



## **Water Conservation and The Lake Powell Pipeline**

Rev 8, 2-26-17

### **Abstract**

This paper describes the conclusions and the underlying basis in conditions, facts and data concerning the current water policy in Utah and Washington County as known by Conserve Southwest Utah. We encourage a discussion between our elected representatives, their constituents and water authorities concerning our conclusions and their basis.

## Table of Contents

The Issues Addressed in This Paper: .....	3
Abbreviations/Acronyms: .....	3
1 Introduction .....	4
1.1 The History.....	4
1.2 The Plan.....	4
2 The Need for the LPP .....	7
2.1 The Water Supply.....	7
2.1.1 M&I Water Supply .....	7
2.1.2 Agriculture Water Supply .....	10
2.1.3 The Estimated Water Supply .....	10
2.2 The Demand .....	11
2.2.1 Population .....	11
2.2.2 Per Capita Usage.....	11
2.2.3 The Estimated Demand.....	12
2.2.4 The Reasons for our High Use/Demand .....	13
2.3 Supply versus Demand.....	15
3 Data Accuracy .....	15
4 The LPP Cost, the Financial Plan.....	17
4.1 The Cost .....	17
4.2 The Financial Plan.....	17
4.3 Pumped Storage Project .....	18
5 The Viability of the River.....	19
5.1 River Flows and Allocations.....	19
5.2 The Impact of Climate Change .....	20
5.3 The Security of the LPP's Water Right.....	20
5.4 Conclusion.....	21
6 The Alternative .....	22
6.1 The Proponents' Alternative .....	22
6.2 A Reasonable Alternative.....	23
7 Washington County Water Policy Governance and Conservation Planning .....	24
8 The LPP Proponents' Response to Question and Issues .....	25
9 A Proposal for Resolving the Issues.....	27
Revision Record.....	28
Maintaining this Document.....	29
Issues yet to be addressed/corrected in this Paper .....	30

## The Issues Addressed in This Paper

The Need for the Lake Powell Pipeline (LPP)  
The Cost of and Payment for the LPP  
The Alternative  
The Viability of the River

## Abbreviations/Acronyms

AF	Acre-feet (or -foot), the water that would cover an acre one foot deep, 325,851 gallons
AFY	AF per year
MAF	Millions of AF
MAFY	MAF per year
BoR	Bureau of Reclamation, the federal agency responsible for developing and managing most large water projects in the west
BLM	Bureau of Land Management, the agency responsible for most federally-managed land in the west
CDF	Original name for CSU
CSU	Conserve Southwest Utah, a local grassroots non-profit advocating water conservation and wise water stewardship (among other conservation subjects), questioning the LPP's need and risk since 2006
DWRe	The Division of Water Resources of the Utah Department of Natural Resources, the state sponsor and proponent of the LPP
EIS	Environmental Impact Statement
FERC	Federal Energy Regulatory Commission, the federal agency responsible for authorizing energy projects, including hydro-power projects, and the lead federal agency for licensing the LPP
GOPB	Governor's Office of Planning and Budget
GPCD	Gallons Per Capita Daily, the average daily water use / person in an area
LPP	Lake Powell Pipeline, a proposed water supply pipeline from Lake Powell primarily to Washington County
LWA	The Local Waters Alternative, an official alternative to the LPP submitted to FERC by CSU and WRA
M&I Water	Municipal and Industrial, and overall classification of non-agriculture water, includes both culinary and secondary water (used for non-farm irrigation purposes)
Residential:	the portion of Municipal water that is supplied to residences
CII:	the portion of M&I that is supplied to commercial, industrial and institutional uses
Ag Water:	Secondary water that is used in agriculture; water rights held by irrigation companies for farmers
WCWCD	Washington County Water Conservancy District, a local sponsor and proponent of the LPP, referenced as the "district" or the "water district"
WRA	Western Resource Advocates, a non-profit technical organization specializing in water and energy, author of the LWA

## **1 Introduction**

### **1.1 The History**

In 1995, the idea of a pipeline to carry water from the Colorado River to Washington County in SW Utah sounded good, but after twenty years of planning, major obstacles plague the project. Fast growth in Washington County made state and local leaders worry about being able to sustain it with the current local water supply. The drought of the 2000s increased the worry about relying on a single water source. Water officials noted that Utah had not used all of its Colorado River Compact allocation and started planning what looked like a reasonably affordable project for traditional water infrastructure development: The Lake Powell Pipeline (LPP). Some local residents noted that we were wasteful water users and thought the project was unnecessary and risky, both financially and as a sustainable water source. The proponents viewed the objectors as inconsequential and did not respond to questions and issues. The objectors thought the proponents were stuck in old thinking, a carry-over from the big, wasteful projects of the Bureau of Reclamation's hay days, when big projects were funded by federal taxpayers, benefiting a few, and never repaid. There has never been a conversation or fact-finding, and the issue has grown more contentious with time.

The DWRe, with the support of the WCWCD decided to sponsor the development of the Lake Powell Pipeline. The state wanted to develop its remaining share of the Colorado River, thinking if it didn't do it soon, the water might be gone. We, the grassroots organization that was partially founded on the value of water conservation, say that the facts don't support this position.

The two main proponents, WCWCD and the DWRe, determined early-on that the county could not afford such a project and also recognized that the federal government was no longer sponsoring these sorts of projects. The state was the only source of funds. They lobbied the state legislature to pass the [Lake Powell Pipeline Development Act](#) in 2006 to finance and develop the LPP and to define the financing terms for it.

The project requires federal approval. Through an undisclosed process, the proponents' lobbyists in DC arranged for the FERC to be the lead approval agency, rather than the more logical BLM. To do so, the project had to be primarily an energy project. This was accomplished by the addition of generators inline in the downhill sections of the pipeline and a "pumped storage" facility, whereby a high elevation reservoir would be constructed, and filled via electric pumps during low-electricity-rate hours. The water would then run back down through generators during high-electricity-rate hours, on the premise that the net would be positive and thus qualify as an energy project. This was done, we presume, because FERC was seen as more likely to grant faster approval than some other federal agency. However, the FERC process has proven to be much more expensive and time consuming than expected.

