently Asked Questions
FEPA	Federal Energy Policy Act
gpcpd	gallons per customer per day
gpd	gallons per day
gpf	gallons per flush
gpm	gallons per minute
GRC	General Rate Case
HET	High Efficiency Toilet
HEWM	High Efficiency Washing Machine
HOA	Home Owners Association
Housing Section	100, 300, and 400 Tracts, collectively
IRP	Integrated Resource Plan
IWA	International Water Association
MCL	Maximum Contamination Level
MEF	Modified Energy Factor
Mobile Home Section	200 Tract
NDEP	Nevada Department of Environmental Protection
NVRWA	Nevada Rural Water Association
NRS	Nevada Revised Statute
NRW	Non Revenue Water
ppb	parts per billion
PRV	Pressure Reducing Valve
PUCN	Public Utilities Commission of Nevada
SCA	Spring Creed Association
SCADA	Supervisory Control and Data Acquisition
SCUC	Spring Creek Utilities, Co.
SFR	Single Family Residence
UFW	Unaccounted For Water
UI	Utilities, Inc.
WF	Water Factor

Appendix B

Spring Creek Utilities Company

Drought Plan

Updated August 2012

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1-01. **Purpose**

Groundwater is one physical resource used to meet water demands in Northern Nevada, but there is a second, tangible resource that is critical to managing and extending those physical resources over time - conservation. Conservation involves no real infrastructure challenges or significant capital costs, yet it effectively provides an additional resource by freeing up water that was previously consumed inefficiently or wasted. In this sense, it is the cheapest source of water available to the community. It is also a resource over which we have complete control, because future availability depends more on our own efforts and less on influences outside the community.

This Plan is intended to establish water conservation measures and enhance efficient utilization of water resources. Water purveyors normally rely on conservation as an essential resource to help meet water needs; however, the existence of drought conditions affecting the Spring Creek Valley Basin mandates additional conservation measures. The SCUC Drought Plan is intended to align and support the State of Nevada Drought Response Plan revised April 2012 (**Appendix B1**).

1-02. **Definitions**

(a) Community Use Recreational Turf (CURTA)

Any private or public park facility consisting of a turf-dominated, multi-purpose recreational area that:

(1) Has at least two acres and no dimension less than one hundred feet;

(2) Is a field that is programmable for athletic or other recreational events.

(b) SCUC

Spring Creek Utilities Company (SCUC).

SCUC consists of the two following facilities; Housing Section and Mobile Home Section.

(c) Drought

A condition in which the combination of many complex factors acting and interacting with the environment; results in water supplies not being replenished normally. For purposes of this Plan, a "drought" occurs when existing water supplies cannot meet established demands for a period of time.

(d) Drought Alert

A second-level drought declaration of SCUC based upon current or projected reductions in the community's renewable water supply. "The Drought Alert Stage 2 occurs when 50% of more of a county is classified as D2 (drought – severe) or higher in the Drought Monitor for a minimum of two weeks." (State of Nevada, Drought Response Plan, 2012)

(e) Drought Emergency

A third-level drought declaration of SCUC based upon current or projected reductions in the community's renewable water supply. "The Drought Emergency Stage 3 begins after the Drought Alert Stage. This stage begins when the Drought Response Committee makes a recommendation, based on information from the Tasks Force(s) that a drought should be formally declared for affected counties." (State of Nevada, Drought Response Plan, 2012)

(f) Drought Critical

The fourth and most serious drought declaration of SCUC based upon current of projected reductions in the community's renewable water supply.

(g) Drought Monitor

"The United States Drought Monitor will be applied to counties in the State of Nevada to identify initial stages of drought. As a composite indicator, the US Drought Monitor integrates various types of drought, with a particular emphasis on meteorological, agricultural and hydrological conditions." (State of Nevada, Drought Response Plan, 2012)

(h) Drought Watch

A first-level drought declaration of SCUC based upon current or projected reductions in the community's renewable water supply. "Drought Watch Stage 1 begins when 50% or more of a county is classified as D1 (drought – moderate) in the State of Nevada's Drought Monitor." (State of Nevada, Drought Response Plan, 2012)

(i) No Drought

A condition in which no drought declaration of SCUC is in effect.

(j) Non-potable Water

Water not suitable for drinking.

(k) Potable Water

Water suitable for drinking.

(l) Raw Water

Non-potable water diverted from a natural source, subjected to minimal or no treatment, and delivered to a user for subsequent treatment or use.

(m) Reclaimed Water

Municipal wastewater that has been treated to meet all applicable federal, state and local standards for use in approved applications, including without limitation landscape irrigation, construction and industrial cooling. For purposes of this Plan, "reclaimed water" and "recycled water" are equivalent terms.

(n) Resort Hotel

Any building or group of buildings that is maintained as and held out to the public to be a hotel where sleeping accommodations are furnished to the transient public and that has:

(1) At least one bar with permanent seating capacity for more than thirty patrons that serves alcoholic beverages sold by the drink for consumption on the premises;

(2) At least one restaurant with permanent seating capacity for more than sixty patrons that is open to the public twenty-four hours each day and seven days each week; and

(3) A gaming area within the building or group of buildings.

(o) Spring Creek Utilities Co. (SCUC)

Spring Creek Utilities Co. (SCUC), located at 14891 Lamoille Hwy., Spring Creek, Nevada 89815: (775) 753-6889.

(p) Spray Irrigation

The application of water by means of sprinklers or other devices that disperse droplets of water through the air.

(q) SCUC Tariff or Tariff

The Water and Sewer Tariff that has been adopted by SCUC and approved by the Public Utilities Commission of Nevada.

(r) Water Use Reduction Plan

A document or documents to be submitted by or on behalf of an applicant in connection with a request to exempt fountains or water features from the prohibitions contained in this Plan. The term includes a plan that is modeled after the Water Efficiency and Drought Response Plan outline or similar document that may have been approved for use by SCUC.

(s) Xeriscape

A type of landscaping that incorporates drought-tolerant and low water-use plants with an organic or inorganic surface mulch layer as a water-efficient alternative to traditional turf-grass landscaping.

1-03. **Drought plan—Adopted by Reference.**

The Drought plan effective January 1st, 2008 and any amendments by SCUC, shall serve as the basis for adopting this Plan, and as a guideline in its interpretation. The drought plan was adopted in order to preserve, protect and encourage the conservation of water resources. The plan describes different stages of water supply conditions as follows:

(a) No drought;

(b) Drought watch;

(c) Drought alert;

(d) Drought emergency;

(e) Drought critical.

The provisions of this Plan shall apply whenever a drought watch, drought alert, drought emergency or drought critical condition has been declared by SCUC and remains in effect. Unless the context otherwise requires, whenever a provision of this Plan does not specify whether it applies to a drought watch, drought alert, drought emergency or drought critical condition, the provision shall apply when any of those conditions are in effect. In the event of conflict between the provisions of this Plan and other applicable ordinances, regulations or the SCUC tariff, the most stringent provisions will prevail. However, with respect to any provision of the SCUC tariff that is less stringent than the provisions of this Plan, SCUC may enforce that provision instead.

In the case of a drought critical condition, the provisions of this Plan pertaining to a drought alert shall continue to apply. However, SCUC shall have the authority to adopt additional restrictions which are deemed necessary in order to protect the public health, safety and welfare. Upon the adoption and publication of those additional restrictions, they shall become binding on water users within the SCUC service area.

1-04. **Applicability**

Except as otherwise provided, the provisions of this Plan shall apply to the use of water supplied by the SCUC system, including recycled, reclaimed, raw, non-potable and potable water.

1-05. **SCUC--Responsibilities.**

Except as otherwise provided in this Plan; SCUC shall be responsible for the administration and implementation of the provisions of this Plan. SCUC shall be responsible for enforcing its tariff.

1-06. **Standards and Requirements--Waiver Prohibited.**

The standards and requirements set forth in this Plan may not be waived or varied. A request for waiver or variance shall be considered a request to amend the requirements of this Plan. However, SCUC may allow an exemption from the requirements or provisions of this Plan when, in SCUC's opinion, the exemption will protect the public health, safety and welfare, and will be beneficial to the SCUC water system. Examples of activities which may be exempted include hydrant flushing, valve testing, and system maintenance.

1-07. **Wasting Water after Notice Given.**

It is unlawful for any owner, occupant, or manager of real property served by a water provider to waste water after a notice of water waste has been issued. The waste of water includes without limitation the following:

(a) Allowing water to flow or spray into a public street, alley, right-of-way, gutter or drain; and

(b) Failure to repair a water leak.

It is unlawful for anyone to permit the excess use, loss or escape of water through a break, leak or malfunction in the water user's plumbing or distribution facilities for any period of time after the excess use, loss or escape should have been reasonably discovered and corrected.

Where public sewer is available, swimming pool water, when drained, must be discharged into an approved-type receptor and subsequently into a public sewer in accordance with applicable laws and regulations.

1-08. **Violation—Prima Facie Evidence**

Any waste of water or other violation of this Plan, together with proof that the waste or violation originated or took place at any particular residence or place of business, shall constitute, in evidence, a prima facie presumption that the owner, current occupant, or manager of real property of such residence or place of business was responsible for the waste or other violation.

1-09. **Water Uses—Prohibited Hours Designated**

In accordance with tariff Rule 23, Section E - watering restrictions will be as follows: Odd numbered addresses may water on Tuesday, Thursday, and Saturday. All even numbered addresses may water on Monday, Wednesday, and Friday. There is no outdoor watering between 1:00 p.m. and 7:00 p.m. daily. Without exception – there is no outdoor watering on Sundays.

1-10. **Spray Irrigation—Frequency Allowed Violation**

It is unlawful to use water for the spray irrigation of turf, gardens, trees, grass, shrubbery, or other vegetation in residential areas, or for the spray irrigation of turf other than community use recreational turf on a day other than one designated by SCUC. Enforce existing conservation tariff, which allows watering on odd-even days depending on street address, and prohibits outside watering during the hours of 1:00 p.m. to 7:00 p.m.

1-11. **Water Restrictions—Exemptions**

The following are exempt from the watering restrictions described in Section 1-10 above:

(a) Hand watering for the purpose of preserving lawn or shrubbery so that vegetation does not die;

(b) Irrigation of new lawns or re-seeding of an existing lawn, for a period of thirty days from the date of planting or installation;

(c) Drip and/or bubbler irrigation systems, provided that they are not run more frequently than would be permitted for spray irrigation;

(d) Irrigation of commercial stock by commercial gardens or plant nurseries that are licensed, provided that the licensee or a representative is personally on the premises at the time the irrigation is taking place;

(e) Testing of landscape irrigation systems, provided that the person performing the test is present to observe system performance;

(f) Municipal operations or procedures that are necessary to protect the health, safety and well-being of the public; and

(g) Such other activities as may be exempted under the SCUC tariff.

1-12. **Watering of Community Use Recreational Turf**

The watering of community use recreational turf and turf at other government facilities shall be in accordance with the SCUC tariff and any watering schedules adopted or approved there under.

1-13. **Landscape Materials—Generally**

Landscape materials shall be limited as described in Sections 1-14 and 1-15 of this Plan. Landscape materials that were approved in connection with the approval of a land use application or permit for construction that was granted before August 1, 2003, are not subject to the limitations contained in those Sections.

1-14. **Drought Watch Provisions**

During drought watch conditions:

(a) Single-family and multifamily developments are prohibited from installing new turf in common areas of residential neighborhoods. This restriction shall not apply to turf area to be installed in public parks or privately owned and maintained parks, including required usable open space in residential developments, provided that such turf area has no dimension of less than ten feet.

(b) The installation of new turf in non-residential developments is prohibited, unless specifically permitted by the approval of a land use application or permit for construction. Any new turf permitted shall be limited to no more than fifty percent of the turf that would be permitted under non-drought conditions. This restriction shall not apply to schools or to public or private parks.

1-15. **Drought Alert Provisions.**

During drought alert conditions:

(a) No new turf may be installed in residential front yards. In single-family residential development, the installation of new turf shall not exceed fifty percent of the gross area of the side and rear yard or one hundred square feet, whichever is greater (up to a maximum of five thousand square feet). No turf area may be installed in the side or rear yard if any dimension thereof is less than ten feet.

(b) During the months of May through August, the planting of cool-season grasses (i.e. tall fescue or rye grass) is prohibited. The planting of warm-season grasses (i.e. bermuda and zoysia) is permitted.

(c) The restrictions applicable to nonresidential development during drought watch conditions shall apply during drought alert conditions as well.

1-16. **Cooling System Provisions**

During drought watch and drought alert conditions, outdoor mist cooling systems are not restricted within residential development. In commercial operations, outdoor mist cooling systems relating to animal safety are permitted, but those relating to human comfort are permitted only during the months of June, July, and August, and only between the hours of twelve noon and ten p.m.

1-17. **Washing Paved Surfaces, Buildings and/or Equipment**

The washing of paved surfaces, buildings, and/or equipment (other than vehicles) is prohibited unless the water is discharged to a sanitary sewer in accordance with applicable laws and regulations or is contained on site.

1-18. **Washing Personal and Commercial Vehicles**

Under drought watch and drought alert conditions, the washing of personal vehicles upon residential properties is limited to once per week per vehicle and requires a positive shut-off nozzle. Commercial vehicles may be washed without limitation as to frequency, but only:

(a) At a commercial facility in accordance with applicable laws and regulations, or;

(b) By means of a high-pressure, low volume sprayer using less than ten gallons per vehicle.

1-19. **Potable or Non-potable Water Utilization—Prohibitions and Exceptions**

(a) Fountains and water features are prohibited upon property that is serviced by SCUC. The following features, however, are exempt from this prohibition:

(1) Swimming pools;

(2) Fountains and water features that are supplied by privately-owned water rights, by water rights obtained by means of a State-issued permit, or by nuisance water discharged during normal facility dewatering;

(3) Not more than one fountain or other water feature at any single-family residence, provided that the surface area of the fountain or other water feature does not exceed two hundred square feet during a drought watch condition, or twenty-five square feet during a drought alert condition;

(4) Not more than one fountain or other water feature within the common areas of a single-family or multi-family development, provided that the fountain or other water feature is not an entryway or streetscape feature and its surface area does not exceed two hundred square feet during a drought watch condition, or twenty-five square feet during a drought alert condition;

(5) Fountains or water features that are necessary and functional components serving other allowable uses, such as storage ponds on a golf course or aeration devices;

(6) Fountains or water features within public parks and public or private recreational water parks, provided that the fountains or water features have a recreational function and are not merely decorative;

(7) Indoor water features, or features with the majority of the total water volume contained indoors or underground. If practical alternatives exist for separating indoor and outdoor components, they shall be separated and managed accordingly. (Example: timers on shut-off valves);

(8) Fountains or water features necessary to sustain aquatic animals, provided that the animals have been actively managed within the water feature prior to the declaration of drought.

(b) The following fountains or water features may be exempted from the prohibition contained in Subsection (A) in accordance with the remaining provisions of this Section:

(1) Fountains or water features that are integral to the operation of a resort hotel or a coalition of resort hotels; or

(2) Other fountains or water features that are proposed to be allowed in exchange for water use reduction activities in accordance with Subsection (D) of this Section.

(c) In order to be eligible for an exemption pursuant to Subsection (B), an applicant must submit a request for exemption and a water use reduction plan. The request for exemption must be submitted in writing to SCUC for consideration. The water use reduction plan must be submitted to SCUC, and must contain such information, and be in a format, that is satisfactory to SCUC. Any exemption shall be conditioned upon the posting of one or more signs in proximity to the exempted fountain or water feature stating that the fountain or water feature is operating in compliance with this Plan and that a water use reduction plan is on file with SCUC.

(d) The granting of any exemption pursuant to Subsection (B)(2) of this Section shall be subject to the following conditions:

(1) The fountains or water features for which an exemption is sought must not be operational at the time the exemption is applied for, except as permitted in Subsection (F) of this Section;

(2) The submitted water use reduction plan must provide for a minimum total water savings of greater than fifty times the consumptive use of the operation of the fountain or water feature;

(3) The water use reduction plan must have been submitted to SCUC and implemented by the applicant;

(e) In order to continue to operate any fountain or water feature that is integral to the operation of a resort hotel or a coalition of resort hotels, that is prohibited by Subsection (A) of this Section, and that is in operation on the effective date of the this Drought Plan, a request for exemption and water use reduction plan must be submitted within ninety days after the effective date of this Drought Plan. If the exemption is not approved, the fountain or water feature may not be operated except as permitted in Subsection (F) of this Section.

(f) Nothing in this Section that prohibits or limits the operation of fountains or water features shall be deemed to:

(1) Prohibit the construction of fountains or water features; or

(2) Require a fountain or water feature to be drained if maintaining a re-circulating water pool is necessary in order to maintain pumps, pond liners, and ancillary equipment, but in such a case the re-circulating water pool may only be operated between the hours of one a.m. and four a.m.

1-20. **Private Covenant, Condition, Restriction, Deed Clause—Enforcement**

No person or association may impose or enforce any private covenant, condition, restriction, deed clause or other agreement to prevent a person from utilizing water efficient landscaping, including without limitation Xeriscape, provided such landscaping receives appropriate architectural review approval. In any event, landscaping materials and designs may not be prohibited solely on the basis that they make use of water-efficient landscaping.

BRIAN SANDOVAL
GOVERNOR

STATE OF NEVADA
DROUGHT RESPONSE PLAN

Revised April 2012

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, DIVISION OF WATER RESOURCES

STATE CLIMATE OFFICE

DEPARTMENT OF PUBLIC SAFETY, DIVISION OF EMERGENCY MANAGEMENT

Executive Summary

This State Drought Response Plan establishes an administrative coordinating and reporting system between agencies to appropriately respond and provide assistance to address drought and mitigate drought impacts. After outlining the significance of drought and types of drought encountered, this Plan identifies a system used in monitoring the magnitude, severity and extent of drought within the state on a county-by-county basis. It establishes a framework of actions based on three stages of responding to drought: Drought Watch (Stage #1), Drought Alert (Stage #2) and Drought Emergency (Stage #3).

The Drought Response Committee, comprised of representatives from the State Climate Office, Division of Water Resources and Division of Emergency Management, is involved throughout each of these stages and is responsible for monitoring drought conditions, collecting data associated with drought, overseeing intergovernmental coordination, disseminating information, reporting to the Governor and working with the State Emergency Operation Center on drought response (if applicable). The Drought Response Committee may establish *ad hoc* Task Force(s). Members of Task Force(s) will serve as experts in the drought affected region, serve as liaisons to local or federal government and collect needed information about the actual and/or projected impacts of the drought. If a drought reaches Stage #3 Drought Emergency, upon the decision of the Governor, the Division of Emergency Management may activate the State Emergency Operations Center. This Center will be advised by the Drought Response Committee, making drought response policy recommendations as needed, supporting local drought emergency response efforts and carrying out the Governor's policies.

Jason King, P.E., State Engineer
Division of Water Resources

Christopher B. Smith, Chief
Division of Emergency Management

Kate A. Berry, Director
State Climate Office

1. Drought

Drought is a complex physical and social phenomenon of widespread significance. While lower than normal precipitation is usually the cause of specific problems creating a drought situation, a drought condition is not simply a lack of rainfall or snow accumulation but can also be related to deficiencies in soil moisture and groundwater; lack of surface water in streams and rivers; and/or reduction of surface water stored in lakes and reservoirs. A number of factors are involved in determining if a drought exists and its severity for a given region: precipitation, snowpack, soil moisture, streamflow, surface water storage and groundwater levels.

Drought is not usually a statewide phenomenon; differing situations in the state make drought local or regional in focus. Despite all the problems droughts have caused, drought has proven difficult to define. There is no universally accepted definition because drought, unlike flood, is not a distinct event and drought is often the result of many complex factors acting on and interacting within the environment. Complicating the problem of a drought definition is the fact that drought often has neither a distinct beginning nor end. It is recognizable only after a period of time and, because a drought may be interrupted by short spells of one or more wet months, its termination is difficult to recognize. The most commonly used drought definitions are based on: 1) meteorological and/or climatological conditions, 2) agricultural problems, 3) hydrological conditions and 4) socioeconomic considerations. Each type of drought will vary in severity, but all are closely related and caused by lack of precipitation. These drought types may overlap and are not always unique. Drought type descriptions are from the National Drought Mitigation Center at the University of Nebraska, Lincoln.

1.1 Meteorological Drought

Meteorological drought is defined usually on the basis of the degree of dryness (in comparison to some "normal" or average amount) and the duration of the dry period. Definitions of meteorological drought must be considered as region specific since the atmospheric conditions that result in deficiencies of precipitation are highly variable from region to region. For example, some definitions of meteorological drought identify periods of drought on the basis of

the number of days with precipitation less than some specified threshold. This measure is only appropriate for regions characterized by a year-round precipitation regime such as a tropical rainforest, humid subtropical climate or humid mid-latitude climate. Other climatic regimes are characterized by a seasonal rainfall pattern. Extended periods without rainfall are common in many places so definitions based on the number of days with precipitation less than some specified threshold is unrealistic in these cases. Other definitions may relate actual precipitation departures to average amounts on monthly, seasonal or annual time scales.

1.2 Agricultural Drought

Agricultural drought links various characteristics of meteorological (or hydrological) drought to agricultural impacts, focusing on precipitation shortages, differences between actual and potential evapotranspiration, soil water deficits, reduced groundwater or reservoir levels and so forth. Plant water demand depends on the prevailing weather conditions, the biological characteristics and growth stage of the specific plant and the physical and biological properties of the soil. A good definition of agricultural drought should be able to account for the variable susceptibility of crops during different stages of crop development, from emergence to maturity. Deficient topsoil moisture at planting may hinder germination, leading to low plant populations per hectare and a reduction of final yield. However, if topsoil moisture is sufficient for early growth requirements, deficiencies in subsoil moisture at this early stage may not affect final yield if subsoil moisture is replenished as the growing season progresses or if rainfall meets plant water needs.

1.3 Hydrological Drought

Hydrological drought is associated with the effects of periods of precipitation (including snowfall) shortfalls on surface or subsurface water supply (e.g., streamflow, reservoir and lake levels, groundwater levels). The frequency and severity of hydrological drought is often defined on a watershed or river basin scale. Although all droughts originate with a deficiency of precipitation, hydrologists are more concerned with how this deficiency plays out through the hydrologic system. Hydrological droughts are usually out of phase with or lag the occurrence of meteorological and agricultural droughts. It takes longer for precipitation deficiencies to show up in components of the hydrological system such as soil moisture, streamflow and groundwater

and reservoir levels. As a result, these impacts are out of phase with impacts in other economic sectors. For example, a precipitation deficiency may result in a rapid depletion of soil moisture that is almost immediately discernible to agriculturalists, but the impact of this deficiency on reservoir levels may not affect hydroelectric power production or recreational uses for many months. Also, water in hydrologic storage systems (e.g., reservoirs, rivers, groundwater) is often used for multiple and competing purposes (e.g., flood control, irrigation, recreation, navigation, hydropower, wildlife habitat), further complicating the sequence and quantification of impacts. Competition for water in these storage systems escalates during drought and conflicts between water users increase significantly.

1.4 Socioeconomic Drought

Socioeconomic definitions of drought associate the supply and demand of some economic good with elements of meteorological, hydrological and agricultural drought. It differs from the aforementioned types of drought because its occurrence depends on the time and space processes of supply and demand to identify or classify droughts. The supply of many economic goods, such as water, forage, food grains, fish and hydroelectric power, depends on weather. Because of the natural variability of climate, water supply is ample in some years but unable to meet human and environmental needs in other years. Socioeconomic drought occurs when the demand for an economic good exceeds supply as a result of a weather-related shortfall in water supply. In most instances, the demand for economic goods is increasing as a result of increasing population and per capita consumption. Supply may also increase because of the improvement in production efficiency, the advancement in technology or the construction of reservoirs that increase surface water storage capacity. If both supply and demand are increasing, the critical factor is the relative rate of change. Is demand increasing more rapidly than supply? If so, the vulnerability to and the incidence of drought may increase in the future as supply and demand trends converge.

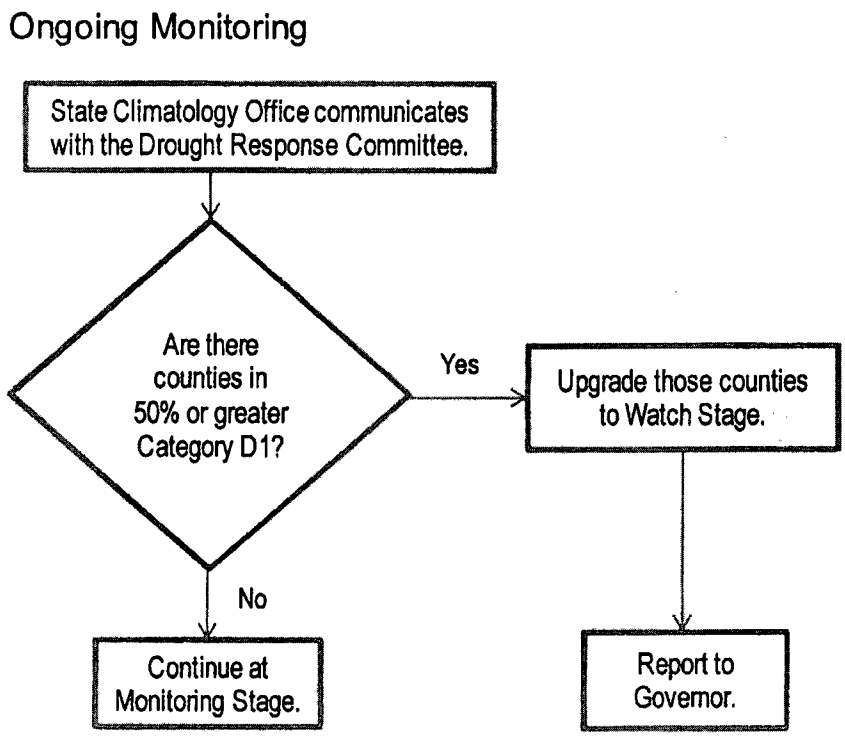
2. Drought Monitoring System

The U.S. Drought Monitor will be applied to counties in the State of Nevada to identify the initial stages of drought. Conditions indicated by the Drought Monitor will be assessed for counties as the primary political sub-units within the state. The Drought Monitor is an independent and scientific approach that synthesizes multiple drought indices, taking into account meteorological and/or climatological conditions, agricultural problems and hydrological conditions along with other available information. As a composite drought indicator, the US Drought Monitor integrates various types of drought, with a particular emphasis on the meteorological, agricultural and hydrological conditions. Issues posed by socioeconomic conditions may also be taken into account when moving into the third drought stage outlined in the following sections. The Drought Monitor is updated weekly, coordinated through the National Drought Mitigation Center at the University of Nebraska, Lincoln, with input and support from a number of federal, state and local partners nationwide. There are five drought intensity categories identified in the Drought Monitor:

D0	Abnormally Dry
D1	Drought – Moderate
D2	Drought – Severe
D3	Drought – Extreme
D4	Drought – Exceptional

3. Measures Initiating Action

The Drought Response Committee is comprised of a representative from the Office of the State Climatologist, the Division of Water Resources and the Division of Emergency Management. Drought Response Committee members remain in contact and, if it is determined that a Watch Stage exists for any counties, then the Nevada State Climatologist will call a meeting of the Drought Response Committee. Reports to the Governor are generated by the Drought Response Committee whenever there is a change in drought stage and throughout Drought Alert and Drought Emergencies stages.

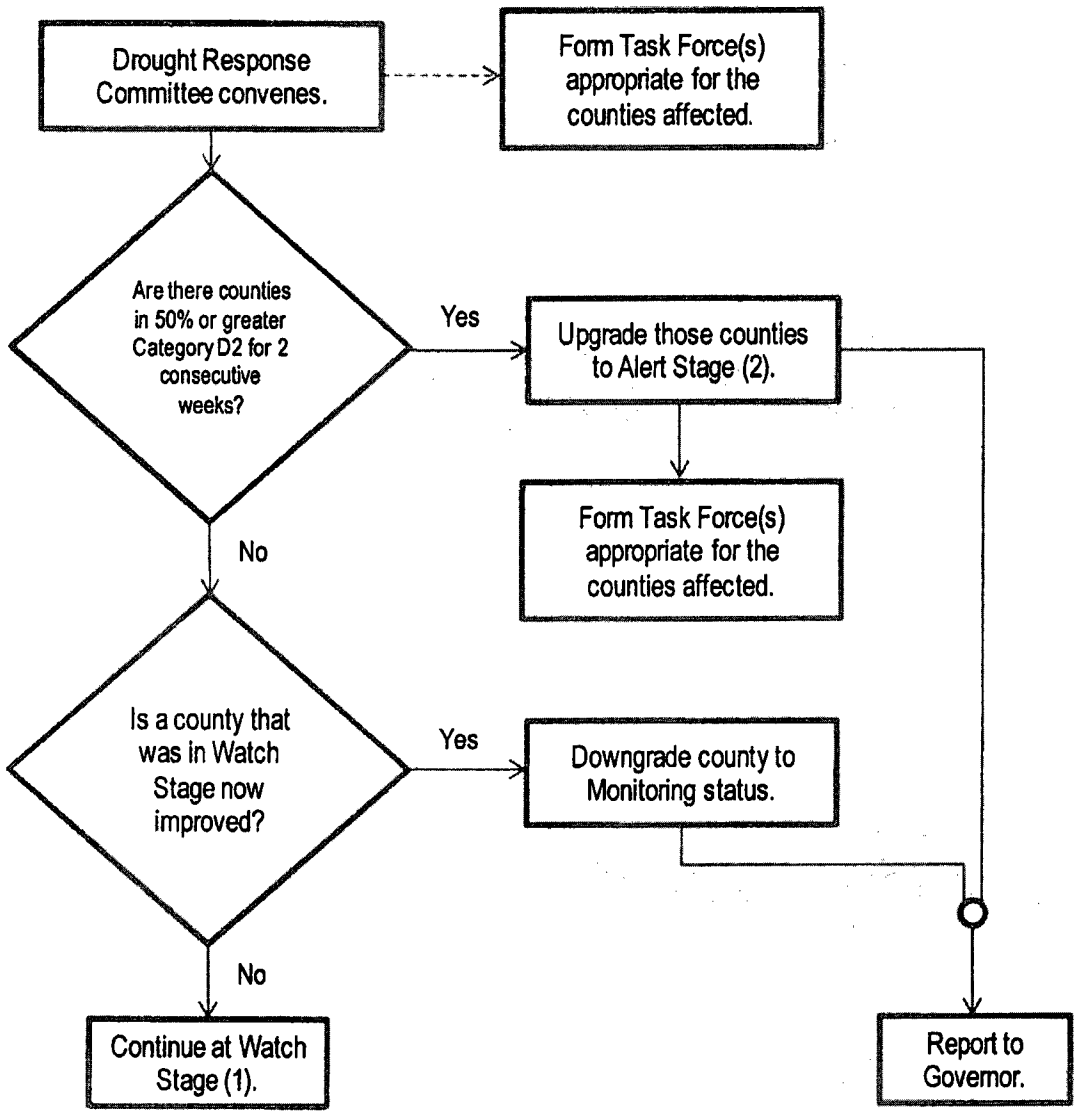


3.1 Drought Watch Stage

The Drought Watch Stage (Stage #1) begins when 50% or more of a county is classified as D1 (drought – moderate) in the Drought Monitor. During the Drought Watch Stage, the Drought Response Committee will assemble to monitor conditions within the area. The Drought Response Committee will monitor trends and serve as sources of technical information for state and local decision-makers, as well as for the public and media. The Drought Response Committee is composed of the directors (or their designees) of the State Climate Office, the Division of Water Resources, and the Division of Emergency Management. The chair of the Drought Response Committee will be the director of the State Climate Office.

Drought Impact Task Forces are *ad hoc* groups formed by the Drought Response Committee to act as experts in the drought affected region, serve as liaisons to local or federal government and provide information needed for dissemination to decision-makers and stakeholders. Task Forces may be expanded or restricted as needed to suit the needs of the situation. Multiple small Task Forces (coordinated through the Drought Response Committee) may be more effective than a single large Task Force. This formation is optional at the Drought Watch stage, but is likely to be necessary at the Drought Alert Stage.

1. Drought Watch Stage

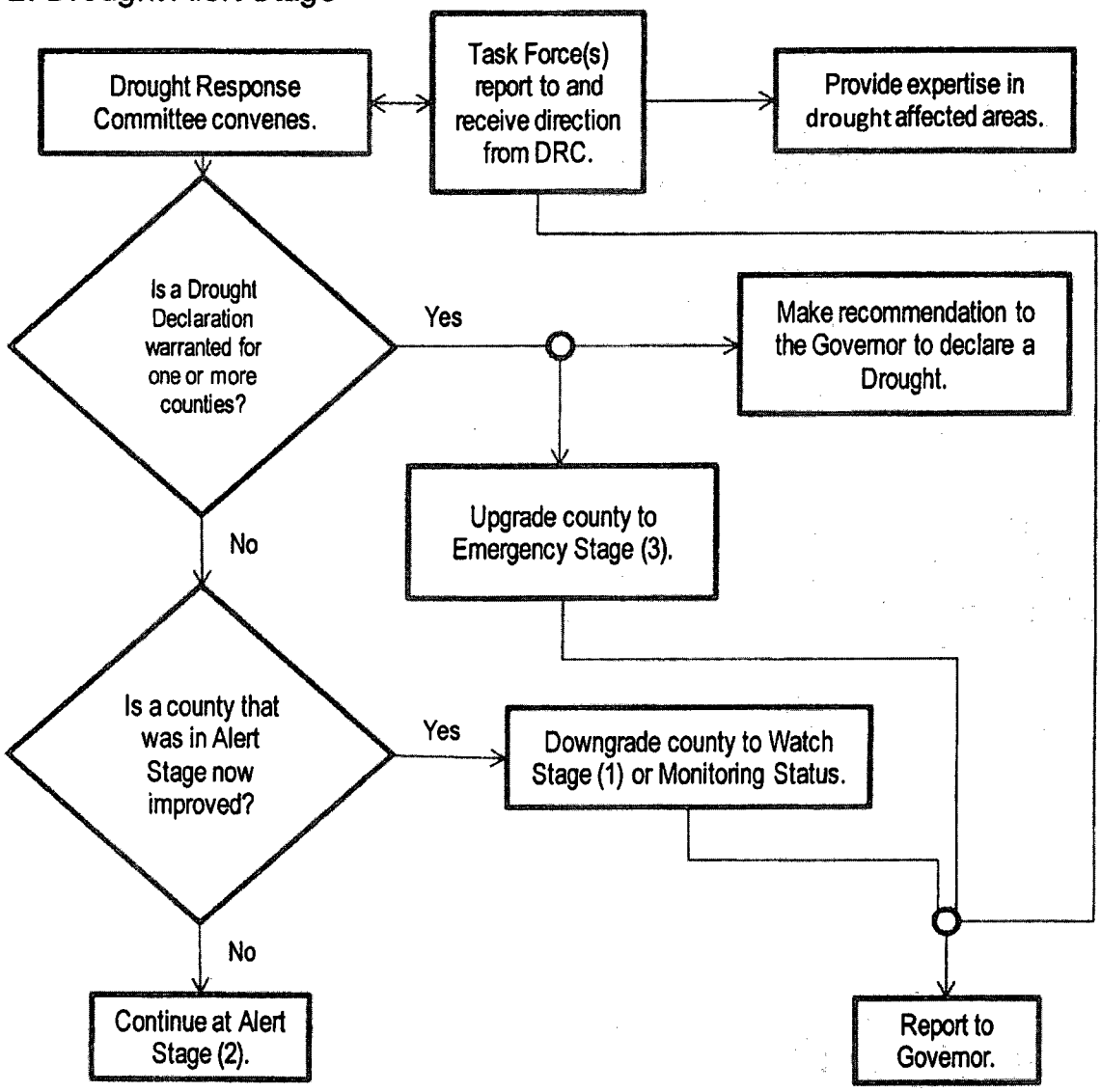


3.2 Drought Alert Stage

The Drought Alert Stage (Stage #2) occurs when 50% or more of a county is classified as D2 (drought – severe) or higher in the Drought Monitor for a minimum of two weeks. The Drought Response Committee will appoint the appropriate Task Force(s), on an *ad hoc* basis, in this stage. Task Force members must be able to speak for their agencies or organizations and have authority to make reasonable commitments toward effective cooperation and coordination. A Task Force may assess actual and projected impacts on the state's economy, agriculture and/or fish and wildlife resources in the area impacted by the drought. The chair of a Task Force will report regularly to the Drought Response Committee with details concerning the drought extent, magnitude and impacts and will provide information about drought mitigation measures being taken by public agencies or private individuals or organizations.

The Drought Response Committee will monitor the progress of Task Forces, and evaluate the adequacy of data collection, procedures, and reports. Further, the Drought Response Committee will collate information from individual Task Forces in order to develop its own assessments, projections and trends. The Drought Response Committee will oversee intergovernmental coordination, including federal agency actions, and make timely reports on the status of the drought and response activities to the Governor, other state leaders, the media and the public.

2. Drought Alert Stage



3.3 Drought Emergency Stage

The Drought Emergency Stage (Stage #3) begins after the Drought Alert Stage. This stage begins when the Drought Response Committee makes a recommendation, based on information from the Tasks Force(s) and other sources, that a drought should be formally declared for affected counties. The Drought Response Committee determines whether a critical situation exists or when it becomes obvious that existing state resources and strategies are insufficient to deal with the growing problems and needs. Upon making the recommendation, the Drought Response Committee alerts the Governor that identified portions of the state are experiencing a Drought Emergency.

The issue of whether to formally declare a drought is both controversial and important. The State of Nevada will approach formal declaration with caution. Formal designation may not substantially reduce economic impacts in drought affected areas but may cause serious economic impacts on tourism, agriculture, finance and other industries within the state. Unless a drought situation is expected to be of extreme magnitude, the safest approach is to aid county and local governments in determining their own situations. In many cases existing networks and processes of public agencies, water system managers and experts are available to assess and address particular needs. The criteria for such a recommendation is not as rigidly defined as it is for earlier stages, since the need is dictated by local and specific conditions and based on reporting and recommendations of the Drought Response Committee and Task Force(s). The declaration of a Drought Emergency signifies that conditions are present that may produce negative impacts in certain counties or regions. The Drought declaration may be a trigger point for federal resources. If the drought conditions persist to an extraordinary level, it may negatively impact a county to the point that it exhausts local resources available to respond to the emergency, the affected county may elect to execute a disaster declaration.

In the Drought Emergency Stage, the Drought Response Committee prepares a press release for the Governor. The Governor then may activate the State Emergency Operations Center (SEOC). The SEOC will be overseen by the Chief of the Division of Emergency Management (or designee) and will coordinate with the director (or their designees) of the Nevada State Climate Office and the State Engineer of the Nevada Division of Water Resources as lead responsible agencies, so that continuity of response efforts is maintained.

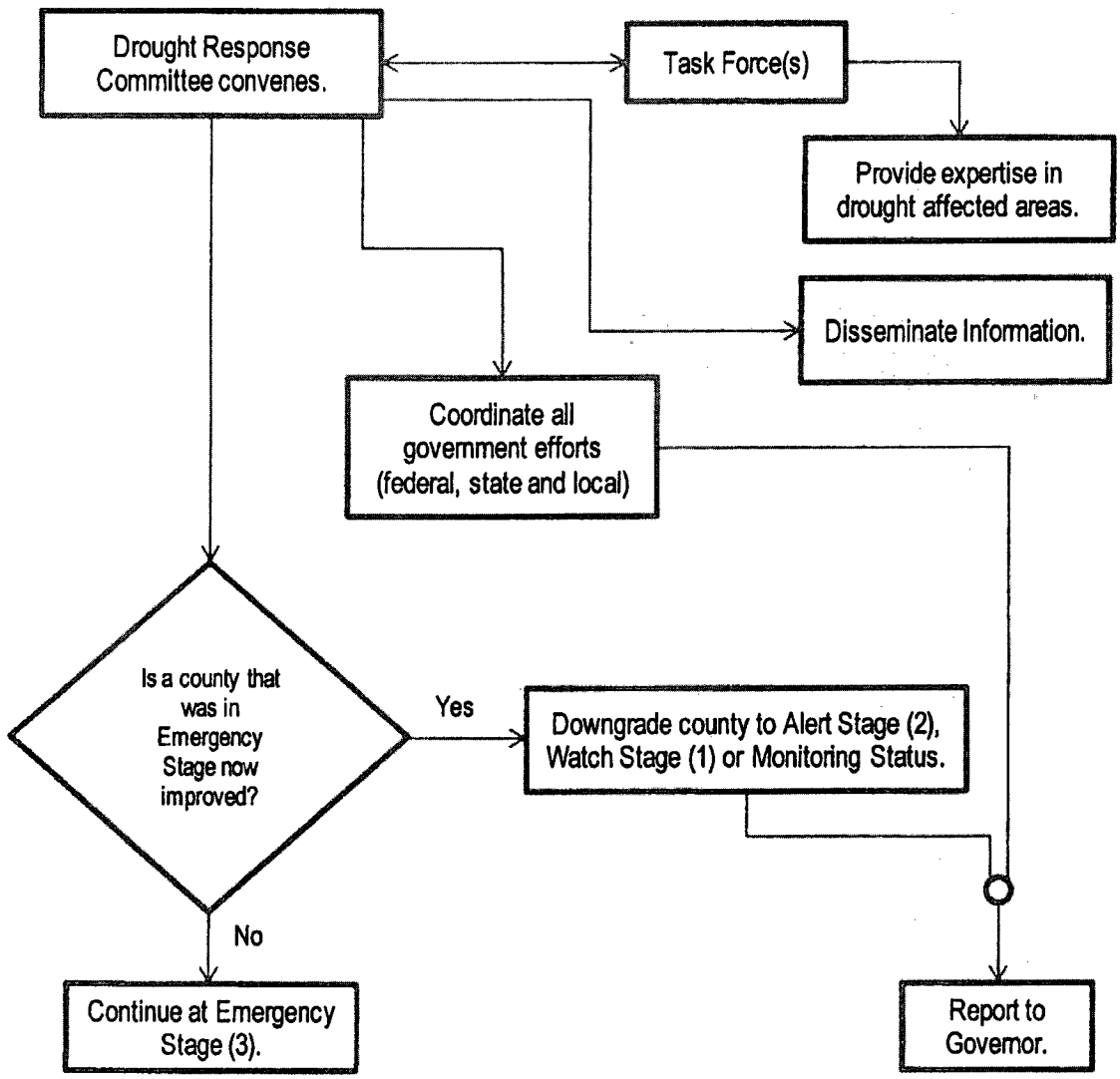
Under a Drought Emergency declaration the Division of Emergency Management, acting in its authority in accordance with Nevada Revised Statute (NRS) 414 and the State Comprehensive Emergency Management Plan (SCEMP), will coordinate state response efforts and make mitigation, response and recovery recommendations to affected counties. The Division of Emergency Management coordinates the state's resources through the SEOC to support local drought emergency response efforts and to carry out the Governor's policies. The Division of Emergency Management may also request support and resources from federal agencies such as the U.S. Department of Agriculture, Bureau of Reclamation and Federal Emergency Management Agency and from non-governmental organizations, such as the American Red Cross, as needed based on the drought conditions and needs of the local jurisdictions.

