

Water Line

Spring 2006

Sand Hollow Reservoir
Photo: Doug Wilson

Plan provides for new growth to pay its own way

Capital Facilities Plan

Build it and they will come. Don't build it and they will still come. Rapid growth is a recurrent theme in Washington County. Advocates of growth see it as a positive occurrence leading to sound economic health. Those opposed see it as placing a burden on roads, infrastructure and water supply. Their solution is to place a moratorium on building. Growth is a fact of life that needs to be managed, not ignored.

Soon, however, growth *will* stress the District's ability to adequately provide water. Current facilities will have to be expanded; new facilities will have to be constructed; funding mechanisms will have to be in place to subsidize water projects. Impact fees have become an ideal device through which growth-related infrastructure can be funded. Pursuant to the requirements of the Utah Impact Fees Act, the District has completed an impact fee analysis, an impact fee resolution and a Capital Facilities Plan (CFP).

The CFP has been in the planning stages over the past couple of years. It provides for the development of water sources and facilities needed to supply water through the year 2038 and allows the District to collect impact fees to pay for new development. These impact fees will:

- ensure that new growth pays its proportionate share of costs; and
- provide funding for construction of future water sources, supplies and treatment facilities.

The impact fee would be collected prior to any final plat recordation or issuance of any building permit.

The Regional Water Capital Facilities Plan and Impact Fee Analysis establishes a minimum impact fee to be assessed on a single family dwelling unit. The Utah State Drinking Water Board requires that the District provide enough infrastructure to service 0.89 acre feet (Af) of water per single family dwelling unit per year (an acre foot of water is that amount of water it takes to cover an acre of land one foot deep or about 326,000 gallons).

The table below illustrates the impact fee per single family dwelling prorated over the next 33 years allowing for a 5% increase annually.

Impact Fee per Single Family Dwelling (ERU*)			
Year	Proposed Fee	Year	Proposed Fee
2005	\$4,130	2022	\$9,467
2006	\$4,337	2023	\$9,940
2007	\$4,554	2024	\$10,437
2008	\$4,781	2025	\$10,959
2009	\$5,021	2026	\$11,507
2010	\$5,272	2027	\$12,082
2011	\$5,535	2028	\$12,687
2012	\$5,812	2029	\$13,321
2013	\$6,102	2030	\$13,987
2014	\$6,408	2031	\$14,686
2015	\$6,728	2032	\$15,421
2016	\$7,064	2033	\$16,192
2017	\$7,418	2034	\$17,001
2018	\$7,788	2035	\$17,851
2019	\$8,178	2036	\$18,744
2020	\$8,587	2037	\$19,681
2021	\$9,016	2038	\$20,665

* Equivalent Residential Unit. For lots larger than 10,000 sq. ft., the fee increases by .01% per sq. ft.

Manager's Message

Ron Thompson, General Manager

Regional Water Supply Agreement

The District is also implementing a new approach to water sales to municipalities. It will replace the traditional take-or-pay contracts with a regional approach to water sales. The Regional Water Supply Agreement (RWSA) is the instrument by which this approach to water sales will be managed. The RWSA will, among other things, allow for assessment of charges and provide for a coordinated effort with respect to planning, development and management of water.

Cities generally cannot pay for all needed improvements using only revenues generated by property taxes, user fees or other revenue sources. The question raised is:

- should current residents be required to pay for new capital facilities serving only new growth, or
- should the responsibility of paying for these facilities be passed on to new residents and businesses?

Although the growth of industry and residences within a service area ultimately leads to increased user fee revenues and property tax revenues, the incoming entities, **not existing residents**, must be responsible for improvements that increase capacity.

In Washington County, there are three facts you can pretty well count on being around for a long time. It is a fact that:

- drought *will* continue to be an issue;
- this is a desirable place to live; and
- we *will* continue to experience an influx of new residents.

It is, therefore, critical that the projects developed by the District:



- diversify our water resources;
- provide water for future generations; and
- allow for the orderly growth of the local economy.

The CFP will meet these objectives and the RWSA will be the tool through which the communities can work together to provide adequate water to current and future residents of Washington County. Both of these documents can be accessed on the District's website at <http://wewcd.state.ut.us>.

St. George Water Treatment Plant

The St. George Water Treatment Facilities Agreement was ratified and signed by the Board of Trustees at their regular meeting on March 21, 2006. As of April 23, 2006, the District is officially in charge of the operation and management of the treatment plant. St. George City will maintain ownership of the facility.