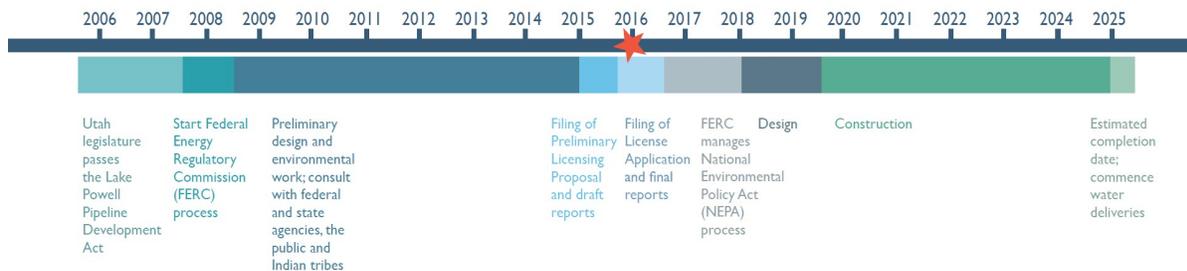
### **1.2 The Plan**

There is a formal process for granting federal approval for a project like the LPP. To date there have been 10 years and over \$30M spent on over 20 studies of different aspects and impacts of the project. Those studies have been submitted by the DWRe for commenting by the public and the involved federal agencies. There have been thousands of comments logged, many of which have not yet been addressed. The "final" reports were issued by the proponents in mid-2016, and FERC has replied that they are too deficient to move the process forward. A response by the proponents is anticipated by April 2017.

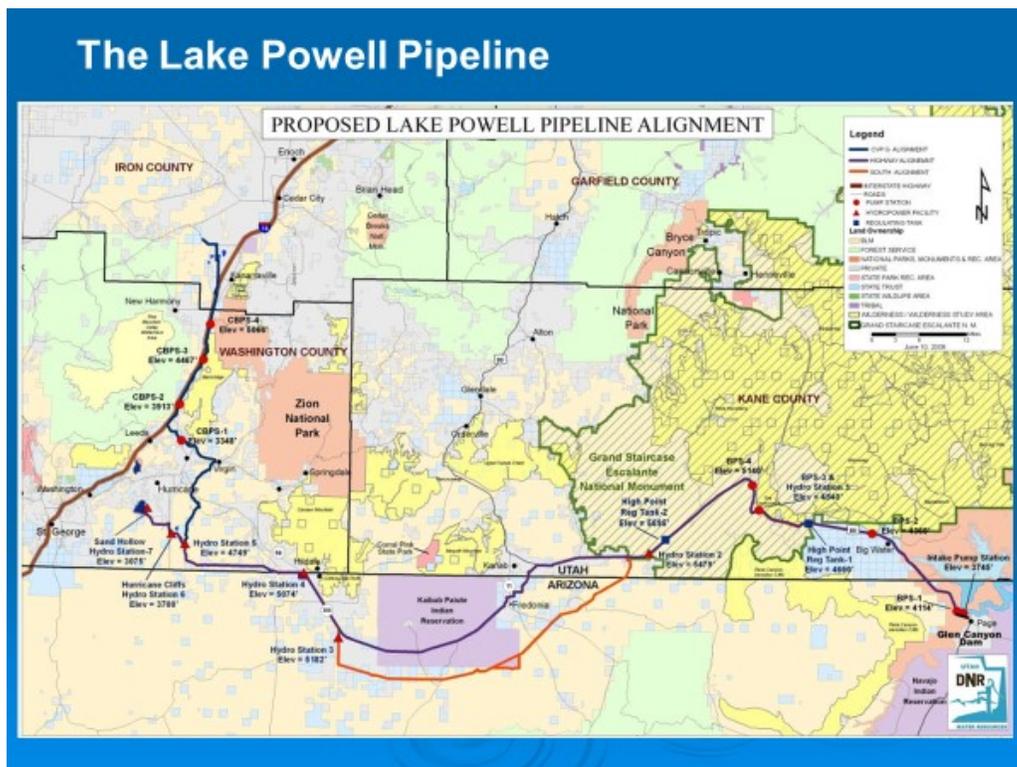
## The Timeline for the project

2008 Lake Powell Pipeline Management Meeting minutes indicate that the planned construction year was 2015. This is the timeline now:

### Anticipated Timeline for the Lake Powell Pipeline Project



**Project Description and Route:** 139 miles long, 69” diameter buried pipe, with several pumping stations along the way to push water over the 2000’ elevation gain, 4 in-line hydroelectric generating stations, and a pumped storage reservoir with a generating station.



### 1.3 The Positions

The proponents of the LPP hold these positions:

- Washington County cannot gain enough through conservation.
- Growth will be stopped if we don't have the Pipeline, rendering the county an economic backwater and place where the children of current residents could not live.
- If we don't get our share of the Colorado now, it will be lost to us.
- We only have to pay for the water we use, and that payment can be spread over 50 years, and it will be loaded onto newcomers, not existing residents.
- Their position shouldn't be questioned by citizens and their facts don't need to be verified.

The proponents of "conservation first" hold these positions:

- We should become very good stewards of our local water first, before we look for expensive, risky water from afar.
- Reasonable conservation and improved management of our local water can support the growth for more than 50 years at no risk and much less cost than the LPP.
- Utah's compact allocation of the river cannot change, but the amount of water resulting from that allocation certainly can: the first time in 1988 when the Department of Interior reduced the upper basin states share to 6 MAFY from 7.45 MAFY. Since Utah's water is only 23% of whatever remains in the system after senior water rights are met. The LLP water right is junior to the lower basin, the Central Utah Project, Tribal and National Parks rights. Over the long term, there is significant risk that there will be no water to put in LPP
- Conservation and more complete management of local water supplies not identified in the state's study reports can be implemented incrementally, avoiding the huge up-front construction cost and long-term interest costs over 50 years. The fact that Washington County could never get a loan to build the Pipeline is a good indication that it is not affordable.

This paper will expose the basis as we know it for these positions.

## 2 The Need for the LPP

The need for the LPP is based on the premise as stated by the WCWCD that at its projected growth rate the county will run out of water by 2025 (although previous projections by the District said 2020). The need is determined by supply and demand: the supply is the local water available for use, and the demand is based on the population and its water usage.

### 2.1 The Water Supply

#### 2.1.1 M&I Water Supply

##### The Declared M&I Supply

The proponents claim 98,528 AF of existing and future culinary and secondary water supply will be available to the county by 2060 and that it will not support the projected growth by 2024.

Water supplies identified in the FERC study reports:

WCWCD - current	32,225 AF
Cities in Washington County	35,273
WC – future (local projects)	13,670
WC – future reuse/secondary (10,000 AG/7,360 reuse)	<u>17,360</u>
Total existing & future supply without LPP	<b>98,528</b>

The above figures are from LPP studies: *Table ES-1 Existing and Future Reliable Culinary Supplies for Washington County 2015 Water Needs Assessment*)

However, the WCWCD presents different information to the Fitch credit agency to support its own credit rating, reporting that it has enough water.