Upon activation, the SEOC assumes a number of drought related responsibilities, including interagency and intergovernmental coordination and media relations. The SEOC reviews recommendations to address unmet needs from the Drought Response Committee and Task Forces and develops strategies to coordinate the delivery of resources through state mutual aid, state agencies, federal agencies and non-governmental organizations. During the Drought Emergency stage, the SEOC directs the initiatives of the Drought Response Committee and Task Force(s). The Drought Response Committee will continue assessment activities and will provide advice and support to the SEOC, making drought response policy recommendations as needed through the duration of the drought. During the Drought Emergency Stage, Tasks Force(s) will provide recommendations on possible mitigation solutions along with their assessments of the situation both to the Drought Response Committee and to the SEOC.

The SEOC provides general policy direction and as appropriate makes policy recommendations to the Governor for his disposition (such as emergency funding requests and suggested legislative action). The SEOC may advise the Governor on the use of his emergency powers, including any requested data to support the Governor's request, if necessary, for a Secretarial or Presidential Disaster Declaration. The Governor sets the state's priorities, drought mitigation, response and recovery policy and resource allocation direction based on information and recommendations given to the Governor by the Drought Response Committee and the needs of the affected local jurisdiction, county or tribe. The Governor engages with the state

legislature when new authority and funding are necessary. If needs exceed the resources of the State, the Governor may request Federal Disaster Assistance. Federal assistance that does not need state action should be implemented when necessary without going through the Center.

3. Drought Emergency Stage



3.4 End of Drought

As the drought subsides and the emergency passes, if continuing assistance requirements can be met within normal state administrative channels, the Center prepares a press release for the Governor to declare the end to the drought emergency. Prior to disbanding, the Center will prepare and issue a final report on its activities to the Governor. When the Center disbands, the Drought Response Committee again assumes primary responsibility for response activities and for interagency and intergovernmental coordination until all counties of the state are out of the drought alert and drought watch stages. Before disbanding, the Drought Response Committee will prepare and issue a final report to the Governor and appropriate agencies.

4. Local Planning for Droughts

The state encourages local agencies and organizations to prepare for droughts, develop drought plans and to share information about drought preparation and planning. Local drought plans may provide strategic or operational responses to droughts. Other plans may be designed to identify proactive measures that may minimize drought and its consequences.

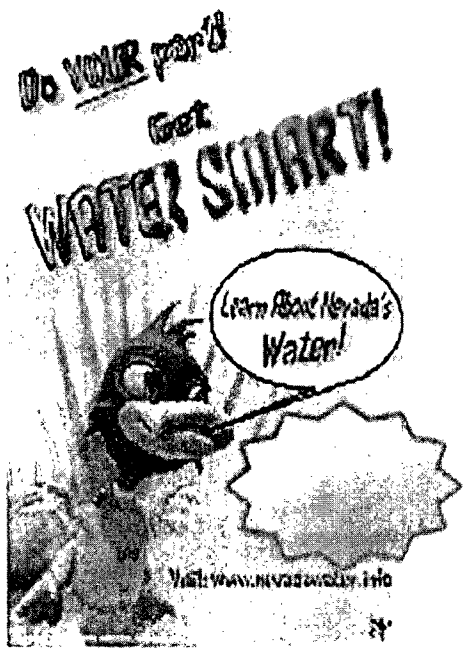
NRS § 540.141 requires that a water conservation plan, which must be adopted under NRS § 540.131 by a supplier of water as defined under NRS § 540.121, have a provision relating to a contingency plan for drought that ensures a supply of potable water. NRS § 704.662 requires that a public utility furnish a water conservation plan to the Public Utilities Commission, and NRS § 704.6622 requires that such a plan must include a provision relating to a contingency plan for drought that ensures a supply of potable water.

1. APPENDIX C Conservation Educational Materials

The following pamphlets and materials are provided by NVRWA at the following website: http://www.nvsource water.info and the website for Nevada Rural Water Association is http://www.nvrwa.org

POSTERS

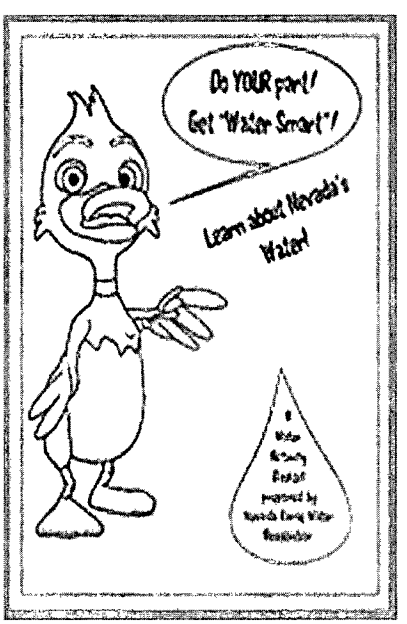
Duck out of Water



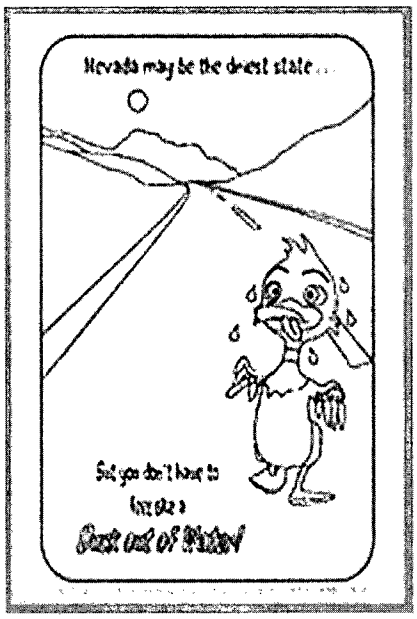
Get WATER SMART: This poster theme is used on wristbands.

Joe & Marlon in Golf Cart

FUN ACTIVITIES



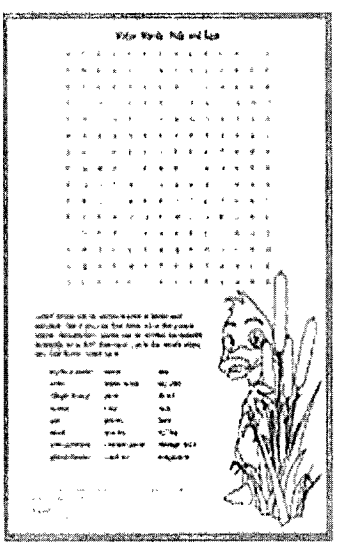
'Water Smart' Color Page



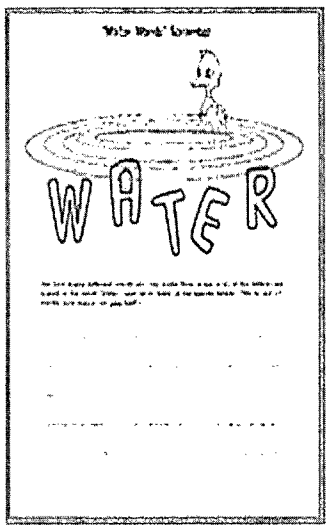
Poster to Color

Water Maze

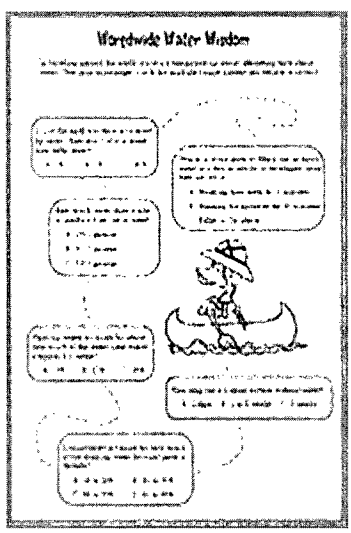
Quiz and Color Page



Water Word Hunt and Find



Make Words and Color Page

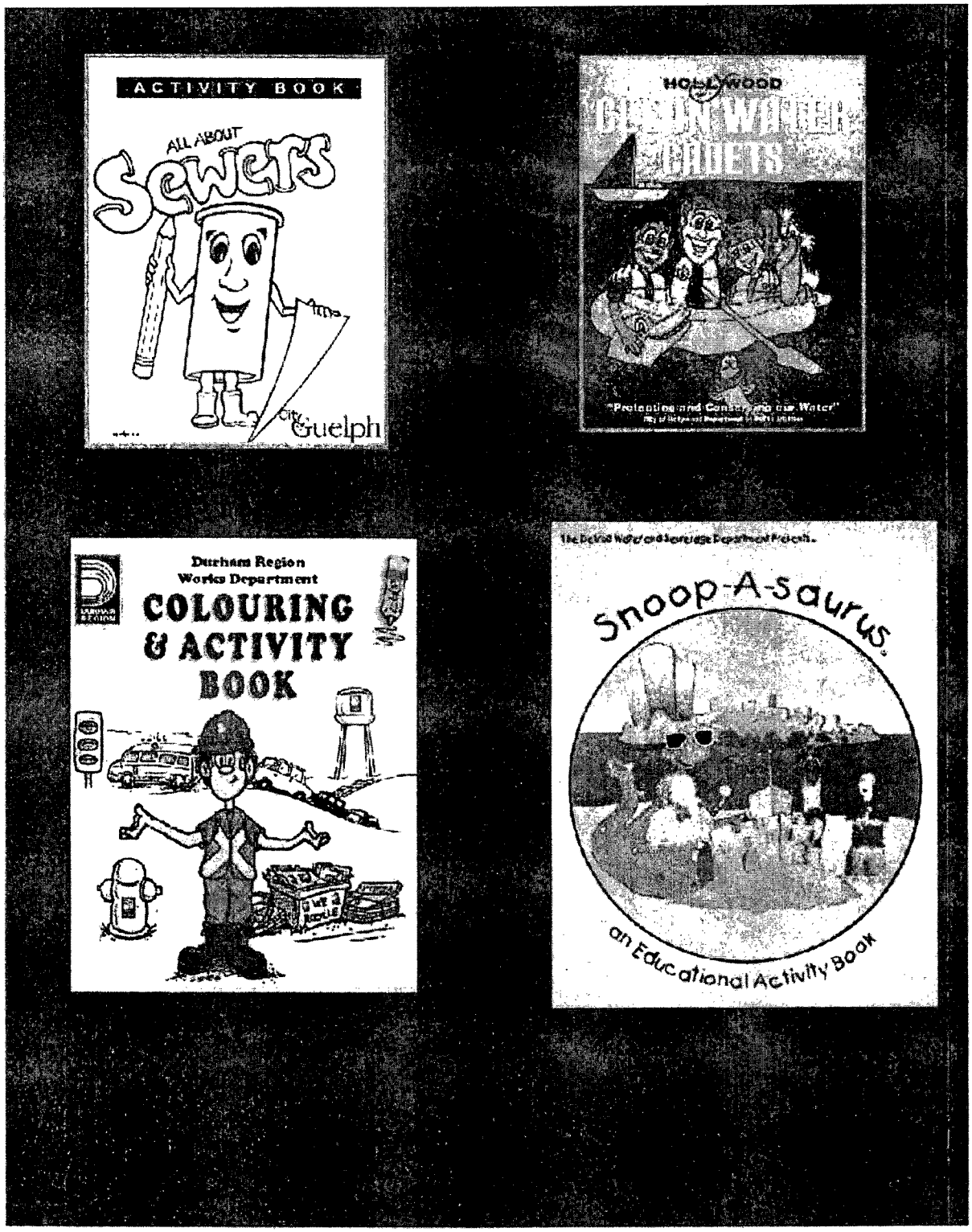


Water Trivia

WATER –RELATED ACTIVITY BOOKS FOR DOWNLOAD

More activities

http://www.nvsourcewater.info/page826.html


ACTIVITY BOOK
ALL ABOUT
Sewers
City of Guelph
HOLLYWOOD
Durham Region
Works Department
COLOURING
& ACTIVITY
BOOK
Snoop-A-saurus
an Educational Activity Book

Utilities, Inc.

UTILITIES, INC. HOME WATER AUDIT

Indoor water use

1. Hand washing

Number of times			Minutes per time	Minutes per time	Gallons per minute		Gallons used
	(low flow)	X		X	1.5 (low flow)	=	0
	(high flow)			X	2.5 (high flow)	=	0

Check for the flow number on the rim of the faucet aerator

2. Teeth Brushing

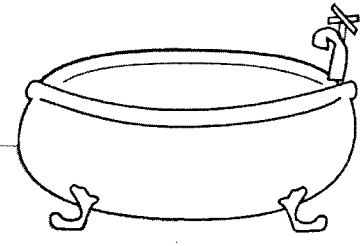
Number in family			Minutes water runs		Gallons per minute		Gallons used
	(low flow)	X		X	1.5 (low flow)	=	0
	(high flow)			X	3.0 (high flow)	=	0

Average Brushing time is 2 minutes. To be more accurate check for the flow number on the rim of the faucet aerator.

3. Showers

Number of showers			Number of minutes		Gallons per minute		Gallons used
	(low flow)	X		X	2.5 (low flow)	=	0
	(high flow)			X	8 (high flow)	=	0

List the number of showers taken each day by all people in your household and multiply by how many minutes each person showers. If your house was built since Jan. 1, 1994, or is retrofitted, use the "low flow" number, otherwise use the "high flow" number.



4. Baths

Number in family			Number of baths		Gallons per bath		Gallons used
	(1/3 tub)			X	12 (1/3 tub)	=	0
	(full tub)	X		X	36 (full tub)	=	0
	(garden tub)			X	70 (garden tub)		0
					TOTAL	=	0

Determine which listing accurately describes the type of tub used in your house. Fill in the information on the appropriate line(s). Fill in all lines that apply.

5. Toilet flushing

Number in family			Flushes per day		Gallons per flush		Gallons used
	(low flow)	X		X	1.6 (low flow)	=	0
	(high flow)			X	4 (high flow)	=	0

If your house was built since Jan. 1, 1994, or is retrofitted, use the "low flow" number, otherwise use the "high flow" number. The average number of flushes per person per day is four.

6. Dish washing by hand

times washed			Minutes water runs		Gallons per minute		Gallons used
	(low flow)	X		X	2.2 (low flow)	=	0
	(high flow)			X	2.5 (high flow)	=	0

Enter the number of times each day you wash dishes by hand and multiply by the number of minutes the water runs. Check for the flow number on the rim of the faucet aerator

7. Dish washer

Loads per week			Days per week		Gallons per load		Gallons used
	(low flow)	÷	7	X	6.5 (low flow)	=	0
	(high flow)			X	11 (high flow)	=	0

Check the listing for "normal Load" in your owners manual to determine if your dish wash is a high-flow or low- flow model

8. Clothes washer

Loads per week			Days per week		Gallons per load		Gallons used
	(low flow)	÷	7	=	18 (low flow)	=	0
	(high flow)				40 (high flow)	=	0

Check you owners manual for the wash cycle you typically use to determine if your washer is rated low flow or high flow

Grand Total for daily indoor use 0

Outdoor water use

8. Lawn Watering

Uses per week		Minutes water runs		Gallons per minute		Gallons used
	In-ground		X	15	=	0
	Above ground		X	30	=	0

Average is based on assumptions of current average flow for inground to be 5 irrigation zones per typical quarter-acre, 30 minutes per zone, 15 gallons per minute and above ground average is based on assumptions of watering with a garden hose at a average flow of 30 gallons per minute

Other Uses

Uses per week		Minutes water runs		Gallons per minute		Estimated Gallons used
	X		X		=	0
	X		X		=	0
	X		X		=	0
	X		X		=	0

Total Outdoor daily usage	0
Grand Total for indoor and outdoor daily usage	0

Grand total gallons		# of family members		Daily use per person	Water conservation usage goal
0	÷		=		120

This audit will self-calculate. To get an electronic version, please visit www.uiwater.com.

Where did these figures come from?

1-7	
Indoor Water Use	These flow rates were taken from the St. Johns River Water Management District in Florida (a Governmental Regulatory body that manages and preserves Florida's water resources) . Other sources (EPA Water Sense, South Florida Water Management District and Maryland residential audit) were reviewed with these flow rates being the most commonly used.
8 Outdoor Use	
In-ground	In-ground irrigation flow rate was taken from the South Florida Water Management District (a Governmental Regulatory body that manages and preserves Florida's water resources) and appears to be average on other utility surveys.
Above ground	This flow rate was taken from the St Johns River Water Management District in Florida (a Governmental Regulatory body that manages and preserves Florida's water resources) . Other sources (EPA Water Sense, South Florida Water Management District and Maryland residential audit) were reviewed with this flow rate being the most commonly used.
Water Conservation Usage Goal	This number is an average based on the 1990 Strategic Assessment of Florida's Environment (SAFE) report from FSU, that has the Best state uses a per capita water use at 109 gallons per day and the worst state per capita water use at 344 gallons per day. Another source USGS (U.S. Geological Survey) SIR 2004-5151 report was used for comparison, the report shows that average per capita in gallons per day for residential use is in the range of 120 gpd. This number is only a guideline. State and local standards may vary.

Utilities, Inc.

Bill Date	Account Number	Due Date	Please Pay:
02/06/2012	5242200000	2/28/2012	$ 33.57

Name — Primary Telephone # **(775) 777-7764**

Service Address

Activity Since Last Bill

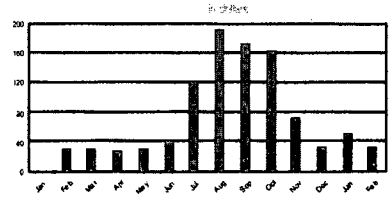
Previous Balance	$51.08	
Payments received as of 02/06/2012	$-51.08	
Balance as of 02/06/2012		$0.00
Residential Water Service		
Water Base Charge	$20.05	
6,290 gallons at $2.15 per 1,000 gallons up to 7,000 gallons	$13.52	
Total Residential Water Service		$33.57
Total Amount Due		**$33.57**

Spring Creek Utilities Company
Phone: (866) 277-5515
Collections: (866) 277-5515
Customer Service: (866) 277-5515
www.uiwater.com

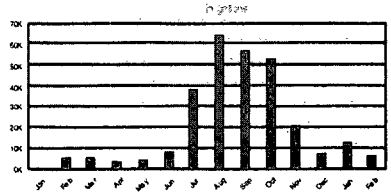
Summary of Service

Meter Reading	**Meter #**	51389680
Current	3141030	01/31/2012
Previous	3134740	01/03/2012
Usage	6,290 Gallons	
Number of Days:	28	
Average Daily Use:	225 Gallons	
Average Daily Cost:	$ 1.20	

Billing History



Consumption History



The payment for this bill is due upon receipt.
Make check payable to: Spring Creek Utilities Company

Messages

403

Utilities, Inc.

PO BOX 160609
Altamonte Springs, FL 32716

Account Number: 5242200000
Due Date: 2/28/2012
Please Pay: **$ 33.57**

Amount Paid

Spring Creek Utilities Company
PO Box 11025
Lewiston ME 04243-9476

☐ Address correction requested on back

403

APPENDIX F HOW TO READ YOUR METER

Locate Your Meter

Most water meters will be located outside in front of your house next to the curb on the street under a steel or concrete lid.

Reading Your Meter

There are two basic types of meters; a dial with a needle that measures in tenths of a cubic foot and a digital meter that measures from 100,000 down to 1 cubic foot. Most meters also have a small triangle on the face called a flow indicator. It will move when there is water passing through it. Read your meter from left to right.

Measuring Water Use Activities

It is possible to measure the water use of certain activities. These activities include but are not limited to the following:

- Shower or bath use.
- Watering the lawn.
- Washing clothes or dishes.
- Flushing a toilet.
- Washing a car.

To measure the water use of an activity, do the following (in order):

1. Make sure all water is off. This includes all faucets (inside and out), appliances, swamp coolers, or icemakers.
2. Write down the meter reading to two decimal places.
3. Perform the activity. Be sure to measure the amount of time in minutes that the activity required.
4. At the end of the activity, read the meter again. Subtract the first meter reading from the second one. The result is the amount of water used for the activity in cubic feet. To convert to gallons multiply the result by 7.48. To determine how many gallons per minute were used divide the gallon amount by the number of minutes the activity required. You should now have the water used amount in gallons per minute.

Detecting Leaks

1. Make sure all water is off. This includes all faucets (inside and out), appliances, swamp coolers, or icemakers.
2. Write down the meter reading and time of day to the minute.
3. Wait at least an hour before reading the meter a second time. Make sure no water is used during the test. Read the meter at the end of the test and record the time to the minute. If the flow indicator is moving during the test you may have a leak.

4. Subtract the first meter reading from the second. Multiply the remainder by 7.48. The result is the amount of water in gallons that passed through the meter during the test period. Also record the time duration of the test.
5. Divide the amount of water by the number of minutes in the test. The result is the amount of water that went through the meter in gallons per minute.
6. To measure amount lost over time multiply the gallons per minute by the following:
    - 1,440 for gallons per day.
    - 43,920 for gallons per month.
    - 527,040 for gallons per year.
7. Locating a leak is a process of elimination. Shut off one toilet at a time at the wall. Go to the meter and check to see if the flow indicator (triangle) is still moving. If the triangle has stopped you have discovered the leak. If not go on to the next one and repeat the above steps.
8. Check your sprinkler system. Shut off the system at the anti siphon valve and check the meter.
9. Check your main service line. You will need to shut off the valve between your house and the meter. If the meter stops the leak is between the meter and the valve.
10. These steps can be repeated for every fixture and fitting in your home. In the event you cannot locate the leak, you should call a professional plumber to find and fix it.

APPENDIX G — WATER CONSERVATION WEBSITES

WATER

- www.amsa-cleanwater.org
- www.energystar.gov
- www.nvrwa.org
- www.amconservationgroup.com

DROUGHT

- DroughtMonitor@ndmc.unl.edu

LANDSCAPE

- www.usda.gov/news/garden.htm
- www.tmwalandscapeguide.com/landscape_guide/interactive/index.php
- www.ebaygreenteam

EDUCATION

- www.wateruseitwisely.com
- www.washoeet.dri.edu/

INSTITUTIONAL

- www.douglascountynv.gov/sites/main/index.cfm
- www.lvvwd.com
- www.snwa.com
- www.co.washoe.nv.us/water_dept/rwpc/regionalplm
- www.tmh20.com
- www.cabq.gov
- www.ci.phoenix.az.us/WATER/wtrteach.html
- www.owue.water.ca.gov/leak/faq/faq.cfm
- www.epa.gov

LEAK DETECTION

- www.who.int/docstore/water_sanitation_health/leakage/begin.html

So often there's the sense that only with dramatic change can we bring about a more sustainable world -- but in reality, sometimes all it takes is the imagination of a child. Meet Mason Perez, a 9-year-old from Reno, Nevada, whose science fair project has helped save his community tens of thousands of gallons of water. Two years ago, when he was only seven, the grade schooler discovered an all-too-common point of waste that had been overlooked by grown-ups there for ages. And, with just one surprisingly simple fix, Mason found a way that the city could conserve one of its most important natural resources.

According to a report from *The Reno Gazette-Journal*, Mason's ingeniously innovative idea was borne from an experience he had two years ago. One day, he was at the a local baseball field enjoying a hot dog with his mother, and afterwards he visited the park's restroom to wash up -- but the water from the faucet was so strong that is was almost too painful for his little hands to bear. That's when he stumbled upon a simple discovery: if the tap was turned down halfway, it was actually just as effective.

The youngster began to suspect something which most adults had never thought of -- that reducing water pressure could save a lot of water. With this theory in mind, and his school's science fair approaching, Mason set out to prove it.

From the *Gazette-Journal*:

He tested his theory by using a half-gallon bucket and a stop watch, measuring how much water came out within a certain amount of time when the valves were wide open and when they were turned half off.

The tests were conducted three times each at his house, his grandmother's house and a friend's house, with a resulting savings in water use ranging from almost 4 percent to 23 percent.

He also went to three businesses: Reno Aces ballpark, Scheels sporting goods store and the Coconut Bowl at Wild Waters in Sparks. His tests showed savings from 6 to 25 percent.

It is common practice for construction workers to leave valves fully open when installing plumbing -- it's important for clearing out new pipes, but evidently unnecessary to stay that way in the long-term, and wasteful too.

Mason and his mother then approached the ballpark's manager, Rick Parr, and told him about the idea of turning down the pressure. At first, Parr wasn't convinced that it would help.

"But after listening to him, I thought, 'This kid could be right.' So I went down to the bathrooms myself to check out his theory. We didn't measure it, but you could tell right away that it worked." says Parr

"You don't have to be a scientist to see that you can save water. And it didn't make any difference in how well you could wash your hands. The only difference was you weren't wasting a lot of water in the process."

Since 2009, the park has reduced the water pressure in its facilities, saving an untold amount of water and saved 20 percent off their utility bill each month. And sure enough, the idea started catching the attention of the local water authority, TMWA. There are meetings planned to determine where Mason's idea can be implemented, like in other parks, public schools, casinos, and private homes.

Ultimately, turning down the pressure on some water lines won't just be a boon for the environment, but for the other areas as well.

"You know how teachers have kind of been losing their jobs?" Mason told the Gazette-Journal. "If we turned down every valve at every school we have in the Washoe County School District, with all that money we can save, we can save at least one teacher's job."

Oh, and by the way, his project took the top prize at the science fair.

This post was originally published by Treehugger.

APPENDIX I

COMPATIBLE LANDSCAPING VEGETATION THE SCUC AREA

The following lists are taken from the Truckee Meadows Water Authority (TMWA) website. More information on these flowers, trees, and lawns including color photos can be found at www.tmwalandscapequide.com

FLOWERS AND WATER USAGE

Yarrow –low
Bubblegum Mint- low
Hollyhock – moderate
Snapdragon – moderate
Sea Pinks – moderate
Sage or Wormwood – very low
Aster – moderate
Basket-of-Gold – low
Tickseed – low
Spring Crocus – low
Pinks – low
Coneflower – moderate
Sulfur Flowered Buckwheat – very low
California Poppy – low
Blanket Flower – low
Gaura – moderate
Handy Geranium – moderate
Baby's Breath – moderate
Daylily – moderate
Coral Bells – moderate
Caneytuft – moderate
Iris Germanica – low
Red Hot Poker – moderate
Lavendar – moderate
Lily – moderate
Flax – low
Pussy Toes – moderate
Daffodil or Narcissus – low
Catmint – low
Evening Primrose – low
Poppy – moderate
Beard Tongue – moderate
Russian Sage – low
Balloon Flower – moderate
Black-Eyed Susan – moderate
Sage or Salvia – moderate
Soapwort – moderate
Stonecrop – low
Dusty Miller – low
Lamb's Ears – low

Painted or Michaelmas Daisy – moderate
No Lupine – low
Society Garlic – low
Tulip – moderate
Spike Speedwell – moderate
Violet or Pansy - moderate

TREES

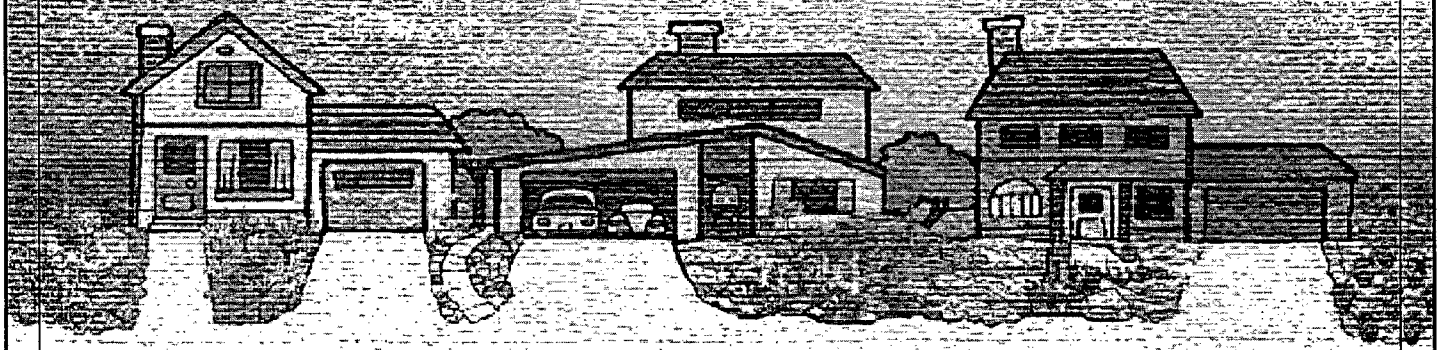
Fruiting Apple Tree – deep water once every 7-10 days
Golden Chain Tree – deep water once every 7-10 days
Japanese maple and cultivars – deep water once every 7-10 days
Magnolia - deep water once every 7-10 days
Mountain alder - deep water once every 7-10 days

LAWNS

Consider planting alternative to turf, such as native grasses:
Blue Grama Grass – durable and drought hardy
Buffalo Grass – deep root system and drought resistant
Durar Hard Fescue – deep root system and drought resistant
Sheep Fescue – drought-tolerant

Common Sense Xeriscaping™ for Small Lot Owners

Condensed from an article by
Margaret Kelly, Colorado State University Cooperative Extension



It's taken awhile, but *Xeriscape ™*, landscaping for water savings as well as beauty, has come into its own.

But, what's a homeowner to do? Tear out everything you have and start over, in the interest of saving water?

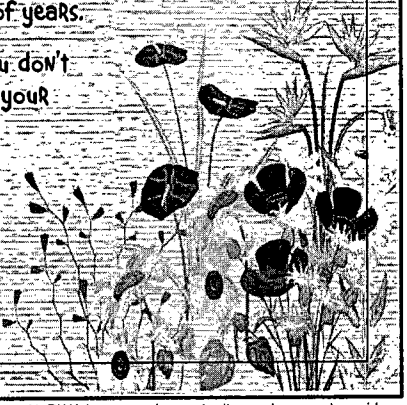
No. Such drastic measures probably aren't needed. Here are some guidelines that apply especially to owners of small-to-average-sized lots with traditional landscapes.

Don't do it all at once. Think about your landscape in pieces. Following are relatively inexpensive, weekend-manageable projects to get you started.

- Think waste-free. Consider removing a few feet of the grass along the driveway and sidewalk. Plant these areas with non-thirsty ground cover plants, small shrubs or perennial flowers. This allows these buffer areas to soak up water from lawn watering that normally would fall on the pavement and run off into the street.
- Consider replacing the lawn on steep slopes with a rock garden, tiered wall, or low-spreading evergreens. As with pavement buffer plantings, the water that runs down the slope from other parts of the yard will be captured by these plants.
- Think ease and economy. Try to re-group flowers and other plants so the yard is organized into different water use zones. Grouping or "zoning" plants with similar water requirements allows you to meet their high, medium or low-water needs so some plants in the group are not over-watered while others are under-watered. To further conserve moisture, use mulches between shrubs, flowers and in the vegetable garden.
- Research an inexpensive, labor saving drip or soaker water system for non-turf areas.
- Think limits. You may have more lawn than you want. You could remove turf from narrow, hard-to-water strips and replace it with pretty, drought-tolerant plants. Remove turf from between and behind shrubs; replace it with mulch.
- Now, take a walk through your yard. Give it a second look. You will come up with ideas of your own. Be realistic about time and money. Xeriscaping slowly lets you allocate both over a span of years.
- Research new plants you're considering. There are a lot of books out there, and if you don't find what you need, ask the nursery or landscape experts. A good place to start is at your county Cooperative Extension office.

In your own little piece of this world, get the most out of every gallon of water you apply to the landscape - think:

XERISCAPE™!



For complete article see: http://www.extension.colostate.edu/4DMG/Xeris/common.htm

Prepared by Nevada Rural Water Association with the assistance of a grant from the USDA, Farm Services Agency to the National Rural Water Association. NvRWA is an equal opportunity employer and provider.

Natural Landscaping

Background Information

Natural landscaping involves both site design and plant selection.

Native plants are adapted to local climate, soil and environmental conditions. Properly placed, they require very little maintenance and water – and that means better water quality because there is less runoff, and less need for pesticides and fertilizers.

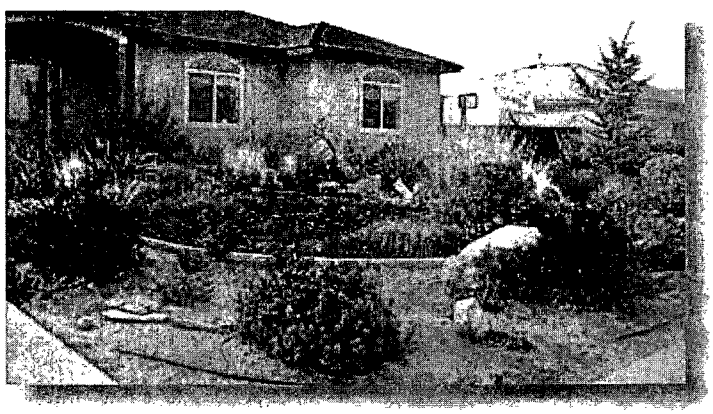
Non-native Xeriscape plants also require less water and chemical support and may be good landscape choices as long as they are not on the state's noxious weeds list.

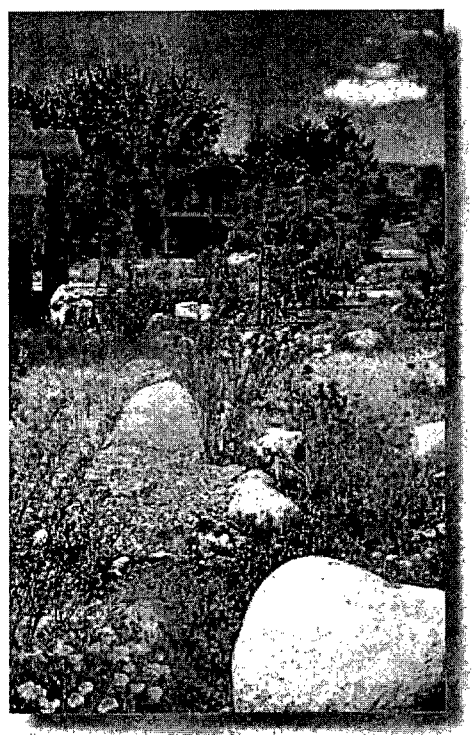
Community Strategies

- As a key part of site planning, preserve and enhance existing natural areas such as prairies, wetlands and floodplains.
- Encourage the use of native species and/or Xeriscaping in your community's landscape design criteria.
- Contact the University of Nevada Cooperative Extension at (775) 784-4848 for information about training programs for home landscape professionals concerning best management practices for landscape design and maintenance.

At a Glance

- Low maintenance plants that require little water result in better water quality because there is less runoff, and less need for pesticides and fertilizers.
- Native plants, which are adapted to local climate, soil and environmental conditions, are often used in natural landscaping design.
- Non-native Xeriscape plants may also be good choices as long as they are not on the state's noxious weeds list.





The photos of both these gardens illustrate that xeriscape does not have to be "zero-scape!"

Some Examples

- Washoe County Development Code (section 110.412.25) encourages preserving existing vegetation and ecological communities where appropriate and feasible.
- The Truckee Meadows Water Authority has developed a landscaping guide: Landscaping in the Truckee Meadows. It lists trees, shrubs, and groundcovers that are drought tolerant and grow well in our area. The original booklet is out of print, but at interactive website exists at www.tmh20.com.

Both of these accent plants do well in Nevada's climate, making them excellent candidates for xeriscape gardens.

For More Information

City of Aurora Landscape Requirements Manual
<www.auroragov.org/documents/CTY_PL_LandscapeManual.pdf>

City of Broomfield 1995 Master Plan
<www.ci.broomfield.co.us/planning/masterplan/99MP1_97.html>

Colorado State University Gardening On Line Fact Sheets
<www.ext.colostate.edu/PUBS/GARDEN/pubgard.html>

EPA – A Sourcebook on Natural Landscaping for Public Officials
<www.epa.gov/glnpo/greenacres/toolkit/chap1.html#WHAT%20IS>

Landscaping in the Truckee Meadows <www.tmh2o.com>

Truckee Meadows Water Authority Interactive Landscape Guide
<www.tmh2o.com/landscape_guide/interactive/frontpage.php>

University of Nevada Cooperative Extension Ask a Master Gardener
<www.unce.unr.edu/mastergardener/mastergardener.html>

Water Efficient Landscape Design Model Ordinance
<www.dola.state.co.us/smartgrowth/documents/Water%20Efficient%20Landscaping%20Design.pdf>

Water-Efficient Landscaping: Preventing Pollution and Using Resources Wisely
<www.epa.gov/OW-OWM.html/water-efficiency/final_final.pdf>

WaterWise Landscaping Best Practices Manual: A Companion to the Landscape Design Ordinance
<www.dola.state.co.us/smartgrowth/documents/WaterWise%20Landscaping%20Best%20Practices%20Manual.PDF>

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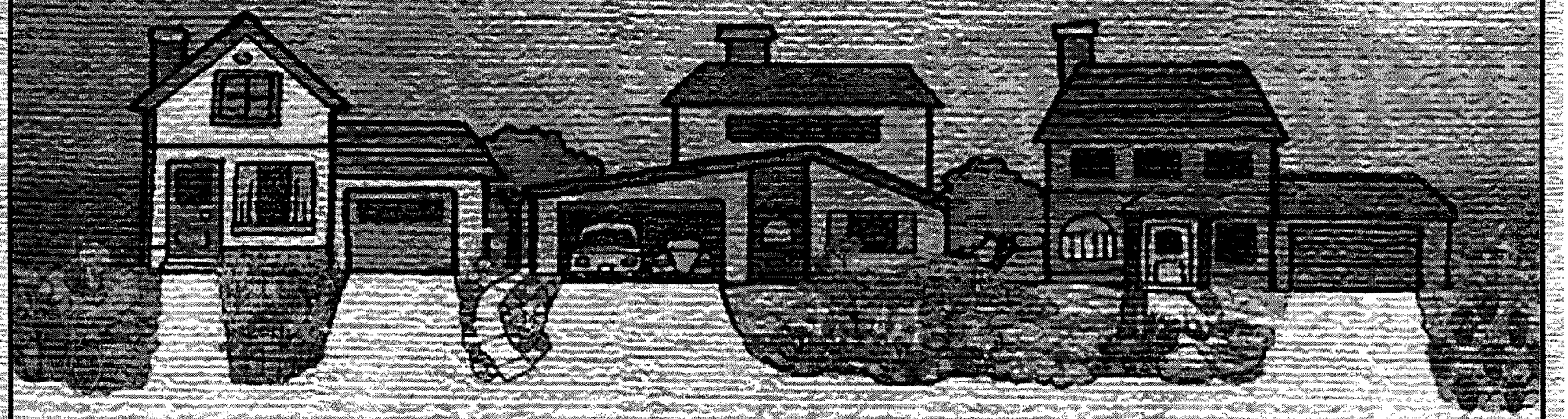
Protecting water quality through community planning

Adapted with permission from the Water Protection Toolkit for Local Officials, AWARE Colorado.