We are excited about our partnership with St. George and are hoping this partnership will indeed prove beneficial to the municipalities in general and local residents in particular. As Washington County continues to grow, it is the District's goal to maintain a firm grasp on the future water needs of this area. **As we continue to search for more sources of water and better ways to manage it, we once again urge you to maintain a solid commitment to the conservation of this precious resource.**

St. George water treatment plant now managed and operated by the District

By Ann Jensen

In the fall of 1861, 300 pioneers walked into the St. George Valley. From that day to the present, very little has changed with regard to the search for water. Pioneers in the 1860's, pioneers in the 1980's and today's pioneers are still searching for water resources and efficient methods of water use and management.

In the early 1980's, Washington County was experiencing a cycle of severe drought and incredible growth. In 1985 alone, 1,718 building permits were issued by the City. St. George grew from just over 13,000 residents in 1980 to 28,500 residents in 1990, more than doubling its size.

For well over a century, St. George had received its water from groundwater sources.

These sources were becoming scarce in the early 1980's so City leaders decided it was time to become involved with the Washington County Water Conservancy District's Quail Creek Reservoir Project.

During the summer of 1985, after months of negotiations, St. George opted to lease 10,000 acre feet of water from Quail Creek on a 50-year agreement. This Quail Creek water would double St. George's water resources. The decision to lease water brought with it the need to treat the water for culinary use; therefore, plans began for the construction of the St. George water treatment plant.

In 1985, the City could not use the entire 10,000 acre feet of water. In their vision of

the future, however, 10,000 acre feet and more would be needed before long to supply local residents with culinary water. Design of the treatment plant began in 1986 and operation of the plant began in July 1989. At that time, the plant was capable of treating 10 million gallons per day (mgd). The construction costs were approximately \$8.5 million.

History does repeat itself. Six years later in 1995, St. George was yet again facing growth issues and a severe drought. The 10 mgd capacity of the treatment plant was no longer adequate. Plans were put in place to expand the facility to the extent that it could treat 20 mgd. The expansion cost approximately \$15 million and was dedicated in March 1997.

At the beginning of the 21st century, St. George and Washington County continued to grapple with growth and drought issues. The St. George water treatment plant was expanded yet again in 2005 with the capability of treating 40 mgd. The cost of expanding to 40 mgd capacity was approximately \$26 million.

On March 22, 2006, the St. George Water Treatment Facilities Agreement was signed by St. George and the District. This Agreement allows for St. George to retain ownership of the plant and for the District to take over its operation and management as of April 23, 2006.



Timeline for the Water Treatment Plant

1986

original design

1989

began operation
treating 10 mgd

1997

plant enlarged
to treat 20 mgd

2005

plant enlarged
to treat 40 mgd

Sources:

Making the Desert Bloom: *the Story of Water and Power in St. George*. (1991)
Published by the City of St. George.
Publishers Place, Inc.

The Spectrum, Nov. 6, 1996 and
March 6, 1997 issues.

Quail Creek Water Treatment Plant located northeast of the Fairgrounds on Highway 9
Photo: Hank Childers, Plant Superintendent

STAFF LEAKS

Kelby B. Iverson, Operations and Maintenance Crew

by Ann Jensen

There is an old proverb that states “the hardest work of all is to do nothing.” Kelby certainly agrees with this adage. He constantly gives himself to family, work, a ranch, church and furthering his education. He is never idle.

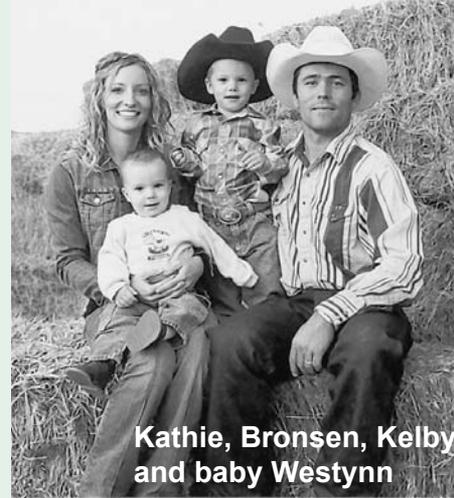
Kelby B. Iverson is one of seven children. He was raised in Hurricane, Utah, and graduated from Hurricane High School in 1998. His grandfather, Winferd Spendlove, served on the District’s Board of Trustees from 1962 to 1989. Winferd’s love of the District and his dedication to its mission was inspiring to Kelby. He grew up thinking he would someday like to work for the District.

When Kelby returned home from a mission to England, he applied for a District job

and started to work on the Operations and Maintenance Crew in October 2000.

In the beginning, Kelby was a part-time employee. His first assignment was to work with the engineers on the Sand Hollow Reservoir Dams. Inspection, soil and rock sampling and lab work were some of his responsibilities. After working on the Sand Hollow Project for 18 months, he was hired full time.

