

Water Line

Water for Today and Tomorrow

Quail Creek Reservoir

February 2008

Photo: Brie Crofts

Winter 2008

Economic consequences are substantial if we do or do not build the Lake Powell Pipeline

Anytime a significant resource development project is planned for a community, you can be sure that many years of thought, study and analysis have gone into the social and economic benefits.

A water project is especially daunting in its scope since water is needed for sustenance of life as well as for the social and economic well-being of a community. The project must be capable of yielding water at or close to the time when a shortfall is predicted.

In 2007, the District commissioned John Groesbeck, Ph.D., Dean of the Business School at Westminster College in Salt Lake City, to prepare an economic study that would take into consideration the projected economic impacts to our community if the Lake Powell Pipeline were not built. His findings focus

entirely on the economic activity that would be lost if the project is *not* completed.

For purposes of this Manager's Message, I will focus on just a couple of Dr. Groesbeck's findings:

1. **Dependency on the pipeline** – a surplus water supply is generated any time a significant water supply is brought on line. By the year 2030, there is the probability that there will be a 50% dependency on the Lake Powell Pipeline. This dependency would increase to 74.5% by the year 2040.

If we were to receive water through the Lake Powell Pipeline, by the year 2040 economic activity would increase by 70% of the present economy in Washington County. This is based on current dollars due to the water supplied by the pipeline.

2. **Direct benefits** – direct benefits include those associated with construction, increased spending, new services and tax revenues. Over the 20 years studied (2020-2040), this economic analysis takes into account several factors that predict highly favorable economic impacts for the residents of Washington County:

a. the Lake Powell Pipeline has the "potential of generating \$6.2 billion in captured household income, expressed in 2007 dollars." This household income "would grow into perpetuity beyond the study period."

b. household income and construction would generate \$20.9 billion (or \$20,900 million for comparison purposes) in direct benefits. Compare this to the total cost of the pipeline which at this time is estimated at \$585.3 million.

c. there would be \$14.7 billion in direct benefits to construction activity.

d. for every \$1 spent in direct costs for the pipeline, \$54 would be generated in direct benefits to the community, or a 54 to 1 direct benefit to cost ratio. "This is a very cost effective project on a direct cost to

“The initial money invested by Washington County in this project will multiply many times over for countless years to come.”

-Ron Thompson

Manager's Message

By Ron Thompson, General Manager

direct benefit ratio." Most public projects are considered to be viable if the benefit to cost ratio is greater than 1.

e. there would be \$75 in spin-off benefits (investment opportunity, income and employment) for every \$1 in direct costs associated with the pipeline.

This is a simplification of Dr. Groesbeck's analysis, but you can see that this project is all about water and yet it is more. The initial money invested by Washington County in

this project will multiply many times over for countless years to come. It will provide stability to Washington County's water supply and, in turn, to its economy.

We cannot afford to lose this water supply nor can we afford to dismiss lightly the revenues this Project would infuse into our community.

We cannot afford to lose our collective optimism about the future of Washington County and that future *is* water.

The table below summarizes the construction dollars and the jobs lost if the Lake Powell Pipeline is not built

Year 1 Impacts: 2020	
Construction Activity (one time)	
Total Industry Output	\$527,000,000
Jobs	8,088
Ongoing Activity	
Total Industry Output	\$18,150,000
Jobs	336
Midpoint Impacts: 2030	
Construction Activity (one time)	
Total Industry Output	\$2,150,000,000
Jobs	32,974
Ongoing Activity	
Total Industry Output	\$539,000,000
Jobs	9,843
Full-absorption Impacts: 2040	
Construction Activity – ended	
Ongoing Activity	
Total Industry Output	\$2,736,000,000
Jobs	49,887

Dr. Groesbeck's economic analysis can be accessed on the District's web page at <http://wccwd.state.ut.us>.