The Fitch report reads:

#### **Fitch Affirms Washington County Water Conservancy District's, UT Water Revs at 'AA'; Outlook Stable**

*December 18, 2015 01:40 PM Eastern Standard Time*

*SAN FRANCISCO--(BUSINESS WIRE)--Fitch Ratings has affirmed the following Washington County Water Conservancy District, UT (the district) obligations at 'AA':*

*“About 28% of the district's 32,000 acre feet (af) per year of water sources is surplus and will be used to serve future growth and another 13,900 af will come online in the next few years. The district's typical peak summer demand is 37 million gallons per day (mgd), though usage declined last year due to wet weather, and winter demand is 6-7 mgd compared with capacity of 60 mgd. The district is operating a groundwater recharge program that currently provides access to 100,000 af of stored water and will ultimately provide up to 300,000 af.”*

The LPP studies acknowledge the 100,000 acre feet of water in the Sand Hollow Aquifer and the possibility of 300,000 acre feet of water of mentioned in the credit report from the WCWCD to the credit agency. But, the LPP studies only claims 4000 acre feet is possible yield from the aquifer by 2060. This is a very large disparity in declared usable water supply that needs better disclosure by the WCWCD.

The 98,528 AF available from local sources by 2060 per the WCWCD ignores many existing water supplies and those that could be developed locally in the future.

## Undeclared Local Water Supply Sources

In arguing the need for the LPP, the WCWCD limits what water sources it considers. However, there are many additional sources it could pursue locally, at lower risk and cost than the LPP:

- Increasing yield from existing projects
- More agricultural water converted for culinary use
- Increased reuse
- Treatment of abundant brackish well water
- Water rights not currently controlled by the district which are providing water to many of our county's citizens already- citizens that are included in population figures used to help justify the pipeline
- Capture of storm water run-off to recharge aquifers
- Capture of residential roof-top rain

## Excluding Water Supplies That Must Be Treated

Further, the district limits the declared water supply by only counting water that meets EPA drinking water standards in the county. Instead the studies should require full disclosure of all water resources in the county. Water treatment of the abundant lower quality water in the county would be a cheaper alternative to LPP. Water treatment costs are rapidly decreasing as new technologies and economies of scale drive the costs down as the world is forced to look to these water sources. The proponents completely omit this, per the FERC study report: *“Water supplies that meet the EPA’s secondary untreated MCL for drinking water of TDS less than 500 mg/L are deemed usable for culinary purposes in this Assessment.”*

## Examples of Excluded Sources:

- The district declares only 7% of its storage capacity can be used yearly. While we fully agree that aquifers should be carefully managed and not mined, this low percentage yield seems severely limited.

Storage Facility	Capacity (AF)	Declared Yield (AFY)
Quail Creek Reservoir	40,000	
Sand Hollow Reservoir	50,000	
Total Reservoir	90,000	24,900
Sand Hollow Aquifer		
Identified	100,000	4,000
Potential	300,000	
<b>Total</b>	<b>390,000</b>	<b>28,900</b>

- WCWCD has available water rights to divert up to 40,000 acre-feet of low quality water annually from the Virgin River at the Washington Fields Diversion (The Warner Valley Project). This project will provide for more efficient storage, management, blending and conservation of these water resources. The water district has this in its future plan for around 2060 but doesn't identify it as future supply in the studies.
- There is abundant brackish well water in the county that is not being considered as future supply even though there is credible research that exists showing how this could be economically achieved with water treatment.<sup>1</sup>

<sup>1</sup> 6 ways to Reduce Desalting Costs by 50 percent, Mark Bird, professor at UNLV. See at <http://citizensfordixie.org/wp-content/uploads/2011/11/Bird-Mark-cost-of-water-treatment.pdf>

- The studies only identify 7800 acre feet as future reuse supply. But, the maximum projected wastewater treatment plant effluent available for use in 2060 is projected to be 39,500 acre-feet per year.
- Future supply does not include all the towns and cities water rights that can still be developed in the future.
- Future supply does not include water rights outside of the cities' ownership
- More water conservation is possible; the Washington County Water Conservancy District's Water Conservation Plan, Maddaus report 2015, only saves 12 percent, 40 gpcd, or 14,000 AF of water over 50 years from 2010 at 325 to 285 GPCD by 2060.
- In addition, the Utah State Water Plan indicates developable surface water (rivers and streams) supply of 211,000 acre feet in Washington County. The Virgin River Management Plan estimated the potential water supply at 280,000 acre feet. Keep in mind the district only identifies 98,727 ac. ft. as annual future supply by 2060 and claims the county will run out of water by 2024. (see Figure 1)

Figure 1

<ul style="list-style-type: none"> <li>• Utah State Water Plan, developable water supply</li> <li>• Kanab Creek/Virgin River water supply at 247,000 ac ft for developable supplies; you should take out 35,500 ac ft for Kane County and still have 211,000 ac ft for Washington County.<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>• 211,000</li> </ul>
<ul style="list-style-type: none"> <li>• Virgin River Management Plan, potential water supply<sup>3</sup></li> <li>• Major approved applications that are yet to be developed totaled over 280,000 Acre Feet in 1989.</li> </ul>	<ul style="list-style-type: none"> <li>• 280,000</li> </ul>

<sup>2</sup> Utah State Water Plan, Utah's Water Resources Planning for the Future, May 2001, on page 13

[http://www.water.utah.gov/waterplan/SWP\\_pff.pdf](http://www.water.utah.gov/waterplan/SWP_pff.pdf)

<sup>3</sup> Virgin River Management Plan, page 13, see at <http://www.wcwc.org/downloads/plans/VRMPFinal5.PDF>

### 2.1.2 Agriculture Water Supply

More agricultural rights will convert than what was identified in FERC studies listed below. The studies do not correctly account for all of agricultural water in the county, declared to be 87,000 AF<sup>4</sup> in 1993. More will convert to urban use by 2060 than is identified in the studies. For example, the studies only account for 21,420 AF of agricultural water that includes 4000 AF converting to culinary use and 10,000 AF for secondary use by the year 2060. 7420 AF is already included in existing water supply.<sup>5</sup>

Figure 2.

Agricultural water estimated in 1993	87,000 AF <sup>6</sup>
Agricultural water estimated in the Lake Powell Pipeline 2011 studies converting to culinary and secondary by 2060	4,000 AF for culinary 10,000 AF for secondary, with an additional 7420 AF is included in existing water supply

Again, this is a large discrepancy in reported water supply. Some of this water has already converted to M&I, and much of the remaining will have to be treated and some will convert to culinary without treatment. Much of 87,000 AF of water is still in system someplace keeping something green, either a pasture, a yard, or public open space; all of it needs to be accounted as supply for in the studies.

### 2.1.3 The Estimated Water Supply

As stated above, the WCWCD states that 98,528 AF is all the local water that could be brought online to support the demand by 2060. However, also as stated above, that estimate does not recognize all supplies controlled by the WCWCD and excludes those that they do not currently control, assuming that those sources could never be developed. A technical study, The LWA, developed by WRA and CSU, submitted as an alternative to the LPP to FERC, estimated the amount of local water that could be developed to supply the demand for water in Washington county (35,200AF from agriculture transfers, 16,900 AF from re-use, 7,500 AF from secondary sources, and 78,400 AF from existing supplies).

