

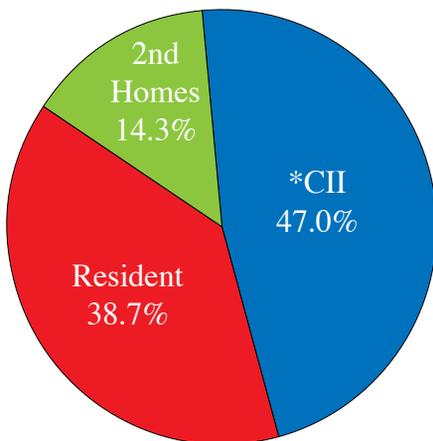
Water Line Summer 2009

Water for Today and Tomorrow

Facts

- **72,559 acre feet** – current reliable potable water supply in Washington County
- **54,800 acre feet** – current reliable potable water supply being used
- **17,759 acre feet** – current reliable potable water supply available for growth

Water Use Percentages



*CII= commercial, institutional and industrial

Water rates will soar if Cap and Trade bill passes

On June 26, 2009, the House passed the Cap and Trade Bill by a margin of 219-212. Very simply, the purpose of this bill is to place a “cap” on carbon dioxide emissions. It is estimated that, if this bill passes, energy costs will soar upwards of 30% or more.

Next to labor, power is the District's biggest expenditure.

– Ron Thompson

Currently, the Washington County Water Conservancy District (District) spends approximately \$650,000 on power annually. Next to labor, power is the District's biggest expenditure. Our major power provider has indicated to us that, if this bill passes, the District's energy costs will go up by 70% thereby increasing our annual energy costs to over \$1M. These costs would have to be passed down to the consumer.

Everyone needs to be aware that water rates are based on the District's actual costs. The District does not

impose water rates with an eye to making a profit. Water rates are based on costs incurred in providing the water. If costs go up, rates necessarily have to go up.

The District is a utility operation that produces water. It is not possible to produce a water supply without having a reliable and ample supply of energy. There is no way around paying the going rate for energy.

New District office building high on green

The District is committed to looking at ways to be more efficient with the resources at our disposal. A prime example is the new office building. This building was constructed with green standards in mind so that environmental impacts and the overall use of energy



Manager's Message By Ron Thompson, General Manager

and water would be reduced. Following is a list of some of the ways we found to make this happen:

- The solar power system will reduce the annual carbon footprint of an estimated 25,000 pounds of CO2.
- A ground-source heat pump used for heating and cooling the building will save at least 30% of the building's energy consumption.
- The concrete parking lot reflects heat instead of absorbing it.
- Carpet tiles were used instead of conventional

carpet thereby creating less waste.

- A retention basin allows run-off to be absorbed back into the landscape.
- Desert landscape utilizes a drip system that is on a Smart Controller.
- Toilets, sinks and water fountains are water-efficient.

This office building was designed with an eye toward establishing aesthetic harmony between the structure and the surrounding natural environment. This will become even more apparent when the planned desert gardens are completed.

WASHINGTON COUNTY PORTION OF LAKE POWELL PIPELINE COST ESTIMATED COSTS IN 2008

Total Cost	\$695M
Cost/1000 Gallons	\$1.42
Cost/Gallon	\$0.00140
Cost/1000 Gallons in St. George today	\$1.60

Secondary water serves primary needs in a community

By Ann Jensen

The first settlers in Utah took shovel in hand to dig a ditch that would direct a small, often muddy, stream of water onto their dry land. The irrigation canal “was the first and most important public utility in Utah” (*Utah History Encyclopedia*, www.media.utah.edu). Water that ran through the canal was, what we think of to-

Secondary water is nonpotable. It cannot be safely consumed by humans, but it is not considered contaminated. It can be used for anything that does not have a high water treatment requirement.

day, as secondary water even though the early pioneers did use it as a culinary source. Irrigation and canal companies have provided secondary water to residents for years. Secondary water systems serve a crucial function in a community. The quality of life of a community can be greatly enhanced with the use of secondary water for such amenities as:

- Lawns and gardens
- Parks and fountains
- Playgrounds/school yards
- Cemeteries
- Freeway and road landscaping
- Dust control and cleaning roads and streets
- Golf courses

Recreation venues serve as significant economic boosters to Washington County. Recreation opportunities are important to the lifestyle of the residents of Washington County

as well as to the visitors who make southern Utah a vacation destination.

Secondary water sources support boating, fishing, water skiing and golfing activities that are valued by locals as well as visitors to Washington County.

Water resource development, conservative application of secondary water sources and prudent use of culinary water will ensure that Washington County continues to be a place where people want to raise their families, where seniors choose to retire and where travelers elect to spend their vacation dollars.

Local golf courses do not deplete culinary water supplies. Secondary and/or reuse water keeps the fairways green.