To quote Kelby, “it has been a pleasure ever since.” He enjoys the variety of his daily assignments. Kelby is in charge of painting inside all the buildings in the field, maintaining the Santa Clara pipeline and the Quail Creek hydroplant, reading all vault and pump station meters on a monthly basis and per-



Kathie, Bronsen, Kelby and baby Westynn

forming any other tasks that may be asked of him. His job is made even more pleasurable by the comradery among his co-workers.

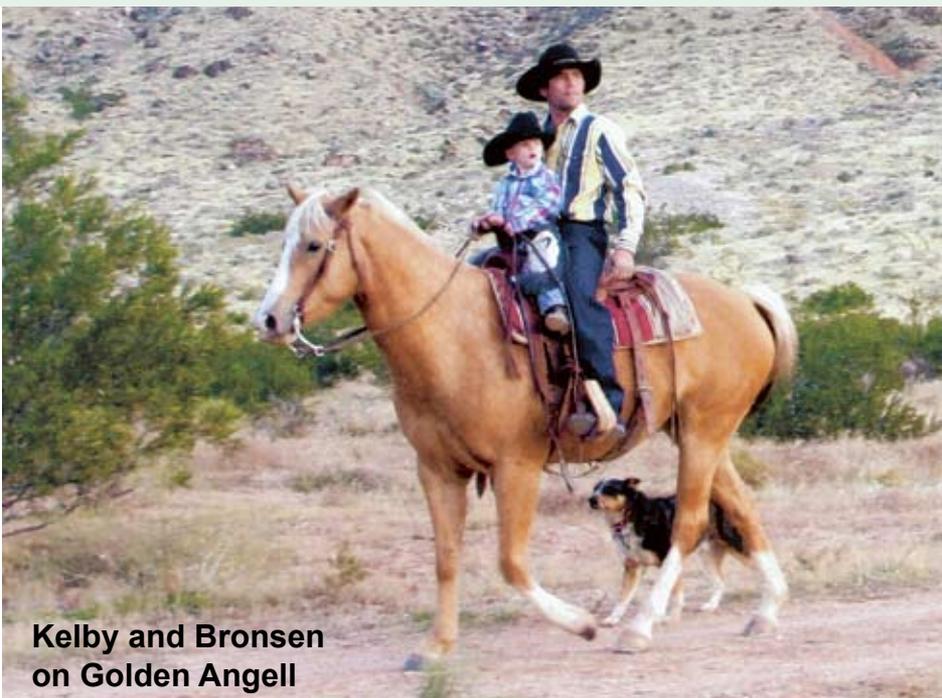
Kelby and Kathie, his high school sweetheart, were married in December 2000. They have two frisky boys. Bronsen is three years old and Westynn is 18 months. Kelby loves being with his wife and children.

You would think being a husband, father and a District employee would take up all of Kelby’s time. To the contrary. He and Kathie have a ranch. They currently have 30 cows, a bull, three horses, two pigs, eight chickens, three cats, one dog, two steers and two bottle-fed orphaned lambs. Their boys love spending time at the ranch.

As a family, they spend a lot of time during the summer months at their ranch at Kolob. They host guests from all over the world at their cabin and tend to their animals.

In addition to spending his evenings caring for a ranch and being with his family, Kelby also does farrier work for a clientele of 60 or so horses and he has built four homes since 2000. He is currently working on an Associate of Science Degree in Business.

Kelby’s motto is “don’t look back because everything behind you is dust!”



Kelby and Bronsen on Golden Angell



PIPE DREAMS

by Ann Jensen

Lake Powell Pipeline

During the 2006 Legislative Session, H.B. 47 was passed authorizing diversion of certain state sales and use tax revenues to the Utah Division of Water Resources for the pre-construction costs of the Lake Powell Pipeline. This bill coordinates with S.B. 27 which authorizes the construction of the Lake Powell Pipeline.

To date, several steps have been taken dealing with organizational procedures:

- A proposed timeline has been established;
- A stakeholders meeting has taken place;
- A coordinating committee has been organized;
- A monthly meeting schedule has been determined; and
- A project plan is in place.

For more information on the Lake Powell Pipeline log on to <http://wcwcd.state.ut.us> or www.lakepowellpipeline.org

Crystal Creek Pipeline

Crystal Creek runs just south of Cedar Mountain in Iron County down through the northeast portion of Washington County. The water captured in the Crystal Creek pipeline will yield approximately 2,000 to 3,000 acre feet of water per year. In 2005, approximately one-third of the easements required for the construction of this pipeline were signed by landowners. The goals for this project in 2006 are:

- The procurement of the remaining easements;
- Construction of the pipeline pad from the diversion on Crystal Creek to Thorley Point;
- Construction of the diversion structure.