APPENDIX J XERISCAPE PRESENTATION

Saving
WATER, TIME and MONEY



through

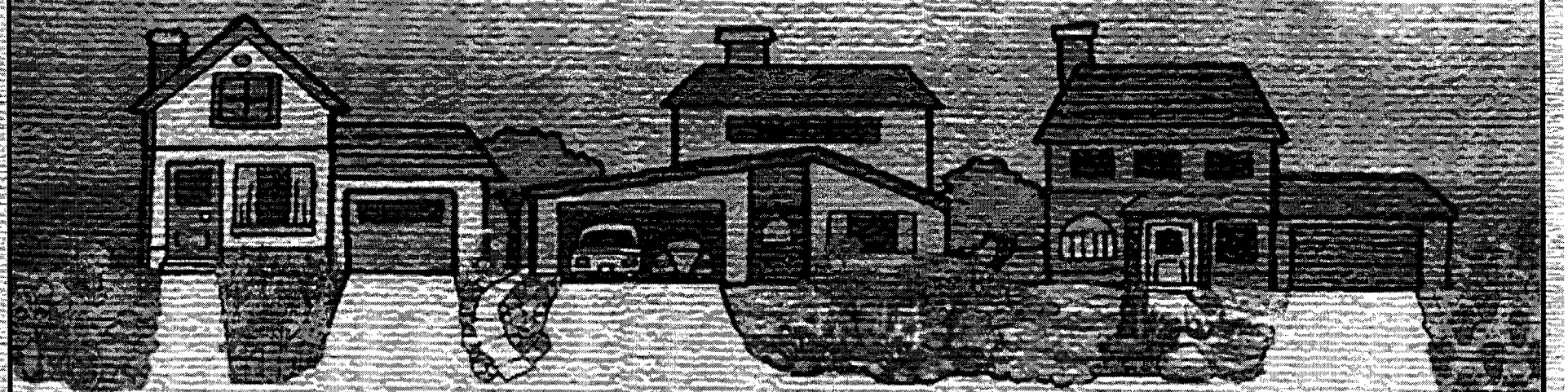
XERISCAPE™

Prepared by:
Teresa Taylor, Ph.D.
Nevada Rural Water Association

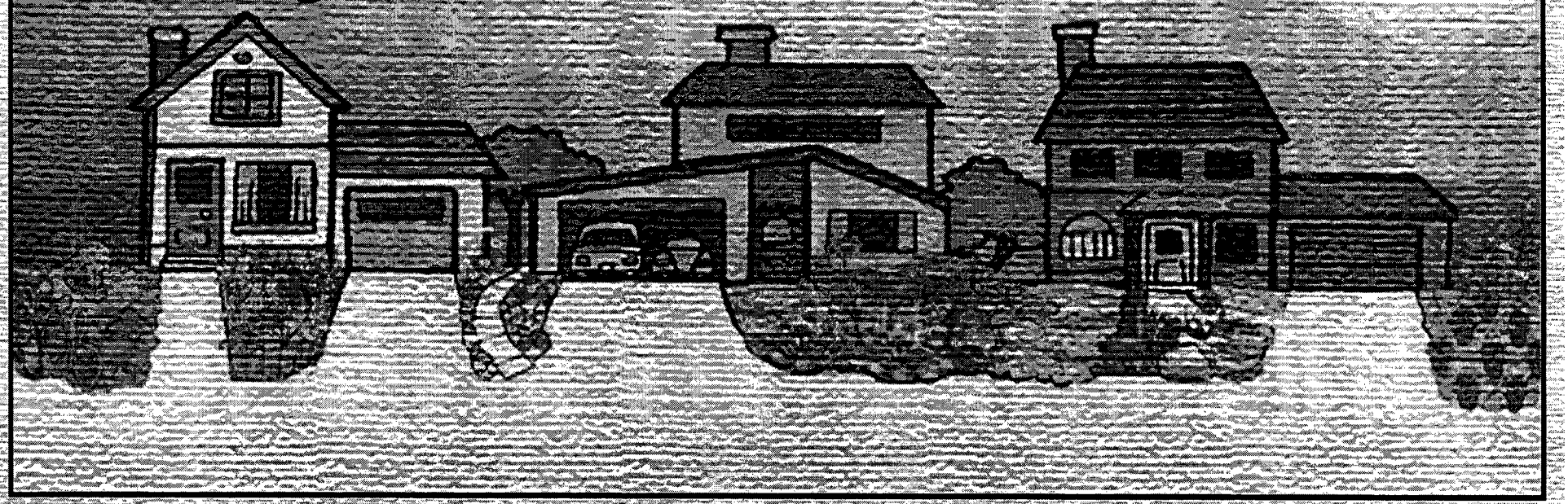
NEVADA
RURAL WATER
ASSOCIATION

Funding for preparation of Xeriscape materials made possible through a grant to the National Rural Water Association through the USDA Farm Services Agency. Nevada Rural Water Association is an equal opportunity employer and provider.

What *IS* XERISCAPE?



The term "XERISCAPE" (pronounced 'zera-scape') was developed in Colorado in 1981 in response to a prolonged drought.

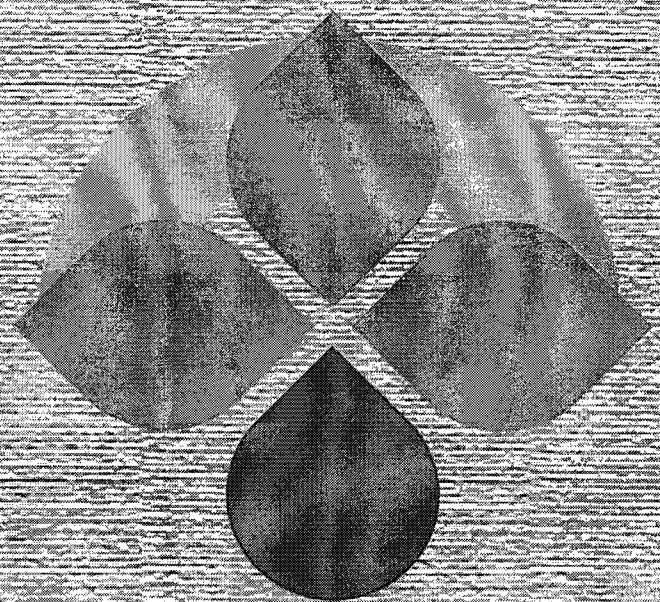


It comes from merging the Greek word Xeros (“Dry”) with the English word Landscape.

Xeros + Landscape (“scape”) =

XERISCAPE

The term is now a trademark, along with the stylized logo of 3 green leaves and a blue water drop:



XERISCAPE™

What XERISCAPE is NOT:

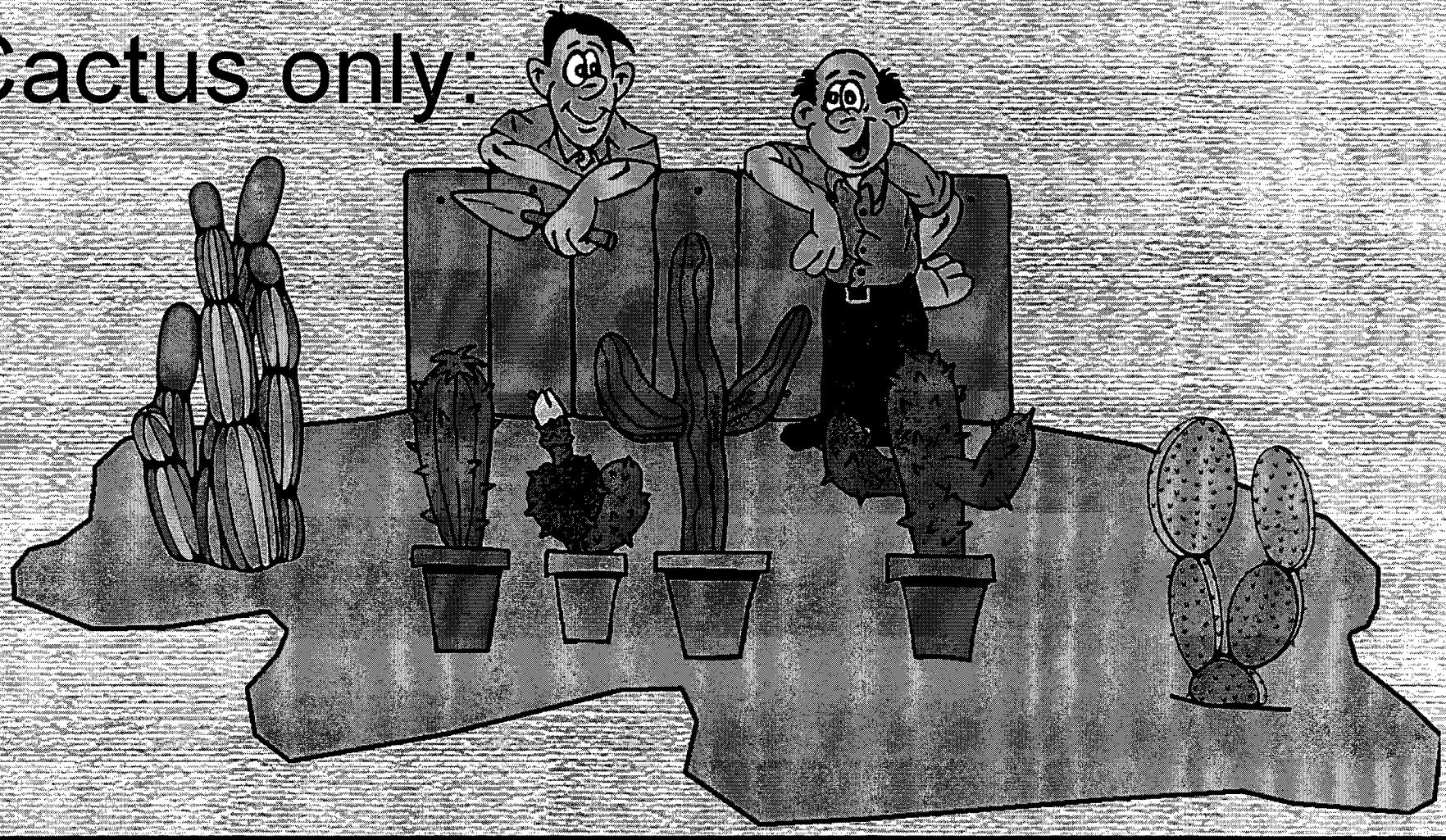
Dry only:

What XERISCAPE is NOT:

Rocks only:

What XERISCAPE is **NOT**:

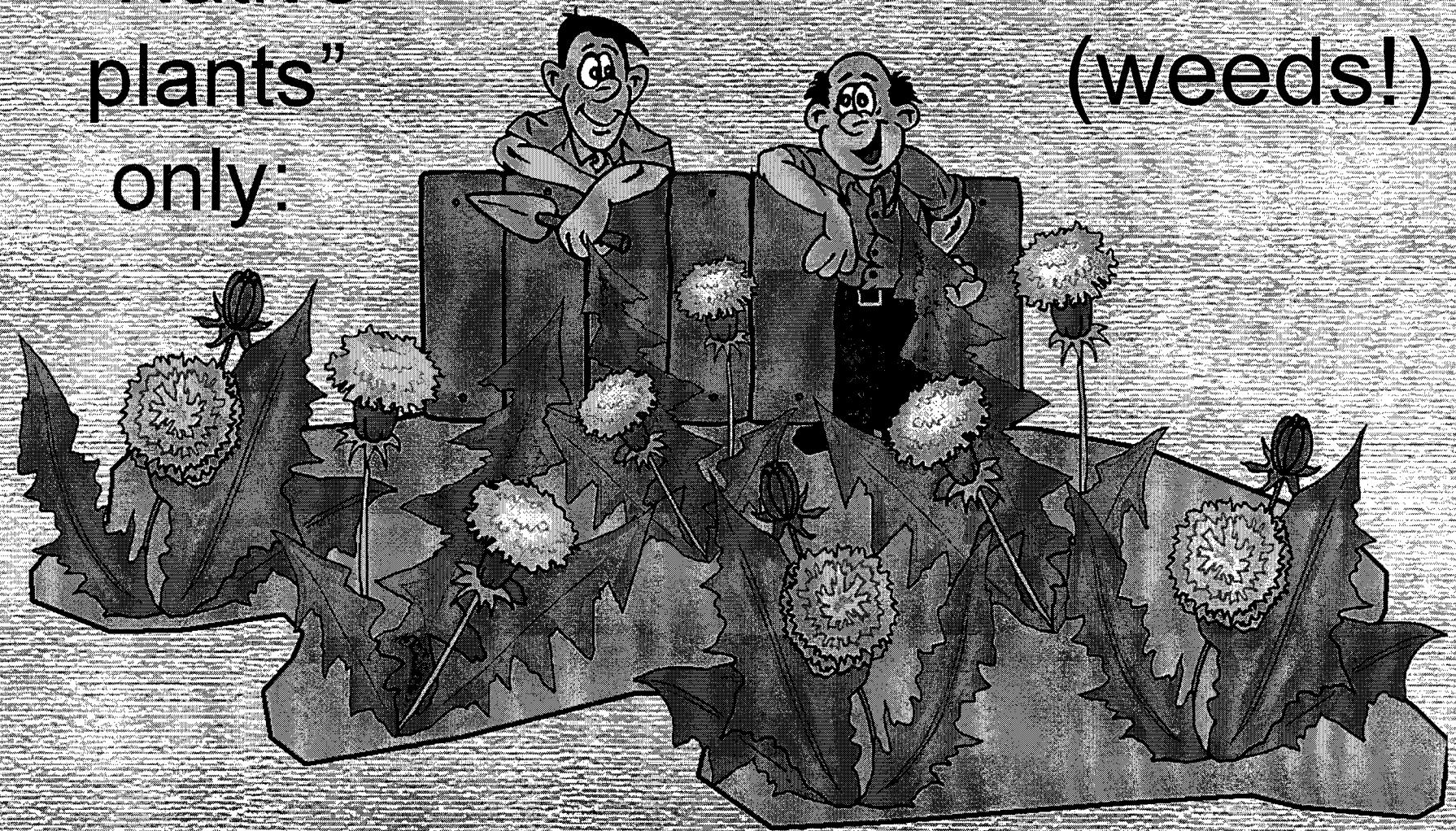
Cactus only:



What XERISCAPE is NOT:

"Native plants" only:

(weeds!)



What XERISCAPE is NOT:

"Lawnless":

Although the term “xeric” implies no added water, it was never intended to mean that.

By definition, the term XERISCAPE was coined to mean water applied in well-controlled amounts and locations.

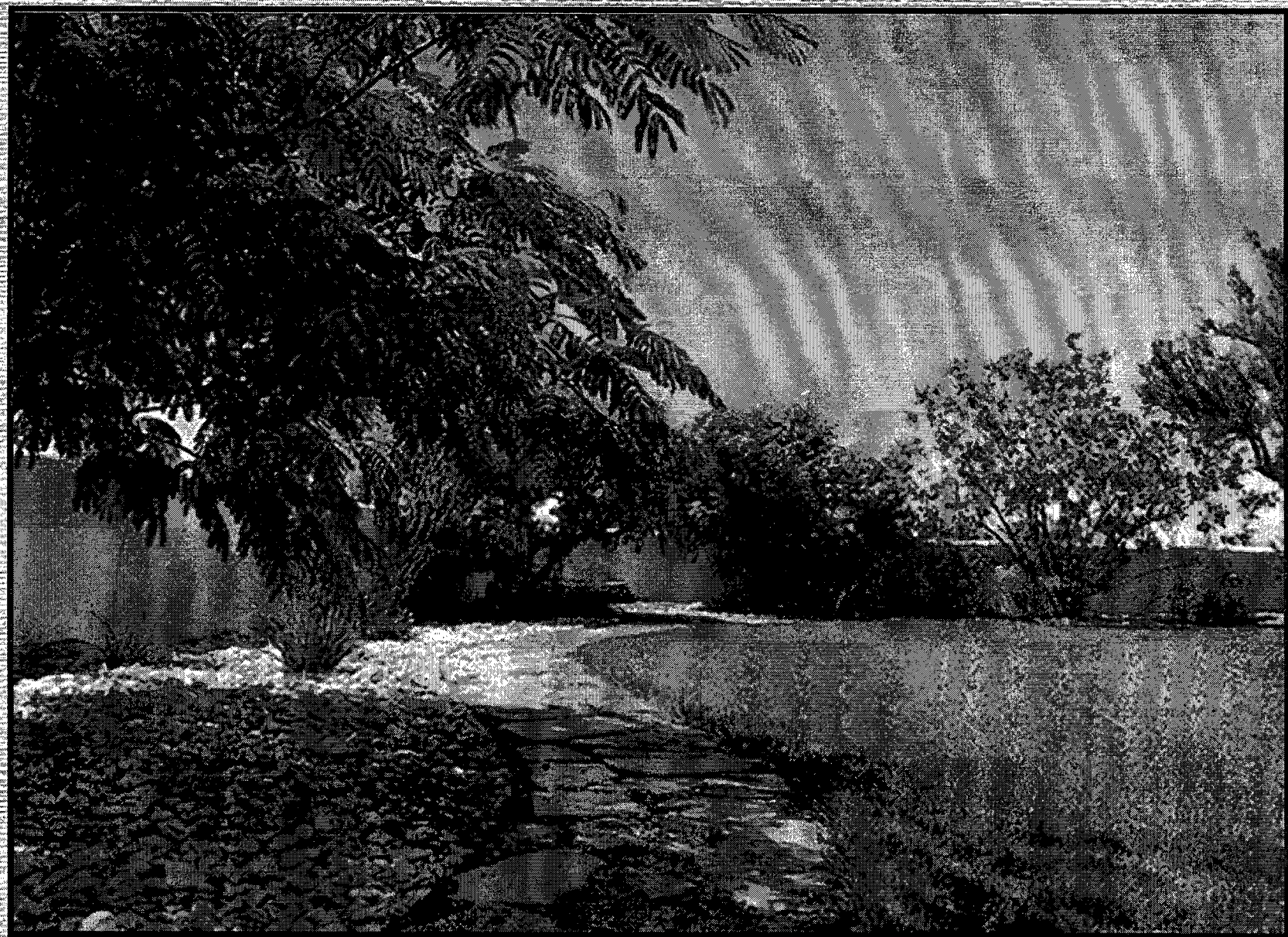
XERISCAPE is ***NOT*** "Lawnless" landscaping!

It ***IS*** "Less-lawn" landscaping!

Examples of XERISCAPE:

Examples of XERISCAPE:

Examples of XERISCAPE:



Examples of XERISCAPE:

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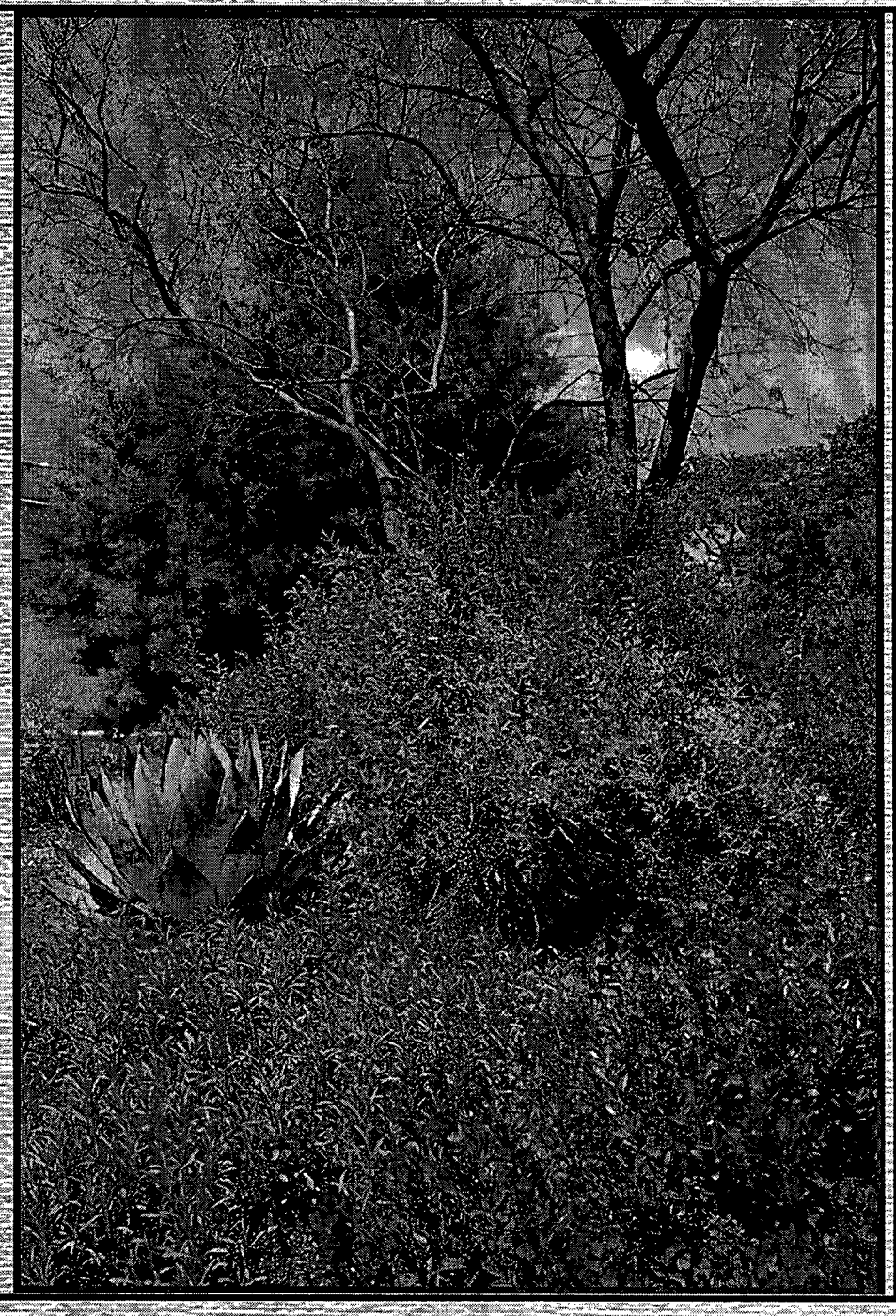


Examples of XERISCAPE:

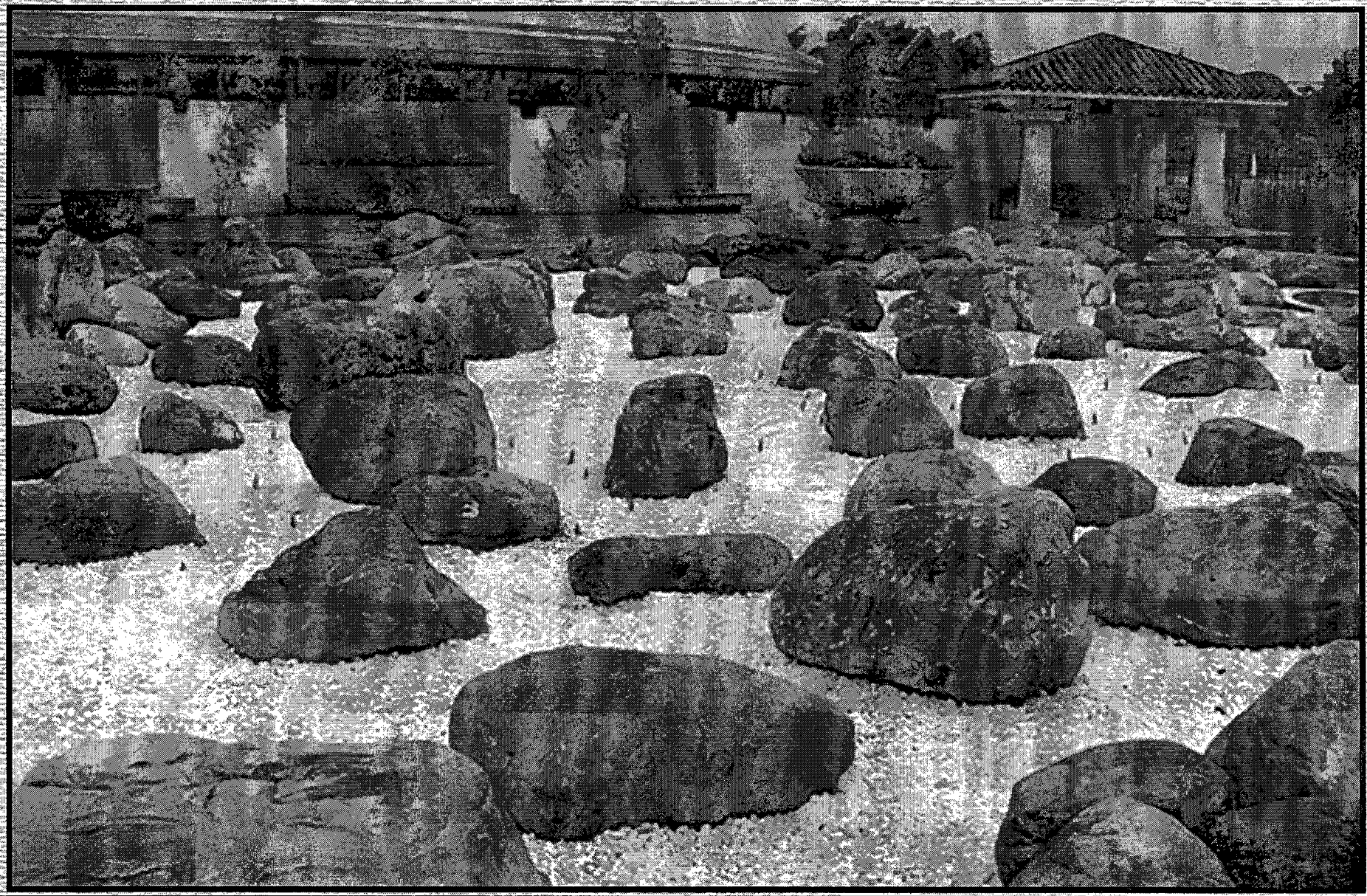
Examples of XERISCAPE:

Sometimes XERISCAPE has been given a bad rap because people have TOTALLY misinterpreted the technique!

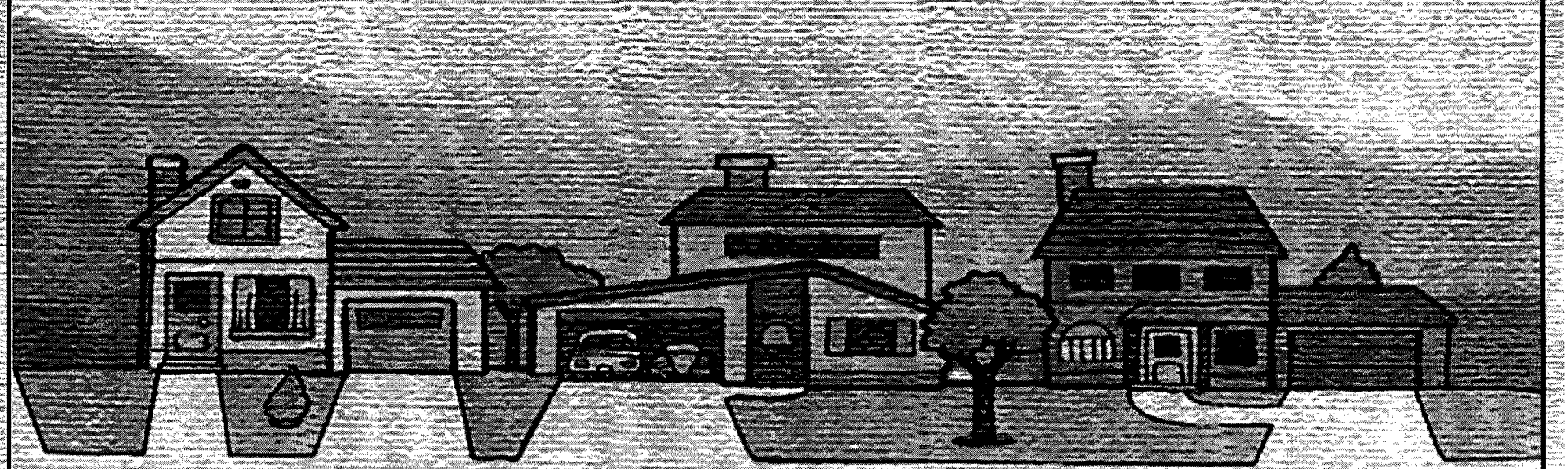
Here's a couple of examples:

This is NOT XERISCAPE

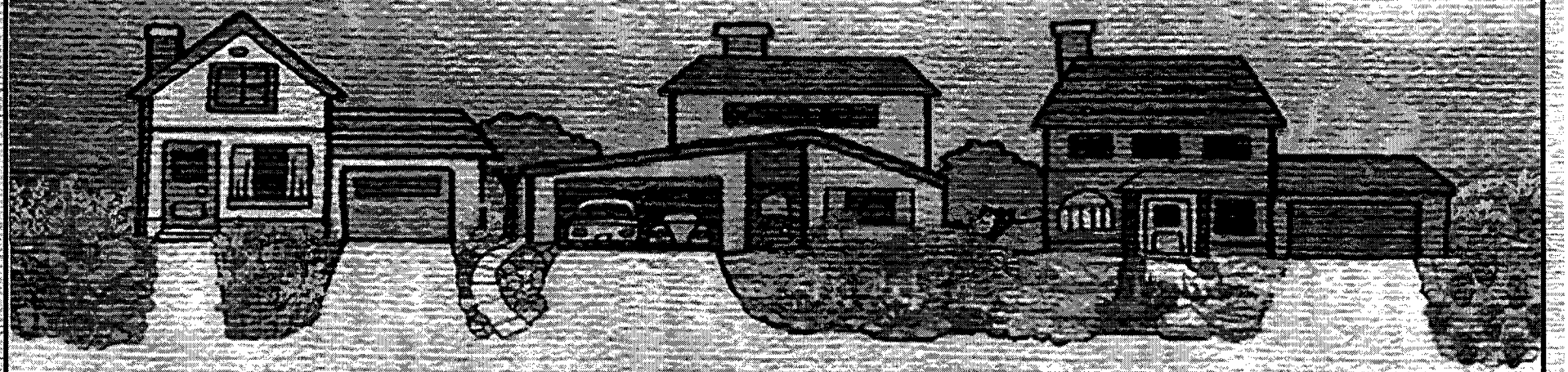
Nor is THIS



Why should **YOU** be interested in . . .

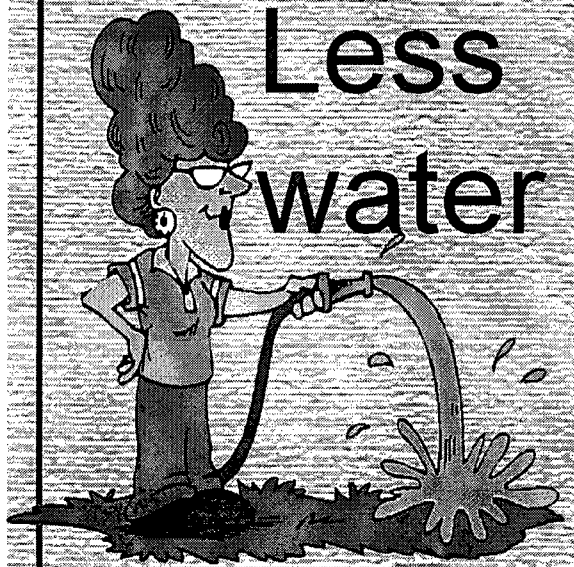


. . . converting your lawn to XERISCAPE?



Reason #1:

Less water



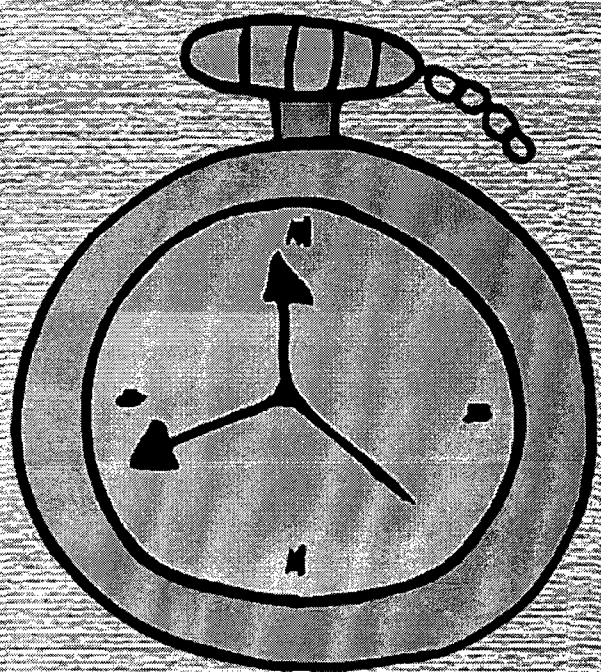
fertilizer

pest control

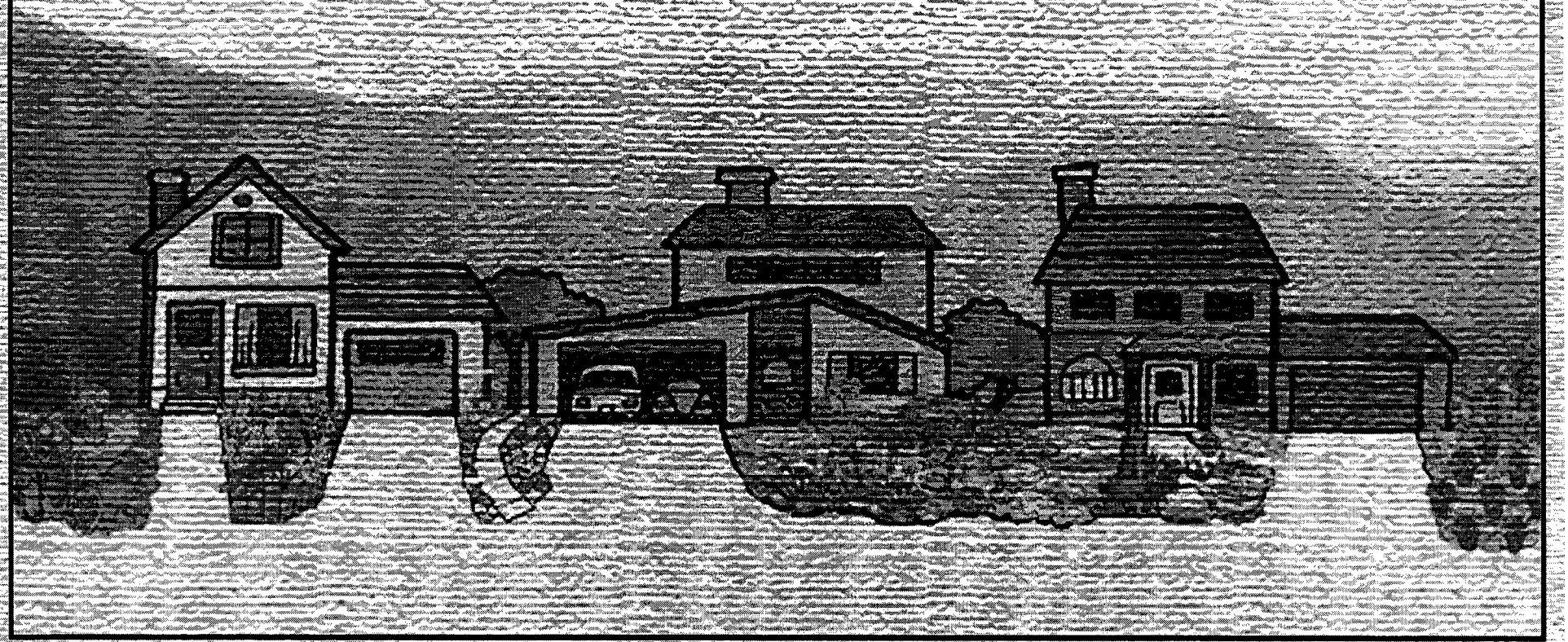
and maintenance required!

Reason #2:

Xeriscape saves time and money!



Reason #3: Xeriscape is typically more creative than "traditional" landscaping.



Before: Not a lot of creativity or street appeal.
(AND 33,000 gallons water use in summer!)

After: Lots more creativity and curb appeal!
(And only 22,000 gallons water use in summer!)

Reason #4: Xeriscape is a good move for the future.

"We predict 36 states will (have) water shortages by 2013."

- EPA

Reason #5:

Xeriscape minimizes senseless water waste (run-off from watering).

Reason #6: Xeriscape helps avoid lawn chemicals being washed into water sources.

There are 7 basic steps in XERISCAPE:

1. Planning
2. Soil
3. Plants
4. Turf
5. Irrigation
6. Mulch
7. Maintenance

Step 1:
Planning

It is very important to start your project with a plan.

But that doesn't mean you have to hire a landscape architect (although there are some who specialize in XERISCAPE).

Make your decision based on your budget, your time frame, and whether or not you enjoy doing landscaping activities yourself.

(Of course, if you don't know which end of a shovel is which, you might want to consider hiring help!)

The first thing to consider in coming up with a plan is:

FUNCTION

What do you want to do in your yard?

Backyard barbeques?

Gardening?

Relaxing?

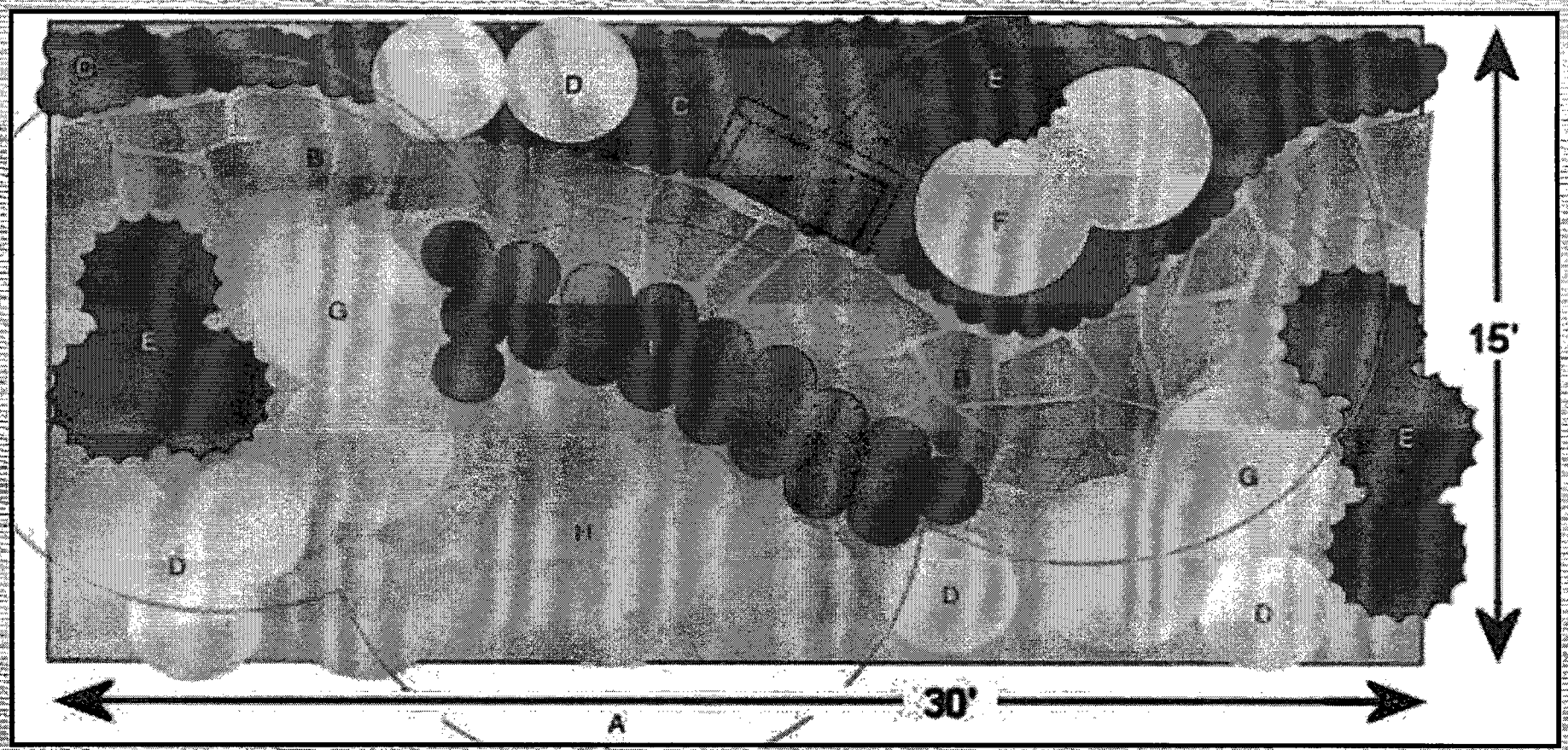
Play space for kids?

Morning coffee?

The second phase of the plan is:

"HYDRAZONES"

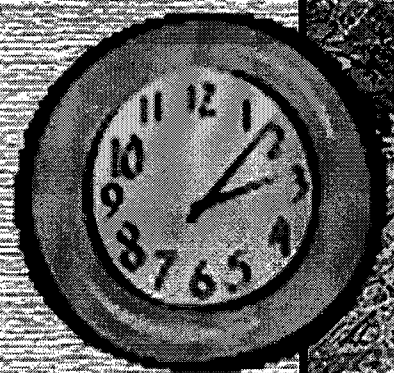
Group plantings by water needs.



It may also be important to you to consider:

MAINTENANCE

How much time do you want to spend taking care of your landscape?