The following table shows that estimated supply in 10 year increments that doesn't not include all the other water supplies listed above:

<sup>4</sup> Utah State Water Plan, Utah's Water Resources Planning for the Future, May 2001, on page 13

[http://www.water.utah.gov/waterplan/SWP\\_pff.pdf](http://www.water.utah.gov/waterplan/SWP_pff.pdf)

<sup>7</sup> Virgin River Management Plan, page 13, see at <http://www.wcwcd.org/downloads/plans/VRMPFinal5.PDF><sup>4</sup>  
Water Resources Planning for the Future. May 2001, Division of Water Resources, Utah State Water Plan , page 13 ; see at: [http://www.water.utah.gov/waterplan/SWP\\_pff.pdf](http://www.water.utah.gov/waterplan/SWP_pff.pdf)

<sup>8</sup> MWH Lake Powell Pipeline Water Needs Assessment, March 2011, Utah Board of Water Resources, page 6-4. See at: <http://citizensfordixie.org/wp-content/uploads/2012/04/19DraftWaterNeedsAssessmentReport-1.pdf>

<sup>9</sup> Utah State Water Plan, Kanab Creek/Virgin River Basin, August 1993. page 5-25 estimated irrigation water use 87,800 ac ft in Washington County; see at [http://www.water.utah.gov/planning/swp/kan\\_vir/Kan\\_VirIndex.htm](http://www.water.utah.gov/planning/swp/kan_vir/Kan_VirIndex.htm)

**The Local Water Supply**

Per the Local Waters Alternative technical analysis, water accessible for use in the county:

Year	Supply per LWA (AF)
2020	90,000
2030	95,000
2040	100,000
2050	110,000
2060	135,000
2070	150,000

**2.2 The Demand**

The daily demand for M&I water is calculated by multiplying the population by its per capita water demand (or use) rate (GPCD).

**2.2.1 Population**

The estimated Washington County population growth has decreased since the 2006 LPP Development Act was passed, when 860,000 was the projected 2060 population; it is now 581,731 estimated by the GOPB. That is nearly 300,000 (about 1/3) less than the earlier projection. Yet, the proponents have not adjusted the need date for the LPP.

**2.2.2 Per Capita Usage**

The U.S. is the world’s highest per capita water user, Utah has the highest in the U.S., and Washington County has the highest in Utah. GPCD is a standard measure which equals “total water used divided by the population using it.” Therefore, as the population grows and you use the same supplies the GPCD goes down. It is used by most agencies and organizations in the US to describe and compare water usage and includes residential, commercial, institutional secondary and industrial usage (CII).

Per the data submitted by the proponents in the FERC studies, Washington County residents use 325 GPCD (2010). Conservation-minded communities in the southwest currently use 120-230 GPCD. Washington County’s goal is to reach 285 GPCD by 2060, a figure well above what other communities currently achieve. CSU surmises that the conservation goal is set so low in order to justify the LPP because GPCD is used to overestimate demand. The LPP proponents argue our area cannot be compared to other areas that use much less, even those with similar desert condition, offering little data to explain the claim. However, our studies indicate he comparable communities have similar climate, CII, recreation and tourism situations.

Per a 2010 WCWCD report, the 325 GPCD water use by sector includes:

**Figure 3-1 WCWCD 2010 Per Capita Water Use**



Secondary water is generally not measured in Washington County, so the figures provided are “best guesses.” Water usage includes residential, commercial, , institutional and industrial usage (CII), both culinary and secondary water quality. The largest water users of secondary water include: City of St George, golf courses, Dixie College, schools, and parks. All of this use is included in GPCD and pushed the per capita use up. The state guesses 55 GPCD is secondary use and adds it state wide. We need new accurate data on secondary water use and it’s recommended that all secondary water use be metered as has been recommended by the state legislative audit.

### **2.2.3 The Estimated Demand**

The following chart shows the demand for M&I water, in 10-year increments, based on the projected average 3% growth rate, and at different per capita use (demand) rates, starting with our current demand and showing the demand at different realistically achievable levels considering the implementation of reasonable conservation methods over the next 50 years.

## The Demand – how much water do we need

Year	Population (@ 3%/yr)	Demand @ 300 GPCD		Demand @ 200 GPCD	Demand @ 150 GPCD
		Million Gal	Acre-Ft		
2020	174,000	19,000	58,000	38,600	29,000
2030	234,000	26,600	78,600	52,400	39,300
2040	314,000	34,400	105,500	70,300	52,750
2050	435,000	47,600	146,200	97,500	73,100
2060	568,000	62,200	190,900	127,300	95,450
2070	763,000	83,500	256,400	170,900	128,200

### 2.2.4 The Reasons for our High Use/Demand

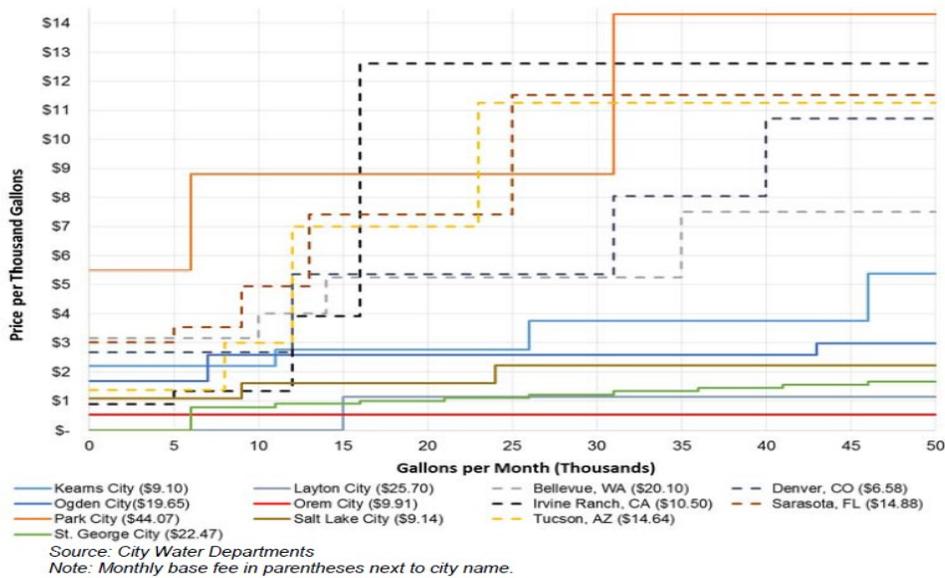
There are a variety of reasons including our area's culture, awareness, and price signals. The culture aspect is the most difficult to understand. It could include the fact that many residents come from areas that have more abundant water where expansive lawns are normal. The awareness aspect is easier to understand. While we obviously live in a desert, with many queues (there is abundant native ecosystem, our rainfall is obviously low, our summers are hot), there are very few official signals that we should conserve water:

- Institutions (schools, churches, golf courses) and businesses are generally not landscaped as desert properties.
- Regulations, landscape ordinances or requirements on water use or penalties for wasting water are largely missing.
- Communications about the need for conservation are indirect.
- Comparative data given to customers on their water use relative to goals and other customers is largely missing.