Local Reservoir Capacities and Levels

Reservoir	Capacity	February 2007	% of Full	February 2008	% of Full
Quail Creek	40,000 af	27,940 af	70%	30,036 af	75%
Sand Hollow	50,000 af	48,433 af	95%	31,548 af	62%

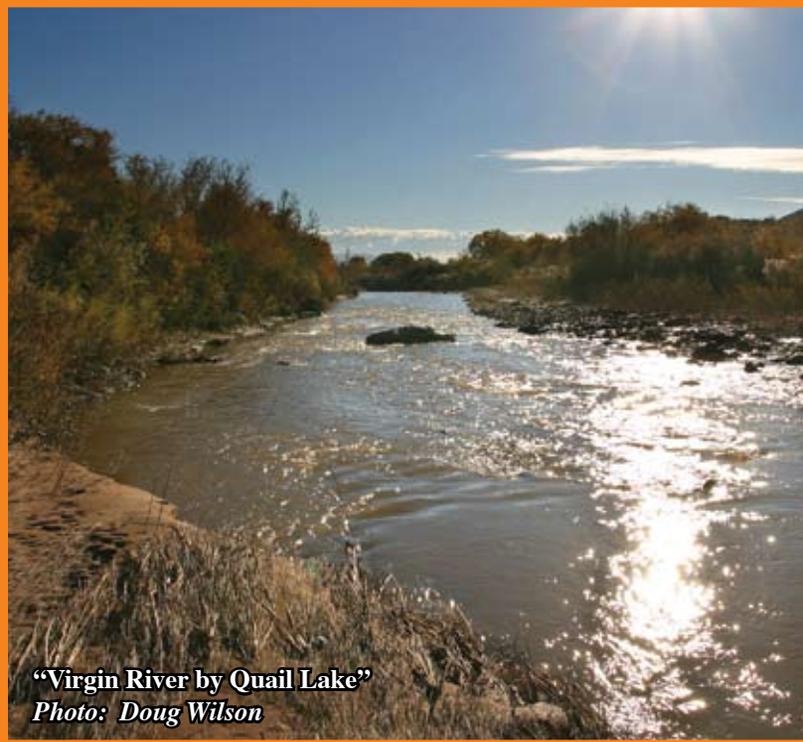
FREQUENTLY ASKED QUESTIONS ABOUT THE LAKE POWELL PIPELINE

By Corey Cram



LAKE POWELL PIPELINE
Delivering the future.

Is there sufficient water in the Virgin River Basin to supply Washington County?



“Virgin River by Quail Lake”
Photo: Doug Wilson

Those opposed to growth in Washington County contend that the average 125,000 acre feet (af) of water that runs in the Virgin River annually is a sufficient water supply to meet future human and wildlife requirements, thereby rendering the Lake Powell pipeline unnecessary.

FACT:

- If Washington County actually received 125,000 af of water in any given year, the facilities currently in place would not allow for diversion of this volume of water.
- There are a total of six native fish in the Virgin River two of which are endangered fish species. If all of the average 125,000 af of water in the river were diverted, the river would dry up and severely impact

these species. The District, as a partner in the Virgin River Program, is committed to providing 3 cfs in the Virgin River below the Quail Creek Diversion to protect and enhance aquatic and wildlife habitat.

- The high salinity of the water below Pah Tempe Hot Springs renders the water unusable for culinary purposes.

- Due to higher priority irrigation water rights, the District can capture water for storage in Quail Creek and Sand Hollow Reservoirs only four months out of the year.

- High flows resulting from a flood cannot be captured. The silt level would clog the pipeline leaving the pipes and the diversions unusable.

- 2005 was a high water year for Washington County. The

total annual yield was 379,384 af of water. 273,281 af of that could not be captured due to the size of the pipe. Cost is a major consideration when constructing a pipeline. The pipe that takes water to our reservoirs cannot be large enough to capture those excessively high flows.

- 125,000 af is an *average* which only occurs three out of ten years. Seven out of ten years, the Virgin River runs well below that average. A river with the high degree of flow variability such as the Virgin River cannot be counted on as the sole source of water for a community. Mother Nature does not always deliver water when and where needed. Therefore, a carefully managed, redundant system is essential.

If we adhere to stringent water conservation ordinances, will there be enough water for the future of Washington County?

Water conservation is critical in order to stretch a community's water supply. It is a short-term fix on a long-term challenge. Water conservation is crucial in a desert, but it will not take the place of developing dependable water supplies. Extreme conservation measures have considerable disadvantages:

- There are no surface, groundwater or irrigation return flows into the river system. A river system consists of vegetation and wildlife that are

dependent on return flows.

- Groundwater recharge is impacted. Return flows into the river allow for water to seep into the ground thereby recharging groundwater supply.

- Extreme reduction of landscaping around homes and businesses can result in a significant increase in power usage. Some lawns, trees and bushes help cool our cities and towns. As vegetation disappears, residential areas get hotter and more power is used to cool homes and businesses.