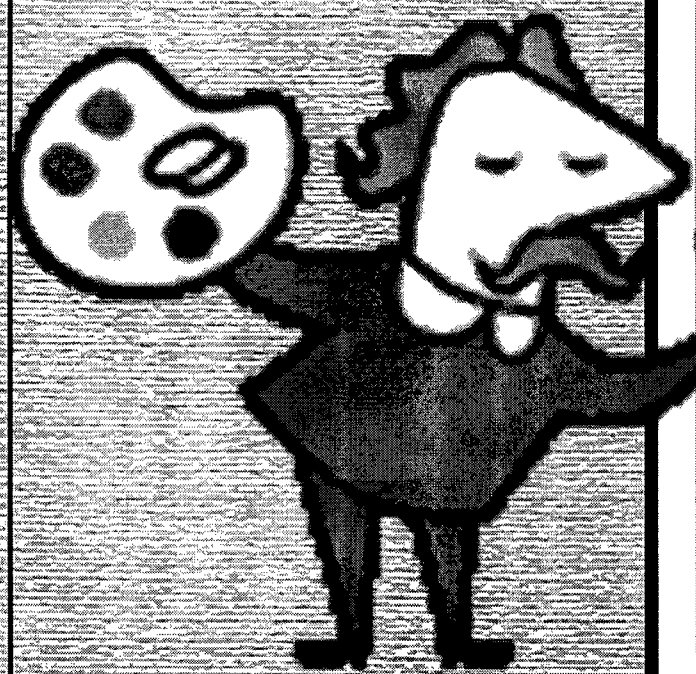


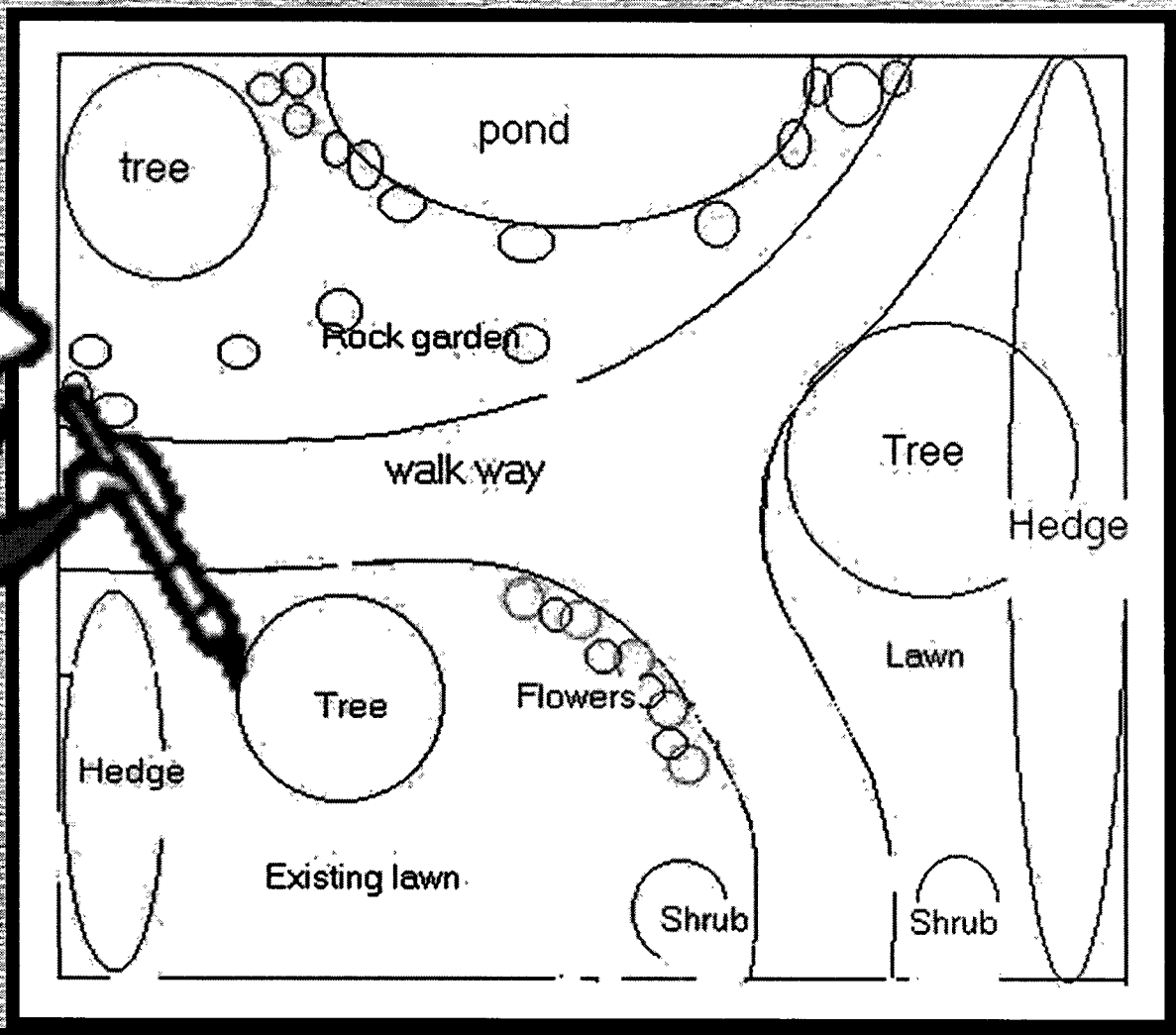
Other considerations in planning a Xeriscape might include:

Pavers, gravel or other types of porous areas where water can infiltrate.

Think color and texture contrasts to create interest!

Make simple sketches
You don't need to be an artist!

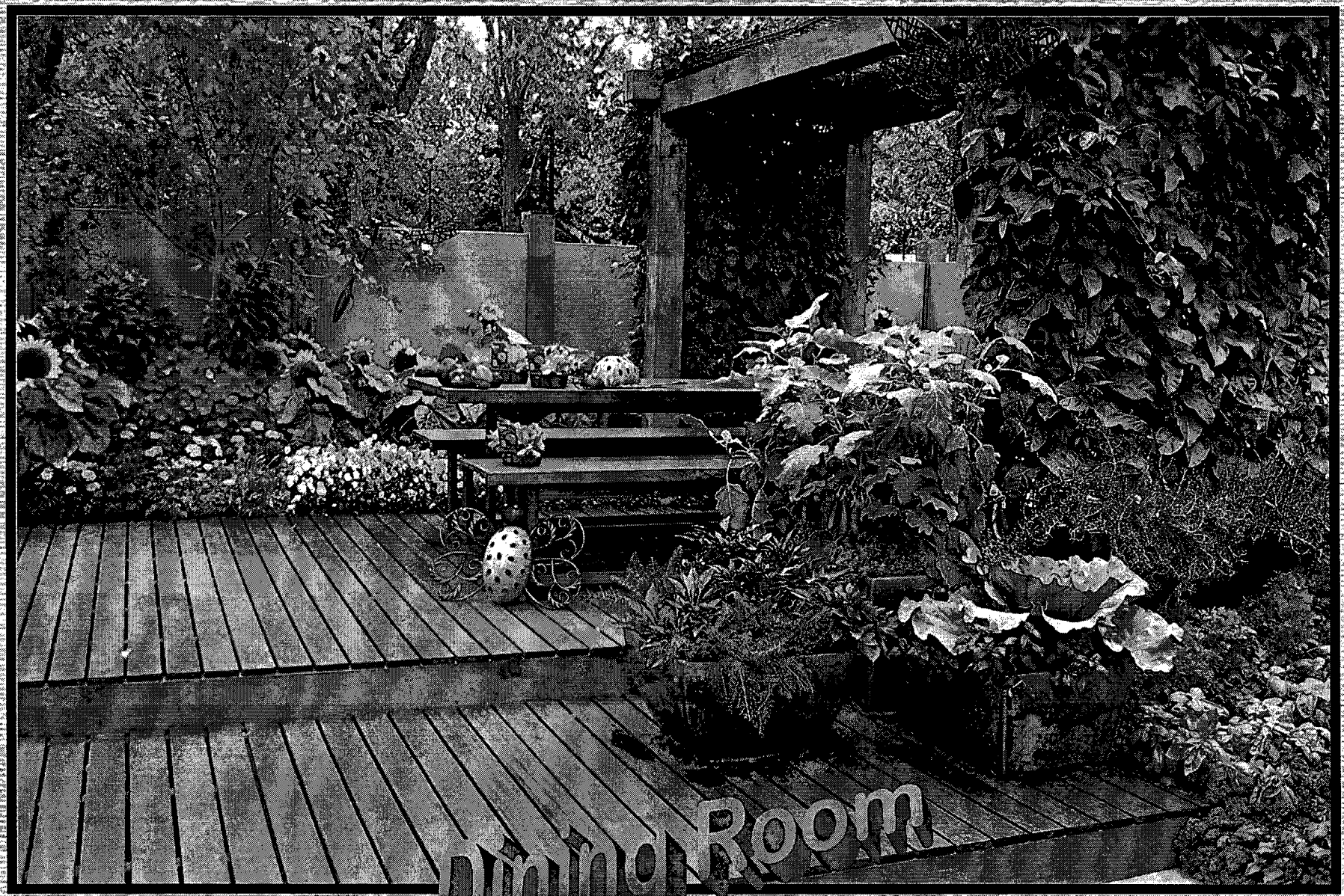




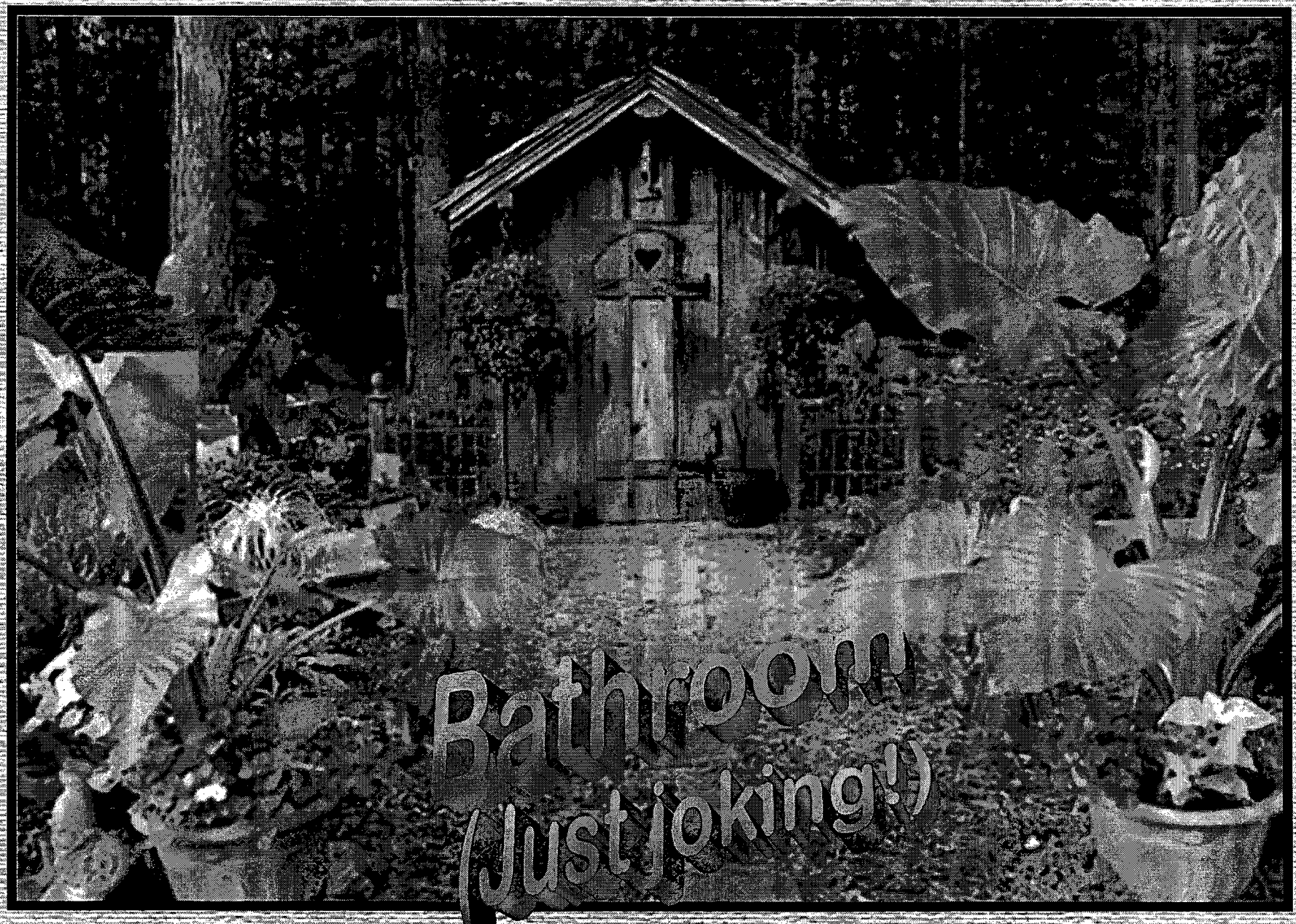
Thinking of ways to “section” your landscape by function and watering requirements is a good approach.

For inspiration, you might want to think about your landscape in terms of “Outdoor Living Areas.”

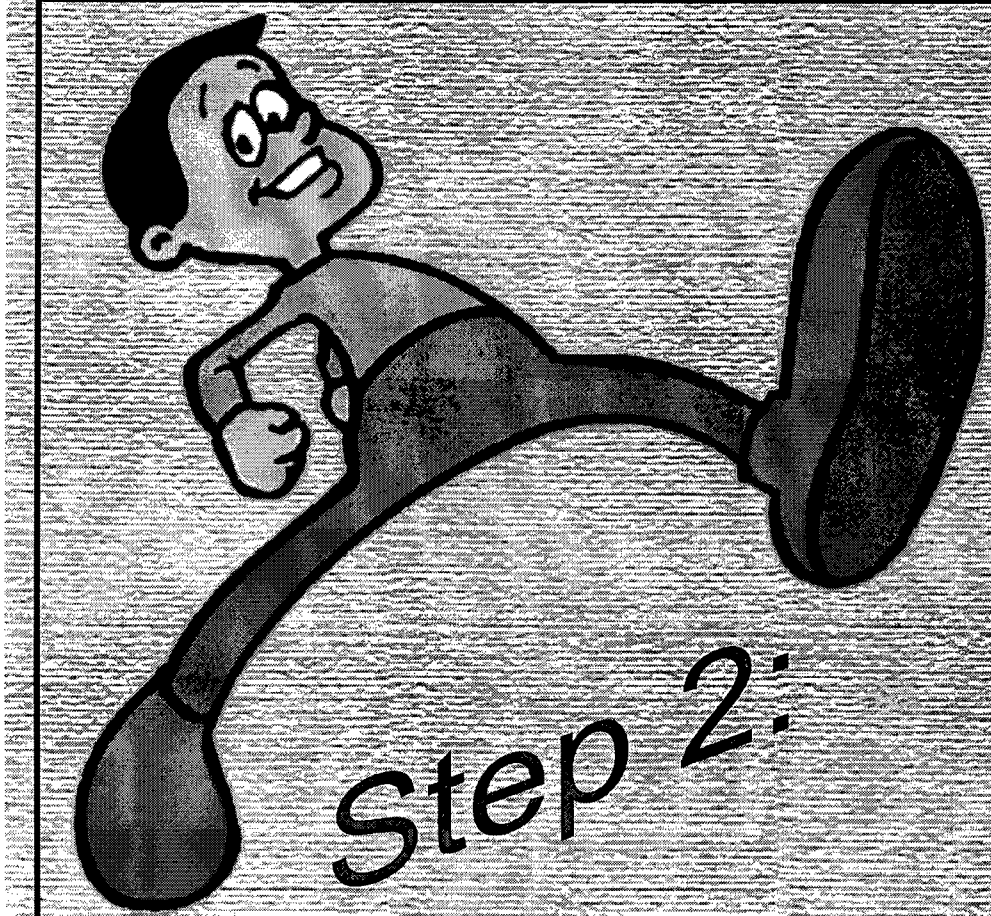
Living Room


Dining Room

Kitchen

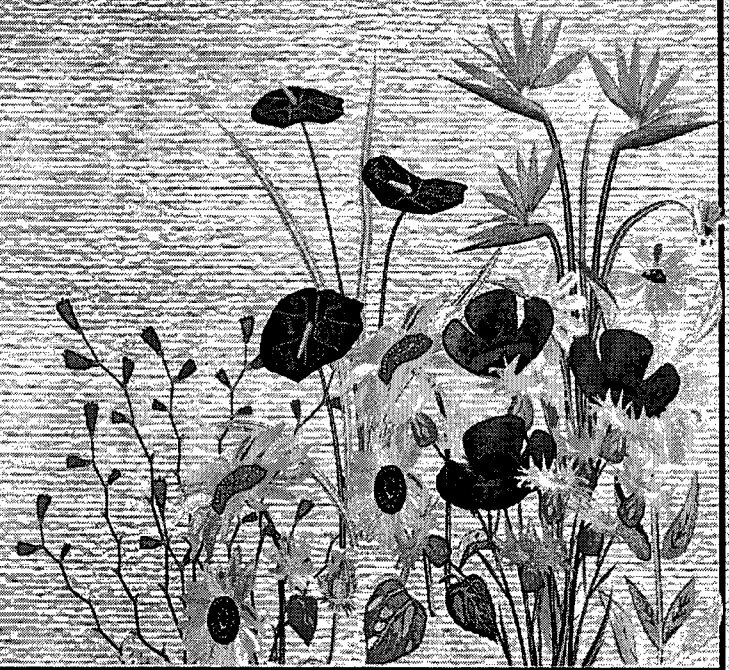

Bathroom
(Just Joking)

Miniature golf courses use the "sectioning" approach.

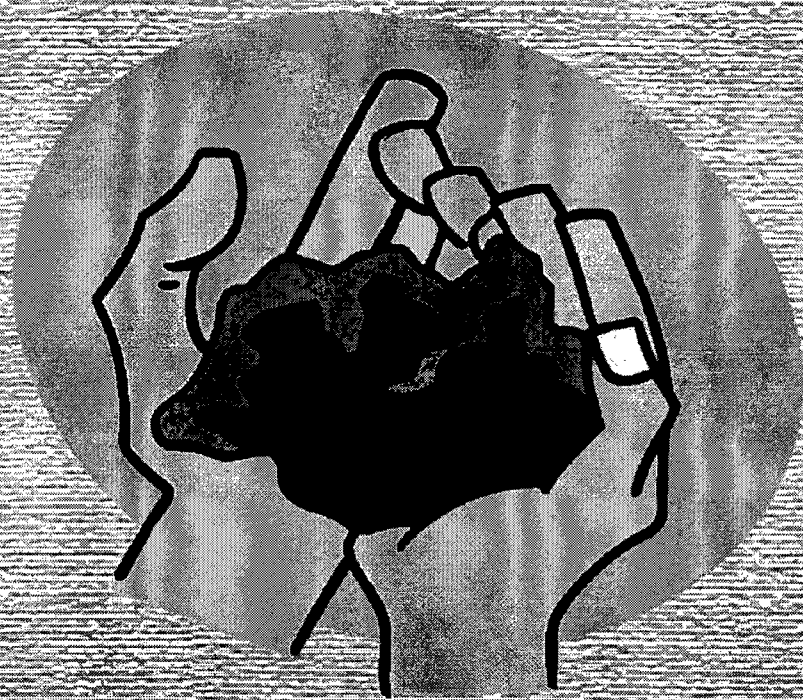


Step 2:

Soil



Soil is the foundation of every landscape. The better the soil, the more successful a Xeriscape will be.

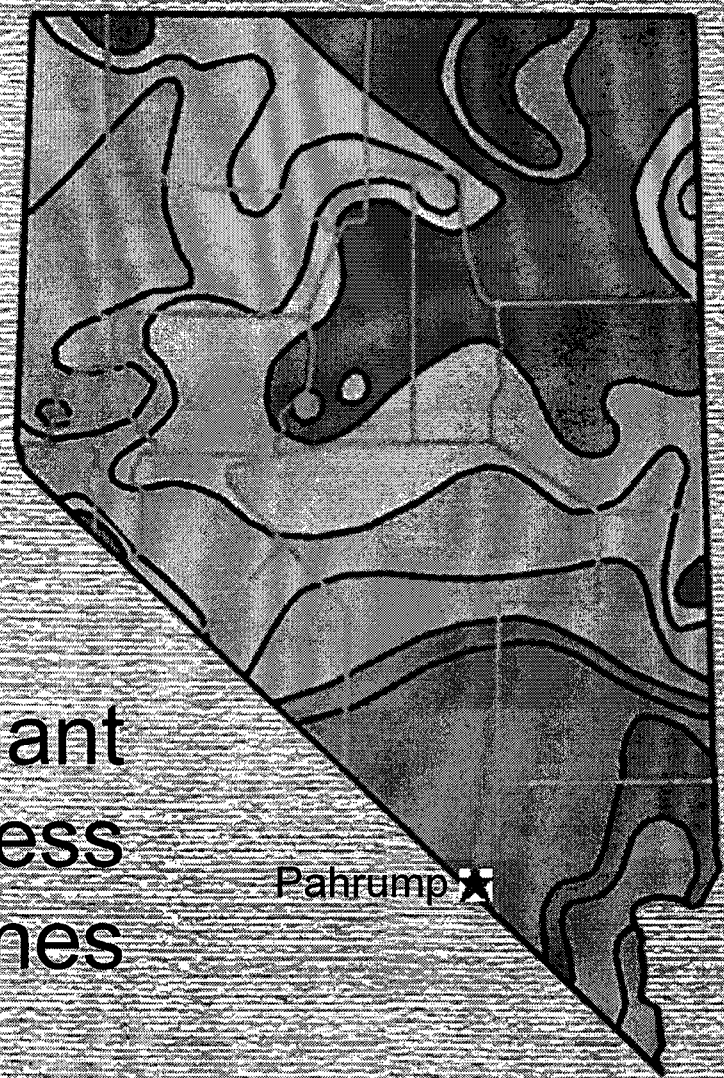


A soil amendment may be needed to create a soil with the right water infiltration and retention properties for good plant growth.

Step 3:

Plants

Use plants recommended for your area.



USDA Plant Hardiness Zones

Zone	Fahrenheit
4b	-25 to -20 F
5a	-20 to -15 F
5b	-15 to -10 F
6a	-10 to -5 F
6b	-5 to 0 F
7a	0 to 5 F
7b	5 to 10 F
8a	10 to 15 F
8b	15 to 20 F
9a	20 to 25 F
9b	25 to 30 F

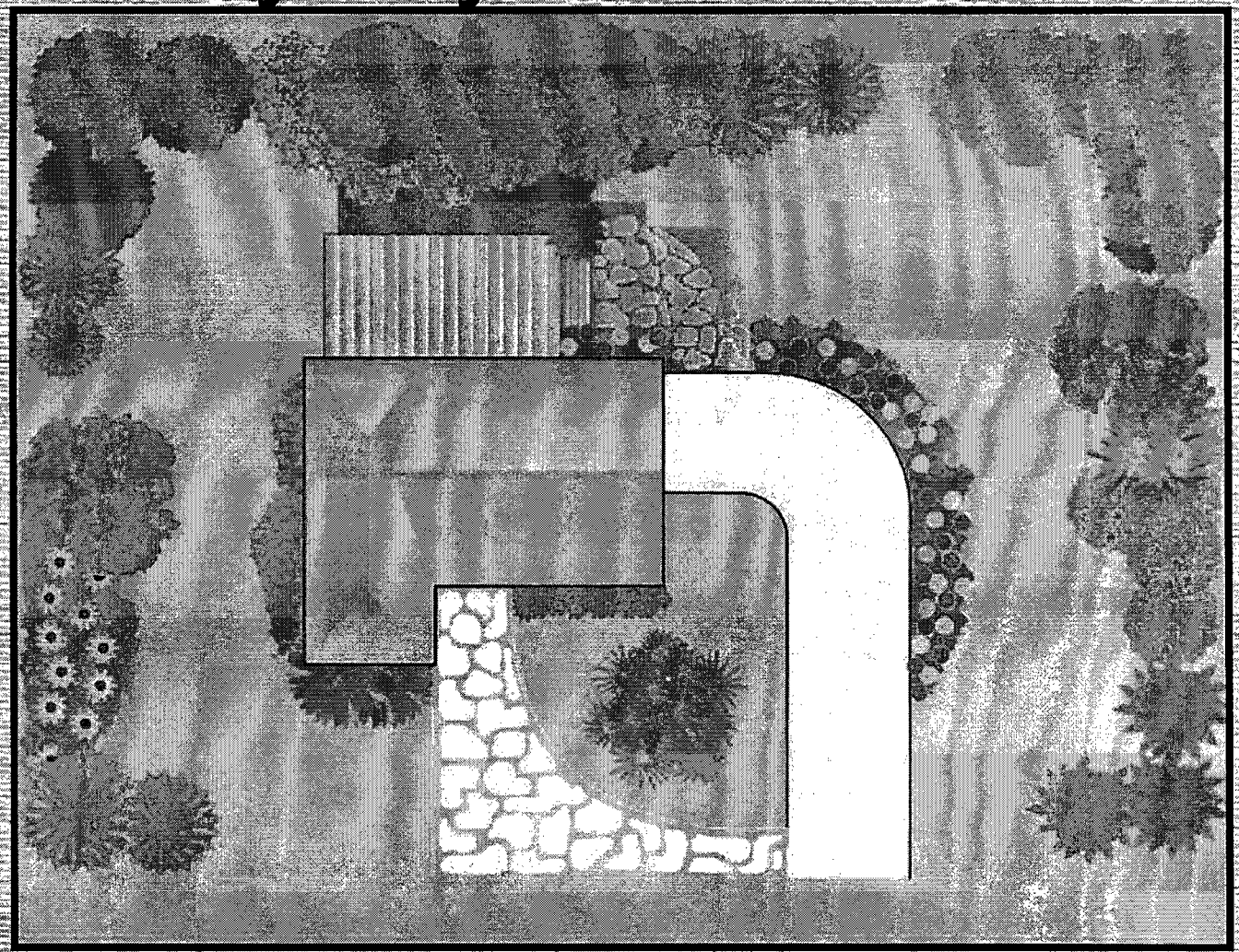
Consider using some native plants.

Native plant directory:

www.
wildflower.org/?nd=
native_plants_database

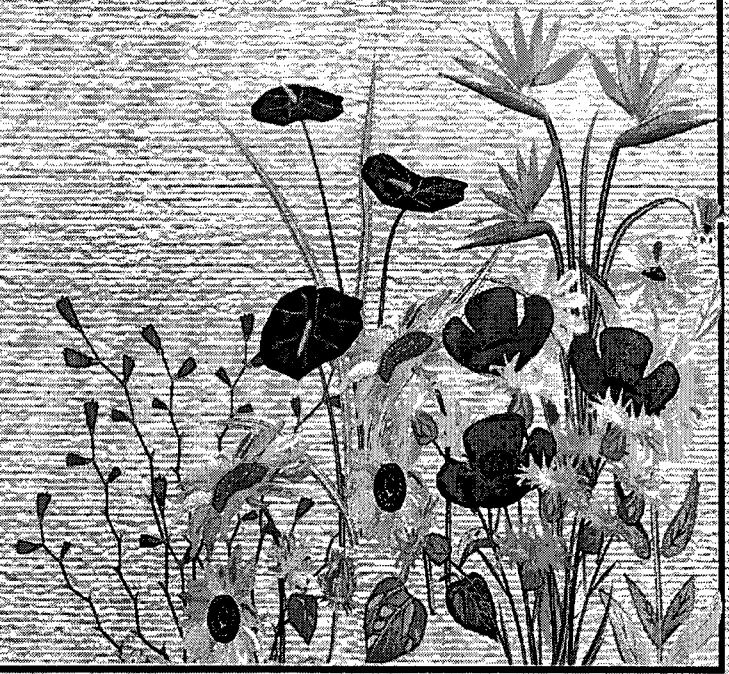
Remember that it's important to group plants by "Hydrazones"

(similar watering require-ments).

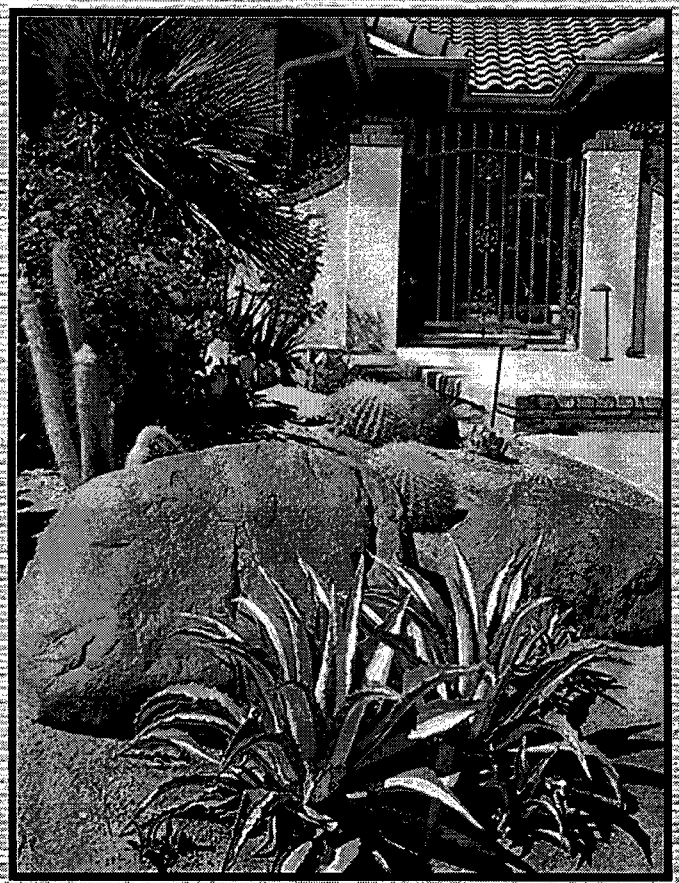


Step 4:

Turf



Plan turf use wisely.



Could you plan a water-efficient front yard with no turf . . .

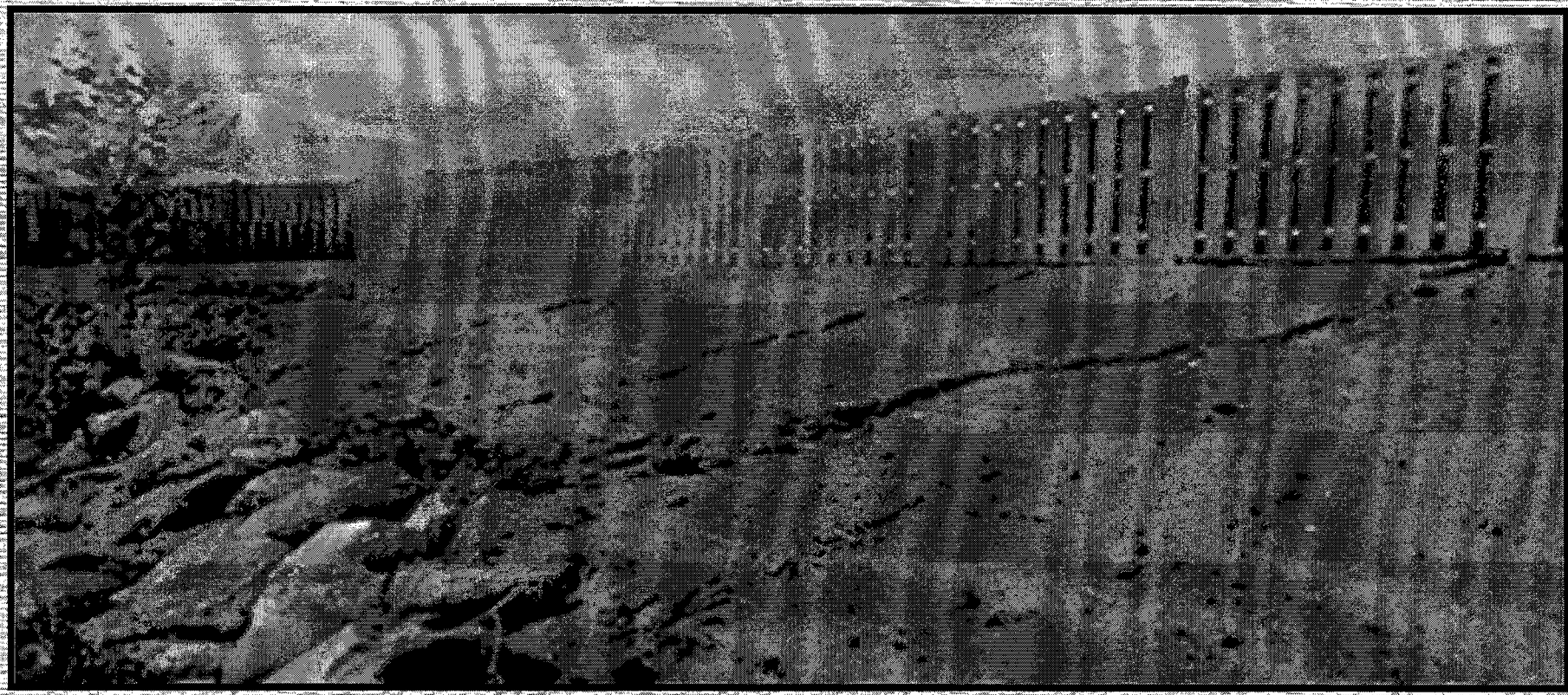
. . . and a grass play area in the backyard?

There are many varieties of turf available. Check with local nurseries for the best type for your area.

Try not to plant grass on slopes.

It's hard to avoid run-off . . .

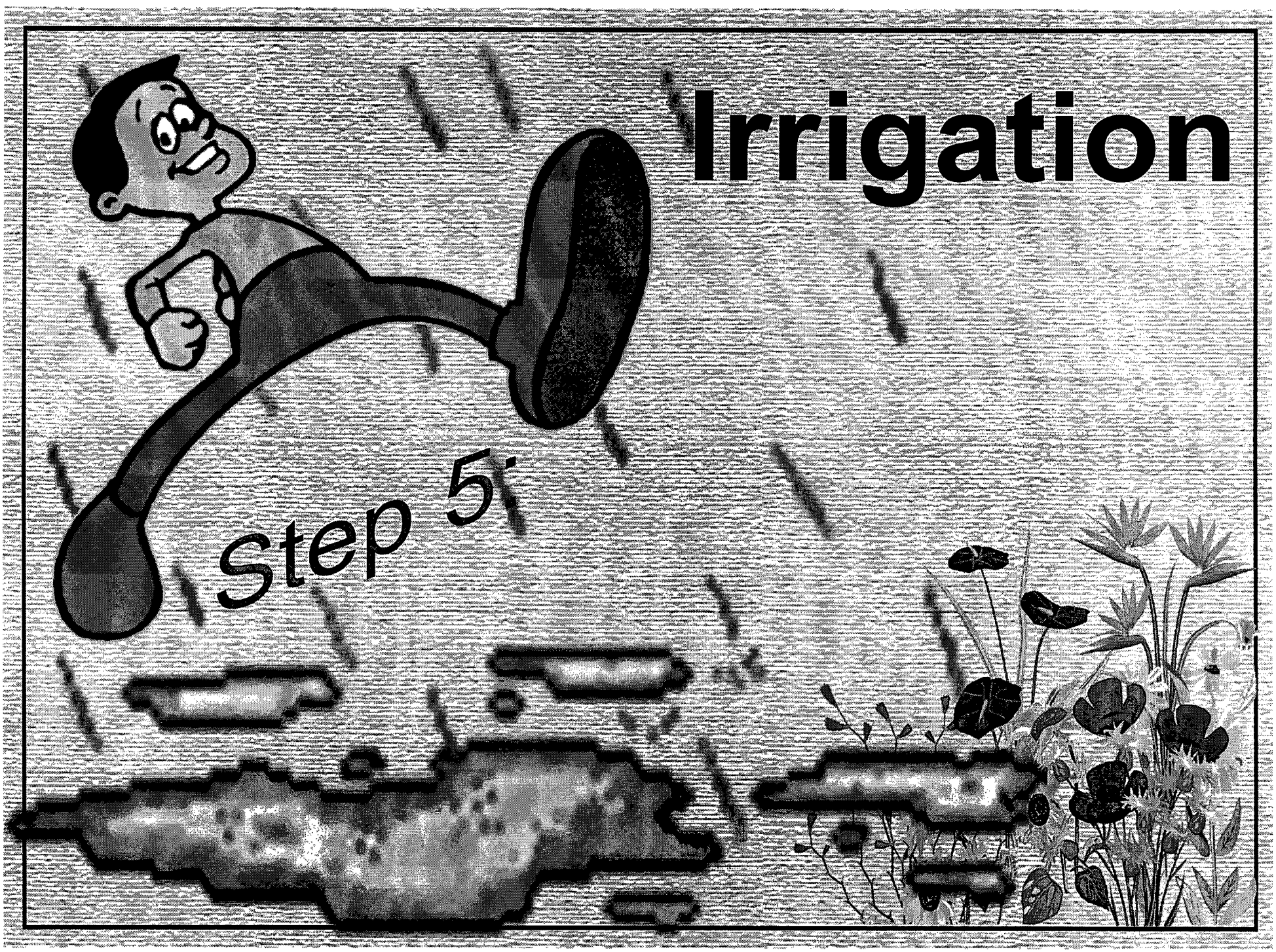
and slopes are difficult to mow!



You might want to consider lawn alternatives such as flowers, ground covers, or even artificial turf!

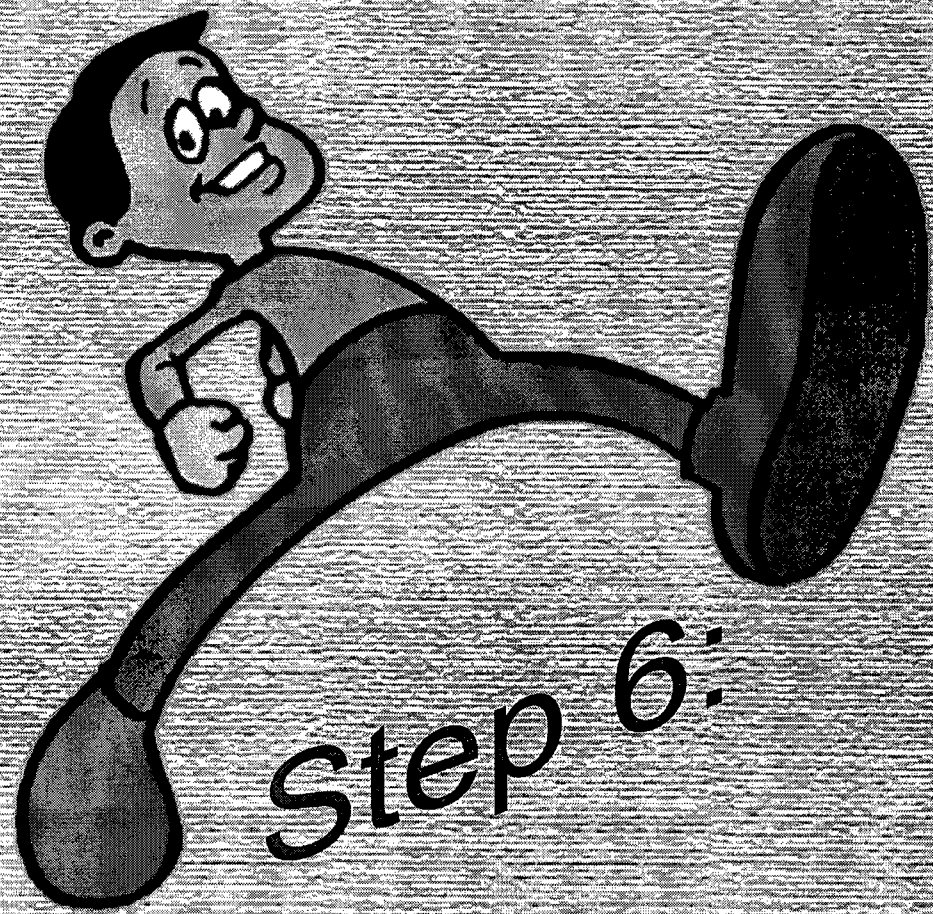
But remember that there ARE benefits to having SOME turf in your plan. Turf absorbs and holds water, reduces storm runoff, improves water quality and has an overall cooling effect!