- **Bloomington County Club** has water rights out of the Virgin River. The course also has access to reuse water.
- **Coral Canyon** uses raw

Irrigation ditch running in front of the Bloomington school. (Lynne Clark Collection)



water from Quail Creek Reservoir.

- **Dixie Red Hills** gets water from a spring and from the Virgin River via a line that goes through St. George.
- **Entrada** uses a combination of Gunlock water and reuse water.
- **Green Springs** gets water from the spring after which it is named.
- **St. George Golf Club** uses water out of the Virgin River system that goes through the Washington Fields area.

• **Sand Hollow Resort** uses raw water from Sand Hollow Reservoir.

- **Sky Mountain** uses raw water from Quail Creek Reservoir.
- **Southgate** uses Gunlock water, reuse water and well water.
- **Sunbrook** uses Gunlock water, reuse water and well water.
- **Sun River** used to get water out of the Virgin River. In 2008, the course started taking reuse water.

Treatment plant staff brings \$12M project down to size

By Hank Childers, Water Treatment Plant Superintendent

Whether the need is for today or tomorrow, the District is always thinking of ways to provide water to Washington County residents in the most cost-efficient manner possible.

In order to meet current water demand, it was necessary to increase production at the Quail Creek Water Treatment Plant (Plant). District staff scrutinized

the project, brought ideas to the table and managed to devise a plan that would increase plant production by eight million gallons of water per day (MGD). A project that could have easily cost \$12M, ended up costing a little over \$200,000.

Part of the challenge, and also part of the answer, lay in the fact that there are two treatment

systems at the Plant. The conventional sedimentation system could produce 20 MGD and the Dissolved Air Flotation (DAF) system could produce 40 MGD. So why not run both systems in parallel? This normally would have required more costly filters. Increasing existing filter capacity was used to generate an increase in plant production.

The additional capacity will postpone for a few more years the need to put a considerable sum of money into an upgrade to increase the filtration capacity to 60 MGD.

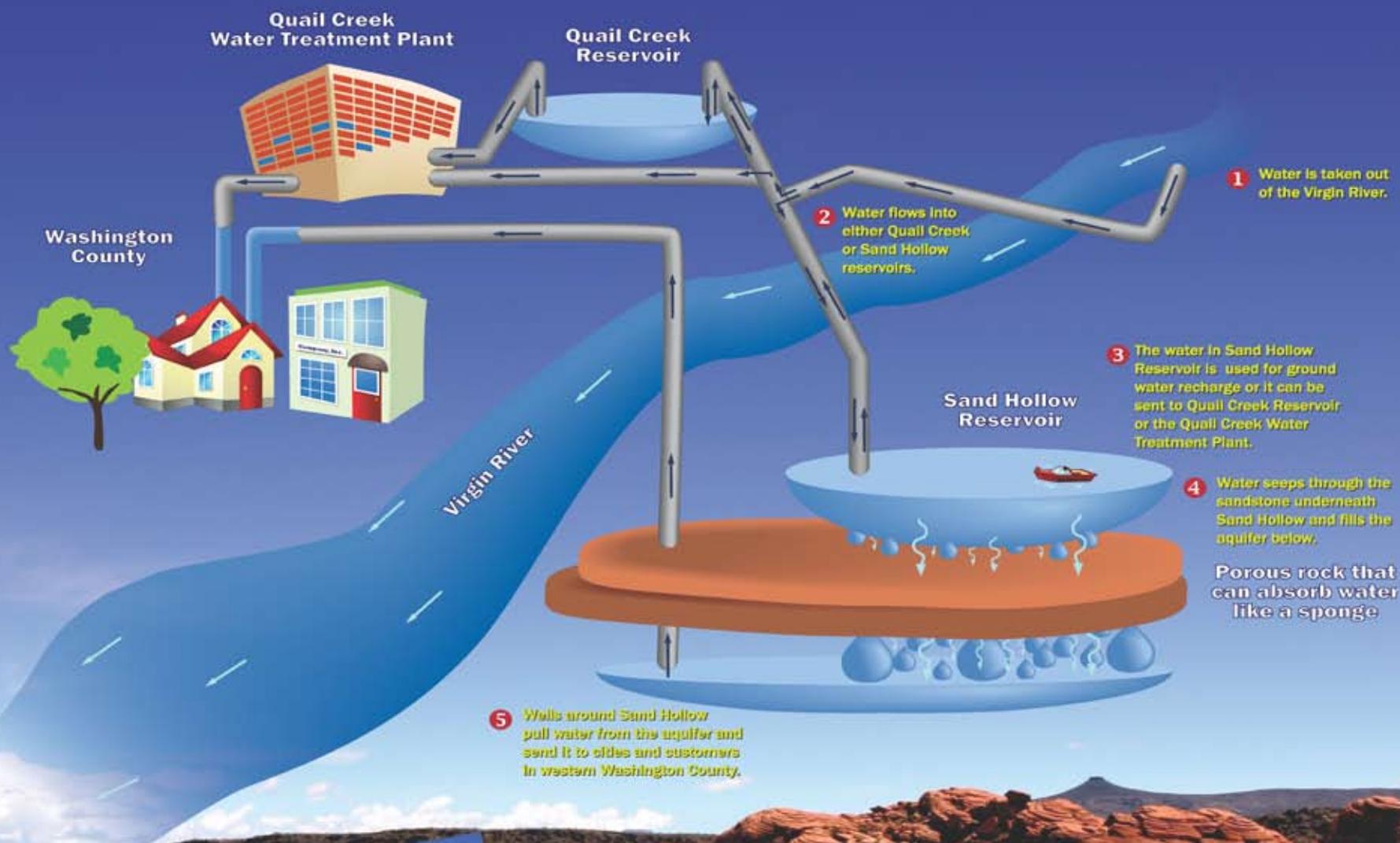
In addition to the cost savings on this upgrade, re-evaluation of the power management plan resulted in savings for both chemicals and power. In all,