Are there enough usable water rights to accommodate growth in Washington County?

Those opposed to growth suggest that there are enough local water rights available to meet future water needs in Washington County.

- Not all water sources are created equal. Pah Tempe Hot Springs negatively impacts Virgin River water. The springs contribute an average of 12 cubic feet per second (cfs) of highly mineralized water into the river thereby rendering the entire river unsuitable for culinary use below this point. Significant limitations are placed on the use of this water for land-

scape and agricultural purposes.

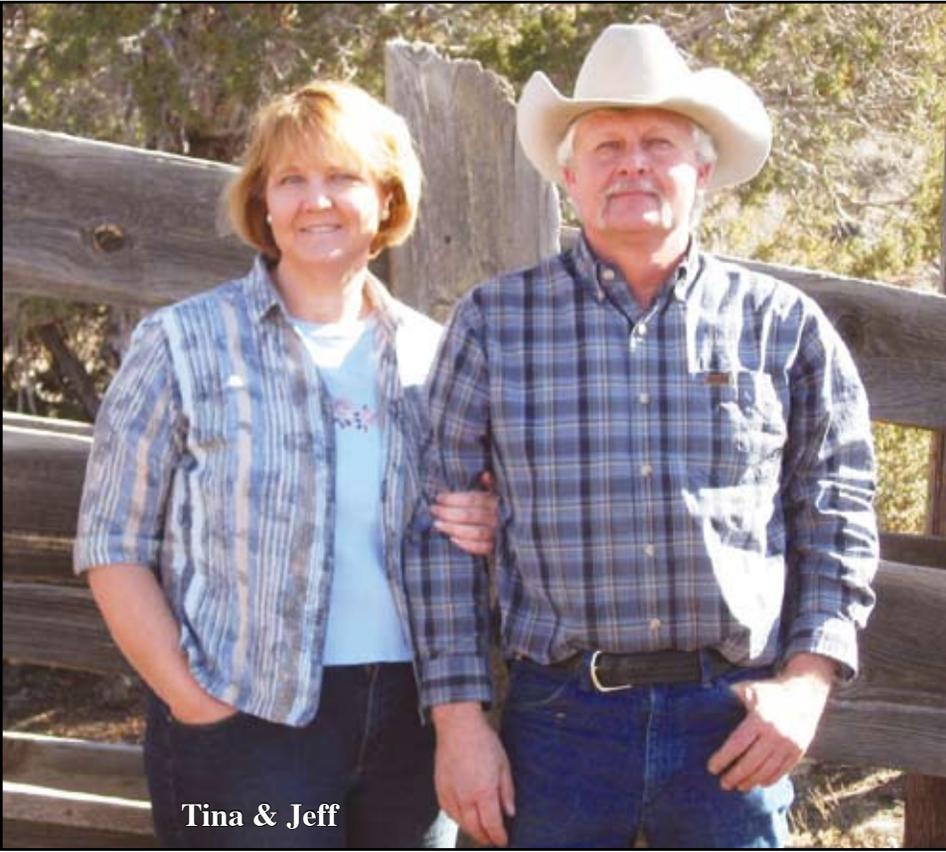
- Some water, including groundwater, is brackish (salty) and not suitable for consumption even if treated.

- Some water rights are not worth the paper they are printed on. Water may be present for use during years with average flows. They may not be sufficient during times of drought. When planning for future water availability, drought must be a major consideration. Washington County is a desert and periods of severe drought are to be expected.

Staff Leaks

Tina Esplin, Secretary

By Ann Jensen



Tina & Jeff



Tina feeding Bailey

Tina Brinkerhoff was born in the small town of Glendale in Kane County, Utah. Her father drove a logging truck on the Kaibab and ranched on weekends. Her mother was born and raised in England. While visiting her sister in Kane County, she met Tina's Dad. They were married in 1957.

Tina is one of five children. Having grown up working cattle every week-end, Tina is no stranger to hard work.

While attending Valley High School in Orderville, Utah, she worked at the Thunderbird Restaurant and Motel. She graduated from Utah Valley State College in Provo with a legal secretary associate's degree. Tina has worked in the legal profession for the past 28 years.

Jeff Esplin and Tina met in kindergarten. They dated during their senior year in high school and both attended Utah Valley State College. Having grown up in a small farming community, farm life is what they value and love.