Irrigation



When possible, especially for all non-turf areas, use low-flow types of irrigation:

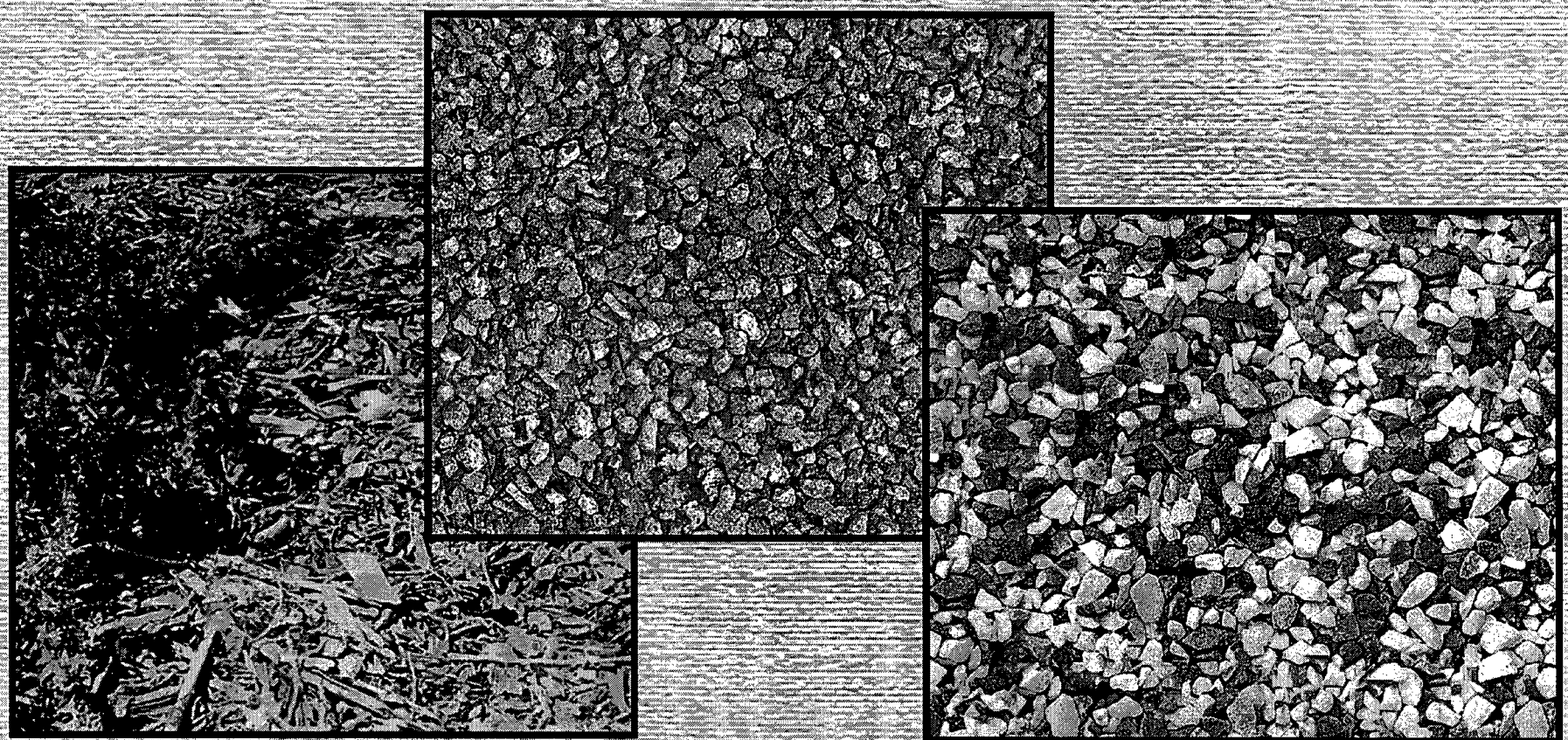
Turf watering requirements can be minimized by matching turf area shapes to the spray patterns of sprinkler heads.



Step 6:

Mulch

Mulch isn't just bark or wood chips. Gravel, pebbles, rocks, or synthetics such as recycled rubber chips are all forms of mulch.



Mulch minimizes evaporation, cools plant root zones, reduces water loss from evapotranspiration, reduces weed growth, helps control erosion, and adds a finished look to a landscape!

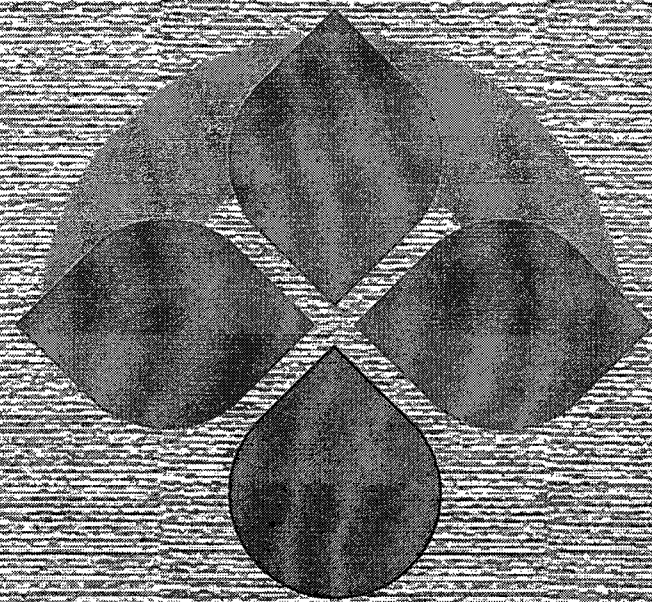
step 7:

Maintenance

Low maintenance is a big benefit to Xeriscape .

. . . but *some* maintenance is still needed to keep your Xeriscape looking and functioning great!

Think smart . . .



XERISCAPE™

Utilities, Inc.

September 29, 2010

Breanne Breuer
Public Utilities Commission of Nevada
1150 E. William Street
Carson City, NV 89701

Dear Ms. Breuer,

Please accept for filing with the Public Utilities Commission of Nevada the enclosed Meter Replacement Plan for Spring Creek Utilities Co. (SCUC) in compliance with the Commission's final order in Docket No. 09-03003.

Should you have any questions about the enclosed, please do not hesitate to contact me.

Respectfully Submitted,

Wendy S. W. Barnett

Cc: Elise Hoover, Northern Nevada Regional Manager, Utilities, Inc.
Rick Durham, Regional Vice President, Utilities, Inc.
Janelle Thomas, Regulatory Operations Staff

Spring Creek Utilities Co.

Meter Replacement Proposal

September 28, 2010

INTRODUCTION

The purpose of this document is to present a Meter Replacement Plan as one of the water conservation methods described in the Public Utility Commission of Nevada's (PUCN) Docket No. 09-03003, dated August 24, 2009, providing approval of Spring Creek Utilities Co.'s (SCUC) Integrated Resource Plan (IRP).

HISTORY & CONSIDERATIONS

Reduction in UFW

There are 4,187 meters in SCUC. SCUC has two water systems: one is known has the Mobile Home Tract or 200 Tract; the other known as the Housing Tract and consists of the 100, 300 and 400 Tracts. Un-accounted for water (UFW) in the Mobile Home Tract averaged about 37% and UFW in the Housing Tract averaged about 23% in 2009 when the IRP was completed. Today, UFW in the Mobile Home Tract averages about 30% and UFW in the Housing Tract averages about 18%. There are several causes for UFW: apparent losses which occur in utility operations due to meter inaccuracies, billing data errors, poor tracking of unbilled use and unauthorized consumption, and real losses which are physical losses from the distribution system through such incidences as leaks. These are the most predominant causes for UFW.

Leak Studies

All leaks are immediately repaired upon identification. A leak study was performed in 2008. Another leak study is scheduled for 2011.

Water Consumption Audit

During the summer of 2010, SCUC began an audit of large metered (commercial) customers. There are at least two entities which have unmetered use. These are large irrigation customers. At this time, SCUC is notifying the customers of this unmetered usage and is working with them to determine the future course of action (i.e. meter the usage and pay for the consumption or stop service). Although, SCUC has identified unauthorized use, the magnitude of the loss cannot be estimated at this time. It will take through next summer's months to identify the savings in the unmetered irrigation water.

Historical Meter Replacement

Meter replacement is currently performed in the SCUC system as needed when a meter is tested as per the SCUC Water Tariff Rule 19 at a customer's request or when an SCUC employee notes unusual activity or behavior of a meter during routine meter reading or service events, including meters which have stopped registering altogether. SCUC has also started replacing large meters. (Six of the 19 large meters – 2" or larger – have already been replaced.) All of these meters have been replaced with AMR ready Master Meters.

Historical Meter Testing

A water meter like any mechanical device is subject to wear and deterioration over time. Water meters can over register, but; this rarely occurs because wear on internal parts generally causes lower measurements. Although there is not an exact age when a meter's accuracy is diminished to such a degree that replacement is cost efficient, most studies conclude that residential meters should be replaced after 15 or 20 years. SCUC's history of meter testing results coincides with these studies.

Utilities, Inc. Meter Replacement

Utilities, Inc. (UI), the parent company of SCUC, recognizes the benefits of meter replacement programs and has initiated a study for replacing meters corporate wide. UI is currently working with Johnson Controls to evaluate systems with high water loss including SCUC.

Age of Meters

SCUC has relatively young meters with the average age being approximately 8 ½ years old. Only 8% of the meters are 20 years or older.

Arsenic Remediation Project

SCUC is currently implementing a capital project to treat groundwater with elevated arsenic at an estimated cost of $8.5 million. The project is to remediate arsenic that exceeded the maximum contaminant (MCL) rule once the EPA lowered the MCL from 50 parts per billion (ppb) to 10 ppb. This is an unfunded mandate by the federal government. The project was deemed prudent in the 2009 IRP process and will likely be put into rates during the 2011 SCUC general rate case. The magnitude of this project begs for budgetary and rate increase tolerance when considering alternatives.

AMR vs. Non-AMR

Either AMR or non-AMR meter replacement programs will reduce UFW by capturing consumption that is otherwise not measured and recorded due to slow meters. However, AMR has benefits which non-AMR meters do not. By installing AMR meters in SCUC, meter reading and potential-leak monitoring could be performed more efficiently and accurately. This would benefit both the customer and the company by:

- providing a more easily monitored system for the customer
- identifying probable leaks and meter issues automatically by setting limits on normal usage
- providing notification to Operations staff to check unusual numbers between read cycles
- allowing SCUC to notify customers sooner if and when questions of usage arise.

AMR provides accurate billing based on near real time consumption. Also, the company would potentially eliminate issues of estimated meter reads in instances of inclement weather or other unforeseen circumstances. There are also O&M savings due to reduced labor and more efficient vehicle use.

The major advantage of non-AMR meter replacement (compared to an AMR option) is the lesser amount of the upfront capital expenditure.

Master Meter non-AMR meters can be retrofitted to AMR by adding a register to each meter. This method of installing AMR is slightly more expensive and doubles the labor because each meter has to be pulled twice.

OPTIONS

1. Replace all meters with AMR.
   Estimated total cost: $847,006.56

2. Replace all meters with Non-AMR meters
   Estimated total cost: $351,620.82

3. Replace all meters with Non-AMR and add AMR later
   Estimated total cost: $866,258.508 (plus doubles the labor)

4. Replace 6.667% of the meters annually using AMR[1]
   Estimated annual cost: $ 56,469.93

5. Replace 6.667% of the meters annually using non-AMR
   Estimated annual cost: $ 23,442.56

6. Replace only meters 20 years in age and older with non-AMR (Do not purchase registers or software at this time)
   Estimated total cost: $ 28,152.49

7. Replace only meters 20 years in age and older with AMR
   Estimated total Cost: $74,937.05

PROPOSAL

Subject to available funding, SCUC prefers Option 6 and proposes to move forward with replacing meters older than 20 years with non-AMR meters over the next three years. This would position SCUC to move to AMR with the least initial capital outlay. In this way, should budgetary and rate tolerances allow acceleration of the plan, SCUC and its customers could reap the full benefits of AMR.

SCUC intends to use in house labor to reduce the total cost of the meter replacement program. Contingency dollars have been added to the estimated cost to cover incidentals such as gaskets and meter pit replacements. Screens have been added to the cost for all large meters.

In addition to the meter replacement program, SCUC will continue with other efforts to reduce UFW and total water conservation. Large meters (over 2") will be calibrated triennially, as recommended by the

[1] The annual percentage of 6.667% is a 15 year replacement program. Another percentage could be used, but as explained in the *Justification* section of this document, SCUC does believe that annual percentage replacement program is the best fit for the systems.

PUCN in Order 09-03003. SCUC will persist with identifying sources of unauthorized use. Smart billing and tiered rates will remain in place. Leak studies will be performed every three years until UFW. UFW control measures which involve capital expenditures will be re-evaluated when UFW reaches 10% or below.

JUSTIFICATION

While any of the above options would have benefit in controlling UFW, SCUC carefully weighed the options to find the best solution for the current conditions in SCUC.

- To replace all meters at once is capital intensive particularly while undergoing arsenic remediation.
- UI has teamed with an expert consultant to further evaluate cost effective meter replacement programs and SCUC is a part of this evaluation. SCUC prefers to have the evaluation completed before making a decision to invest or not invest in a major capital commitment to ensure prudency.
- AMR offers substantial benefits to SCUC beyond the general paybacks. SCUC competes unsuccessfully for qualified labor with the mine owners who can offer much greater compensation. The pool of qualified candidates in the area is small. Severe winter weather makes meter reading arduous during those months. The system has large lots which are spread out over a wide area making meter reading time consuming.
- Although it is common in the water utility industry to replace a percentage of meters each year, due to the fact that the majority of the meters are fairly new so only a small percentage of meters are in need of replacement, SCUC believes that a commitment to replace a particular percentage of meters would quickly cause the replacement of meters which still have useful life remaining.
- UFW is being reduced in SCUC using non-capital intensive measures.
- Results of the unauthorized-use-of-water audit are not measureable at this time, which may prove to be a major contributor to UFW.
- Three years was selected to spread the capital improvement cost and workload over time. As meters become 20 years old they would be added to the plan for a continual loop of replacement of aging meters.

SUMMARY

In Docket No. 09-03003, it was recognized that SCUC has high UFW. Therefore, the Commission ordered SCUC to provide to the Commission a meter replacement plan. This document is intended to fulfill that obligation. SCUC will replace the meters 20 years and older over the next 3 years with AMR-ready meters to be able to make use of AMR when budgetary and cost effectiveness concerns allow. In addition, UI as a whole will continue to research alternative meter replacement programs for systems

with high UFW, including SCUC. SCUC and UI recognize that meter replacement is only a part of limiting UFW and will continue in other efforts to reduce UFW. SCUC has improved UFW since the 2009 IRP though there is still improvement needed. Until the audit of unauthorized use can be measured in overall UFW savings, (as well as other less capital intensive UFW control procedures), SCUC feels that a more aggressive meter replacement program may be unjustified. However, the proposed meter replacement plan keeps SCUC in position to do so if data and research document its prudency.

Exhibits:

Exhibit A - AMR Costs

Exhibit A AMR Bid Tab
Exhibit A1 Master Meter Quote
Exhibit A2 Sensus Quote
Exhibit A3 Badger Quote

Exhibit B - Non AMR Cost

Exhibit B Non-AMR Worksheet
Exhibit B1 Non-AMR Badger Quote
Exhibit B2 Non-AMR Master Meter Quote

Exhibit C - Meters 20 Years or Older Cost

Exhibit C 20 Year Old Worksheet

Exhibit A

Exhibit A

SPRING CREEK UTILITIES CO. - BID TABULATION

Project: AMR

SCUC Project ID _____

Date: September 17, 2010

Item No.	Item and Description	Unit	Master Meter			Sensus			Badger		
			Unit Cost	Quantity	Total	Unit Cost	Quantity	Total	Unit Cost	Quantity	Total
1	3/4" Meter (3,589 total less 124 already replaced for Master Meter)	1	$168.39	3,465	$583,471.35	$159.22	3,589	$571,440.58	$188.16	3,589	$675,306.24
2	1" Meter	1	$180.74	555	$100,310.70	$197.24	555	$109,468.20	$230.13	555	$127,722.15
3	1.5" Meter	1	$315.41	24	$7,569.84	$454.86	24	$10,916.64	$437.06	24	$10,489.44
4	2" Meter (12 total less 2 already purchased for Master Meter)	1	$1,401.28	10	$14,012.80	$1,403.83	12	$16,845.96	$1,895.00	12	$22,740.00
5	4" Meter (2 total less 1 already purchased for Master Meter)	1	$2,532.60	1	$2,532.60	$3,201.83	2	$6,403.66	$3,444.00	2	$6,888.00
6	6" Meter (5 total less 3 already purchased for Master Meter)	1	$4,198.25	2	$8,396.50	$5,371.01	5	$26,855.05	$4,737.00	5	$23,685.00
7	Software and Training	1	$10,900.00	1	$10,900.00	$39,083.00	1	$39,083.00	$8,500.00	1	$8,500.00
8	Sales Tax	1	6.85%	1	$49,812.77	6.85%	1	$53,498.40	6.85%	1	$59,960.16
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
	BASE BID				$777,006.56			$834,512.49			$935,290.99
	Contingency for gaskets and meter box replacements				$70,000.00			$70,000.00			$70,000.00
	TOTAL				$847,006.56			$904,512.49			$1,005,290.99
	Outside Labor, if used		$10.00	4,057	$40,570.00	$10.00	4,187	$41,870.00	$10.00	4,187	$41,870.00
	Maximum Cost				$887,576.56			$946,382.49			$1,047,160.99

Exhibit A-1

Exhibit A-1

MASTER METER
101 Regency Parkway
Mansfield, Texas 76063
Phone (817) 842-8000 Fax (817) 842-8100

Quotation

Date: 8/19/10

Prices Valid Until: 10/19/10

Customer
Company: Utilities Inc.
Attention: Elise Hoover
Address: Spring Creek, NV
Cell:
Phone: 775-753-4437
E-mail: eyhoover@uiwater.com

End User
Job/Utility: Spring Creek, NV

Bid/Quotation #: 10081901SA
Bid date:
Bid Time:

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
1	**00-020-010** **MODEL 52 DRIVE-BY VEHICLE READING SYSTEM** *SYSTEM INCLUDES THE FOLLOWING:* MASTERLINK DATA COLLECTION SYSTEM & VEHICLE READING SYSTEM SOFTWARE, MICROSOFT MAPPOINT 2009 SOFTWARE LICENSE FOR "MOVING MAPS", PANASONIC TOUGHBOOK, VEHICLE POWER SUPPLY, HARD SHELL CARRYING CASE "OR" SEAT MOUNT STAND FOR LAPTOP, GPS RECEIVER, DIALOG 3G DMMR RF TRANSCEIVER, CIGARETTE DC POWER SUPPLY, EXTERNAL MAG MOUNT ANTENNA, 3G TECHNICIAN PROGRAMMING SOFTWARE, 2-DAY ONSITE INSTALLATION & TRAINING, ALL TRAVEL EXPENSES, ASCII INTERFACE TO EXISTING UTILITY BILLING SOFTWARE NOTE: IF THE PANASONIC TOUGHBOOK AND MASTERLINK DATA COLLECTION SYSTEM SOFTWARE IS NOT REQUIRED, YOU MAY DEDUCT $7,100 FROM THE UNIT PRICE FOR A TOTAL UNIT PRICE OF $10,900.00, EXCLUDING SALES TAX. CUSTOMER MUST PROVIDE SPECS ON THE COMPUTER THEY INTEND TO USE FOR METER READING. COMPUTER MUST BE SENT TO MASTER METER FOR SOFTWARE INSTALLATION, ETC.	$18,000.00	$18,000.00
	SALES TAX 6.85%		$1,233.00
		SUBTOTAL	$19,233.00
		FREIGHT ESTIMATE	$0.00
		TOTAL	$19,233.00

Comments/Special Instructions:

F.O.B. Freight paid on orders of $15,000 or more
Terms Standard Master Meter payment terms apply
Delivery 4 - 5 Weeks to Ship

Prepared by Scott Allison

THANK YOU FOR YOUR BUSINESS!

MASTER METER
101 Regency Parkway
Mansfield, Texas 76063
Phone (817) 842-8000 Fax (817) 842-8100

Quotation

Date: 8/19/2010

Prices Valid Until: 2/19/2010

Customer
Company: Utilities Inc.
Attention: Elise Hoover
Address:
Cell: 775-513-7756
Phone: 775-727-5575
E-mail:

End User
Job/Utility: Utilities Inc.

Bid/Quotation #:
Bid date:
Bid Time:

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
	2" TM13-13D-AAG-2 Turbine Meter w/3G Odometer Interpreter	486.22	
	3" TM14-13D-AAA-2 Turbine Meter w/3G Odometer Interpreter	667.21	
	4" TM15-13D-AAA-2 Turbine Meter w/3G Odometer Interpreter	953.20	
	6" TM16-13D-AAA-2 Turbine Meter w/3G Odometer Interpreter	1,681.58	
	8" TM17-13D-AAA-2 Turbine Meter w/3G Odometer Interpreter	2,189.14	
	10" WT18-13D-JAA-2 Cast Iron Turbine w/3G Odometer Interpreter	2,769.01	
	12" WT19-13D-JAA-2 Cast Iron Turbine w/3G Odometer Interpreter	3,812.76	
	2" DC13-13D-AAM-2 Compound Meter with 3G DS	1,209.45	
	3" DC14-13D-AAM-2 Compound Meter with 3G DS	1,526.13	
	4" DC15-13D-AAM-2 Compound Meter with 3G DS	1,997.10	
	6" DC16-13D-AAM-2 Compound Meter with 3G DS	3,432.72	
	4" FC15-13D-AAB-2 Fire Service Compound Meter with 3G Electronics	5,095.27	
	6" FC16-13D-AAB-2 Fire Service Compound Meter with 3G Electronics	6,782.77	
	8" FC17-13D-AAA-2 Fire Service Compound Meter with 3G Electronics	9,438.02	
	2" Bronze Strainer	191.83	
	3" Bronze Strainer	342.67	
	4" Bronze Strainer	535.50	
	6" Bronze Strainer	765.53	
	8' Cast Iron Strainer	1,112.75	
	10" Cast Iron Strainer	Contact Master Meter	
	12" Cast Iron Strainer	Contact Master Meter	
		OTHER	
		TOTAL	$ -

Comments/Special Instructions:

Pricing will be held firm for the period noted above unless there is a drastic change in the cost of materials. Should a major change occur, Utilities Inc. will be notified and given 30 days to purchase product at the prices quoted above prior to any adjustment being made. Prior to renewing the pricing, Master Meter will review our cost to determine if any adjustment In pricing will be needed.

F.O.B. Master Meter in Mansfield,Texas - Freight paid on orders of $15000 or more
Terms Net 30
Delivery Depends on Quantity ordered

Prepared by Ronnie Veach
Name
CC

MASTER METER
101 Regency Parkway
Mansfield, Texas 76063
Phone (817) 842-8000 Fax (817) 842-8100

Quotation

Date: 8/19/2010

Prices Valid Until: 2/19/2010

Customer
Company: Utilities Inc.
Attention: Elise Hoover
Address:
Cell: 775-513-7756
Phone: 775-727-5575
E-mail:

End User
Job/Utility: Utilities Inc.
Bid/Quotation #:
Bid date:
Bid Time:

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
	5/8" x 3/4" BL05-1MD-BAA-2 Meter with plastic bottom	134.71	
	5/8" x 3/4" BL05-1MD-AAA-2 Meter with bronze bottom	137.39	
	5/8" x 3/4" BL05-1MD-EAA-2 Meter with Cast Iron bottom	134.80	
	3/4" x 7-1/2" BL06-1MD-BAA-2 Meter with plastic bottom	148.90	
	3/4" x 7-1/2" BL06-1MD-AAA-2 Meter with bronze bottom	151.84	
	3/4" x 7-1/2" BL06-1MD-EAA-2 Meter with Cast Iron bottom	149.00	
	3/4" x 9" BL07-1MD-CAA-2 Meter with plastic bottom	168.29	
	3/4" x 9" BL07-1MD-NAA-2 Meter with bronze bottom	171.35	
	3/4" x 9" BL07-1MD-EAA-2 Meter with Cast Iron bottom	168.39	
	1" BL09-1MD-BAA-2 Meter with plastic bottom	180.64	
	1" BL09-1MD-AAA-2 Meter with bronze bottom	183.83	
	1" BL09-1MD-EAA-2 Meter with Cast Iron bottom	180.74	
	1 1/2" MJ11-1MD-AAA-2 Flg MJ Meter	315.41	
	2" MJ13-1MD-AAA-2 Flg MJ Meter	388.73	
		OTHER	
		TOTAL	$ -

Comments/Special Instructions:
Pricing will be held firm for the period noted above unless there is a drastic change in the cost of materials. Should a major change occur, Utilities Inc. will be notified and given 30 days to purchase product at the prices quoted above prior to any adjustment being made. Prior to renewing the pricing, Master Meter will review our cost to determine if any adjustment in pricing will be needed.

F.O.B. Master Meter in Mansfield,Texas - Freight paid on orders of $15000 or more
Terms Net 30
Delivery Depends on Quantity ordered

Prepared by Ronnie Veach
Name
CC

Exhibit A-2

Exhibit A-2

WESTERN NEVADA SUPPLY
* * Q U O T A T I O N * *

TO: SPRING CREEK UTILITIES CO.
285 E. SPRING CREEK PARKWAY
SPRING CREEK, NV 89815

DATE: 09/09/10 NO. 391668
EFFECTIVE 09/09/10 TO 09/09/10
JOB: Water Meters
TERMS: NET 30
FOB:
PREP. BY ARNESON, BARNEY

WE ARE PLEASED TO QUOTE YOU ON THE FOLLOWING MATERIAL
*** SALES TAX NOT INCLUDED ***

Qty	Part Number	Description	Price...	Extended
1		===> Smart Point		
1	WKZ1101104	SENSUS M2 FLEXNET 520M SINGLE	142.00	142.00
1	WKZ1101105	SENSUS M2 FLEXNET 520M DUAL	162.00	162.00
			1 TOTAL	304.00
2		===> SR & SRII Water Meter		
1	WKZ1334004	SRII 3/4 7.5LL TRPL 1000 GAL WTR MT	159.00	159.00
1	WKZ1334003	SRII 3/4 TRPL 1000 GAL WTR MTR	159.00	159.00
1	WKZ1001002	SRII 1 TRPL 1000 GAL WTR MTR	197.00	197.00
1	WKZ1015002	SR 1-1/2 TRPL 1000 GAL WTR MTR	453.00	453.00
1	WKZ1002002	SR 2 TRPL 1000 GAL WTR MTR	632.00	632.00
1	WFB1100137	FORD 5/8 X 3/4-3/4 MTR GSKT	.22	.22
1	WFB1100138	FORD 1 MTR GSKT	.24	.24
1	WFB1100139	FORD 1-1/2 MTR GSKT	1.86	1.86
1	WFB1100140	FORD 2 MTR GSKT	2.11	2.11
2	WAZ1E01001	5/8 X 2-1/2 BRZ BOLT & NUT	7.55	15.10
			2 TOTAL	1619.53
3		===> IPERL		
1	WKZ1359020	IPERL 3/4 7.5LL 1000 GAL TRPL WTR M	137.00	137.00
1	WKZ1359025	IPERL 3/4 9LL 1000 GAL TRPL WTR MTR	137.00	137.00
1	WKZ1359030	IPERL 1 1000 GAL TRPL WTR MTR	174.00	174.00

1 WFB1100137	FORD 5/8 X 3/4-3/4 MTR GSKT	.22	.22
1 WFB1100138	FORD 1 MTR GSKT	.24	.24
		3 TOTAL	448.46
4	===> OMNI		
1 WK13590000	1 1/2 OMNI T2 GALLON	719.00	719.00
1 WK13590100	1-1/2 OMNI C 2 GALLON	1051.00	1051.00
1 WK13590005	2 OMNI T2 GALLON	853.00	853.00
1 WK13590105	2 OMNI C2 GALLON	1212.00	1212.00
1 WK13590015	4 OMNI T2 GALLON	2068.50	2068.50
1 WK13590115	4 OMNI C2 GALLON	2666.34	2666.34
1 WK13590020	6 OMNI T2 GALLON	3723.98	3723.98
1 WK13590120	6 OMNI C2 GALLON	4605.48	4605.48
		4 TOTAL	16899.29
5	===> Drive-by System		
1 WZNS808626	AR5501 HANDHELD DEVICE (HHD)	4097.00	4097.00
1 WZNS808627	AR5005 COMMUNICATION/CHARGING STAND	574.00	574.00
1 WZNS808628	GPS RECEIVER (AR5501 FLEXNET PROGRA	450.00	450.00
1 WZNS808629	MDM SOFTWARE WALK-BY/DRIVE-BY	12500.00	12500.00
1 WZNS808630	COMMAND LINK	300.00	300.00
1 WZNS808631	VEHICLE GATEWAY BASESTATION (VGB) W/COMPUTER AND AUTOVU SOFTWARE	19662.00	19662.00
1 WZNS808632	ANNUAL SUPPORT AGREEMENT	1500.00	1500.00
		5 TOTAL	39083.00
6	===> Fixed base		
1 WZNS808626	AR5501 HANDHELD DEVICE (HHD)	4097.00	4097.00
1 WZNS808627	AR5005 COMMUNICATION/CHARGING STAND	574.00	574.00
1 WZNS808628	GPS RECEIVER (AR5501 FLEXNET PROGRA	450.00	450.00
1 WZNS808630	COMMAND LINK	300.00	300.00
1 WZNS808634	MDM SOFTWARE WALK-BY/FIXBASE	17500.00	17500.00
1 WZNS808635	PROPAGATION STUDY		
1 WZNS808636	TOWER GATEWAY BASESTATION (TGB)	56700.00	56700.00
1 WZNS808637	REGIONAL NETWORK INTERFACE (RNI)	25000.00	25000.00

1	WZNS808638	FLEXNET ANNUAL SUPPORT AGREEMENT	3000.00	3000.00
			6 TOTAL	107621.00
		QUOTATION TOTALS		165975.28

THE MATERIAL LISTED ABOVE IS QUOTED PER THE PLANS AND SPECS PROVIDED TO US, AND, WHETHER SPECIFIED OR NOT, WILL BE SUBJECT TO THE ENGINEER'S APPROVAL.

Exhibit A-3

Exhibit A-3

Hydro Specialties Company

EQUIPMENT · SYSTEMS · SYSTEMS INTEGRATION

BUDGETARY ESTIMATE

To: Utilities Inc
Spring Creek Water
Elise Hoover
775-753-4437
evhoover@uiwater.com
kllugenb@uiwater.com

Project: Water Meter Replacement / AMR Upgrade

Date: September 8, 2010
Quote No: Q-40429653
Quoted By: Steven Hansen

Item	Qty.	Description	Amount	Total
1.	1	Badger Orion Hand Held Reading System	$ 8,500.00	
		❖ Badger Trimble Radio Hand Held radio reading system. ❖ Badger Read Center meter reading management software. ❖ Two days on site implementation & training. ❖ See attached Technical Brief.		
2.		Badger Meter with Orion Radio Transmitter.....	$ 183.94	
		❖ 3/4" x 7-1/2" model #35 meter, cast iron bottom plate. ❖ ADE register; U.S. gallons; through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ See attached Technical Brief.		
2a.		Badger Meter with Orion Radio Transmitter.....	$ 188.16	
		❖ 3/4" x 9" model #35 meter, cast iron bottom plate. ❖ ADE register; U.S. gallons; through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ See attached Technical Brief.		
3.		Badger Meter with Orion Radio Transmitter.....	$ 230.13	
		❖ 1" model #55 meter, cast iron bottom plate. ❖ ADE register; U.S. gallons; through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ See attached Technical Brief.		

Hydro Specialties Company

EQUIPMENT · SYSTEMS · SYSTEMS INTEGRATION

Item	Qty.	Description	Amount	Total
4.		Badger Meter with Orion Radio Transmitter ❖ 1" model #70 meter, cast iron bottom plate. ❖ ADE register; U.S. gallons; through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ See attached Technical Brief.	$ 251.44	
5.		Badger Meter with Orion Radio Transmitter ❖ 1-1/2" model #120 meter, 2-bolt oval flange connection. ❖ ADE register; U.S. gallons; through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ See attached Technical Brief.	$ 437.06	
6.		Badger Meter with Orion Radio Transmitter ❖ 2" model #170 meter, 2-bolt oval flange connection. ❖ ADE register; U.S. gallons; through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ See attached Technical Brief.	$ 578.63	
7.		Badger Meter with Orion Radio Transmitter ❖ 2" model CS-200 compound meter, 2-bolt oval flange connection. ❖ ADE register; U.S. gallons: through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ Bronze strainer w/stainless screen element. ❖ See attached Technical Brief.	$ 1,895.00	
8.		Badger Meter with Orion Radio Transmitter ❖ 4" model CS-1000 compound meter, ANSI 150 flange connection. ❖ ADE register; U.S. gallons: through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ Bronze strainer w/stainless screen element. ❖ See attached Technical Brief.	$ 3,444.00	
9.		Badger Meter with Orion Radio Transmitter ❖ 6" model CS-2000 compound meter, ANSI 150 flange connection. ❖ ADE register; U.S. gallons: through lid mounting kit. ❖ Orion FHSS transmitter; 10 ft wire lead. ❖ Bronze strainer w/stainless screen element. ❖ See attached Technical Brief.	$ 4,737.00	

7041 S Commerce Park Drive · Midvale, UT 84047 · 801-562-9130 · Fax 562-9140

Hydro Specialties Company

EQUIPMENT · SYSTEMS · SYSTEMS INTEGRATION

Item	Qty.	Description	Amount	Total
		OPTIONAL:		
10.		Retro-fit Existing Badger Meters ..... $ ❖ Register w/Orion transmitter (less meter) for meter sizes 5/8" through 2" positive displacement meters and 10 ft wire lead.	131.20	
11.		Data Profiling Option for Orion Transmitter ..... $ ❖ Orion transmitter with data logging option which stores 21,000 data points (2-1/2 years of hourly data intervals). ❖ Price adder per Orion transmitter.	10.00	

Note:

1. Budgetary Estimate – this Budgetary Estimate is provided for budgeting purposes. It allows the Utility to evaluate the options and retro-fit or replacement of the existing meters. It is for a "Hand Held" reading system and includes reading management software and training. As the Utility makes decisions regarding AMR System type, purchase quantities, etc., the estimate can be refined to a formal quotation.
2. Technical Briefs – are attached for review. If additional options are required, please advise. Other options for consideration may include a mobile reading solution or fixed base network.
3. Implementation – would include the reading hardware and software. Two days of training and configuration are included. The labor for installing the meters themselves or the retro-fit of existing meters is not included in the Budgetary Estimate.
4. Contact Information –

Steven Hansen
Hydro Specialties Company (authorized Badger distributor)
801-641-9130 (cell)
shansen@hydrospecialties.com

Exhibit B

Exhibit B

SPRING CREEK UTILITIES CO. - BID TABULATION

Project: Non-AMR to AMR

SCUC Project ID _____

Date: September 17, 2010

Item No.	Item and Description	Unit	Badger Non-AMR			Master Non-AMR			Add AMR Register to Master			Total Master AMR Cost
			Unit Cost	Quantity	Total	Unit Cost	Quantity	Total	Unit Cost	Quantity	Total	Unit Cost
1	3/4" Meter (3,589 total less 124 already replaced for Master Meter)	1	$73.60	3,465	$255,024.00	$56.94	3,465	$197,297.10	$115.00	3,465	$398,475.00	$595,772.10
2	1" Meter	1	$136.88	555	$75,968.40	$72.52	555	$40,248.60	$118.00	555	$65,490.00	$105,738.60
3	1.5" Meter	1	$322.50	24	$7,740.00	$180.67	24	$4,336.08	$140.00	24	$3,360.00	$7,696.08
4	2" Meter (12 total less 2 already purchased for Master Meter)	1	$1,606.00	10	$16,060.00	$1,150.77	10	$11,507.70	$260.00	10	$2,600.00	$14,107.70
5	4" Meter (2 total less 1 already purchased for Master Meter)	1	$3,155.00	1	$3,155.00	$2,282.09	1	$2,282.09	$260.00	1	$260.00	$2,542.09
6	6" Meter (5 total less 3 already purchased for Master Meter)	1	$4,448.00	2	$8,696.00	$3,947.47	2	$7,894.94	$280.00	2	$560.00	$8,454.94
7	Software and Training	1		1	$0.00	$39,083.00	1	$0.00	$10,900.00	1	$10,900.00	$10,900.00
8	Sales Tax	1	6.85%	1	$26,128.77	6.85%	1	$16,054.31	6.85%	1	$32,992.68	$51,046.99
9												
10												
	BASE BID				$391,972.17			$281,620.82			$514,637.68	$796,258.50
	Contingency for gaskets and meter box replacements				$70,000.00			$70,000.00			$0.00	$70,000.00
	TOTAL				$461,972.17			$351,620.82			$514,637.68	$866,258.50
	Outside Labor, if used		$10.00	4,057	$40,570.00	$10.00	4,057	$40,570.00	$10.00	4,057	$40,570.00	$81,140.00
	Maximum Cost				$502,542.17			$392,190.82			$555,207.68	$947,398.50

Exhibit B-1

Exhibit B-1

Hydro Specialties Company

EQUIPMENT · SYSTEMS · SYSTEMS INTEGRATION

BUDGETARY ESTIMATE

This quote was revised from the AMR quote. It is for Non-ARM meters, which is denoted by the statement "local reregister."

To: Utilities Inc
Spring Creek Water
Kerry Lugenbeel
775-753-4437
klugenb@uiwater.com

Project: Water Meter Replacement / AMR Upgrade

Date: September 20, 2010
Quote No: Q-40429653 Rev A
Quoted By: Steven Hansen

Item	Qty.	Description	Amount	Total
1.	1	Badger Orion Hand Held Reading System	$ 8,500.00	
		❖ Badger Trimble Radio Hand Held radio reading system. ❖ Badger Read Center meter reading management software. ❖ Two days on site implementation & training. ❖ See attached Technical Brief.		
2.		3/4 X 7-1/2 Badger Meter	$ 69.38	
		❖ 3/4" x 7-1/2" model #35 meter, cast iron bottom plate. ❖ Local register; U.S. gallons.		
2a.		3/4 X 9 Badger Meter	$ 73.60	
		❖ 3/4" x 9" model #35 meter, cast iron bottom plate. ❖ Local register; U.S. gallons.		
3.		1 X 10-1/2 Badger Meter	$ 115.56	
		❖ 1" model #55 meter, cast iron bottom plate. ❖ Local register; U.S. gallons.		
4.		1 X 10-1/2 Badger Meter	$ 136.88	
		❖ 1" model #70 meter, cast iron bottom plate. ❖ Local register; U.S. gallons.		

7041 S Commerce Park Drive · Midvale, UT 84047 · 801-562-9130 · Fax 562-9140

Hydro Specialties Company

EQUIPMENT · SYSTEMS · SYSTEMS INTEGRATION

Item	Qty.	Description	Amount	Total
5.		1-1/2 Badger Meter ❖ 1-1/2" model #120 meter, 2-bolt oval flange connection. ❖ Local register; U.S. gallons.	$ 322.50	
6.		2 Badger Meter ❖ 2" model #170 meter, 2-bolt oval flange connection. ❖ Local register; U.S. gallons.	$ 464.06	
7.		2 Badger Compound Meter ❖ 2" model CS-200 compound meter, 2-bolt oval flange connection. ❖ Bronze strainer; stainless element. ❖ Local register; U.S. gallons.	$ 1,606.00	
8.		4 Badger Compound Meter ❖ 4" model CS-1000 compound meter, ANSI 150 flange connection. ❖ Bronze strainer; stainless element. ❖ Local register; U.S. gallons.	$ 3,155.00	
9.		6 Badger Compound Meter ❖ 6" model CS-2000 compound meter, ANSI 150 flange connection. ❖ Bronze strainer; stainless element. ❖ Local register; U.S. gallons.	$ 4,448.00	
		OPTIONAL:		
10.		Retro-fit Existing Badger Meters ❖ Register w/Orion transmitter (less meter) for meter sizes 5/8" through 2" positive displacement meters and 10 ft wire lead.	$ 131.20	
11.		Data Profiling Option for Orion Radio Transmitter ❖ Orion transmitter with data logging option which stores 21,000 data points (2-1/2 years of hourly data intervals). ❖ Price adder per Orion transmitter.	$ 10.00	

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Hydro Specialties Company

EQUIPMENT · SYSTEMS · SYSTEMS INTEGRATION

Item	Qty.	Description	Amount	Total

Note:

1. Meter Reading System – for the purposes of this Budgetary Estimate, I have included a Radio Read Hand Held reader, meter reading management software and two days of training, ...as we did in the radio read Budgetary Estimate. It is included in Line Item 1 and is the same as the first proposal. If the meters are going to be read by writing the information on a printed Reading Worksheet, that line item can be eliminated from the Budgetary Estimate.
2. Budgetary Estimate – this Budgetary Estimate is provided for budgeting purposes. It allows the Utility to evaluate the options and retro-fit or replacement of the existing meters. It is for a "Hand Held" reading system and includes reading management software and training. As the Utility makes decisions regarding AMR System type, purchase quantities, etc., the estimate can be refined to a formal quotation.
3. Technical Briefs – are attached for review. If additional options are required, please advise. Other options for consideration may include a mobile reading solution or fixed base network.
4. Implementation – would include the reading hardware and software. Two days of training and configuration are included. The labor for installing the meters themselves or the retro-fit of existing meters is not included in the Budgetary Estimate.
5. Contact Information –

Steven Hansen
Hydro Specialties Company (authorized Badger distributor)
801-641-9130 (cell)
shansen@hydrospecialties.com

Exhibit B-2

Exhibit B-2

MASTER METER
101 Regency Parkway
Mansfield, Texas 76063
Phone (817) 842-8000 Fax (817) 842-8100

Quotation

Date: 9/29/2010

Prices Valid Until: 2/19/2011

Customer
Company: Utilities Inc.
Attention: Elise Hoover
Address:
Cell: 775-513-7756
Phone: 775-727-5575
E-mail: evhoover@uiwater.com

End User
Job/Utility: Utilities Inc.
Bid/Quotation #:
Bid date:
Bid Time:

QTY	DESCRIPTION	Meter w/ Direct Read Register	Price RF Register purchased Seperate
	5/8 x 3/4 BL05-5AA-EAA-2 BLMJ Direct Read Meter w/CI Bottom	32.32	106.00
	3/4 x 7-1/2" BL06-5AA-EAA-2 BLMJ Direct Read Meter w/CI Bottom	45.69	115.00
	3/4 X 9" BL07-5AA-FAA-2 BLMJ Direct Read Meter w/CI Bottom	56.94	115.00
	1" BL09-5AA-EAA-2 BLMJ Direct Read Meter w/CI Bottom	72.52	118.00
	1-1/2" MJ11-1AA-AAA-2 Topload MJ Direct Read Meter	180.67	140.00
	2" MJ13-1AA-AAA-2 Topload MJ Direct Read Meter	250.35	140.00
	2" TM13-1BD-AAG-2 Turbine Meter w/3G Odometer Interpreter	360.96	140.00
	3" TM14-1BD-AAA-2 Turbine Meter w/3G Odometer Interpreter	541.95	140.00
	4" TM15-1BD-AAA-2 Turbine Meter w/3G Odometer Interpreter	827.94	140.00
	6" TM16-1BD-AAA-2 Turbine Meter w/3G Odometer Interpreter	1,556.33	140.00
	8" TM17-1BD-AAA-2 Turbine Meter w/3G Odometer Interpreter	2,063.88	140.00
	2" DC13-1BD-AAG-2 Compound Meter with 3G DS	958.94	260.00
	3" DC14-1BD-AAA-2 Compound Meter with 3G DS	1,275.62	260.00
	4" DC15-1BD-AAA-2 Compound Meter with 3G DS	1,746.59	260.00
	6" DC16-1BD-AAA-2 Compound Meter with 3G DS	3,182.21	280.00
		OTHER	
		TOTAL	$ -

Comments/Special Instructions:

Pricing will be held firm for the period noted above unless there is a drastic change in the cost of materials. Should a major change occur, Utilities Inc. will be notified and given 30 days to purchase product at the prices quoted above prior to any adjustment being made. Prior to renewing the pricing, Master Meter will review our cost to determine if any adjustment in pricing will be needed.