Generally, despite the efforts of our water departments, there is very little awareness that water is precious and should be conserved.

The biggest reason, however, is that there is no quantitative signal for our water departments that water has any value. Utah has some of the cheapest water rates in the country, and Washington County has some of the cheapest in Utah, despite being one of the driest county in one of the driest states. A commodity that is priced as if it has no value is treated as if it has no value. We purposefully even hide the real cost of water by including a significant line item in our property taxes for water, making about half of the price of our water not dependent at all on how much we use. Utah is one of the few states with this practice. Certainly, it is against normal business practices, where infrastructure improvements must be funded from the normal revenue stream. On top of this issue is the part of water pricing that is based on usage: our county's water rates are so low that it makes no difference how much a normal home or business uses. The step increases in the rate structure is so shallow that it sends no conservation signal:

**Figure 3.6 Comparison of City Water Rate Structures.** Some Utah cities have increasing block rate structures, but the rate increases are relatively flat when compared to cities in other states.



The City of St. George is the green line.

There is overwhelming data that pricing is the most influential factor in water use. Water budgeting (<http://conserveswu.org/programs/water-conservation/>) is a very cheap, very fair, and highly successful way to dramatically reduce water use. The budgeted rates are structured to support the water district’s revenue requirements.

#### Agricultural Water supply

80% of Utah’s water usage is attributed to agriculture, leaving the remaining 20% for M&I. Washington County does not have records for most agriculture/secondary usages, so the demand for this water cannot be established. It can be estimated that ½ to ¾ of all water used in Washington County is used in agriculture, somewhat less than the 80% state average. A small degree in supply from improvement in conservation of this water would yield more water that could be used otherwise. Also, as we grow agriculture lands are being converted to housing.

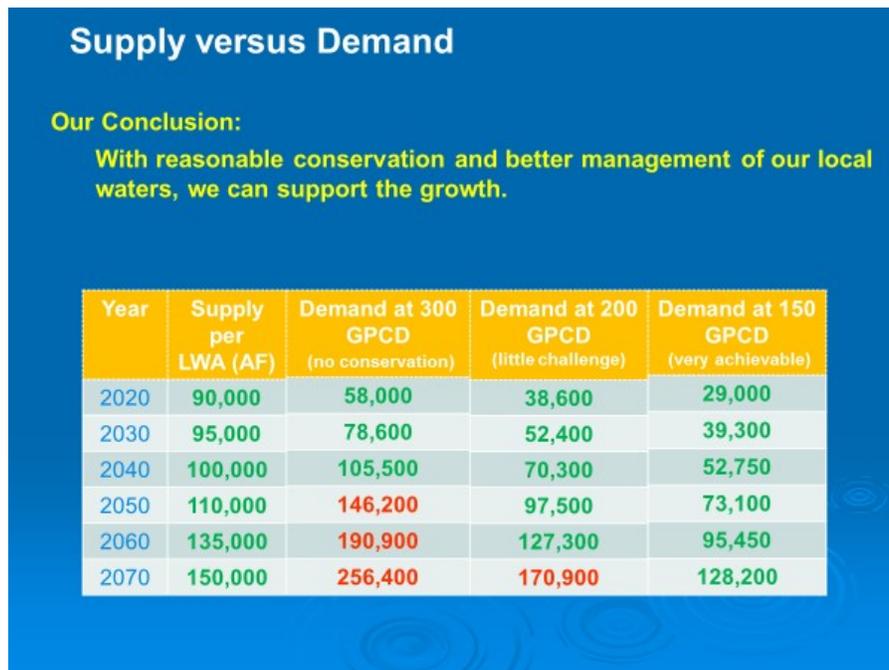
Washington County has a considerable heritage in ranching: raising cattle and the feed for them. In Utah some of this feed in is exported, to other counties. These crops are not high value, high profit crops. A significant demand for agricultural water is for crops with very high water requirements, and the methods for applying that water is very wasteful. The price charged for this agricultural water is very low, making production of these crops cheap. The effect is we are largely exporting our water in the form of low-value crops at a very low price. These Utah practices become highly questionable in an state that expects shortages in water. There appears to be no attention from out political leadership to address this issue.

There has been significant research and development in the domain of farming high-value crops in area with limited and poor quality water. Israel, with an environment and water situation much like Washington County, has made huge advances in irrigation techniques and use of brackish water in farming of high-value crops<sup>10</sup>. The state’s agricultural practices seem somewhat outdated and wasteful in comparison.

### 2.3 Supply versus Demand

The following chart combines the previously presented charts on supply and demand to show the per capita use/demand rates that can be supported by the local water supply. Note that at our current wasteful demand of 325 GPCD), our estimated local water supply can support us through 2040, with no improvement whatsoever, flying in the face of statistics from other areas indicating that growth all by itself drives per capita usage down. Even if we make very little improvement in our use rates over the next 40 years, the supply satisfies the demand until 2040. And with reasonable conservation, to a level already achieved by our neighboring southwest communities, and more complete management of our local supply over the next 50 years, our local supply satisfies the demand well past 2070. Who knows what new conservation technologies may be available by then to make our local water supply completely sustainable?

Jane: You can't read the yellow band either enlarge numbers or change the background color.



### 3 Data Accuracy

To justify the need for the Pipeline the proponents forecast for water demand is artificially high. Their estimates incorporate outdated water use data, unrealistically high water usage rates, unreasonably low estimates of the costs of the Pipeline, unrealistically high costs for conservation measures and low estimates for the yields of future water conservation. Creating a standard to collect accurate baseline data of water use and supply is critical to developing more accurate future water demand projections. This has not been done as it pertains to the need for the Pipeline, yet the proponents continue to claim their numbers are accurate.

In 2015 there were three substantive reports challenged the data used to justify the LPP):

- The Legislative Audit
- The Governor's Budget Recommendations
- The Economists' Report on LPP Financing

#### State Audits of the Division of Water Resources.

A 2014 audit of the Utah Division of Drinking Water and 2015 audit of the Utah Division of Water Resources (UDWRe) (LPP applicant to FERC) show that our decision-making agencies

are sorely lacking necessary data for making a determination on water need for projects such as the LPP. The methodologies used to determine water need and water system sizing standards for inside and outside water have not been modified in 35 years and were shown to be incorrect.