Actual construction of the pipeline will probably not begin until the summer of 2007.

This pipeline will be instrumental in keeping the Kolob Reservoir at capacity and will add more options to the management of the water. Kolob water is often released during the driest parts of the year to increase the Virgin River flows. Eventually this water can end up in Quail Creek and/or Sand Hollow Reservoirs to be used for culinary water.

Local Reservoir Capacities and Levels

Reservoir	Capacity	May 2005	Percent of Full	May 2006	Percent of Full
Quail Creek	40,000 af	39,189 af	98%	37,752 af	94%
Sand Hollow	50,000 af	32,076 af	64%	49,403 af	99%
Gunlock	10,884 af	10,884 af	100%	10,884 af	100%
Kolob	5,585 af	5,585 af	100%	5,585 af	100%



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FREE Landscaping Workshops June – November 2006

By Julie Breckenridge

These workshops are held at the Tonaquint Nature Center

1851 Dixie Drive • St. George, Utah

Space is limited so please call 673-3617 to reserve your spot.



What's Eating You? A Guide to Pest and Disease Control in the Landscape

Saturday, June 10: 10-11 a.m.

Learn the how-to's of identifying and treating pests and disease problems in your landscape.

Fall Into Vegetable Gardening

Saturday, August 19: 10-11 a.m.

One of the benefits of living in southern Utah is the long growing season. Learn how to make this climate work for you and your vegetables.

Unlock the Bulb Mystery

Saturday, October 21: 10-11 a.m.

Bulbs are a great way to add color and the element of surprise after a dull, cold winter. Learn which bulbs will work well in our climate and how to care for them through the seasons.

Made of Stone: Realistic Riverbeds and Creative Rock Gardens

Saturday, July 15: 10-11 a.m.

Use your imagination and learn how to be creative when selecting and adding rock to your landscape design.

It's All In The Container

Saturday, Sept. 16: 10-11 a.m.

From patios to large yards, learn how you and your green thumb can add more space, color and visual interest using containers. Learn how to care for potted and ornamental plants, vegetables and perennials while minimizing water usage.

I Do What? Where? Maintaining Native Plants

Saturday, November 18: 10-11 a.m.

There has been a heightened interest in planting desert plants. Attend this class and learn how to take care of desert plants through all southern Utah's seasons.

A healthy lawn is not labor intensive and does not require huge amounts of water

By Julie Breckenridge

Following a simple rule can start your turf on the road to health. A healthy turf will resist pests and weeds. It has a high tolerance to other environmental stresses such as high summer temperatures. The simple rule is: **Water deep and less frequently.**

Believe it or not, turf doesn't like its feet (roots) wet all the time. Roots need air to survive. When water is constantly applied, the soil becomes saturated and the air cannot get to the roots. The roots then start looking for air on the soil's surface.

As this condition worsens, it will make it impossible to keep the turf alive without constantly applying water to it. The problem can be prevented by training your lawn to grow deep roots. Water your turf deep and let the soil dry out on top before watering again.

As a guideline, an average system would need to run approximately 27 minutes about once a week to get the water deep enough. As the weather heats up, the frequency is increased, but the application time remains constant. A healthy lawn needs to be watered approximately every three to four days during the months of June through August.

Now, let's analyze the water savings. Perhaps you are only watering your lawn for 12 minutes at a time and most likely watering every day. Correct? Well, if you are watering it 12 minutes every day, you are then irrigating about 84 minutes a week. The recommendation is 27 minutes two times a week for a total of 54 minutes.

You could actually save 30 minutes of irrigation time which averages out to 840 gallons of water per week (based on a 1,000 sq. ft. lawn). Even if you are watering

just every other day, you could still save water and, more importantly, you would have a healthier lawn.

Sometimes the soil can't take all of the water needed at one time. The water simply runs off the landscape and ends up in the gutter. When this happens, you need to cycle the irrigation time. The goal of cycling is getting the right amount of water down as quickly as possible without creating runoff. This can be accomplished by turning your sprinkler system on and watching for runoff.

When runoff occurs, turn the system off for about 45 minutes to an hour and then repeat the time pattern until the irrigation time is complete. Most irrigation controllers will handle cycle programming.

Interested in some help? A Water Check will tell you precisely how long to run your sprinklers and much more. Water Checks are offered from May 15 through September 30.

Please call 673-3617 to request an appointment or to request more information on water conservation.



Lawn being prepared for a water check



Water Line

Spring 2006

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