F.O.B. Master Meter in Mansfield,Texas - Freight paid on orders of $15000 or more
Terms Net 30
Delivery Depends on Quantity ordered

Prepared by Ronnie Veach
Name
CC

THANK YOU FOR YOUR BUSINESS!

Exhibit C

Exhibit C

SPRING CREEK UTILITIES CO.

Meters Older than 20 Years

Date: September 17, 2010

Item No.	Item and Description	Unit	Master Meter - AMR Ready			Master Meter - Non-AMR		
			Unit Cost	Quantity	Total	Unit Cost	Quantity	Total
1	3/4" Meter	1	$168.39	333	$56,073.87	$56.94	333	$18,961.02
2	1" Meter	1	$180.74	19	$3,434.06	$72.52	19	$1,377.88
3	1.5" Meter	1	$315.41	1	$315.41	$180.67	1	$180.67
4	2" Meter	1	$1,401.28	1	$1,401.28	$1,150.77	1	$1,150.77
5	4" Meter	1	$2,532.60	1	$2,532.60	$2,282.09	1	$2,282.09
6	6" Meter	1	$4,198.25	0	$0.00	$3,947.47	0	$0.00
8	Sales Tax	1	6.85%	1	$4,367.37	6.85%	1	$1,640.74
9								
17								
18								
19								
20								
	BASE BID				$68,124.59			$25,593.17
	Contingency for gaskets and mete		10.00%		$6,812.46	10.00%		$2,559.32
	TOTAL				$74,937.05			$28,152.49
	Outside Labor, if used		$10.00	355	$3,550.00	$10.00	355	$3,550.00
	Maximum Cost				$78,487.05			$31,702.49

APPENDIX L — EPA WATER USAGE BENCHMARKS

Type of Use	Likely Range of Values
INDOOR USES	
Average household size	2.0-3.0 persons
Frequency of toilet flushing	4.0 – 6.0 flushes per person per day
Flushing Volumes	1.6 – 8.0 gallons per flush
Fraction of leaking toilets	0-30 percent
Shower frequency	0 – 2.0 showers per person per day
Duration of average shower	5-15 minutes
Shower flow rates	1.5 – 5.0 gallons per minute
Bathing frequency	0 – 0.2 baths per person per day
Volume of water	30 – 50 gallons per cycle
Washing machine use	0.2 – 0.5 loads per person per day
Volume of water	45 – 50 gallons per cycle
Dishwasher use	0.1 – 0.3 loads per person per day
Volume of water	10 -15 gallons per cycle
Kitchen faucet use	0.5 – 5.0 minutes per person per day
Faucet flow rates	2.0 – 3.0 gallons per minute
OUTDOOR USES	
Average lot size	5000 – 8000 square feet
Average house size	1200 – 2500 square feet
Landscape area	4000 – 5000 square feet
Fraction of lot size in turf	30 – 50 percent
Water application rates	1 – 5 feet per year
Homes with pools	10 – 25 percent
Pools evaporation losses	3 – 7 feet per year
Frequency of refilling pool	1 – 2 times per year

APPENDIX M WATER CONSERVATION PRODUCTS

The following conservation products are taken from the AM Conservation group. More water conservation products and information can be found at http://www.amconservationgroup.com

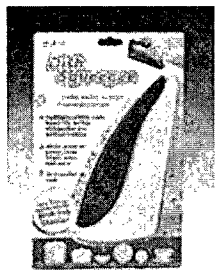

Figure 1Dish Squeegee

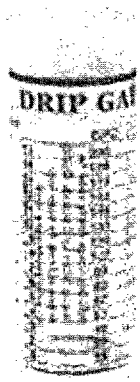

Figure 2Drip Counter

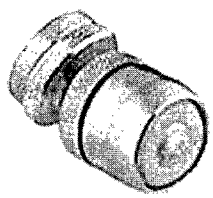

Figure 3Faucet Aerators

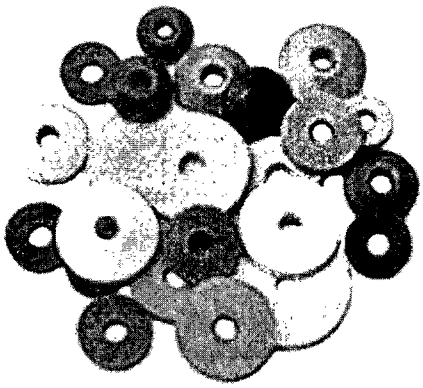

Figure 4Faucet Repair Kit

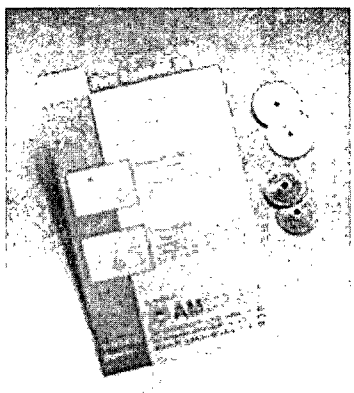

Figure 5Flow Restrictor Kit

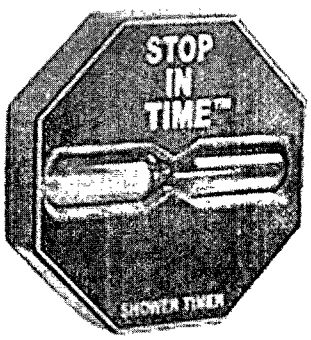

Figure 6STOP in Time Shower Timer

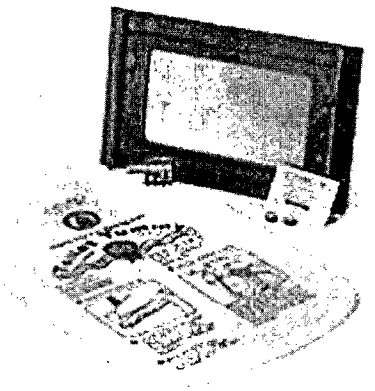

Figure 7Toilet Tank Water Savers

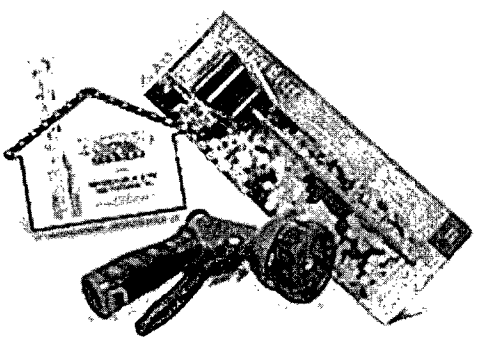

Figure 8Outdoor Water Savers

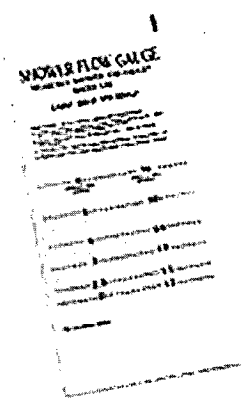

Figure 9Shower Flow Meter Bag

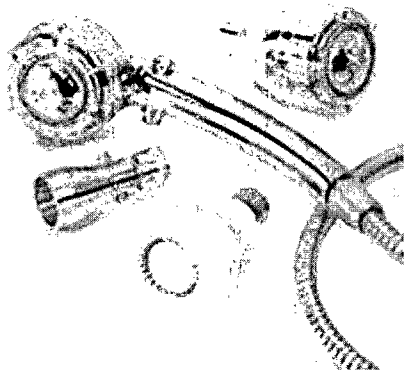

Figure 10Shower Heads

Figure 11Water Conservation Kits

Figure 12Water Wheel

APPENDIX N HIGH EFFICIENCY TOILETS BILL CREDIT

TERMS and CONDITIONS
QUALIFIED HIGH EFFICIENCY TOILET BILL CREDIT PROGRAM
PLEASE READ CAREFULLY

In consideration of receiving the bill credit under this Program, the Undersigned acknowledges and agrees:

THAT the Toilet Replacement program is subject to the rules and regulations set forth in the State of Nevada approved Utility's Tariff(s) and State approved Water Conservation Plan;

THAT the bill credit is a one- time credit of $50 or ½ of the cost of the toilet only (excluding shipping, tax, delivery and/or other incidentals) whichever is less, not to exceed $100 per residence or unit;

THAT THE LIMIT is two per residence or unit;

THAT ELIGIBILITY is to any single family home or multi-family home up to four units receiving water from the Utility as a Customer who is current with the Utility for all bills at any and all premises regardless of type of service;

THAT ELIGIBILITY is for a High Efficiency Toilet (HET) with the EPA WaterSense Label which uses no more than 1.28 gallons per flush (gpf) on average and reliably flushes a minimum of 350 grams of solids installed at the premise receiving service from the Utility;

THAT THE APPLICATION must be accompanied by the original sales receipt. If the receipt does not show the toilet brand and model, you must provide other documentation acceptable to the Utility, such as the model number from the packaging;

THAT THE RESPONSIBILITY to meet Program criteria is the Customer's;

THAT the Utility may deny any application that does not meet Program requirements, which can be obtained by visiting www.uiwater.com, Spring Creek Utilities Co. Water Conservation Plan or by calling 866.277.5515;

THAT the Utility may inspect all properties participating in this Program in order to confirm applicants' performance of the obligations under this Application;

THAT the Utility does not guarantee or warrant that the performance of any toilet or that its installation will be free of defects, the quality of workmanship of the toilet or the suitability of the premises for installation;

THAT the Utility does not guarantee any benefits in the HET Program;

THAT the installation of the number of water efficient toilets indicated in this Application Form has been completed at the service address shown on the application;

THAT this program is not effective unless and until fully approved by the Public Utilities Commission of Nevada and any HET toilet purchase prior to that approval date is ineligible for this bill credit;

TO indemnify, save and hold harmless the Utility including its Boards, affiliates, officers and employees, against any and all liability, loss, costs, damages, and expenses, causes of action, actions, claims, demands, lawsuits and other proceedings, by whomever made, sustained, brought or prosecuted, including third party bodily injury, death, personal injury, and property damage, in any way based upon, occasioned by or attributable to the undersigned's participation in this Program, including any negligence on the part of the Utility, its agents or servants;

THAT the Utility reserves the right to alter or terminate the Program at any time or refuse, in its sole discretion all further applications. At any time this Program is cancelled or altered, your bill credit for a purchase and installation of an HET will be honored only if received by the Utility within 30 days of the date of purchase;

THAT, if the Program is in force, then all applications for an HET Bill Credit must be received within 60 days of purchase;

THAT the HET must remain at the service address where the water conservation work has taken place. Bill credits will not be transferred from the location of water savings to another account, even if both service addresses are in the name of the same Customer or owned by the same person.

TO REPAY such bill credit to the Utility upon request, if this Application contains any material misstatement or misrepresentation on such undersigned's behalf, or if the undersigned breaches any of such terms or conditions.

Mail To:
Spring Creek Utilities Co.
448 Tonka Lane, Unit 3
Spring Creek, NV 89815
BeWaterSmart@uiwater.com

Attn: HET Bill Credit

Signature of applicant:	Date:
Property Owner Signature:	Date:

How much is the bill credit?

The bill credit is $50 per toilet or ½ of the cost of the toilet only (including neither shipping tax, nor other incidentals).

Who qualifies for the bill credit?

Any single family home (house or condominium), or multifamily building with four or less units, located in the Utility service territory is eligible for a bill credit. You can apply for up to two rebates per house, condominium or unit, for a maximum of $100 per premise.

Which toilets qualify for the bill credit?

Any toilet with the EPA WaterSense label qualifies. For a list of WaterSense labeled toilets go to *www.uiwater.com* or call 866.277.5515. You can also obtain a list, or search for a specific toilet at *www.epa.gov/ WaterSense/products/toilets.html*.

What are WaterSense labeled toilets?

WaterSense toilets are high-efficiency toilets (HET) that use no more than 1.28 gallons per flush on average. All WaterSense labeled toilets must reliably flush a minimum of 350 grams of solid.

How much water do WaterSense toilets save?

Pre-1994 toilets use at least 3.5 gallons per flush. Since 1994, toilets are required to use a maximum of 1.6 gallons per flush. Replacing a pre-1994 toilet will save about 10,000 gallons of water a year. Replacing a newer toilet will save about 1,400 gallons of water a year.

Who makes WaterSense toilets and where are they sold?

All major toilet manufacturers produce WaterSense labeled models and all hardware and bathroom supply stores carry some models.

What documentation must I provide to receive a bill credit?

It is your responsibility to demonstrate the toilet meets the program criteria. You must provide a copy of the sales receipt. If the receipt does not show the toilet brand and model, you must provide other documentation (acceptable to the Utility), such as the model number from the toilet packaging.

When must I apply?

You must submit your application within 60 days after purchasing the toilet.

How long does it take to get my bill credit?

You should receive your bill credit within 1 to 2 billing cycles after receipt of your application.

Who can I contact if I have questions?

Customer Service: 866.277.5515
BeWaterSmart@uiwater.com

Utilities, Inc.

Single Family: Resident Application

Spring Creek Utilities Co.
Mailing: 448 Tonka Lane Unit 3
Physical: 14891 Lamoille Highway
Spring Creek, NV 89815
BeWaterSmart@uiwater.com
Attn: Toilet Replacement Application

TOILET REPLACEMENT APPLICATION

APPLICANT INFORMATION

Name:		
Utility Acct. No.:	Email:	Phone:
Current address:		
City:	State:	ZIP Code:
Own Rent *(Please circle one)*	No. of Toilets:	No. of Residents:

PROPOERTY OWNER INFORMATION (IF DIFFERENT)

Property Owner:		
Owner address:		
Phone:	E-mail:	Fax:
City:	State:	ZIP Code:

TOILET INSTALLATION INFORMATION

Quantity	Manufacturer/Make	Model Name/No.	Purchase Location (City, State, Store)	Purchase Date

Installed by:	
Self or Contractor / Plumber *(please circle one)*	Install Date:

CHECKLIST

Is the water efficient toilet(s) you purchase on the WaterSense Approved list?
Have you completed and signed the Ultra-low Flush Toilet Replacement Application?
Did you enclose the original sales receipt for your toilet(s)

SIGNATURES

By signing below, you indicate that you have read and complied with the requirements of the High Efficiency Washing Machine Bill Credit Program and the Utility Water Conservation Plan.

Signature of applicant:	Date:
Property Owner Signature:	Date:

FOR UTILITY USE ONLY

Eligible Incentive	Amount	Approval Date	Application Approved By
First Toilet: Yes / No			
Second Toilet: Yes / No			
Total			

Utilities, Inc.®

Multi-Family Application (up to 4 unites)

Spring Creek Utilities Co.
Mailing: 448 Tonka Lane Unit 3
Physical: 14891 Lamoille Highway
Spring Creek, NV 89815
BeWaterSmart@uiwater.com
Attn: Toilet Replacement Application

TOILET REPLACEMENT APPLICATION

APPLICANT INFORMATION

Registered Owner of Building:		
Email:	Phone:	
Mailing Address:		
City:	State:	Zip Code:
Name of Utility Customer:		Utility Acct. No.:
Email:		Phone:
Service Address:		APN:
City:	State:	Zip Code:

BUILDING INFORMATION

Does the Landlord the Utility Bill for All Units: Yes No (please circle one)
If, not a separate application for each unit applying for a bill credit must be submitted.

No. of Units:	No. of Existing Toilets:

TOILET INSTALLATION INFORMATION

Quantity	Manufacturer/Make	Model Name/No.	Purchase Location (City, State, Store)	Purchase Date	Unit No.

Installed by: In-house Staff Plumber/Contractor (please circle one)

No. of Toilets Installed:	Install Date:
Plumber / Contractor Name:	Contractor No.:
Signature:	Phone:

CHECKLIST

Is the water efficient toilet(s) you purchased on the WaterSense Approved list?

Have you completed and signed the Toilet Replacement Application?

Did you enclose the original sales receipt for your toilet(s)

SIGNATURES

By signing below, you indicate that you have read and complied with the requirements of the High Efficiency Washing Machine Bill Credit Program and the Utility Water Conservation Plan.

Signature of applicant:	Date:
Property Owner Signature:	Date:

FOR UTILITY USE ONLY

TOILET REPLACEMENT APPLICATION

Eligible Incentive	Amount	Approval Date	Application Approved By
First Toilet: Yes / No			
Second Toilet: Yes / No			
Total			

Toilets

Filtered by: Toilets , ADA:All , Flush Type:All , Bowl Type:All , Flush Mechanism:All

Brand Name	Model Name	Model Number	Bowl Model Number	Tank Model Number
American Standard	H2Option; EL; Lined	2887.516	3706.216	4339.516
American Standard	FloWise Dual Flush Elongated Toilet; Lined Tank	2479.516	3067.216	4035.516
American Standard	RH EL Dual Flush Complete	2778.516	3073.316	4035.516
American Standard	RH EL Dual Flush Combination	2484.216	3073.316	4035.216
American Standard	NH EL Dual Flush Lined Combination	2476.516	3067.316	4035.516
American Standard	NH EL Dual Flush Complete	2779.516	3067.316	4035.516
American Standard	NH EL Dual Flush Combo Toilet	2476.216	3067.316	4035.216
American Standard	Mainstream FloWise RF Complete	3468.128	3061.428	4061.428
American Standard	H2Option; Siphonic Dual Flush; RH EL	2886.216	3705.216	4339.216
American Standard	H2Option; Siphonic Dual Flush; RF	2889.216	3708.216	4339.216
American Standard	H2Option; Siphonic Dual Flush; EL	2887.216	3706.216	4339.216
American Standard	Studio FloWise Concealed Trap RH RF Toilet Combination	2795.104	3053.100	4000.104
American Standard	H2Option; RF; Lined	2889.516	3708.216	4339.516
American Standard	Studio FloWise EL combo	2588.101	3014.001	4202.101
American Standard	FloWise RH RF Complete	3377.128	3005.128	4021.128
American Standard	FloWise RH EL Complete	3378.128	3016.001	4021.128
American Standard	FloWise RH EL Complete	3378.128	3016.128	4021.128
American Standard	FloWise NH RF	2880.128	3011.128	4021.128
American Standard	FloWise NH RF	2880.128	3011.001	4021.128

American Standard	FloWise Dual Flush Right Height Elongated Toilet Lined Tank	2480.516	3073.216	4035.516
American Standard	FloWise Dual Flush Right Height Elongated Toilet	2566.216	3073.216	4035.216
American Standard	FloWise Dual Flush Right Height Elongated Toilet	2480.216	3073.216	4035.216
American Standard	FloWise Dual Flush Right Height Elongated Complete Toilet Lined Tank	2566.516	3073.216	4035.516
American Standard	FloWise Dual Flush NH RF Lined	2489.516	3074.216	4035.516
American Standard	FloWise Dual Flush NH RF	2489.216	3074.216	4035.216
American Standard	H2Option; RH EL; Lined	2886.516	3705.216	4339.516
American Standard	Tropic FloWise EL with Aquaguard Liner combo	2457.151	3014.001	4007.151
American Standard	AquaOption RH EL Complete	3381.516	3711.216	4348.516
American Standard	Yorkville RH EL PA FloWise	2878.100	3703.100	4142.100
American Standard	Yorkville RH EL PA FloWise	2878.100	3703.001	4142.100
American Standard	Yorkville PA FloWise EL	2876.100	3701.001	4142.100
American Standard	Yorkville PA FloWise EL	2876.100	3701.100	4142.100
American Standard	Tropic FloWise RH RF with Aquaguard Liner combo	2791.151	3005.001	4007.151
American Standard	Tropic FloWise RH RF combo	2791.101	3005.001	4007.101
American Standard	Tropic FloWise RH Elongated 1-Piece Toilet	2786.128		
American Standard	Tropic FloWise RH EL with Aquaguard Liner combo	2459.151	3016.001	4007.151
American Standard	Tropic FloWise RH EL combo	2459.101	3016.001	4007.101
American Standard	RH EL Dual Flush Lined; Combination	2484.516	3073.316	4035.516
American Standard	Tropic FloWise RF combo	2455.101	3011.001	4007.101
American Standard	Mainstream FloWise RF Complete	3468.128	3061.101	4061.428
American Standard	Tropic FloWise EL combo	2457.101	3014.001	4007.101

American Standard	Town Square 2 Pc EL RH Combo 1.28Gpf	2817.128	3071.128	4216.128
American Standard	Town Square 2 Pc EL RH Combo 1.28Gpf	2817.128	3071.000	4216.128
American Standard	Town Square 1pc RH EL	2847.128		
American Standard	Studio FloWise RH RF with Aquaguard Liner combo	2579.151	3005.001	4202.151
American Standard	Studio FloWise RH RF combo	2579.101	3005.001	4202.101
American Standard	Studio FloWise RH EL wtih Aquaguard Liner combo	2589.151	3016.001	4202.151
American Standard	Studio FloWise RH EL combo	2589.101	3016.001	4202.101
American Standard	Studio FloWise RF with Aquaguard Liner combo	2587.151	3011.001	4202.151
American Standard	Studio FloWise RF combo	2587.101	3011.001	4202.101
American Standard	Studio FloWise EL with Aquaguard Liner combo	2588.151	3014.001	4202.151
American Standard	Tropic FloWise RF with Aquaguard Liner combo	2455.151	3011.001	4007.151
American Standard	Cadet EL FloWise	2462.100	3481.100	4142.100
American Standard	Cadet3 FloWise RH EL	3305.128	3016.128	4021.128
American Standard	Cadet3 FloWise RH EL	3305.128	3016.001	4021.128
American Standard	Cadet3 FloWise RH EL	2836.128	3016.001	4019.128
American Standard	Cadet3 FloWise RH EL	2836.128	3016.128	4019.128
American Standard	Cadet3 FloWise NH RF 12"; lined	2829.513	3011.128	4021.513
American Standard	Cadet3 FloWise EL Complete	3379.128	3014.001	4019.128
American Standard	Cadet3 FloWise EL Complete	3379.128	3014.128	4019.128
American Standard	Cadet3 FloWise EL	2833.128	3014.128	4019.128
American Standard	Cadet3 FloWise EL	2833.128	3014.001	4019.128
American Standard	Cadet3 FloWise Compact EL One-piece Complete Toilet	2568.128		
American Standard	Cadet3 FloWise 1pc.; Lined	2403.513		
American Standard	Cadet3 FloWise RH EL 12"; lined	2835.513	3016.128	4021.513
American Standard	Cadet EL FloWise	2462.100	3481.001	4142.100

American Standard	Cadet 3 FloWise RF	2829.128	3011.128	4021.128
American Standard	Cadet 3 FloWise RH EL	2835.128	3016.001	4021.128
American Standard	Cadet 3 FloWise RH EL	2835.128	3016.128	4021.128
American Standard	FloWise Dual Flush	2479.216	3067.216	4035.216
American Standard	Cadet 3 FloWise RF	2829.128	3011.001	4021.128
American Standard	Mainstream FloWise RH RF Complete	3472.128	3069.101	4061.428
American Standard	Cadet 3 FloWise EL	2832.128	3014.001	4021.128
American Standard	Cadet 3 Flowise Concealed Trapway RH RF Toilet Combination	2988.101	3053.000	4000.101
American Standard	Cadet 3 FloWise	2830.128	3011.001	4019.128
American Standard	Cadet 3 FloWise	2830.128	3011.128	4019.128
American Standard	C3 Concealed Trap RH EL 1.28	2989.101	3075.000	4000.101
American Standard	Boulevard Concealed Trap RH EL	2794.104	3075.100	4000.104
American Standard	Cadet FloWise RH EL Pressure Assist Toilet	2467.100	3483.100	4142.100
American Standard	Cadet3 RH RF FloWise	2758.128	3005.128	4021.128
American Standard	Cadet3 FloWise RH EL Complete with Liner combo	3378.513	3016.128	4021.528
American Standard	FloWise	2073.014	3018	4023
American Standard	Evolution2 Flowise RH EL Combo; Lined	2754.513	3068.128	4061.513
American Standard	Evolution2 Flowise RH EL Combo	2754.128	3068.128	4061.128
American Standard	Evolution2 Flowise RF Combo; Lined	2752.513	3061.128	4061.513
American Standard	Evolution2 Flowise RF Combo	2752.128	3061.128	4061.128
American Standard	Evolution2 Flowise EL Combo; Lined	2753.513	3063.128	4061.513
American Standard	Evolution2 Flowise EL Combo	2753.128	3063.128	4061.128
American Standard	EcoFusion RH EL Complete	3380.516	3710.216	4349.516
American Standard	EcoFusion RH EL Complete	3380.216	3710.216	4349.216
American Standard	Compact Cadet3 FloWise 1pc; lined	2522.513		
American Standard	Cadet3 RH RF FloWise	2758.128	3005.001	4021.128

American Standard	Cadet3 FloWise Round Front Total Toilet	3329.128	3011.001	4021.128
American Standard	Cadet3 FloWise RH RF	2849.128	3005.128	4019.128
American Standard	Cadet3 FloWise RH RF	2849.128	3005.001	4019.128
American Standard	Cadet3 FloWise RH RF Lined	2758.513	3005.128	4021.513
American Standard	Cadet3 Flowise Right Height EL Total Toilet	3339.128	3016.001	4021.128
American Standard	Compact Cadet3 FloWise combo	2431.101	3046.001	4019.128
American Standard	FloWise Cadet3 1-pc	2403.128		
American Standard	Cadet3 RF Toilet To Go	2852.128	3011.128	4021.128
American Standard	Cadet 3 FloWise EL	2832.128	3014.128	4021.128
American Standard	Cadet3 FloWise Round Front Total Toilet	3329.128	3011.128	4021.128
American Standard	Cadet3 FloWise Spacesaver Complete	2447.128	3046.128	4019.128
American Standard	Cadet3 RF Toilet To Go	2852.128	3011.001	4021.128
American Standard	Cadet3 Flowise Right Height EL Total Toilet	3339.128	3016.128	4021.128
Aquasenses	ES22114		ES2214	ES3214
AquaSource (a Lowe's brand)	AquaSource	005905		
AquaSource (a Lowe's brand)	High-Efficiency Elongated Toilet	98923		
AquaSource (a Lowe's brand)	High-Efficiency Elongated Toilet	312795		
AquaSource (a Lowe's brand)		0104502		
AquaSource (a Lowe's brand)		0061042		
AquaSource (a Lowe's brand)	High-Efficiency Round Toilet	12293		
AquaSource (a Lowe's brand)		9311K		
Axent	High-Efficiency Elongated Toilet w/Chair Height (ADA) Bowl and Seat	AT1203-xx		
Axent	High-Efficiency Round Toilet w/Seat	AT1201-xx		
Briggs	Conserver	4207	4370	4484
Briggs	Conserver	4208	4375	4484

Briggs	ProFlo	PF9201	PF9212
Briggs	ProFlo	PF9200	PF9212
Caroma	Royale 270 EH	609177	624530
Caroma	Sydney 270 Elongated	609100	622320
Caroma	Sydney 270 EH Elongated	609120	622320
Caroma	Sydney 270 EH	609177	622320
Caroma	Sydney 270	609159	622320
Caroma	Royale 305 Elongated	609130	624530
Caroma	Royale 305	609151	624530
Caroma	Sydney 305	609151A	622320
Caroma	Royale 270 EH Elongated	609120	624530
Caroma	Sydney Smart 270 EH	609177	622322
Caroma	Royale 270	609159	624530
Caroma	Royale 270 Elongated	609100	624530
Caroma	Sydney 305 Elongated	609130	622320
Caroma	Sydney Low Profile 270 EH	609177	622330
Caroma	Sydney Low Profile 270 EH Elongated	609120	622330
Caroma	Sydney Low Profile 270 Elongated	609100	622330
Caroma	Sydney Low Profile 305 Elongated	609130	622330
Caroma	Sydney Smart 270 EH Elongated	609120	622322
Caroma	Sydney Smart 270 Elongated	609100	622322
Caroma	Sydney Smart 305	609151A	622322
Caroma	Sydney Smart 305 Elongated	609130	622322
Caroma	Sydney Smart Rear Outlet	609450	622322
Caroma	Profile Smart 305	609151A	840420W
Caroma	Sydney Low Profile 305	609151A	622330
Caroma	Sydney Low Profile 270 Round	609159	622330
Caroma	Bondi 270	609159	726350
Caroma	Invisi II Walvit Elongated Wall-Mount	604119W	237061

Caroma	Adelaide 270 Cube EH		825500	814790
Caroma	Adelaide 270 Standard EH		825500	814328
Caroma	Bondi 270 EH		607177	726350
Caroma	Bondi 270 Elongated		609100	726350
Caroma	Sydney Smart 270		609159	622322
Caroma	Bondi 270 Elongated EH		609120	726350
Caroma	Adelaide 270 Cube		834000	814790
Caroma	Bondi 305		609151	726350
Caroma	Bondi 305 Elongated		609130	726350
Caroma	Brisbane 270		833900	810266
Caroma	Caravelle 270		609159	629435
Caroma	Colonial 270		605310	625070
Caroma	Adelaide 270 Standard		834000	814328
Caroma	Invisi II Cube Wall-Mount		604300	237062
Caroma	Invisi II Cube Wall-Mount		604300	237061
Caroma	Caravelle 270 EH		609177	629435
Caroma	Colonial 270 EH		605320	625070
Caroma	Caravelle One Piece EH	989668		
Caroma	Caravelle One Piece	989646		
Caroma	Caravelle Elongated 305		609130	629435
Caroma	Caravelle Elongated 270		609100	629435
Caroma	Caravelle 305		609151	629435
Caroma	Caravelle 270 EH Elongated		609120	629435
Caroma	Invisi II Walvit Elongated Wall-Mount		604119W	237062
Cascadian Sanitary Ware	Toscano	C920 T981	C920	T981
Cascadian Sanitary Ware	Venezia	C830 T881	C830	T881
Cascadian Sanitary Ware	Toscano	C930 T901	C930	T901
Cascadian Sanitary Ware	Conserver	C736 T761	C736	T761
Cascadian Sanitary Ware	Toscano	C930 T981	C930	T981
Cascadian Sanitary Ware	Toscano	C920 T901	C920	T901
Chelini Collection	Marriot Dual Flush HET Round Front		B1215R	TDF1246

Chelini Collection	Marriot Dual Flush Ideal Height HET Elongated		B1216E	TDF1246
Chelini Collection	Marriot Dual Flush HET Elongated		B1215E	TDF1246
Chelini Collection	Cabot Ideal Height Elongated HET		B1516E	T10348
Chelini Collection	Cabot 16.5" Ideal Height Round Front HET		B1516R	T10348
Chelini Collection	Bournelli Round Front HET		B1415R	T14248
Contrac	Clancy	5730BIVU	B5730BIVU	T5730BIVU
Contrac	Craig	5720BFWU	5722BFW	5721BFWU
Contrac	Cooper	5720BFZ	B5720BFZ	T5720BFZ
Contrac	Colten	5720BIZ	B5720BIZ	T5720BIZ
Contrac	Colin	5720BEZ	B5720BEZ	T5720BEZ
Contrac	Colin	5710BEZ		
Contrac	Coen	5720BOV	B5720BOV	T5720BOV
Contrac	Ciara	5710BLT		
Contrac	Cato	5730BEVU	B5730BEVU	T5730BEVU
Contrac	Cadell	5730BFVU	B5730BFVU	T5730BFVU
Contrac	Case	5730BOVU	B5730BOVU	T5730BOVU
Contrac	Carter	4720BIV	B4720BIV	T4720BIV
Contrac	Captiva	4710BIV		
Contrac	Camri	5720BEWU	5722BEW	5721BEWU
Contrac	Calum	5720BFV	B5720BFV	T5720BFV
Contrac	Cain	5720BEV	B5720BEV	T5720BEV
Contrac	Cleo	5720BOY	B5720BOY	T5720BOY
Crane	EcoSaratoga	31986	3372	31966
Crane	EcoMiser BigFoot	38345	31125	31500
Crane	EcoMiser BigFoot ADA	38355	31128	31500
Crane	Economiser One	31884	31124	31612
Crane	Economiser One BigFoot	31885	31125	31612
Crane	Economiser One BigFoot	31888	31128	31612
Crane	EcoSaratoga	31970	3352	31960
Crane	EcoSaratoga	31972	3352	31964
Crane	EcoSaratoga	31973	3372	31964
Crane	EcoMiser	38400	3830	31500
Crane	EcoSaratoga	31980	3372	31960
Crane	EcoMiser	38370	3827	31500

Crane	EcoSaratoga Gravity Dual	31983	3815	31964
Crane	EcoSaratoga	31976	3352	31966
Crane	Eco Opus 3 EL Lined HET Combo	2383358	3014.328	4021.358
Crane	EcoMiser BigFoot	38335	31124	31500
Crane	Eco Opus 3 EL Lined HET Combo	2383358	3014.601	4021.358
Crane	Eco Opus 3 RF HET Combo	2384328	3011.328	4021.328
Crane	Eco Opus 3 RF Lined HET Combo	2384358	3011.328	4021.358
Crane	Eco Opus 3 RF Lined HET Combo	2384358	3011.601	4021.358
Crane	Eco Opus 3 RH EL HET Combo	2386328	3016.328	4021.328
Crane	Eco Opus 3 RH EL Lined HET Combo	2386358	3016.328	4021.358
Crane	Eco Opus III	31692	31562	31542
Crane	Eco Opus III	31693	31562	31543
Crane	EcoGalaxy/Cranada	31007	3352	31590
Crane	EcoGalaxy/Cranada	31008	3372	31590
Crane	EcoGalaxy/Cranada	31067	3352	31593
Crane	Eco Opus 3 RH EL Lined HET Combo	2386358	3016.601	4021.358
Crane	Eco Opus 3 EL HET Combo	2383328	3014.328	4021.328
Danze, Inc.	Cirtangular		DC023330	DC022321
Danze, Inc.	Orrington	DC011323		
Danze, Inc.	Orrington		DC013330	DC012323
Danze, Inc.	Cobalt Compact Elongated HET 1 PC	DC061421**		
Danze, Inc.	Ziga Zaga	DC031321		
Danze, Inc.	Cobalt Elongated 2 PC HET	DC063330**-DC062321**	DC063330**	DC062321**
DOFINY	High Efficiency Round Front Toilet	DB2604B/DSX2604	DB2604B	DSX2604
DOFINY	One Piece High Efficiency Elongated Toilet	A1003-E		
DOFINY	Round Front Dual Flush HET	A2008-R	A2008-R-B	A2008-T
DOFINY	One Piece High Efficiency Elongated Toilet	A1002-E		
DOFINY	High Efficiency Round Front Toilet	DB2604B/DSX2604B	DB2604B	DSX2604B
DOFINY	High Efficiency Elongated Toilet	UAC1303BS-AA/UAT1304-AA	UAC1303BS-AA	UAT1304-AA

DOFINY	High Efficiency Elongated Toilet	UAC1301BS-AA/UAT1302-AA	UAC1301BS-AA	UAT1302-AA
DOFINY	High Efficiency Elongated Toilet	A2003-E	A2003-E-B	A2003-T
DOFINY	Elongated ADA Single Flush HET	A2001-EA	A2001-EA-B	A2001-T
DOFINY	High Efficiency Elongated Toilet	A2002-EA	A2002-E-B	A2002-T
DOFINY	High Efficiency Round Front Toilet	DB2602B/DSX2602	DB2602B	DSX2602
Duravit	Happy D Two Piece Toilet 1.28 gpf		011201	092910
Duravit	Vero Wall Hung Toilet		221709	111.335
Duravit	Vero Two-Piece Toilet		211609	090910
Duravit	Vero One Piece Toilet 1.28 gpf	210301		
Duravit	Vero Floor Standing Toilet		211709	109.304
Duravit	Starck X Wall Hung Toilet		220409	111.335
Duravit	Starck 3 Wall Hung Toilet		220009	111.335
Duravit	Starck 3 Two-Piece Toilet		012809	092010
Duravit	Starck 2 Wall Hung Toilet		016009	111.335
Duravit	Starck 2 One Piece Toilet 1.28 gpf	016301		
Duravit	Happy D Two-Piece Toilet		017009	091010
Duravit	Foster Wall Hung Toilet		017509	111.335
Duravit	D-Code Wall Hung Toilet		220909	111.335
Duravit	D-Code Two-Piece Toilet; 1.28 Gpf		011701	092720
Duravit	Darling Wall Hung Toilet		020709	111.335
Duravit	Caro Wall Hung Toilet		015609	111.335
Duravit	2nd Floor Wall Hung Toilet		220509	111.335
Duravit	Happy D Wall Hung Toilet		017109	111.335
Eljer	Stratus HET RH EL Complete	091-1285	3016.428	4007.428
Eljer	Stratus HET RF Complete	091-1280	3011.301	4007.428
Eljer	Stratus HET RF Complete	091-1280	3011.428	4007.428

Eljer	Somerville DF RF Complete Siphonic	091-6100	3708.416	4339.416
Eljer	Belmont HET RF Complete	091-0800	3061.428	4061.428
Foremost	HET	AO1-803807-RW	LL-807-RW	T1-803-W
Foremost	Regent	TL-5210-YL		
Foremost	HET	AO2-7851-HET-RY	LL-0051-RY	T-7800-HET-Y
Foremost	HET	AO2-158777RW	LL-777RW	T2-158W
Foremost	HET	AO2-158777EW	LL-777EW	T2-158W
Foremost	HET	AO4-035177EW	LL-177EW	T4-035W
Foremost	HET	AO2-058777EW	LL-777EW	T2-058W
Foremost	HET	AO1-803807-EW	LL-807-EW	T1-803-W
Foremost	HET	AO1-203824RW	LL-824RW	T1-203W
Foremost	HET	AO1-054777RW	LL-777RW	T1-054W
Foremost	HET	AO1-054777EW	LL-777EW	T1-054W
Foremost	Gemini	TL-2100-WL		
Foremost	HET	AO2-058777RW	LL-777RW	T2-058W
Foremost	Premier	TL-8207-YL4	LL-8207-Y4	T-8207-YL4
Foremost	HET	AO4-045177EW	LL-177EW	T4-045W
Foremost	HET	AO4-215177EW	LL-177EW	T4-215W
Foremost	HET	AO4-425177EW	LL-177EW	T4-425W
Foremost	HET	AO4-825177EW	LL-177EW	T4-825W
Foremost	HET	TL-7600HC-HET-Y1	LL-7600HC-HET-Y1	T-7600HC-HET-Y1
Foremost	HET	TL-7605HC-WL	LL-7605HC-W	T-7605-WL
Foremost	HET	TL-7637HC-WL	LL-7637HC-W	T-7637-WL
Foremost	Moline	TL-8265-WL		
Foremost	Moline	TL-8267-YL	LL-8267-Y	T-8267-YL
Foremost	Odessa	TL-8260-WL	LL-8260-W	T-8260-WL
Foremost	Plaza	TL-7107-WL	LL-7107-W	T-7107-WL
Foremost	Gemini	TL-2005-YL	LL-2005-Y	T-2005-YL
Foremost		TL-10PB-HET-EWL		
Foremost	HET	AO4-045167EW	LL-167EW	T4-045W
Foremost		TL-20PA-HET-EW	LL-20PA-HET-EW	T-20PA-HET-EW
Foremost	Regent	TL-5207-YL2	LL-5207-Y2	T-5207-YL2
Foremost		AIO-400EW-HET	AIO B400EW	AIO T400W
Foremost		AIO-400RW-HET	AIO B400RW	AIO T400W
Foremost		AIO7800HET-LO	AIO B7800HET-LO	AIO T7800HET-LO
Foremost		AO1-005775EW	LL-775EW	T1-005W
Foremost		AO1-005775RW	LL-775RW	T1-005W
Foremost		AO1-005887EW	LL-887EW	T1-005W
Foremost		AO1-005887EWL	LL-887EW	T1-005WL