The Auditor General's audit of the Division of Water Resources (DWR) projections of Utah's Water Needs found:

- Water use data lacked reliability.
- The methodologies used to determine water needs are 35-years old.
- Conservation could reduce water demand much further than DWR's low estimates.
- Growth in water supply by communities beyond what was developed in 2010 has not been adequately considered.
- The current basin plans underestimate the amount of agricultural water that could be available for municipal use in the future.
- Policymakers should consider the way water is priced in Utah.
- Policymakers should pursue steps to meter all water use that includes culinary and secondary.

### **Governor's Budget Recommendations**

Following these audit findings, Governor Herbert called for better data before funding large projects like the LPP. Bills passed in 2016 that help deal with some of these issues. SB251 (Water Infrastructure Funding Amendments) requires:

- criteria for better water data and data reporting
- new conservation targets
- independent verification of water data
- independent verification of a proposed project
- public involvement
- appropriate financing and repayment terms

### **Economists' Study of LPP Financing**

22 PhD economists from the 3 major Utah universities analyzed the LPP financing plan and found it fundamentally flawed. They found major concerns about servicing the debt, the impact on water rates/impact fees/taxes, and the subsequent effect on lower water demand to the point of pushing out the water need date and extending the debt. They concluded that the county could not afford the LPP. It could be concluded that it would require a state bailout. The proponents claim that the economists don't understand the Act or the repayment plan. However, the repayment plan has not been released after we tried several times to get the information. The economists offered to hold a fact-finding workshop but the proponents declined. The proponents' repayment plan has still not been disclosed.

These three separate reports should have been enough to stop the process and instigate a fact-finding study. Yet the proponents ignore them and keep pushing ahead.

## 4 The LPP Cost, the Financial Plan

### 4.1 The Cost

The cost estimate for the LPP has varied significantly over the years doubling from \$186M in 1996 to \$350-450M in 2005, and doubling again to over \$1B in 2012. After spending over \$30M in studies, the proponents say they really don't know how much it will cost, or how it will be repaid, and that they won't know until after the project is approved. This seems backwards. At this point, a \$2B estimate could be expected. Interest payments on the debt over the 50 years specified by the LPP Development Act would more than double the cost of initial construction.

Similarly, according to the economists' letter to state leaders, the maintenance and operating costs for the LPP have been estimated to be \$23-63M/year.

### 4.2 The Financial Plan

These obligations will eventually have to be paid, according to the Act, by Washington County, within roughly 50 years of the first water delivery. According to the LPP proponents, that will be in 2024. The proponents say the cost of the LPP will be paid in a mixture of increases to impact fees, water rates and surcharges, and property taxes. No one knows what the final mix of payment methods will be.

The WCWCD hired a consultant from Las Vegas to create a financial model that would show various scenarios for repayment of the debt. This model was shown to the county and city elected officials to demonstrate the financial viability of the project. In 2014 CSU submitted an analysis of the model to the WCWCD<sup>7</sup>, which replied that the model would undergo a peer review in the fall of that year and that the issues identified in the paper would be addressed at that time. The peer review was never held and the WCWCD has refused to address the issues identified.

CSU developed several scenarios for this payment scheme<sup>8</sup>, with the average results of a \$10,000 increase in impact fees and a \$1500/yr increase in taxes/rates for all customers over the 50-year debt service period. There has been no effort by local governments to determine how much and what mix of debt repayment would enable sustaining its vision of the community in terms of lifestyles, affordability, and income mixes.

A 2016 report<sup>9</sup> from a group of university economists sent to the governor outlined how the postponed debt service of the loan to build the Pipeline will raise water rates by about 600% and increase impact fees to \$14,000 per connection. The report<sup>10</sup> explained as rates go up people will conserve and use less water slowing the need for water. The proponents claim they only have to pay for the water used at a much later time. But, the economists point out the cost of construction will still have to be paid now (via a state bond supported by the taxpayers of the state) and the accruing interest, ballooning over time, will have to be repaid by county residents.

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<sup>7</sup> CSU Analysis of WCWCD Financial Model: <http://conserve.wu.org/wp-content/uploads/2011/11/LPP-Model-Aguero.pdf>

<sup>8</sup> CSU LPP Debt Repayment Calculation: <http://conserve.wu.org/wp-content/uploads/LPP-Debt-payment-calculation.pdf>

<sup>9</sup> Utah economists letter to the governor: <http://conserve.wu.org/wp-content/uploads/2011/11/Economist-Letter-to-Governor-2015.pdf>

<sup>10</sup> Utah economists report: <http://conserve.wu.org/wp-content/uploads/2011/11/Economists-report-pipeline-2015.pdf>

The Water District proposes that impact fees would cover 25% of the cost, with the remainder paid by rates and taxes. To cover any shortfall in impact fees, the district also imposed a Water Development Surcharge (currently \$1.85 per month) on all residents of cities that signed their Regional Pipeline Agreement. This surcharge will be increased at any time to protect the district's bond rating. In fact, when WCWCD's manager was asked in a state meeting how WC would pay if growth did not occur as planned, he said "surcharges would apply." We also pay for water in our utility bills and pay again in our property taxes. The debt will fall on all residents to pay for the Lake Powell Pipeline.

This is significant negative economic impact on residents and housing considering the low average household income and the current high home costs. Developers are not building affordable housing any longer due to the already high impact fees. This does not seem to support to goal of enabling generations to live here.

The entire repayment burden will fall on the shoulders of Washington (and to a much lesser degree, Kane) County residents. The residents have a right to know how much they will pay in higher impact fees, surcharges, and taxes for the proposed Lake Powell Pipeline before the project is approved. However, in the proponents' study, so far costing \$30 million since 2008, these questions are still not answered and will not be answered. They want to get it approved first and then disclose to the public how much their rates will rise. The proponents also failed to explain how they will be able pay the high annual payments to the state.

This lack of transparency on the repayment plan with a project of this size is unacceptable.

### **4.3 Pumped Storage Project**

The project also includes a pumped storage project unwisely located on the Hurricane Cliffs fault line. State study reports indicate there is insignificant evidence to predict future fault movement on what's considered the most active fault in Utah; that provides small comfort for those who oppose this project and face the financial obligation.