When first married in 1979, Tina's dad told them to pick out a heifer in payment for some work they did for him on his ranch. That was the beginning of their own herd. They have told people over the years that "we are not running cattle; we are raising children."

Tina and Jeff believe that ranching has helped them raise good, hard-working and caring kids. Jeff and

Tina have two boys and two girls. Their two girls are married and the two boys are still at home. As yet, there are no grandchildren, but they have lots of animals to love.

Jeff owns his own heating and air-conditioning business and he and Tina both ranch on the side. On week-ends and, when necessary after work, they can be found herding cattle, branding, fencing and pumping water. They winter their cattle by Wolfhole on the Arizona Strip and summer them by the Kane County sand dunes.

If there is time for recreational activities, the Esplins enjoy any activity that takes them outdoors including camping, deer hunting and riding their four-wheelers together.

Tina has worked for the District since August 2006. She believes the "District has the best staff around. Everyone welcomed me here and made me feel like I belonged. It has been interesting to go from legal work to everything that has to do with water. Everyday I enjoy coming to work and everyday I learn something new."

Grandma Moses said "Life is what we make it, always has been, always will be." Through love, hard work and dedication, Tina has fashioned a life of happiness with her husband and children. Her work ethic, her education and experience, her outgoing personality and her willingness to help on any project has endeared her to the staff at the District.

We are raising children, not just running cattle.

CONSERVATION CORNER

By Julie Breckenridge — Water Conservation Coordinator

FREE Landscaping Workshops March – May 2008

These workshops are held at the Tonaquint Nature Center
(1851 Dixie Drive)

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

Saturday, March 22
10-11 a.m.

It's all in the Container

Learn how to add more space and visual interest in your yard and/or patio using containers. Caring for potted plants and minimizing water use will be featured. Instruction can be applied to vegetable, perennial or ornamental plants.

Saturday, April 16
10-11 a.m.

A Desert Rose

Roses do very well in a water-wise landscape.

Learn how to:

- choose the right variety,
- select the best color,
- prepare the soil correctly, and
- care for them properly.

Saturday, May 24
10-11 a.m.

Made of Stone:

Patio Pavers, Concrete Finishes and Riverbeds

This workshop will inspire your creative side when adding rock to your landscape, either as mulch, patios, pathways or dry river beds. Learn how to become an educated consumer and how to create these hardscapes in your yard.

Board of Trustees

Morgan Jensen, Chair
(Toquerville)

Dennis Iverson, Vice Chair
(Washington)

Edward Bowler
(Gunlock)

Howard Bracken
(Enterprise)

Jim Lemmon
(Hurricane)

Daniel D. McArthur
(St. George)

James N. Ence
(Santa Clara)

The next three Board meetings will be held at the
District beginning at 7:00 p.m. on

Tuesday, March 18

Tuesday, April 15

Tuesday, May 20

Utah will celebrate May 4-10, 2008

In 2007, Governor Jon Huntsman, Jr. signed HB 20 into law. HB 20 sets aside the first full week of May each year as State Water Week. The bill is intended to raise awareness of the importance of water conservation, quality and supply in the state. It provides an opportunity for all of us to look at ways to conserve our water supply.

We invite you to participate in the Water Week activities planned in Washington County.

Thursday, May 8, 2008

Screening of the movie "Running Dry" followed by a panel discussion

Location: St. George Library – 88 W 100 S - 6:00 – 7:30 p.m.

Saturday, May 10, 2008

Storytime at The Garden (1851 Dixie Drive) 10:00 – 11:30 a.m.

Stories and activities for children ages 3-8.

Adults will enjoy Garden tours and booths.

All Washington County Library branches will feature displays Monday May 5th through Saturday May 10th.

For more information log onto

<http://wccd.state.ut.us/conservation> or call 435-673-3617.



Water Line Winter 2008

Editor:
Ann Jensen

Contributors:
Ron Thompson, *General Manager*
Corey Cram, *Watershed Coordinator*
Julie Breckenridge,
Conservation Coordinator

Photography:
Brie Crofts,
Water Treatment Plant Operator

Design Consultant:
Polly Pattison

Production, Printing, Circulation by:
The Spectrum

The *Water Line*
is published by the
Washington County Water
Conservancy District
136 North 100 East
St. George, UT 84770
435-673-3617

This publication can be accessed on the District's web site at <http://wccd.state.ut.us>.