Foremost		AO1-005887RW	LL-887RW	T1-005W
Foremost		AO1-005887RWL	LL-887RW	T1-005WL
Foremost		HB-800-ADA-W		
Foremost		TL-10PA-HET-EW		
Foremost		TL-20PA-HET-EWL	LL-20PA-HET-EW	T-20PA-HET-EWL
Foremost		TL-10PB-HET-EW		
Foremost	Europa	TL-8271E-YL		
Foremost		TL-6100-EWN		
Foremost		TL-7600HC-HETR-W	LL-7600HC-HETR-W	T-7600-HET-W
Foremost		TL-7600HC-HETR-WL	LL-7600HC-HETR-W	T-7600-HET-WL
Foremost		TL-7600HC-HET-W	LL-7600HC-HET-W	T-7600-HET-W
Foremost		TL-7600HC-HET-WL	LL-7600HC-HET-W	T-7600-HET-WL
Foremost		TL-7700HC-HET-W	LL-7700HC-HET-W	T-7700-HET-W
Foremost	AIO	AIO1000-EW	AIOB1000-EW	AIOT1000-W
Foremost	AIO	AIO1000-RW	AIOB1000-RW	AIOT1000-W
Foremost	Astoria	TL-1980-E-WL	LL-1980-E-W	T-1980-WL
Foremost	Classic	TL-1207-WL2	LL-1207-W2	T-1207-WL2
Foremost	Dual To Go	TL-8237-WL	LL-8237-W	T-8237-WL
Foremost	Eclipse	TL-8165-WL		
Foremost		TL-10PA-HET-EWL		
Foremost	Total	TT-2000E-WL	LL-2000E-W	T-2000-WL
Foremost	Total	TT-2010-WL	LL-2010-W	T-2010-WL
Foremost	Total	TT-8207-WL4	LL-8207-W4	T-8207-WL4
Foremost	Total Smart	TT-8295-WL	LL-8295-W	T-8295
Foremost	Viva	TL-8316-WL	LL-8316-W	T-8316-WL
Foremost	Regent	TL-5207HC-WL2	LL-5207HC-W2	T-5207-WL2
Gerber	Ultra Flush	EF-21-324	21-377	EF-28-384
Gerber	Ultra Flush	DF-21-318	21-377	DF-28-380
Gerber	Ultra Flush	DF-21-324	21-377	DF-28-384
Gerber	Ultra Flush	DF-21-325	21-375	DF-28-380
Gerber	Ultra Flush	EF-21-302	21-342	EF-28-380
Gerber	Ultra Flush	EF-21-304	21-342	EF-28-384
Gerber	Ultra Flush	EF-21-310	21-374	EF-28-380
Gerber	Ultra Flush	EF-21-312	21-372	EF-28-380
Gerber	Ultra Flush	DF-21-312	21-372	DF-28-380
Gerber	Ultra Flush	EF-21-318	21-377	EF-28-380
Gerber	Ultra Flush	DF-21-310	21-374	DF-28-380
Gerber	Ultra Flush	EF-21-325	21-375	EF-28-380
Gerber	Ultra Flush	EF-21-314	21-372	EF-28-384
Gerber	Avalanche 1.28	HE-21-812-**	HE-21-862-**	HE-28-890-**

Gerber	Avalanche 1.28	21-014-**		
Gerber	Avalanche 1.28	HE-21-800	HE-21-852	HE-28-895
Gerber	Ultra Flush	DF-21-314	21-372	DF-28-384
Gerber	Avalanche 1.28	HE-21-810-**	HE-21-862-**	HE-28-895-**
Gerber	Ultra Flush	DF-21-304	21-342	DF-28-384
Gerber	Avalanche 1.28	HE-21-818	HE-21-828	HE-28-890
Gerber	Maxwell Dual Flush	DF-21-100-**	21-152-**	DF-28-195-**
Gerber	Maxwell Dual Flush	DF-21-110-**	21-162-**	DF-28-195-**
Gerber	Maxwell Dual Flush	DF-21-112-**	21-162-**	DF-28-190-**
Gerber	Maxwell Dual Flush	DF-21-117-**	21-128-**	DF-28-195-**
Gerber	Maxwell Dual Flush	DF-21-118	21-128	DF-28-190
Gerber	Ultra Flush	DF-21-302	21-342	DF-28-380
Gerber	Maxwell Dual Flush	DF-21-102	21-152	DF-28-190
Gerber	Avalanche 1.28	HE-21-802	HE-21-852	HE-28-890
Glacier Bay (a Home Depot brand)		331-725 (BT6001)		
Glacier Bay (a Home Depot brand)	Round Front HET AIO	779-923	779-923B	779-923T
Glacier Bay (a Home Depot brand)	Power One 1.0 PA AIO	385-195	N2310B	N2310T
Glacier Bay (a Home Depot brand)	Elongated HET AIO	331-725	331-725B	331-725T
Glacier Bay (a Home Depot brand)	Elongated HET	331-725	N2225EB	N2225T
Glacier Bay (a Home Depot brand)		535-904		
Glacier Bay (a Home Depot brand)	Dual Flush Elongated Toilet AIO	215-583	N2316B	N2316T
Greentide	GT 6811H			666-2
Greentide	GT 6810H-S			666-1
Greentide	GT 6811H-S			666-1
Greentide	GT 6810H			666-2
HCG		CS4510	C4510	S4510
HCG		CS5518Q	C5518Q	S5518
HCG		CS1004	C1003-3"	S1004 3"
HCG		C6816+S140-3"	C6816	S140 3"
HCG		C6811+S140-3"	C6811	S140 3"
HCG		C4520		
HCG		C2002+S140-3"	C2002	S140 3"
Hennessy & Hinchcliffe Inc.	Proficiency Round Front	N7716	N7716	N7715T
Hennessy & Hinchcliffe Inc.	Proficiency Elongated	N7717	N7717	N7715T
INAX		C-622S-MC-US	C-60S	T-4535U-US

INAX		C-610S-MC-US	C-60S	T-4560U-US
INAX		C-620S-MC-US	C-60S	T-4580U-US
INAX		C-621S-MC-US	C-60S	T-4510U-US
Jacuzzi	Prescott	GV80xxx		
Jacuzzi	Espree	EZ36xxx		
Jacuzzi	Perfecta	GU04xxx		
Kallista	Plie	P70310	P70311	P70312
Kohler	Wellworth	K-14797	K-4197	K-4436
Kohler	Saile	K-3564		
Kohler	Wellworth	K-3998-U	K-4198	K-4467-U
Kohler	San Raphael	K-3607		
Kohler	Rêve	K-3797		
Kohler	San Raphael	K-3648		
Kohler	San Raphael Power Lite	K-3393		
Kohler	San Raphael Pressure Lite	K-3597		
Kohler	Strela	K-3598	K-4379	K-4742
Kohler	Wellworth	K-11497	K-4197	K-4436
Kohler	Wellworth	K-11498	K-4198	K-4436
Kohler	Wellworth	K-3575	K-4198	K-4436
Kohler	Wellworth	K-3577	K-4179	K-4436
Kohler	Wellworth	K-3947	K-4197	K-4841
Kohler	Wellworth	K-3947-U	K-4197	K-4841-U
Kohler	Wellworth	K-3948	K-4198	K-4841
Kohler	Wellworth	K-3948-U	K-4198	K-4841-U
Kohler	Wellworth	K-3949-U	K-4199	K-4841-U
Kohler	Wellworth	K-3997	K-4197	K-4467
Kohler	Wellworth	K-3998	K-4198	K-4467
Kohler	Highline	K-3999-U	K-4199	K-4467-U
Kohler	Wellworth Pressure Lite	K-3531	K-4303	K-4484
Kohler	Persuade	K-3753	K-4353	K-4442
Kohler	Wellworth	K-3997-U	K-4197	K-4467-U
Kohler	Cimarron	K-11451	K-4309	K-4421
Kohler	Kelston	K-11453	K-4306	K-4469
Kohler	Persuade	K-3723	K-4353	K-4441
Kohler	Archer	K-3639		
Kohler	Barrington	K-3652	K-4327	K-4484
Kohler	Cimarron	K-11813	K-4309	K-4421
Kohler	Cimarron	K-3609	K-4309	K-4421

Kohler	Cimarron	K-3609-U	K-4309	K-4421-U
Kohler	Cimarron EcoSmart	K-3496-HE	K-4286	K-4634-HE
Kohler	Devonshire	K-3678	K-4288	K-4446
Kohler	Escale	K-3588	K-4308	K-4472
Kohler	Fountainhead	K-3524		
Kohler	Highline	K-14799	K-4199	K-4436
Kohler	Highline	K-3658	K-4199	K-4436
Kohler	Highline	K-3713	K-4373	K-4436
Kohler	Highline	K-3889	K-4373	K-4467
Kohler	Highline	K-3889-U	K-4373	K-4467-U
Kohler	Highline	K-3999	K-4199	K-4467
Kohler	Persuade	K-3654	K-4322	K-4419
Kohler	Kelston	K-3755	K-4306	K-4469
Kohler	Highline Pressure Lite	K-3519	K-4304	K-4484
Kohler	Kelston	K-11844	K-4306	K-4469
Kohler	Barrington	K-3578	K-4305	K-4484
Kohler	Highline	K-11499	K-4199	K-4436
LAUFEN	Laufen Pro		824958	826953
LAUFEN	Palomba		824806	828803
LAUFEN	LB3		824684	828683
LAUFEN	Form		823676	827673
LAUFEN	Alessi One		822976	826971
LAUFEN	Mylife		822943	826941
LOTA	2-pc; Single Gravity Flush; Elongated	CT-113	CF-113	TA-113
LOTA	2-pc; Single Gravity Flush; Elongated	CT-123	CF-123	TA-123
LOTA	2-pc; Single Gravity Flush; Elongated	CT-201	CF-201	TA-201
LOTA	2-pc; Single Gravity Flush; Round	CT-202	CF-202	TA-202
Mansfield	Maverick	114-112	114	112
Mansfield	QuantumOne	148-153	148	153
Mansfield	QuantumOne	147-153	147	153
Mansfield	QuantumOne	146-153	146	153
Mansfield	EcoQuantum	147-119	147	119
Mansfield	Quantum	144-153	144	153
Mansfield	QuantumOne	149-153	149	153
Mansfield	Maverick 1.28	111-112	111	112

Mansfield	Enso	177-178	177	178
Mansfield	EcoQuantum	148-119	148	119
Mansfield	EcoQuantum	146-119	146	119
Mansfield	EcoQuantum	144-119	144	119
Mansfield	704 Prestigio	704		
Mansfield	EcoQuantum	149-119	149	119
Mansfield	Maverick	113-112	113	112
Medyag	6810H			
Medyag	6810H-S			
Medyag	6811H			
Medyag	6811H-S			
Niagara	Elongated HET	N2225E-RT	N2225E-RT	N2225T-RT
Niagara	Stealth Round Front	N7716	N7716	N7715T
Niagara	Stealth		N7716	N7714
Niagara	Eco-Logic	N2225R	N2225RB	N2225T
Niagara	Dual Flush Elongated Toilet	N2316	N2316B	N2316T
Niagara	Cottage	N2228	N2228B	N2228T
Niagara	1.0 PA	N2310	N2310B	N2310T
Niagara	Stealth Elongated	N7717	N7717	N7715T
Niagara	Eco-Logic	N2225E	N2225EB	N2225T
OPS	GREEN DAY ADA	T/X-66891H	T-66891H	X-66891
OPS	GREEN DAY RF	T/X-66892	T-66892	X-66892
OPS	GREEN DAY RF	T/X-66891	T-66891	X-66891
OPS	GREEN DAY EL	T/X-66892E	T-66892E	X-66892
OPS	GREEN DAY ADA	T/X-66892H	T-66892H	X-66892
OPS		T/X-6688H	T-6688H	X-6688
OPS		T/X-6688E	T-6688E	X-6688
OPS		T/X-6688	T-6688	X-6688
OPS	GREEN DAY EL	T/X-66891E	T-66891E	X-66891
ORION	Green Sense EL		50320	51299
ORION	Green Sense RD		50299	51299
Pegasus (a Home Depot brand)	Cottage	840-565	N2228B	N2228T
Pegasus (a Home Depot brand)	Westminster	780-036	780-036B	780-036T
PENGUIN	014	014	014	014
PENGUIN	524	524	524	524
Pfister		VTP-E10W		
Pfister		VTP-E11W	VTP-E11WB	VTP-E11WT
Pfister		VTP-E21W	VTP-E21/31WB	VTP-E21WT

Pfister		VTP-E51W	VTP-E51WB	VTP-E51WT
Porcher	Lutezia Round Front High-Efficiency Toilet	90450-28	40450-00	41350-28
Porcher	Veneto III 1pc	97320-28		
Porcher	Ovale RF RH	90850-28	41850-00	40750-28
Porcher	Ovale RF RH	90850-28	41850-28	40750-28
Porcher	Ovale EL RH	90750-28	41750-00	40750-28
Porcher	Ovale 1pc EL	97620-28		
Porcher	Lutezia EL RH	90550-28	40550-00	41350-28
Porcher	Lutezia EL RH	90550-28	40550-28	41350-28
Porcher	Chapeau 1pc	97820-28		
Porcher	Archive 1pc	97920-28		
Porcher	Ovale EL RH	90750-28	41750-28	40750-28
ProFLO (a Ferguson brand)	HET Single Flush 1.0 GPF P/A EL Toilet		PF1601PA	PF1612PA
ProFLO (a Ferguson brand)	HET Single Flush 1.0 GPF P/A ADA Toilet		PF1603PA	PF1612PA
ProFLO (a Ferguson brand)	HET Single Flush EF		PF6101HE	PF6112HE
ProFLO (a Ferguson brand)	HET Single Flush EF		PF6201HE	PF6212HE
ProFLO (a Ferguson brand)	HET Dual Flush ADA		PF9303	PF9312
ProFLO (a Ferguson brand)	HET Gravity Flush EF		PF9401	PF9412
ProFLO (a Ferguson brand)	HET Single Flush ADA		PF9403	PF9412
ProFLO (a Ferguson brand)	HET Dual Flush RF		PF9300	PF9312
ProFLO (a Ferguson brand)	HET Dual Flush EF		PF9301	PF9312
ProFLO (a Ferguson brand)	HET Gravity Flush RF		PF9400	PF9412
Quality Craft	Alexis HET	30013K	3001	3003
Quality Craft	Alexis HET Dual Flush	30014K	3001	3004
Seasons (a HD Supply brand)	Seasons		SE10040	SE10039
Seasons (a HD Supply brand)	Seasons		SE10041	SE10039
Seasons (a HD Supply brand)			564-852	564-851
Seasons (a HD Supply brand)			564-833	564-832
Seasons (a HD Supply brand)			SE10056	SE10055

Seasons (a HD Supply brand)	Seasons	SE10042		
St. Thomas Creations	Neo-Venetian ECO 2PC CHEL		6123.821.xx	6123.028.xx
St. Thomas Creations	Neo-Venetian ECO 1PC CHEL	6123.128.xx		
St. Thomas Creations	Richmond ECO 2PC CHRF		6123.128.xx	6125.028.xx
St. Thomas Creations	Richmond ECO 2PC CHEL ADA		6123.218.xx	6125.028.xx
St. Thomas Creations	Richmond ECO 1PC CHEL	6125.128.xx		
St. Thomas Creations	Presley ECO 2PC CHEL ADA		6401.033.xx	6401.028.xx
St. Thomas Creations	Presley ECO 1PC CHEL	6401.128.xx		
St. Thomas Creations	Palermo ECO 2PC CHRF		6137.218.xx	6137.028.xx
St. Thomas Creations	Palermo ECO 2PC CHEL		6137.821.xx	6137.082.xx
St. Thomas Creations	Palermo ECO 2PC CHEL		6137.128.xx	6137.028.xx
St. Thomas Creations	Palermo ECO 1PC CHEL	6006.128.xx		
St. Thomas Creations	Barrymore ECO 2PC CHEL ADA		6171.128.xx	6171.028.xx
St. Thomas Creations	Neo-Venetian ECO 2PC CHEL ADA		6123.218.xx	6123.028.xx
St. Thomas Creations	Arlington ECO 2PC CHRF		6119.218.xx	6119.028.xx
St. Thomas Creations	Celebration ECO 1PC CHEL	6131.128.xx		
St. Thomas Creations	Impala ECO 2PC HET 1.28 gpf Elongated ADA WC		6208.218.xx	6208.028.xx
St. Thomas Creations	Impala ECO 2PC HET 1.28 gpf Elongated WC		6208.128.xx	6208.028.xx
St. Thomas Creations	Impala ECO 2PC HET 1.28 gpf Round-Front WC		6208.821.xx	6208.028.xx
St. Thomas Creations	Malibu ECO 1PC CHEL	6116.128.xx		
St. Thomas Creations	Malibu ECO 1PC CHRF	6116.213.xx		
St. Thomas Creations	Arlington ECO 1PC CHEL	6119.128.xx		
St. Thomas Creations	Arlington ECO 2PC CHEL ADA		6119.821.xx	6119.028.xx
Sterling	Stanton	402040		
Sterling	Rockton EB	402027	402026	402022
Sterling	Windham	404700	403215	404555
Sterling	Windham	402082	403315	404555

Sterling	Windham	402081	403215	404555
Sterling	Windham	402080	403015	404555
Sterling	Stinson	402076	403070	402091
Sterling	Rockton PB	402024	402021	402022
Sterling	Karsten	402087	402086	402023
Sterling	Riverton	404701	403215	404552-U
Sterling	Stinson	404702	403070	402091
Sterling	Riverton	402085-U	403315	404552-U
Sterling	Riverton	402084-U	403215	404522-U
Sterling	Riverton	402083-U	403015	404552-U
Sterling	Karsten PB	402025	402021	402023
Sterling	Karsten EB	402028	402026	402023
Sterling	Rockton	402088	402086	402022
Swell	22114		2214	3214
TOTO	Vespin II	CST474CEF(G)	CT474CEF(G)	ST454E
TOTO	EcoPromenade	CST424EF(G)	C424EF(G)	ST423E
TOTO	Neorest 550	MS980CMG		
TOTO	EcoSoiree	MS964***CEF(G)		
TOTO	EcoNexus	CST794EF	CT794EF	ST794E
TOTO	EcoSupreme	MS863***E		
TOTO	EcoSupreme	MS864***E		
TOTO	EcoPromenade	CST423EF(G)	C423EF(G)	ST423E
TOTO	EcoUltramax	MS853***E		
TOTO	EcoLloyd	MS934304EF		
TOTO	EcoUltramax	MS854***E(G)		
TOTO	EcoWhitney	CST754EFN	C754EF	ST754E
TOTO	Supreme II	MS634***CEF(G)		
TOTO	UltraMax II	MS604***CEF(G)		
TOTO	Carlyle II	MS614***CEF(G)		
TOTO	EcoUltramax	MS854***EL(G)		
TOTO	Aquia UH	CST412MF	CT412F	ST412M
TOTO	EcoLloyd	MS934***EF		
TOTO	Drake II	CST454CEF(G)	C454CEF(G)	ST454E
TOTO	Aquia	CST414M	CT414	ST413M
TOTO	Aquia II	CST416M	CT416	ST416M
TOTO	Aquia IIIUH	CST464MF	CT464F	ST464M
TOTO	Aquia UH	CST412MF.10	CT412MF.10	ST412M
TOTO	Carolina II	MS644***CEF(G)		
TOTO	EcoClayton	CST784EF	C784EF	ST784E
TOTO	EcoDartmouth	CST754EF	C754EF	ST753E

TOTO	EcoDrake	CST743E	C743E	ST743E
TOTO	EcoDrake	CST744E(G)	C744E	ST743E
TOTO	EcoDrake	CST744EF.10	C744EF.10	ST743E
TOTO	EcoDrake	CST744EL	C744EL	ST743E
TOTO	EcoGuinevere	MS974***CEF(G)		
TOTO	Aquia III	CST464M	CT464	ST464M
Tynan	Avoca	4344	0344	1344
Tynan	Louth	4512	7512	1712
Tynan	Nore	4346	0346	1346
Tynan	MacLair RF	4342	0342	1342
Tynan	MacLair EF	4343	0343	1342
Tynan	MacLair	4347	0347	1342
Tynan	Louth	4510	7510	1712
Tynan	Foyle	4345	0345	1345
Tynan	Cascade RF	4352	0352	1312
Tynan	Cascade ADA	4354	0354	1312
Tynan	Cascade EF	4353	0353	1312
Villeroy & Boch	AVEO		6614 11 XX	7724 U1 XX
Villeroy & Boch	BELLEVUE		5666 11	5764 U1
Villeroy & Boch	HOMMAGE		6662 11	7721 U1
Villeroy & Boch	SENTIQUE		5625 11	5722 U1
Villeroy & Boch	Subway		6610 11 XX	7723 U1 XX
VitrA	Evergreen		5195	5402
VitrA	Evergreen		5196	5402
VitrA	Evergreen		5074	5055
VitrA	Evergreen		5076	5055
VitrA	Evergreen		5065	5066
Vortens	Vienna ELX		3113	3420
Vortens	Vienna Victory		3209	3420
Vortens	Vienna Victory		3209	3436
Vortens	Vienna RF		3208	3436
Vortens	Dali	5928	5101	5201
Vortens	Vienna ELX		3113	3436
Vortens	Tornado ADA		3134	3468
Vortens	Tornado		3138	3468
Vortens	Rhodas DF		3123	3436
Vortens	Loretto RF		3213	3475
Vortens	Loretto ADA		3140	3475
Vortens	Hurricane RF		3213	3473
Vortens	Hurricane EL		3137	3473

Vortens	Hurricane		3140	3473
Vortens	Dominic Victory		3209	3472
Vortens	Dominic RF		3208	3472
Vortens	Dominic EL		3113	3472
Vortens	Dominic ADA		3123	3472
Vortens	Delfos	3130	3130	3130
Vortens	Vienna RF		3208	3420
Vortens	Loretto EL		3137	3475
WaterRidge	C21079C	C21079C		
WaterRidge	Grace Dual Flush One Piece Toilet	C22055C	C540552	C520093
WaterRidge	360380 Two Piece Toilet	C21075C	C531082	C600137
Western Pottery		832-HET	B832	T8-HET
Western Pottery		872-HET	B872	T8-HET
Western Pottery		822-HET	B822	T8-HET
Winfield	T3511 2-PC TOILET		TB3511	TK3511
Winfield	T3512 2-PC TOILET		TB3512	TK3512
Winfield	T3513 2-PC TOILET		TB3513	TK3513
Zurn	EcoVantage Round Front Toilet	Z5576	Z5575-BWL	Z5561-TNK
Zurn	EcoVantage Dual Flush Round Front Toilet	Z5577	Z5575-BWL	Z5562-TNK
Zurn	EcoVantage Dual Flush; Elongated Toilet	Z5572	Z5570-BWL	Z5562-TNK
Zurn	EcoVantage Dual Flush; Elongated; ADA Toilet	Z5562	Z5560-BWL	Z5562-TNK
Zurn	EcoVantage Elongated ADA Toilet	Z5561	Z5560-BWL	Z5561-TNK
Zurn	EcoVantage Elongated Toilet	Z5571	Z5570-BWL	Z5561-TNK

Disclaimer of Endorsement: Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government.

APPENDIX O HIGH EFFICIENCY WASHING MACHINE BILL CREDIT

TERMS and CONDITIONS
QUALIFIED HIGH EFFICIENCY WASHING MACHINE BILL CREDIT PROGRAM
PLEASE READ CAREFULLY

In consideration of receiving the bill credit under this Program, the Undersigned acknowledges and agrees:

THAT the Washing Machine Replacement program is subject to the rules and regulations set forth in the State of Nevada approved Utility's Tariff(s) and State approved Water Conservation Pan;

THAT the bill credit is a one- time credit of up to $75 not to exceed the cost of the Washing Machine;

THAT THE LIMIT is one per residence or unit;

THAT ELIGIBILITY is to any single family home or multi-family home up to four units receiving water from the Utility as a Customer who is current with the Utility for all bills at any and all premises regardless of type of service;

THAT ELIGIBILITY is for a High Efficiency Washing Machine (HEWM) as defined and listed as an Energy Star machine by the EPA with at least a 6.0 Water Factor;

THAT the application must be accompanied by the original sales receipt. If the receipt does not show the washing machine brand and model, you must provide other documentation acceptable to the Utility, such as the model number from the packaging;

THAT THE RESPONSIBILITY to meet Program criteria is the Customer's;

THAT the Utility may deny any application that does not meet Program requirements, which can be obtained by visiting www.uiwater.com, Spring Creek Utilities Co. Water Conservation Plan or by calling 866.277.5515;

THAT the Utility may inspect all properties participating in this Program in order to confirm applicants' performance of the obligations under this Application;

THAT the Utility does not guarantee or warrant that the performance of any washing machine or that its installation will be free of defects, the quality of workmanship of the washing machine or the suitability of the premises for installation;

THAT the Utility does not guarantee any benefits in the HEWM Program;

THAT the installation of the number of HEWM indicated in this Application Form has been completed at the service address shown on the application;

THAT this program is not effective unless and until fully approved by the Public Utilities Commission of Nevada and any HEWM purchase prior to that approval date is ineligible for this bill credit;

TO indemnify, save and hold harmless the Utility including its Boards, affiliates, officers and employees, against any and all liability, loss, costs, damages, and expenses, causes of action, actions, claims, demands, lawsuits and other proceedings, by whomever made, sustained, brought or prosecuted, including third party bodily injury, death, personal injury, and property damage, in any way based upon, occasioned by or attributable to the undersigned's participation in this Program, including any negligence on the part of the Utility, its agents or servants;

THAT the Utility reserves the right to alter or terminate the Program at any time or refuse, in its sole discretion all further applications. At any time this Program is cancelled or altered, your bill credit for a purchase and installation of an HEWM will be honored only if received by the Utility within 30 days of the date of purchase;

THAT, if the Program is in force, then all applications for an HEWM Bill Credit must be received within 60 days of purchase;

THAT the HEWM must remain at the service address where the water conservation work has taken place. Bill credits will not be transferred from the location of water savings to another account, even if both service addresses are in the name of the same Customer or owned by the same person.

TO repay such bill credit to the Utility upon request, if this Application contains any material misstatement or misrepresentation on such undersigned's behalf, or if the undersigned breaches any of such terms or conditions.

Mail To:
Spring Creek Utilities Co.
448 Tonka Lane, Unit 3
Spring Creek, NV 89815
BeWaterSmart@uiwater.com

Attn: HEWM Bill Credit

Signature of applicant:	Date:
Property Owner Signature:	Date:

FAQ SHEET
BILL CREDIT FOR ENERGY STAR WASHING MACHINE

How much is the bill credit?
The bill credit is $75 not to exceed the cost of the washing machine.

Who qualifies for the bill credit?
Any single family home (house or condominium), or multifamily building with four or less units, located in the Utility service territory is eligible for a bill credit. Limit one per household or unit.

Which washing machines qualify for the bill credit?
Any Washing Machine listed by the EPA as an Energy Star washing machine qualifies. For a list of Energy Star Washing Machines go to www.uiwater.com or call 866.277.5515.

What are Energy Star Washing Machines?
ENERGY STAR criteria require all qualified products to have a Modified Energy factor (MEF) of 2.0 or greater as well as a Water Factor (WF) of 6.0 or lower.

- Water Factor, WF, is the present water performance metric that allows the comparison of clothes washer water consumption independent of clothes washer capacity. Manufacturers must submit their water consumption factors with their ENERGY STAR qualified clothes washers.

- WF is the quotient of the total weighted per-cycle water consumption, Q, divided by the capacity of the clothes washer, C. The lower the value, the more water efficient the clothes washer is. The equation is shown below:

- WF = Q (water consumption)/ C (washer capacity)

- The federal EnergyGuide label on clothes washers shows annual energy consumption and cost. These figures use the energy factor, average cycles per year, and the average cost of energy to make the energy and cost estimates. The Energy Factor, Modified Energy Factor, or Water Factor may not appear on the EnergyGuide label.

How much water do Energy Star Washing Machines save?
High Efficiency Washers use 40% less water than traditional washing machines. You could save 7,770 to 9,400 gallons of water each year.

Who makes Energy Star Washing Machines and where are they sold?
All major toilet manufacturers produce Energy Star Washing Machines and all hardware and bathroom supply stores carry some models.

What documentation must I provide to receive a bill credit?

It is your responsibility to demonstrate the washing machine meets the program criteria. You must provide a copy of the sales receipt. If the receipt does not show the washing machine brand and model, you must provide other documentation (acceptable to the Utility), such as the model number from the toilet packaging.

When must I apply?

You must submit your application within 60 days after purchasing the washing machine.

How long does it take to get my bill credit?

You should receive your bill credit within 1 to 2 billing cycles after receipt of your application.

Who can I contact if I have questions?

Customer Service: 866.277.5515
BeWaterSmart@uiwater.com

Utilities, Inc.

Single Family Resident Application

Spring Creek Utilities Co.
Mailing: 448 Tonka Lane Unit 3
Physical: 14891 Lamoille Highway
Spring Creek, NV 89815
BeWaterSmart@uiwater.com
Attn: Washing Machine Replacement Application

WASHING MACHINE REPLACEMENT APPLICATION

APPLICANT INFORMATION

Name:		
Utility Acct. No.:	Email:	Phone:
Current address:		
City:	State:	ZIP Code:
Own Rent *(Please circle one)*		No. of Residents:

PROPOERTY OWNER INFORMATION (IF DIFFERENT)

Property Owner:		
Owner address:		
Phone:	E-mail:	Fax:
City:	State:	ZIP Code:

WASHING MACHINE INSTALLATION INFORMATION

Manufacturer/Make	Model Name/No.	Purchase Location (City, State, Store)	Purchase Date

Installed by:	
Self or Contractor / Plumber *(please circle one)*	Install Date:

CHECKLIST

Is the water High Efficiency Washing Machine you purchased on the Energy Smart approved list?

Have you completed and signed the High Efficiency Washing Machine Replacement Application?

Did you enclose the original sales receipt for your Washing Machine?

SIGNATURES

By signing below, you indicate that you have read and complied with the requirements of the High Efficiency Washing Machine Bill Credit Program and the Utility Water Conservation Plan.

Signature of applicant:	Date:
Property Owner Signature:	Date:

FOR UTILITY USE ONLY

Eligible Incentive	Amount	Approval Date	Application Approved By

Spring Creek Utilities Co.
Mailing: 448 Tonka Lane Unit 3
Physical: 14891 Lamoille Highway
Spring Creek, NV 89815
BeWaterSmart@uiwater.com
Attn: Washing Machine Replacement Application

Multi-Family Application (up to 4 units)

WASHING MACHINE REPLACEMENT APPLICATION

APPLICANT INFORMATION

Registered Owner of Building:		
Email:	Phone:	
Mailing Address:		
City:	State:	Zip Code:
Name of Utility Customer:		Utility Acct. No.:
Email:		Phone:
Service Address:		APN:
City:	State:	Zip Code:

BUILDING INFORMATION

Does the Landlord Pay the Utility Bill for All Units: Yes No (please circle one)
If, not a separate application for each unit applying for a bill credit must be submitted.

No. of Units:	No. of Existing Toilets:

WASHING MACHINE INSTALLATION INFORMATION

Quantity	Manufacturer/Make	Model Name/No.	Purchase Location (City, State, Store)	Purchase Date	Unit No.

Installed by: In-house Staff Plumber/Contractor (please circle one)

No. of HEWM Installed:	Install Date:
Plumber / Contractor Name:	Contractor No.:
Signature:	Phone:

CHECKLIST

Is the High Efficiency Washing Machine(s) you purchase on the Energy Star approved list?

Have you completed and signed the High Efficiency Washing Machine Replacement Application?

Did you enclose the original sales receipt for your washing machines(s)

SIGNATURES

By signing below, you indicate that you have read and complied with the requirements of the High Efficiency Washing Machine Bill Credit Program and the Utility Water Conservation Plan.

Signature of applicant:	Date:
Property Owner Signature:	Date:

WASHING MACHINE REPLACEMENT APPLICATION

FOR UTILITY USE ONLY

Eligible Incentive	Amount	Approval Date	Application Approved By
First Toilet: Yes / No			
Second Toilet: Yes / No			
Total			

Residential Clothes Washers Qualified Product List

List Posted on August 17, 2011

Below are currently qualified ENERGY STAR models available for sale i

Brand Name	Model Number	Load Configuration	Volume (cubic feet)	Annual Energy Use (kWh/year)	Modified Energy Factor (MEF)	Federal Standard (MEF)	% Better than Federal Standard	Annual Water Use (gallons/ year)	Water Factor (WF)	Qualified Date
Amana	NFW7300W*+	Front Load	3.46	162	2.39	1.26	90%	5,425	4	12/30/2010
Amana	NFW7600X*+	Front Load	3.86	177	2.35	1.26	87%	6,204	4.1	12/30/2010
Ariston	ARWF149+#	Front Load	1.82	141.25	2.14	1.26	59%	3,933	5.51	2/7/2011
Ariston	ARWL129+#	Front Load	1.82	104.89	2.16	1.26	58%	3,541	4.96	2/7/2011
Ariston	ARWXF129+#	Front Load	1.82	104.89	2.16	1.26	58%	3,541	4.96	2/7/2011
Ariston	ARXL129+#	Front Load	1.82	104.89	2.16	1.26	58%	3,541	4.96	2/7/2011
Asko	W6324	Front Load	2.12	140	2.68	1.26	113%	2,741	3.3	12/30/2010
Asko	W6424	Front Load	2.12	140	2.68	1.26	113%	2,741	3.3	12/30/2010
Asko	W6884 ECO	Front Load	2.12	140	2.68	1.26	113%	2,741	3.3	12/30/2010
Asko	W6984	Front Load	2.12	140	2.68	1.26	113%	2,741	3.3	12/30/2010
Blomberg	WM 87120 NBL00	Front Load	2.15	173	2.35	1.26	87%	3,540	4.2	5/26/2011
Bosch	WAE20060UC	Front Load	1.91	125	2.05	1.26	63%	3,818	5.1	1/1/2011
Bosch	WAS20160UC	Front Load	2.16	140	2.05	1.26	63%	4,064	4.8	1/1/2011
Bosch	WAS24460UC	Front Load	2.16	145	2.12	1.26	68%	4,064	4.8	1/1/2011
Bosch	WFVC33xxUC	Front Load	3.31	130	2.53	1.26	101%	4,282	3.3	1/1/2011
Bosch	WFVC44xxUC	Front Load	3.31	120	2.52	1.26	100%	4,412	3.4	1/1/2011
Bosch	WFVC54xxUC	Front Load	3.31	130	2.53	1.26	101%	4,282	3.3	1/1/2011
Bosch	WFVC64xxUC	Front Load	3.31	130	2.53	1.26	101%	4,282	3.3	1/1/2011
Bosch	WFVC84xxUC	Front Load	3.31	130	2.54	1.26	102%	4,282	3.3	1/1/2011
Crosley	ATF7000**	Front Load	3.00	203	2.22	1.26	76%	5,057	4.3	2/22/2011
Crosley	CAW12444X*+	Top Load	3.60	123	2.48	1.26	97%	5,123	3.63	6/14/2011
Crosley	CFW4500K**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	4/18/2011
Crosley	CFW4700**	Front Load	3.81	96	2.91	1.26	131%	5,377	3.6	3/17/2011
Crosley	CFW7500K**	Front Load	3.00	203	2.22	1.26	76%	5,057	4.3	2/22/2011
Crosley	CFW7700**	Front Load	3.65	83	3.09	1.26	145%	4,722	3.3	3/3/2011

Crosley	GLTF2940F**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	4/18/2011
Crosley	LTF2940F**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	4/18/2011
Elba	WA37T26EW2	Top Load	3.00	198	2.07	1.26	64%	7,056	6	2/16/2011
Electrolux	EIFLS55**	Front Load	4.05	138	2.88	1.26	129%	5,557	3.5	3/3/2011
Electrolux	EIFLS60**	Front Load	4.30	102	3.33	1.26	164%	4,720	2.8	3/3/2011
Electrolux	EIFLW55**	Front Load	4.05	138	2.88	1.26	129%	5,557	3.5	3/3/2011
Electrolux	EWFLS70**	Front Load	4.42	118	3.29	1.26	161%	4,851	2.8	3/3/2011
Electrolux	EWFLW65H**	Front Load	4.05	256	2.31	1.26	162%	6,033	3.8	2/22/2011
Electrolux	EWFLW65I**	Front Load	4.05	256	2.31	1.26	162%	6,033	3.8	2/22/2011
Fisher & Paykel	GWL15	Top Load	3.00	198	2.07	1.26	64%	7,056	6	1/13/2011
Fisher & Paykel	WA37T26GW2	Top Load	3.00	198	2.07	1.26	64%	7,056	6	1/13/2011
Fisher & Paykel	WA42T26GW*	Top Load	3.00	198	2.07	1.26	64%	7,056	6	1/13/2011
Fisher & Paykel	WL26CW1	Top Load	3.10	211	2	1.26	59%	7,291	6	1/13/2011
Fisher & Paykel	WL26CW2	Top Load	3.13	199	2.15	1.26	71%	7,116	5.8	1/13/2011
Fisher & Paykel	WL37T26C	Top Load	3.10	199	2.15	1.26	71%	7,048	5.8	1/13/2011
Fisher & Paykel	WL37T26D	Top Load	3.10	199	2.15	1.26	71%	7,048	5.8	1/13/2011
Fisher & Paykel	WL37T26*W2	Top Load	3.10	175	2.25	1.26	79%	5,225	4.3	1/13/2011
Fisher & Paykel	WL37TD1	Top Load	3.10	199	2.15	1.26	71%	7,048	5.8	1/13/2011
Fisher & Paykel	WL42T26***	Top Load	3.13	151	2.44	1.26	94%	4,761	3.88	1/13/2011
Fisher & Paykel	WL42T26*W*	Top Load	3.10	198	2.25	1.26	79%	5,225	4.3	1/13/2011
Frigidaire	BAFW3574K**	Front Load	3.00	210	2.22	1.26	76%	5,174	4.4	2/22/2011
Frigidaire	BAFW3577K**	Front Load	3.00	175	2.31	1.26	83%	4,469	3.8	2/18/2011
Frigidaire	CFW4500K**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	4/26/2011
Frigidaire	DAFW3577K**	Front Load	3.00	175	2.31	1.26	83%	4,469	3.8	2/18/2011
Frigidaire	FAFS4272**	Front Load	3.81	96	3.09	1.26	145%	4,929	3.3	3/4/2011
Frigidaire	FAFS4473**	Front Load	3.81	104	2.96	1.26	135%	4,779	3.2	3/23/2011
Frigidaire	FAFS4474**	Front Load	3.81	104	3.21	1.26	155%	4,331	2.9	3/4/2011
Frigidaire	FAFW3511K**	Front Load	3.00	171	2.21	1.26	75%	5,057	4.3	2/22/2011
Frigidaire	FAFW3514K**	Front Load	3.00	171	2.21	1.26	75%	5,057	4.3	2/22/2011
Frigidaire	FAFW3514K**	Front Load	3.00	210	2.22	1.26	76%	5,174	4.4	2/22/2011
Frigidaire	FAFW3517K**	Front Load	3.00	182	2.26	1.26	80%	4,351	3.7	2/22/2011
Frigidaire	FAFW3574K**	Front Load	3.00	210	2.22	1.26	76%	5,174	4.4	2/22/2011
Frigidaire	FAFW3577K**	Front Load	3.00	175	2.31	1.26	83%	4,469	3.8	2/18/2011
Frigidaire	FAFW3801**	Front Load	3.26	99	2.86	1.26	127%	4,473	3.5	3/4/2011
Frigidaire	FAFW4011**	Front Load	3.65	83	2.91	1.26	131%	5,151	3.6	4/18/2011