\$18,448 in electrical costs was saved in 2008. Through July 31 of 2009, the plant has saved \$34,986 in power costs for a total savings of \$53,416. Compared to 2007, the plant saved \$91,636 in chemical costs in 2008. Estimated savings for chemicals in 2009 is \$58,242.

These efforts combined have kept water rates from going up.

Water Used in Many Ways

Swimming, boating and fishing are only some of the ways water in Sand Hollow Reservoir is used. The homes and businesses of Washington County depend on this water to sustain life, but how does the water get there?



Naturally purified water

The sandstone layers underneath Sand Hollow act as a natural water filter! As water slowly seeps through the sandstone, pores in the rock clean out the impurities. Wells take the filtered water from the aquifer and pump it to homes and businesses in Washington County.

Conservation Corner

By Julie Breckenridge — Water Conservation Coordinator

How does your garden grow?

As the days get shorter and the temperatures get cooler, irrigation needs decrease.

Correct irrigation practices will result in a healthy lawn, water savings and more money in your wallet.

A water-efficient lawn means less mowing, fewer weeds, fewer diseases and fewer pests.

Following are some common irrigation mistakes:

- If topsoil is constantly saturated, roots will grow on top of the soil's surface creating a thatch problem in the yard. Deep roots will maintain a viable lawn during the hottest part of the year. If watering occurs every day,

start adding days in between irrigations.

- The amount of run-time on the irrigation system should stay the same. The frequency, however, should be adjusted. Therefore, do not use the percentage on the controller. This adjusts the run-time, not the frequency.

- If run-off occurs, use the multiple start times feature on the controller. If, for example, water starts running down the sidewalk in seven minutes, turn the system off, and wait about one hour before running another cycle or cycles of seven minutes or less. This will allow the water to run deep



Demonstration Garden
Photo: Casey Jones

rather than running off.

- More than 30% of water applied during the heat of the day is lost to evaporation. Early morning watering is recommended.

- Irrigation systems need to be maintained in order to maximize efficiency and minimize waste. As a recommended rule, run the sys-

tem after each mowing and make repairs as needed.

The amount of irrigation time varies with watering systems. Call for a free water check (673-3617) in order to determine how much water your lawn requires. Free water checks are offered from May 15 through September 30.

Recommended rule of thumb for irrigating

March—once every 7 to 10 days

April—once every 5 to 7 days

May—once every 4 to 5 days

June, July, August—water every 3 days

September—once every 5 to 7 days

October—once every 7 to 10 days

November—once every 10-14 days as needed until shutting the system down for the winter

FREE Landscaping Workshops September – November 2009

These workshops are held at the Tonaquint Nature Center - 1851 Dixie Drive
Space is limited, so please call 673-3617 to reserve your seat.

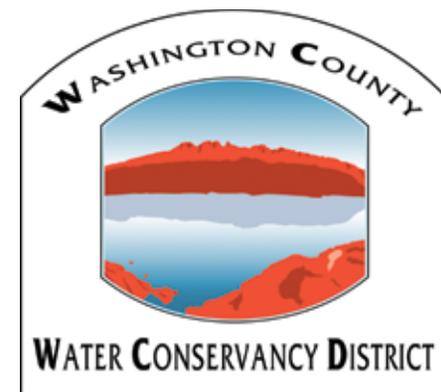
Get your grass into gear
Saturday, September 12th
10:00 – 11:00 a.m.

Care of native plants
Saturday, November 14th
10:00 to 11:00 a.m.



FALL FESTIVAL
Monday, October 19th
5:00 to 7:00 p.m.
Enjoy Garden tours, craft
booths and activities for the
kids. Get lots of ideas for
your garden.

For more information on the FREE landscaping workshops log on to
<http://wcwcd.state.ut.us/Conservation/2009>



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Board Meetings — 7:00 p.m.

Wednesday, October 14

Tuesday, November 3

Wednesday, Dec. 2 at 6:00 p.m.