The project would pump water uphill to a new reservoir at night using cheap power and run back downhill through generators during the day to a lower reservoir in order to create expensive power. FERC has not approved a pump storage project in 20 years. It is estimated to cost \$661 Million with high annual costs of \$57 million. The pumped storage project is it will not profitable and it is not explained how the water district will pay for this project. In fact, the PSP is now listed as a "future phase" of the LPP and the full cost has been moved directly onto Washington County because the ACT would not fund a pumped storage project The power produced will be far more expensive than what customers can buy on the open power market. Yet, proponents claim power sales as the benefit in the studies to offset the cost of the Pipeline without any evidence they can sell expensive power. We assume the reason the district included this project is to keep the project within FERC's purview, which it thought would result in an easier approval. The state's Pipeline legislation will not fund a power project. The water district doesn't plan to build it anytime soon yet they use it in the economic report to bolster the benefits and want to get it approved.

## 5 The Viability of the River

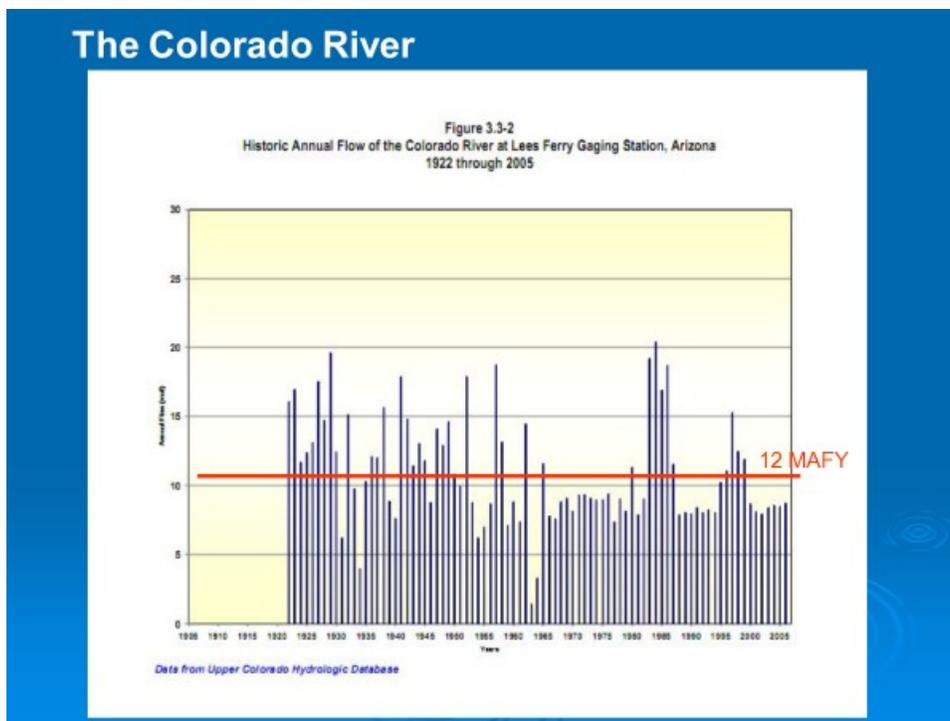
### 5.1 River Flows and Allocations

Depending on the diminishing Colorado River for future water supply is unwise. Recent reports from the Bureau of Reclamation show that the river is over-allocated and flows will continue to decrease due to a hotter and dryer climate. The Colorado River Compact allocations are based on the 16 million acre feet per year (MAFY) flows that were observed in the early 1900s when the compact was formed.

In 1922 Colorado River Compact allocations were:

Upper Basin (includes Utah)	7.45 MAFY
Lower Basin	7.45
Mexico	1.5

These were historically high flows that had never been seen before or since. This chart indicates a much lower 100 year average river flow as 12.5 MAFY. However, the BOR still uses a 100-year average of historical flow of 15 MAFY for its planning. It is being used in the LPP studies.



In 1948 Upper Basin states' water rights were allocated depending on how much each state's watershed contributed to the Colorado River. Utah's share of the Upper Basin allocation is 23%. In 1988 the Department of Interior, in partial recognition of these lower historical flows, lowered the Upper Basin share from 7.45 to 6 MAFY, leaving Utah's 23% share as 1.369 MAFY.

With the increased use of the Colorado River and states drawing closer –their full allocations, the over-allocation is becoming evident: there is less water flowing into the river than is being taken from it with the legal withdrawals authorized by the allocation. The Lower Basin has priority water rights over the Upper Basin. If the level of Lake Mead continues to drop, the Lower Basin allocations will be reduced. Eventually Upper Basin allocations will be impacted.

Utah is using about 1 MAFY and wants to develop its remaining allocation per the Colorado River Compact of 0.369 MAFY. However, Utah's rights are only 23% of whatever is left after Compact obligations are met. It is not a fixed amount like the lower basin water rights. When, and it is almost certainly a "when" not an "if", the allocations are adjusted to reflect the actual river flows, Utah will have no additional allocation on which to draw. If the LPP is built, the risk that it will not be allowed to carry water is high. Utah has significantly over-allocated its water rights.

Kent Jones state engineer of Utah Division of Water Rights said the state has over allocated its Colorado River water rights. The state has 1.3 million acre feet in water rights and approved over 2 million acre feet. He said "Junior water rights" holders will go wanting "Paper" rights and "wet water" can be very different.

## **5.2 The Impact of Climate Change**

The main source of water for community water systems is snow pack that will be reduced greatly by the increase in temperature that will result in a drastic decrease in the snow water equivalent. The annual average temperature in the Colorado River Basin has increased 1.4°C and nearly 2°C at Lee's Ferry, AZ since 1906.<sup>11</sup>

Dr. Robert Gilles from Utah Climate Center, at Utah State University in Logan, Utah found Utah's climate is getting warmer with temperatures of all Utah's cities going up. Moreover, Utah has had 9% less snow since 1950 and less winter storms.

The scientific consensus is that the Colorado River flows will be reduced by 10-30% over the next 50 years. If that is the case, Utah's usage will already exceed its allocation, without considering the LPP additional draw. If the state and FERC are only required to project out fifty years, what will citizens of Washington County be left to deal with when the potential for lower and upper basin state reallocation may exist?

LPP proponents are using climate change information as an excuse to build the Pipeline since the Virgin River may also be affected by climate change because it doesn't consider the impact climate on the Colorado River. Also, it lacks merit to say we should undertake such a huge and risky financial obligation that may not serve to provide water in the future.

## **5.3 The Security of the LPP's Water Right**

The State of Utah wants to develop its remaining share of the Colorado River per the Compact. But, the river is over allocated and there is not enough water to meet all the obligations. There are risks depending on the Colorado River for our future water supply that are not being considered by Utah as they plan to spend billions on projects to divert more water. Studies demonstrate there will be a decrease in future water availability from the Colorado River system. The water for the LPP is not really in the river, even though it appears that it is because the BOR continues using the 15 MAFY, ignoring current and historical flows and the impacts of climate change, due to inter-state politics. The flows have been consistently much less for the history of the river, at 12.5 MAFY and predicted to go lower as a long-term trend.