Frigidaire	FAFW4070**	Front Load	3.65	83	2.91	1.26	131%	5,151	3.6	4/18/2011
Frigidaire	FAFW4221L**	Front Load	3.68	111	2.86	1.26	127%	4,905	3.4	3/21/2011
Frigidaire	FRFW3700**	Front Load	3.23	77	2.64	1.26	110%	4,052	3.2	3/1/2011
Frigidaire	FTF1240F**	Front Load	2.65	210	2	1.26	59%	5,610	5.4	2/22/2011
Frigidaire	FTF2140F**	Front Load	3.00	2.02	2.01	1.26	60%	4,822	4.1	3/4/2011
Frigidaire	FTF2140F**	Front Load	3.00	202	2.01	1.26	60%	4,822	4.1	2/22/2011
Frigidaire	FTF2140F**	Front Load	3.00	202	2.01	1.26	60%	4,822	4.1	3/1/2011
Frigidaire	FTF530**	Front Load	2.65	139	2.27	1.26	80%	5,506	5.3	3/4/2011
Frigidaire	GLEH1642F**	Front Load	2.65	165	2.09	1.26	66%	5,402	5.2	2/22/2011
Frigidaire	GLGH1642F**	Front Load	2.65	165	2.09	1.26	66%	5,402	5.2	2/22/2011
Frigidaire	GLTF2940F**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	3/4/2011
Frigidaire	GLTF2940F**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	4/26/2011
Frigidaire	LAF8000**	Front Load	3.81	104	2.96	1.26	135%	4,779	3.2	3/23/2011
Frigidaire	LAFW3511K**	Front Load	2.65	165	2.09	1.26	66%	5,402	5.2	4/26/2011
Frigidaire	LAFW3577K**	Front Load	2.65	165	2.09	1.26	66%	5,402	5.2	4/26/2011
Frigidaire	LAFW6000**	Front Load	3.68	111	2.86	1.26	127%	4,905	3.4	3/21/2011
Frigidaire	LAFW7000**	Front Load	3.81	96	3.09	1.26	145%	4,929	3.3	3/4/2011
Frigidaire	LAFW8000**	Front Load	3.81	104	2.96	1.26	135%	4,779	3.2	3/23/2011
Frigidaire	LFAFW6000**	Front Load	3.68	111	2.86	1.26	127%	4,905	3.4	3/21/2011
Frigidaire	LTF2140F**	Front Load	3.00	202	2.01	1.26	60%	4,822	4.1	3/1/2011
Frigidaire	LTF2940F**	Front Load	3.00	196	2.22	1.26	76%	4,939	4.2	4/26/2011
Frigidaire	WTF330**	Front Load	2.65	139	2.27	1.26	80%	5,506	5.3	3/4/2011
GE	GCWN5050M**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010
GE	GFWH2400L***	Front Load	4.15	200	2.61	1.26	107%	6,338	3.9	5/4/2011
GE	GFWH2405L***	Front Load	4.15	200	2.61	1.26	107%	6,338	3.9	5/4/2011
GE	GFWN1000L*	Front Load	3.30	142	2.22	1.26	76%	5,304	4.1	2/7/2011
GE	GFWN1100L***	Front Load	3.47	151	2.2	1.26	75%	5,438	4	5/4/2011
GE	GFWS3500L***	Front Load	4.15	200	2.61	1.26	107%	6,338	3.9	5/4/2011
GE	GFWS3505L***	Front Load	4.15	200	2.61	1.26	107%	6,338	3.9	5/4/2011
GE	GLWN5050M**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010
GE	GRWN5150M**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010
GE	GTWN4250M**	Top Load	3.58	186	2.07	1.26	64%	8,420	6	12/30/2010
GE	GTWN4450M**	Top Load	3.58	186	2.07	1.26	64%	8,420	6	12/30/2010
GE	GTWN4950L**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010
GE	GTWN5050M**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010

GE	PTWN805#M#**	Top Load	4.48	263	2.21	1.26	75%	7,885	4.49	5/9/2011
GE	WBVH5300K*	Front Load	3.50	131	2.32	1.26	84%	5,214	3.8	1/31/2011
GE	WCVH6800J***	Front Load	3.47	144	2.2	1.26	75%	5,713	4.2	5/4/2011
General Electric	WCVH4800****	Front Load	2.22	122	2.3	1.26	83%	3,742	4.3	12/30/2010
General Electric	WCVH4815****	Front Load	2.22	122	2.3	1.26	83%	3,742	4.3	12/30/2010
GE Profile	PFWS4600L***	Front Load	4.33	201	2.69	1.26	113%	6,614	3.9	5/4/2011
GE Profile	PFWS4605L***	Front Load	4.33	201	2.69	1.26	113%	6,614	3.9	5/4/2011
GE Profile	PTWN6050M**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010
GE Profile	PTWN6250M**	Top Load	3.60	160	2.2	1.26	75%	6,350	4.5	12/30/2010
GE Profile	WPDH8800J*	Front Load	3.60	191	2.23	1.26	77%	5,786	4.1	1/31/2011
GE Profile	WPDH8900J*	Front Load	3.60	191	2.23	1.26	77%	5,786	4.1	1/31/2011
GE Profile	WPDH8910K*	Front Load	3.60	191	2.23	1.26	77%	5,786	4.1	1/3/2011
GE Profile	WPDH8910K*	Front Load	3.60	191	2.23	1.26	77%	5,786	4.1	1/31/2011
GE Profile	WPRE6150K**	Top Load	3.57	199	2.02	1.26	60%	7,557	5.4	12/30/2010
GE Profile	WPRE8150K**	Top Load	3.57	199	2.02	1.26	60%	7,557	5.4	12/30/2010
Haier	GWT460AW	Top Load	3.16	200	2	1.26	59%	7,432	6	3/31/2011
Haier	HWF5000AW	Front Load	3.70	171	2.2	1.26	75%	6,962	4.8	12/30/2010
Haier	HWF5300AW	Front Load	3.70	173	2.4	1.26	90%	6,672	4.6	12/30/2010
Inglis	IFW7300W*+	Front Load	3.46	162	2.39	1.26	90%	5,425	4	12/30/2010
Kenmore	2125*10+	Top Load	3.35	150	2.04	1.26	62%	7,774	5.92	3/28/2011
Kenmore	2130*	Top Load	3.60	123	2.48	1.26	97%	5,137	3.64	4/28/2011
Kenmore	2135*10+	Top Load	3.35	150	2.04	1.26	62%	6,566	5	3/28/2011
Kenmore	2139*	Top Load	3.60	123	2.48	1.26	97%	5,137	3.64	4/28/2011
Kenmore	2600*	Top Load	3.60	123	2.6	1.26	106%	5,052	3.58	4/28/2011
Kenmore	2601*	Top Load	3.60	123	2.6	1.26	106%	5,052	3.58	4/28/2011
Kenmore	2800*	Top Load	3.60	123	2.6	1.26	106%	5,052	3.58	4/28/2011
Kenmore	2801*	Top Load	3.60	123	2.6	1.26	106%	5,052	3.58	4/28/2011
Kenmore	2806*80+	Top Load	4.08	252	2.23	1.26	77%	7,037	4.4	12/30/2010
Kenmore	2807*80+	Top Load	4.08	252	2.23	1.26	77%	7,037	4.4	12/30/2010
Kenmore	2808170*+	Top Load	4.08	259	2.26	1.26	79%	7,197	4.5	12/30/2010
Kenmore	2808770*+	Top Load	4.08	259	2.26	1.26	79%	7,197	4.5	12/30/2010
Kenmore	2809170*+	Top Load	4.08	259	2.26	1.26	79%	7,197	4.5	12/30/2010
Kenmore	2809770*+	Top Load	4.08	259	2.26	1.26	79%	7,197	4.5	12/30/2010
Kenmore	2900#00#	Top Load	4.32	273	2.41	1.26	91%	6,774	4	1/3/2011
Kenmore	2927#00#	Top Load	4.48	250	2.41	1.26	91%	7,025	4	1/3/2011

Kenmore	2947#00#	Top load	4.48	250	2.41	1.26	91%	7,025	4	3/3/2011
Kenmore	402.4903*01*	Front Load	3.45	144	2.5	1.26	98%	4,463	3.3	12/30/2010
Kenmore	4027#90#	Front Load	3.52	126	2.75	1.26	118%	4,967	3.6	1/3/2011
Kenmore	4031#90#	Front Load	3.63	119	2.88	1.26	129%	4,838	3.4	1/3/2011
Kenmore	4041**	Front Load	2.65	160	2.01	1.26	60%	5,921	5.7	4/18/2011
Kenmore	4044#90#	Front Load	3.63	119	2.88	1.26	129%	4,838	3.4	1/3/2011
Kenmore	4051#90#	Front Load	3.87	112	2.85	1.26	126%	5,158	3.4	1/3/2011
Kenmore	4102#90#	Front Load	3.87	110	2.9	1.26	130%	5,158	3.4	1/3/2011
Kenmore	4153#21#	Front Load	4.26	95	3.4	1.26	170%	4,843	2.9	5/9/2011
Kenmore	4154#21#	Front Load	4.26	95	3.4	1.26	170%	4,676	2.8	5/9/2011
Kenmore	4172#00#	Front Load	4.17	108	2.99	1.26	137%	5,558	3.4	1/3/2011
Kenmore	417.4110**	Front Load	4.34	104	3.15	1.26	150%	4,764	2.8	4/18/2011
Kenmore	417.4413**	Front Load	4.40	109	3.15	1.26	150%	4,829	2.8	4/18/2011
Kenmore	4650*70+	Front Load	2.99	165	2.22	1.26	76%	5,509	4.7	12/30/2010
Kenmore	4651*70+	Front Load	2.99	165	2.22	1.26	76%	5,509	4.7	12/30/2010
Kenmore	4674*70+	Front Load	3.51	140	2.38	1.26	89%	5,228	3.8	12/30/2010
Kenmore	4674*80+	Front Load	3.51	133	2.28	1.26	81%	5,228	3.8	12/30/2010
Kenmore	4675*70+	Front Load	3.51	140	2.38	1.26	89%	5,228	3.8	12/30/2010
Kenmore	4708*60+	Front Load	3.51	202	2.36	1.26	87%	5,504	4	12/30/2010
Kenmore	4709*60+	Front Load	3.51	202	2.36	1.26	87%	5,504	4	12/30/2010
Kenmore	4751****	Front Load	3.18	150	2.58	1.26	105%	4,986	4	12/30/2010
Kenmore	4753****	Front Load	3.18	150	2.58	1.26	105%	4,986	4	12/30/2010
Kenmore	4754****	Front Load	3.18	150	2.58	1.26	105%	4,986	4	12/30/2010
Kenmore	4756*70+	Front Load	3.26	145	2.6	1.26	106%	4,728	3.7	12/30/2010
Kenmore	4757*70+	Front Load	3.26	145	2.6	1.26	106%	4,728	3.7	12/30/2010
Kenmore	4758****	Front Load	3.26	145	2.6	1.26	106%	4,728	3.7	12/30/2010
Kenmore	4770****	Front Load	3.79	136	2.64	1.26	110%	5,051	3.4	12/30/2010
Kenmore	4771****	Front Load	3.79	136	2.64	1.26	110%	5,051	3.4	12/30/2010
Kenmore	4775****	Front Load	3.79	136	2.64	1.26	110%	5,051	3.4	12/30/2010
Kenmore	4776****	Front Load	3.79	136	2.64	1.26	110%	5,051	3.4	12/30/2010
Kenmore	4778****	Front Load	3.51	151	2.59	1.26	106%	5,228	3.8	12/30/2010
Kenmore	47781702	Front Load	3.51	132	2.46	1.26	95%	5,228	3.8	12/30/2010
Kenmore	4778*80+	Front Load	3.79	136	2.64	1.26	110%	5,051	3.4	12/30/2010
Kenmore	4779****	Front Load	3.51	151	2.59	1.26	106%	5,228	3.8	12/30/2010
Kenmore	4779*80+	Front Load	3.79	136	2.64	1.26	110%	5,051	3.4	12/30/2010

Kenmore	4785*60+	Front Load	3.51	187	2.22	1.26	76%	5,779	4.2	12/30/2010
Kenmore	4788*60+	Front Load	3.51	187	2.22	1.26	76%	5,779	4.2	12/30/2010
Kenmore	4789*60+	Front Load	3.51	187	2.22	1.26	76%	5,779	4.2	12/30/2010
Kenmore	4996#60**	Front Load	3.51	187	2.22	1.26	76%	5,779	4.2	12/30/2010
Kenmore	4997#60**	Front Load	3.51	187	2.22	1.26	76%	5,779	4.2	12/30/2010
Kenmore	592-4900*	Front Load	3.86	138	2.58	1.26	105%	5,008	3.31	12/30/2010
Kenmore	592-4903*	Front Load	3.45	144	2.5	1.26	98%	4,449	3.29	6/23/2011
Kenmore	592-4904*	Front Load	3.43	165	2.41	1.26	91%	4,840	3.6	12/30/2010
Kenmore	592-49042	Front Load	3.45	165	2.43	1.26	93%	4,760	3.52	8/16/2011
Kenmore	592-4905*	Front Load	3.43	165	2.45	1.26	94%	4,840	3.6	12/30/2010
Kenmore	592-4906*	Front Load	3.69	149	2.46	1.26	95%	4,773	3.3	12/30/2010
Kenmore	592-4907*	Front Load	3.69	149	2.46	1.26	95%	4,773	3.3	12/30/2010
Kenmore	592-4908*	Front Load	3.69	145	2.46	1.26	95%	4,773	3.3	12/30/2010
LG	LSWF388H**	Front Load	4.17	108	2.99	1.26	137%	5,558	3.4	1/3/2011
LG	WM1355H*	Front Load	2.34	108	2.4	1.26	90%	4,036	4.4	1/3/2011
LG	WM2101H*	Front Load	3.52	160	2.21	1.26	75%	5,174	3.75	4/26/2011
LG	WM2140C**	Front Load	3.47	97	2.99	1.26	137%	4,761	3.5	1/3/2011
LG	WM2240C**	Front Load	3.69	110	2.74	1.26	117%	5,352	3.7	1/3/2011
LG	WM2350H**	Front Load	3.69	102	2.8	1.26	122%	4,918	3.4	1/3/2011
LG	WM2450H**	Front Load	3.69	105	3	1.26	138%	5,121	3.54	4/26/2011
LG	WM2550H***	Front Load	3.69	105	3	1.26	138%	5,121	3.54	4/26/2011
LG	WM3150H**	Front Load	4.26	95	3.4	1.26	170%	4,843	2.9	4/26/2011
LG	WM3360H***	Front Load	3.87	100	3.14	1.26	149%	5,006	3.3	1/3/2011
LG	WM3550H***	Front Load	4.26	95	3.4	1.26	170%	4,676	2.8	5/9/2011
LG	WM3875H***	Front Load	4.17	108	2.99	1.26	137%	5,558	3.4	1/3/2011
LG	WM3885H***	Front Load	4.17	108	2.99	1.26	137%	5,558	3.4	1/3/2011
LG	WT4801C*	Top Load	3.73	175	2.41	1.26	91%	5,761	3.94	6/20/2011
LG	WT5001C*	Top Load	4.48	250	2.41	1.26	91%	7,025	4	1/3/2011
LG	WT5101H*	Top Load	4.48	250	2.41	1.26	91%	7,025	4	1/3/2011
Maytag	MHW6000X*+	Front Load	4.33	168	3	1.26	138%	4,209	2.48	6/14/2011
Maytag	MHW7000X*+	Front Load	4.33	169	3	1.26	138%	4,719	2.78	4/28/2011
Maytag	MHW9000Y*+	Front Load	4.33	147	3.01	1.26	139%	4,617	2.72	4/11/2011
Maytag	MHWE200X*+	Front Load	3.46	161	2.35	1.26	87%	5,154	3.8	12/30/2010
Maytag	MHWE201Y*+	Front Load	3.46	154	2.46	1.26	95%	5,005	3.69	3/28/2011
Maytag	MHWE250X*+	Front Load	3.46	161	2.35	1.26	87%	5,154	3.8	12/30/2010

Maytag	MHWE251Y*+	Front Load	3.46	154	2.46	1.26	95%	5,005	3.69	3/28/2011
Maytag	MHWE300V*+	Front Load	3.47	160	2.18	1.26	73%	5,849	4.3	12/30/2010
Maytag	MHWE300W#**	Front Load	3.51	161	2.31	1.26	83%	5,641	4.1	12/30/2010
Maytag	MHWE301Y*+	Front Load	3.46	154	2.46	1.26	95%	5,005	3.69	3/28/2011
Maytag	MHWE400W*+	Front Load	3.86	174	2.66	1.26	111%	4,600	3.04	4/28/2011
Maytag	MHWE450W*+	Front Load	3.86	174	2.66	1.26	111%	4,600	3.04	4/28/2011
Maytag	MHWE500V*+	Front Load	3.47	138	2.35	1.26	87%	5,169	3.8	12/30/2010
Maytag	MHWE550W#**	Front Load	3.86	147	2.66	1.26	111%	5,447	3.6	12/30/2010
Maytag	MHWE900V*+	Front Load	3.79	141	2.58	1.26	105%	5,348	3.6	12/30/2010
Maytag	MHWE950W*+	Top Load	3.86	147	2.46	1.26	95%	4,449	2.94	4/28/2011
Maytag	MHWZ400T*+	Front Load	3.46	139	2.45	1.26	94%	5,290	3.9	12/30/2010
Maytag	MHWZ600T*+	Front Load	3.46	139	2.45	1.26	94%	5,290	3.9	12/30/2010
Maytag	MHWZ600W*+	Front Load	3.46	139	2.45	1.26	94%	5,290	3.9	12/30/2010
Maytag	MVWB300W*+	Top Load	3.95	257	2.28	1.26	81%	6,813	4.4	4/28/2011
Maytag	MVWB400V*+	Top Load	4.08	252	2.23	1.26	77%	7,037	4.4	12/30/2010
Maytag	MVWB450W*+	Top Load	3.95	258	2.22	1.26	76%	6,828	4.41	4/28/2011
Maytag	MVWB455Y*+	Top Load	3.95	146	2.61	1.26	107%	5,017	3.24	3/28/2011
Maytag	MVWB700V*+	Top Load	4.08	252	2.23	1.26	77%	7,037	4.4	12/30/2010
Maytag	MVWB750W*+	Top Load	3.95	258	2.22	1.26	76%	6,828	4.41	4/28/2011
Maytag	MVWB750Y*+	Top Load	4.60	190	2.61	1.26	107%	6,654	3.69	7/22/2011
Maytag	MVWB755Y*+	Top Load	3.95	146	2.61	1.26	107%	5,017	3.24	3/9/2011
Maytag	MVWB800V*+	Top Load	4.08	249	2.25	1.26	79%	7,197	4.5	12/30/2010
Maytag	MVWB800Y*+	Top Load	4.60	190	2.61	1.26	107%	6,654	3.69	7/22/2011
Maytag	MVWB850W*+	Top Load	3.95	258	2.22	1.26	76%	6,828	4.41	4/28/2011
Maytag	MVWB850Y*+	Top Load	4.60	198	2.57	1.26	104%	6,996	3.88	7/8/2011
Maytag	MVWB950Y*+	Top Load	4.60	198	2.57	1.26	104%	6,996	3.88	7/8/2011
Maytag	MVWC300X*+	Top Load	3.35	144	2.02	1.26	60%	7,735	5.89	3/8/2011
Maytag	MVWC400X*+	Top Load	3.60	123	2.48	1.26	97%	5,137	3.64	4/28/2011
Maytag	MVWX500X*+	Top Load	3.60	122	2.46	1.26	95%	5,109	3.62	4/28/2011
Maytag	MVWX550X*+	Top Load	3.60	122	2.46	1.26	95%	5,109	3.62	4/28/2011
Maytag	MVWX600X*+	Top Load	3.60	122	2.46	1.26	95%	5,109	3.62	4/28/2011
Maytag	MVWX700X*+	Top Load	3.60	122	2.46	1.26	95%	5,109	3.62	4/28/2011
Miele	PW6065	Front Load	2.08	133	2.23	1.26	77%	3,718	4.56	1/7/2011
Miele	W3033	Front Load	1.98	139	2.32	1.26	84%	3,431	4.42	1/7/2011
Miele	W3035	Front Load	1.98	139	2.32	1.26	84%	3,431	4.42	1/7/2011

Miele	W3039	Front Load	1.77	128	2.25	1.26	79%	3,060	4.41	1/7/2011
Miele	W4802	Front Load	3.07	186	2.4	1.26	90%	5,103	4.24	1/7/2011
Miele	W4842	Front Load	3.07	186	2.4	1.26	90%	5,103	4.24	1/7/2011
Miele	W4842	Front Load	3.07	186	2.4	1.26	90%	5,091	4.23	1/4/2007
Samsung	WA5451***	Top Load	4.65	247	2.41	1.26	91%	8,749	4.8	3/22/2011
Samsung	WA5471***	Top Load	4.65	199	2.57	1.26	104%	6,927	3.8	3/10/2011
Samsung	WF203***	Front Load	3.11	216	2.04	1.26	62%	4,876	4	12/30/2010
Samsung	WF209***	Front Load	3.47	146	2.61	1.26	107%	5,169	3.8	12/30/2010
Samsung	WF210***	Front Load	3.45	141	2.5	1.26	98%	4,463	3.3	12/30/2010
Samsung	WF218***	Front Load	3.43	165	2.47	1.26	96%	4,437	3.3	12/30/2010
Samsung	WF219***	Front Load	3.43	130	2.65	1.26	110%	4,303	3.2	12/30/2010
Samsung	WF220***	Front Load	3.45	141	2.5	1.26	98%	4,463	3.3	12/30/2010
Samsung	WF221***	Front Load	3.45	141	2.47	1.26	96%	4,476	3.31	7/14/2011
Samsung	WF229***	Front Load	3.43	165	2.47	1.26	96%	4,437	3.3	12/30/2010
Samsung	WF231***	Front Load	3.45	100	2.8	1.26	122%	4,328	3.2	5/9/2011
Samsung	WF241***	Front Load	3.45	100	2.8	1.26	122%	4,328	3.2	7/6/2011
Samsung	WF328***	Front Load	3.43	161	2.3	1.26	83%	4,975	3.7	12/30/2010
Samsung	WF330***	Front Load	3.69	116	2.76	1.26	119%	4,484	3.1	12/30/2010
Samsung	WF331***	Front Load	3.69	116	2.76	1.26	119%	4,484	3.1	3/24/2011
Samsung	WF337***	Front Load	3.43	210	2.4	1.26	90%	4,840	3.6	12/30/2010
Samsung	WF338***	Front Load	3.43	153	2.59	1.26	106%	4,840	3.6	12/30/2010
Samsung	WF340***	Front Load	3.69	116	2.76	1.26	119%	4,484	3.1	12/30/2010
Samsung	WF350***	Front Load	3.69	116	2.76	1.26	119%	4,484	3.1	12/30/2010
Samsung	WF407***	Front Load	3.47	114	2.82	1.26	124%	4,353	3.2	12/30/2010
Samsung	WF409***	Front Load	3.69	118	2.73	1.26	117%	4,499	3.11	3/24/2011
Samsung	WF410***	Front Load	3.69	118	2.73	1.26	117%	4,484	3.1	12/30/2010
Samsung	WF419***	Front Load	3.69	118	2.73	1.26	117%	4,484	3.1	12/30/2010
Samsung	WF428***	Front Load	3.86	120	2.82	1.26	124%	4,842	3.2	12/30/2010
Samsung	WF431***	Front Load	3.86	95	3.2	1.26	154%	4,524	2.99	7/14/2011
Samsung	WF448***	Front Load	3.86	120	2.76	1.26	119%	4,842	3.2	12/30/2010
Samsung	WF461***	Front Load	3.86	94	3.25	1.26	158%	4,388	2.9	7/14/2011
Samsung	WF501***	Front Load	4.29	100	3.02	1.26	140%	5,415	3.22	6/23/2011
Samsung	WF511***	Front Load	4.29	93	3.32	1.26	163%	4,877	2.9	7/14/2011
Samsung	WF520***	Front Load	4.29	96	3.1	1.26	146%	4,877	2.9	7/14/2011
Speed Queen	AFN50+	Front Load	2.84	184	2.04	1.26	62%	5,455	4.9	12/30/2010

Speed Queen	AFN51+	Front Load	2.84	184	2.04	1.26	62%	5,455	4.9	12/30/2010
Speed Queen	ATE50+	Front Load	2.84	184	2.04	1.26	62%	5,455	4.9	12/30/2010
Speed Queen	ATG50+	Front Load	2.84	184	2.04	1.26	62%	5,455	4.9	12/30/2010
Speed Queen	LWNA1+	Top Load	3.13	130	2.05	1.26	63%	7,116	5.8	1/18/2011
Whirlpool	WFC7500V*+	Front Load	1.97	152	2.05	1.26	63%	4,479	5.8	12/30/2010
Whirlpool	WFW8300S*+	Front Load	2.99	169	2.24	1.26	78%	5,274	4.5	12/30/2010
Whirlpool	WFW8400T*+	Front Load	3.26	156	2.44	1.26	94%	5,112	4	12/30/2010
Whirlpool	WFW8410S*+	Front Load	3.26	185	2.37	1.26	88%	5,751	4.5	12/30/2010
Whirlpool	WFW9050W*+	Front Load	3.46	125	2.55	1.26	102%	4,883	3.6	6/14/2011
Whirlpool	WFW9150W#**	Front Load	3.46	139	2.45	1.26	94%	5,290	3.9	12/30/2010
Whirlpool	WFW9151Y*+	Front Load	3.46	154	2.46	1.26	95%	5,005	3.69	3/28/2011
Whirlpool	WFW9200S*+	Front Load	3.51	186	2.16	1.26	71%	5,641	4.1	12/30/2010
Whirlpool	WFW9250W#**	Front Load	3.46	139	2.45	1.26	94%	5,290	3.9	12/30/2010
Whirlpool	WFW9300V*+	Front Load	3.51	186	2.29	1.26	82%	5,366	3.9	12/30/2010
Whirlpool	WFW9351Y*+	Front Load	3.46	154	2.46	1.26	95%	5,005	3.69	3/28/2011
Whirlpool	WFW9400S*#**	Front Load	3.51	186	2.29	1.26	82%	5,366	3.9	12/30/2010
Whirlpool	WFW9400V*+	Front Load	3.51	186	2.29	1.26	82%	5,366	3.9	12/30/2010
Whirlpool	WFW9450W*+	Front Load	3.79	150	2.46	1.26	95%	5,646	3.8	12/30/2010
Whirlpool	WFW9451X*	Front Load	3.90	169	2.4	1.26	90%	5,962	3.9	12/30/2010
Whirlpool	WFW9470W#**	Front Load	3.86	177	2.35	1.26	87%	6,204	4.1	12/30/2010
Whirlpool	WFW94HEX*+	Front Load	4.33	168	3	1.26	138%	4,209	2.48	6/14/2011
Whirlpool	WFW9500T*+	Front Load	3.51	119	2.26	1.26	79%	4,953	3.6	12/30/2010
Whirlpool	WFW9550W*+	Front Load	3.79	144	2.43	1.26	93%	5,096	3.43	6/14/2011
Whirlpool	WFW95HEX*+	Front Load	4.33	169	3	1.26	138%	4,719	2.78	4/28/2011
Whirlpool	WFW9600S*+	Front Load	3.51	186	2.29	1.26	82%	5,366	3.9	12/30/2010
Whirlpool	WFW9600T*+	Front Load	3.51	122	2.42	1.26	92%	5,091	3.7	12/30/2010
Whirlpool	WFW9640X*+	Front Load	3.86	136	2.65	1.26	110%	4,206	2.78	1/18/2011
Whirlpool	WFW9700V*+	Front Load	3.79	144	2.41	1.26	91%	5,646	3.8	12/30/2010
Whirlpool	WFW9750W*+	Front Load	3.86	149	2.52	1.26	100%	4,222	2.79	4/28/2011
Whirlpool	WFW97HEX*+	Front Load	4.33	140	3.17	1.26	152%	4,804	2.83	7/8/2011
Whirlpool	WTW4850X*+	Top Load	3.35	144	2.02	1.26	60%	7,735	5.89	3/8/2011
Whirlpool	WTW4950X*+	Top Load	3.60	123	2.48	1.26	97%	5,137	3.64	4/28/2011
Whirlpool	WTW5500X*+	Top Load	3.60	125	2.49	1.26	98%	5,518	3.91	4/28/2011
Whirlpool	WTW5550X*+	Top Load	3.60	125	2.49	1.26	98%	5,518	3.91	6/14/2011
Whirlpool	WTW5600X*+	Top Load	3.60	123	2.44	1.26	94%	5,419	3.84	4/28/2011

Whirlpool	WTW5610X*+	Top Load	3.60	123	2.44	1.26	94%	5,419	3.84	4/28/2011
Whirlpool	WTW5640X*+	Top Load	3.60	123	2.44	1.26	94%	5,419	3.84	4/28/2011
Whirlpool	WTW5700X*+	Top Load	3.60	123	2.44	1.26	94%	5,419	3.84	4/28/2011
Whirlpool	WTW6300W#**	Top load	4.08	264	2.22	1.26	76%	6,877	4.3	12/30/2010
Whirlpool	WTW6340W*+	Top load	4.08	264	2.22	1.26	76%	6,877	4.3	12/30/2010
Whirlpool	WTW6500V*+	Top Load	4.31	252	2.29	1.26	82%	7,096	4.2	12/30/2010
Whirlpool	WTW6500W*+	Top Load	4.31	252	2.29	1.26	82%	7,096	4.2	12/30/2010
Whirlpool	WTW6700T*+	Top Load	4.08	252	2.23	1.26	77%	7,037	4.4	12/30/2010
Whirlpool	WTW6800W*+	Top Load	4.31	252	2.29	1.26	82%	7,096	4.2	12/30/2010
Whirlpool	WTW7300X*+	Top Load	3.95	163	2.62	1.26	108%	5,497	3.55	4/28/2011
Whirlpool	WTW7320Y*+	Top Load	3.95	163	2.63	1.26	109%	5,497	3.55	3/9/2011
Whirlpool	WTW7340X*+	Top Load	3.95	191	2.48	1.26	97%	5,559	3.59	4/28/2011
Whirlpool	WTW7600X*+	Top Load	3.95	191	2.48	1.26	97%	5,559	3.59	4/28/2011
Whirlpool	WTW7800X*+	Top Load	3.95	191	2.48	1.26	97%	5,559	3.59	4/28/2011
Whirlpool	WTW7990X*+	Top Load	3.95	205	2.44	1.26	94%	5,667	3.66	4/28/2011
White Westinghouse	FRFW3700**	Front Load	3.23	77	2.64	1.26	110%	4,052	3.2	4/18/2011
White Westinghouse	WWFW3700M**	Front Load	3.23	77	2.64	1.26	110%	4,052	3.2	4/18/2011

Definitions for Clothes Washer product listing column headers

Brand and Model

This is how a particular washer is identified. Retailers identify products they stock using the brand and model number. Some products may also be identified with a name or SKU, which is different from the brand or model number.

Model numbers often contain wildcard characters, such as *, #, and X, that are placeholders for non-energy attributes, such as color.

Type

Type refers to whether the product is a front-loading washer or a top-loading washer.

Volume

This is the tub capacity of the clothes washer in cubic feet.

KWH/Year

This is the estimated annual energy use of the washer under typical conditions. It is based on an annual usage of 392 loads per year, or around 8 loads per week. Actual energy consumption will vary depending on the amount of laundry done, the size of the loads, and the temperature settings used.

This figure is calculated according to the Department of Energy test procedure, Code of Federal Regulations, Title 10, Section 430. It incorporates the estimated energy consumed by the washer and also the energy needed to heat the water with an electric water heater. Households with a gas water heater will use significantly fewer kilowatt hours but will consume gas to heat the same water.

Modified Energy Factor

MEF is the official energy efficiency metric used to compare relative efficiencies of different clothes washers. MEF considers the energy used to run the washer, heat the water, and run the dryer. The higher the MEF, the more efficient the clothes washer.

ENERGY STAR qualified clothes washers must have a minimum MEF of 2.00. The minimum Federal standard requirement for clothes washers is an MEF of 1.26.

Water Factor

WF is a measurement of water efficiency that is calculated as gallons of water used per cubic foot of capacity

So, if a clothes washer uses 30 gallons per cycle and has a tub volume of 3.0 cubic feet, then the water factor is 10.0. The lower the WF, the more efficient the clothes washer.

ENERGY STAR qualified clothes washers must have a maximum WF of 6.0. The minimum Federal standard requirement for clothes washers is a WF of 9.5.

Annual Water Use (Gallons per year)

This is the estimated annual water use of the washer under typical conditions. It is based on an annual usage of 392 loads per year, or around 8 loads per week. Actual water consumption will vary depending on the amount of laundry done.

Clothes Washers Key Product Criteria

Equipment	Criteria
Clothes Washers	Minimum Modified Energy Factor (MEF) of 2.0 and a maximum Water Factor (WF) of 6.0.

The ENERGY STAR criteria for clothes washers changed on January 1, 2011. The new ENERGY STAR criteria require all qualified products to have a Modified Energy Factor (MEF) of 2.0 or greater as well as a Water Factor (WF) of 6.0 or lower.

Criteria/Product Type	Current Criteria Levels (as of January 1, 2011)
ENERGY STAR top and front loading	MEF >= 2.0 WF <= 6.0
Federal Standard top and front loading	MEF >= 1.26 WF <= 9.5

MEF = modified energy factor

WF = water factor (gallons per cycle per cubic foot)

ENERGY STAR Qualified Clothes Washer Eligibility

Only front and top loader clothes washers with capacities of greater than 1.6 ft3 are eligible to earn the ENERGY STAR.

Energy Performance Metrics

Energy Factor (EF) is the previous energy performance metric for clothes washers. It is the quotient of the capacity of the clothes container, C, divided by the sum of the machine electrical energy for the mechanical action of a cycle, M, and the water heating energy required for a cycle, E. The equation is shown here:

$EF = C / (M + E)$

The water heating energy may be from a gas or electric water heater. The units are cubic feet per kWh per cycle, ft3/kWh/cycle. The higher the value, the more efficient the clothes washer is.

Modified Energy Factor, MEF, is the energy performance metric for ENERGY STAR qualified clothes washers and all clothes washers as of January 1, 2004. This metric has the same units as the energy factor (EF): ft3/kWh/cycle. MEF is the quotient of the capacity of the clothes container, C, divided by the total clothes washer energy consumption per cycle, with such energy consumption expressed as the sum of the machine electrical energy consumption, M, the hot water energy consumption, E, and the energy required for removal of the remaining moisture in the wash load, D. The higher the value, the more efficient the clothes washer is. The equation is shown below:

$MEF = C / (M + E + D)$

Water Factor, WF, is the present water performance metric that allows the comparison of clothes washer water consumption independent of clothes washer capacity. Manufacturers must submit their water consumption factors with their ENERGY STAR qualified clothes washers.

WF is the quotient of the total weighted per-cycle water consumption, Q, divided by the capacity of the clothes washer, C. The lower the value, the more water efficient the clothes washer is. The equation is shown below:

$WF = Q / C$

The federal EnergyGuide label on clothes washers shows annual energy consumption and cost. These figures use the energy factor, average cycles per year, and the average cost of energy to make the energy and cost estimates. The Energy Factor, Modified Energy Factor, or Water Factor may not appear on the EnergyGuide label.

APPENDIX Q (LCB R43-08 Sec. 30)

This appendix is meant to be an easy reference for anyone who wishes to see that the Utility has complied with the regulations for a water conservation plan set forth by the Public Utilities Commission of Nevada and adopted as regulation R43-08 Sec. 30 (as well as NRS 540.121 through 540.151 and NRS 704.662). Readers are encouraged to peruse the entire Water Conservation Plan as it is meant to comprehensive and conservation strategies intermingle and overlap throughout the balanced conservation plan: Public Education, Systems Management, Drought Plan and Other Specific Conservation Measures. The overall success of a water conservation plan is dependent upon the Utility and consumers participating alike.

Description	Conservation Plan Ref.
Sec. 30. 1. The conservation plan of a utility must include, without limitation: (a) A description of each program of water conservation that the utility has implemented, is implementing or proposes to implement, including, without limitation: (1) Water surveys for single-family residential customers and multifamily customers;	Section III. A. 1) a) Appendix D
(2) Programs to encourage retrofitting of residential plumbing;	Section IV. B. 1) Appendix N Appendix O
(3) Water audits, leak detection and repair;	Section III. A. 3) c) & e)
(4) The use of water meters with commodity rates for new connections and retrofitting of existing connections;	Section III. A. 3) a), Section III. B. Appendix K.
(5) Incentives and other programs of water conservation for golf courses, parks, school grounds and other large landscapes;	Section III. B. (p. 31)
(6) Rebates or other incentives for the purchase of high-efficiency washing machines;	Section IV. B. 1) b)
(7) Programs of public information;	Section III. A. 1) Inclusive Appendices C, D, E, F, G, H, I, J, L, M and Q
(8) Educational programs in schools;	Section III. A. 1) g)
(9) Conservation programs for commercial, industrial, governmental and other customers;	Section III. A. a), c), d), e), f), g), h) and B.
(10)The use of conservation pricing;	Section III. B.

(11)Employment of a person to coordinate the utility's programs of water conservation;	Section II. (p. 11)
(12)Prohibitions against wasting of water and measures for the enforcement of those prohibitions;	Section IV. B. 2)
(13)A program to encourage residential customers to replace existing toilets with ultra-low flush toilets; and	Section IV. B. 1) a)
(14)Incentives for the reclamation of water and the use of reclaimed water;	Section III. 4.
(b) An estimate of the savings in water consumption or the reduction in the demand for water than is attributable to each program;	Section I. Table 1
(c) An estimate of the effect on the utility's peak demand for water and water consumption for each program;	To be included in the engineer's evaluation with the 2012 IRP.
(d) A schedule implementation for each proposed program;	Section III, A. 6) Table 5
(e) A description of the methods, if any, that may be used to evaluate the effectiveness of each program; and	Section III. A. 7.
(f) An estimate of the cost of each program. The estimate must be supported by a statement that sets forth in detail the methods used to determine the estimate, including, without limitation, the data and assumptions used to determine the estimate.	Section I. Table 1
2. In developing its conservation plan, a utility must consider the effect that new technologies, including, without limitation advances in digital and computer information system technologies, may have on current and future conservation programs.	Section III. A. 1) c) and 3) a), b), and c)
3. The conservation plan must: (a) Identify each program for which the utility request the approval of the Commission; and	Approval will be sought through the next IRP and next GRC proceeding. (Section I. Table 1)
(b) Include a report of the status of each program of a water conservation that has been approved by the Commission. The report must provide a table for each program that indicates for each year of the program, the planned and actual reduction in water usage and the costs of the program.	Section I. Table 1

APPENDIX R MORE WATER CONSERVATION MEASURES

The following list is taken from the Truckee Meadows Water Authority website. More information on responsible water use can be found at http://tmh2o.com/conservation/checklist

QUICK CHECK LIST ON INDOOR WATER USE

- I have checked my toilet for leaks
- I never use my toilet as a wastebasket
- I take shorter showers
- I installed water-saving shower heads or flow-restrictors
- I turn off the water after wetting my toothbrush
- I rinse my razor in a partially-filed sink
- I have checked pipes and faucets for leaks
- I use my automatic dishwasher and clothes washer for full loads only
- If I wash dishes by hand, I don't leave the water running for rinsing
- I keep drinking water in the refrigerator
- I check the evaporative cooler while in use to make sure there's no waste

QUICK CHECK LIST ON OUTDOOR WATER USE

- I have water-efficient landscaping
- I use a broom or blower to clean driveways, sidewalks and steps
- I don't let water flow down the driveway while washing my car
- I let my children play in the sprinklers only on my assigned days
- I water my lawn according to the recommendation in TMWA's Lawn Care Gide
- I water during the cool parts of the day, never between noon and 6:00 p.m.
- I don't water when it's windy or raining
- I don't allow water to fill the gutter
- I check monthly for leaks in outside pipes, hoses, faucets and couplings
- I use a spray nozzle with a shut-off handle on my hose
- I check or readjust my automatic sprinkler timer at least once a month during the watering season

The following list is taken from the eBay Green Team website. More water conservation measures can be found at http://www.ebaygreenteam.com

10 EASY WAYS TO CONSERVE WATER

One easy way to start conserving water is to take stock of how much water you need vs. how much you use every day.

1. Slow the flow
   Install low-flow faucet aerators on each of your faucets and a low-flow shower head in the bathroom. You'll keep the water pressure high, but reduce your average household water usage by up to 45 gallons a day.

2. Flush smarter
   If you're building a new home or are considering a remodel, there are many great, environmentally friendly options for dual-flush toilets that conserve water with every flush. For a DIY low-flow version, place 2 plastic bottles weighed down with pebbles and water inside your toilet tank (away from mechanical parts). Just make sure there are at least 3 gallons of water remaining in the tank so it flushes properly – otherwise you'll have to flush twice and miss the whole point!

3. Put less down the drain
   Compost food and vegetable waste instead of using water to flush it down the garbage disposal.

4. Turn it off
   This water conservation tip is an oldie, but a goodie – turn off the tap while brushing your teeth. And when shaving, fill up the sink with a few inches of water to rinse off the blade, instead of keeping the faucet running.

5. Fill 'er up!
   If you have a dishwasher, make sure to only run full loads to make good use of all that water. If you're washing by hand, fill up the sink to conserve water rather than keep the faucet running.

6. Think ahead
   If you like your drinking water cold, keep a water filter pitcher in the refrigerator rather than running the tap until it gets cold each time. That way you'll stay hydrated and not waste a drop!

7. Check for leaks
   To check if your toilet is leaking, put a few drops of food coloring in your toilet tank. Wait 15 minutes – if you see color in the toilet bowl without flushing, you have a leak!

8. Raise your glass
   Give each person in your household a designated glass or reusable water bottle. So they don't grab a new glass each time they want a drink. As an added bonus, you'll seriously cut down on the number of dishes you have to wash!

9. Catch what you can
   Place a bucket in the shower with you or under your rain spout to collect water and reuse it to water you plants and lawn.

10. Grow it out
    Raise your lawnmower blade so it doesn't cut the grass too short. Longer grass shades the soil, so it holds moisture longer. And when you do water your lawn, make sure it's during the cooler morning or evening hours to minimize evaporation and conserve water.

APPENDIX S — CREDITS

There is a great deal of information available to the public regarding water conservation. Numerous resources have been used in researching the materials for this Water Conservation Plan. However, there are several available sources which provided information to shape this Water Conservation Plan and the Utility would like to recognize those sources.

- Nevada Rural Water Association
- The Truckee Meadows Water Conservation Plan
- The Southern Nevada Rural Water Authority Water Conservation Plan
- The EPA WaterSense Program
- The Indian Springs Nevada Water Conservation Plan
- The Utilities, Inc. Water Conservation Coordinator and Compliance & Safety Coordinator