In Utah's laws water rights are allocated by a date, using a system of first in use first in right. Therefore, in a shortage the person who has most senior right date is not shutoff from diverting

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<sup>11</sup> The Colorado River Basin and Climate: Perfect storm for the twenty-first Century? 2012 by Carson McMurray  
Water Conservation and The Lake Powell Pipeline  
Conserve Southwest Utah email@conserve.wu.org  
Page 20 of 32

water from a stream. The priority date for Lake Powell Pipeline water right is 1957 when the Flaming Gorge Reservoir and Central Utah project were approved. This means that all water rights granted prior to 1957 have a higher priority than the Lake Powell Pipeline. The Lake Powell Pipeline water right is junior to the Central Utah Project, the Lower Basin water rights, National Park rights, and Ute and Navajo rights, making it's water right very junior and high risk.as water supplies are projected to be reduced in the future.

Proponents claim that the LPP water right is very secure, but the basis for this claim is not provided or substantiated. The LPP is high risk if the security of the water right cannot be substantiated and guaranteed.

#### **5.4 Conclusion**

Investing billions of dollars in a project that may not produce water in the future is a financial risk not worth taking. Using water more efficiently by using water conservation measures and improved management of our local water supplies are by far the least expensive and least risky option.

## 6 The Alternative

### 6.1 The Proponents' Alternative

The regulatory approval process requires a study of alternatives to the proposed project. The only alternative submitted by the proponents in the FERC submittals/EIS is the most expensive option: reverse osmosis (RO) processing of brackish water. This was obviously done so the claim can be made that the only alternative is more expensive than the LPP. Even this, however, is a false claim since RO costs are rapidly falling as system production increases, and, even if all additional water would require RO processing (which is false), the costs could be borne incrementally, avoiding the huge initial outlay and 50-year interest payments (which are greater than the initial cost). And this submitted alternative ignores all the water supplies identified above. The proponents claim residential outdoor water use would have to be eliminated and the community would turn into rocks and concrete (completely false as evidenced by comparable communities). The proponents make claims without providing the evidence. The study reads:

*The Study #22 Alternative on (page 6-1) provides for Re-Purposing Potable Water Use*

*The No Lake Powell Water Alternative would permanently eliminate residential outdoor potable water use in Washington County, repurposing the portion of potable water used for residential outdoor watering to indoor potable use. Projections of future water use through 2060 account for population growth, climate change (projected 6 percent reduction of Virgin River flows by 2050), water conservation (35 percent reduction in per capita water use from 2000 to 2060), and a water planning reserve (10 percent) to avoid utilizing all available water supplies in meeting demands. Potable water in Washington County is consumed for residential indoor and outdoor uses, commercial uses, institutional uses, and industrial uses. These potable water uses would total 130,245 acre-feet per year by 2052, which would be equal to the potable water demand. Gradually eliminating residential outdoor potable water use starting in 2025 would provide the growing population with potable water for indoor use through 2045; however, repurposing residential outdoor potable water use to indoor use would not increase the water supply and would have to be accompanied by adding another water supply to meet the growing demand. By 2045, all potable water would be used for indoor purposes, including residential indoor, commercial, institutional and industrial use. Repurposing residential outdoor potable water use to indoor potable use would require converting traditional residential outdoor landscapes and uses to desert landscapes compatible with the local climate. Residential water users would be responsible for converting their traditional outdoor landscapes to desert landscapes. Secondary water use in Washington County, totaling 8,505 acre-feet per year, would continue because the secondary water cannot be used for potable water without advanced treatment.*

It seems clear from the study report comment that there are no options but there are. Treatment of secondary water, although dismissed in the state's comment, is a definite option. 40-50% of our M&I water currently goes to commercial, industrial and institutional use while other comparable communities use 20-30%. Excuses are made for this difference in CII use that are not reasonable and should be explored in greater detail before telling citizens they will have to eliminate all their landscaping.

## 6.2 A Reasonable Alternative

In 2012, CSU (then Citizens for Dixie’s Future) engaged Western Resource Advocates, with their recognized expertise in water, energy and land issues in the west, to study the Lake Powell Pipeline Project and see what options might be available. The result was the “*Local Waters Alternative (LWA) to the Lake Powell Pipeline*”<sup>12</sup>. It is a much less costly, achievable alternative that should have been submitted in the EIS to meet future water supply demand.

The LWA has these key recommendations:

- Implement conservation rate structures and “water budgeting” \*
- Meter and report culinary and secondary water
- Embed water efficiency in new developments and public spaces
- Implement smart growth principles

\* Water Budgeting is a proven scientific approach to dramatically reducing water consumption by assigning a specific water budget to each property in the community based on occupancy, use, and outdoor landscaping. Water is relatively inexpensive for customers who stay within their budgets, with penalty rates for going over budget (and credits for going under). Studies in the west (and in St George) indicate that generally speaking, people water their landscaping twice as much as needed. Since outdoor irrigation accounts for 80% of residential water use, correcting this misuse can have huge benefits. It is a relatively low cost way to achieve 50% conservation. We held a water sustainability workshop in October 2014 for the water staffs of Washington County’s cities on how to implement a water budget model and posted information on our web page in water conservation. While this approach is not specifically mentioned in the LWA, it is generally represented.

Additionally, the LWA:

- Provides a “reasonable” alternative submitted to FERC.
- Requires licensing for plumbing and landscaping.
- Recommends conservation accepted by independent experts as the cheapest and most effective way to increase water supply.
- Provides for incremental cost as population grows and no immediate huge debt with ballooning interest – a much cheaper option!

WCWCD’s new conservation plan includes many of LWA’s measures, but downplays the yield and exaggerates the cost. City conservation plans do not effectively address the key elements that impact conservation: rates, budgets, regulations, education.

With reasonable conservation and better management of our local water supplies listed above, we can support the population projected to reach 581,732 by 2060 and beyond.

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<sup>12</sup> The Local Waters Alternative to the LPP, by Western Resource Advocates: <http://conserveswu.org/wp-content/uploads/2011/11/WRA-Alternative-LPP-full-report-20121.pdf>

## **7 Washington County Water Policy Governance and Conservation Planning Governance**

Washington County's water supply, delivery to cities, infrastructure and planning is managed by the WCWCD and the cities. WCWCD is overseen by a Board of Trustees that is appointed by the County Commission<sup>13</sup>. The county and city governments have bought into several concepts:

1. The LPP is required and that conservation cannot support the projected growth
2. The county can afford the LPP
3. Water conservation will be as expensive as the LPP
4. The water right for the LPP is secure
5. The county holds the right for final approval on the LPP

CSU of course contends that none of these are true, and that there is no data to support any other conclusion. There is no independent agency of the county or the city designated to find facts, and fact-finding is not supported. The Commission has historically appointed members to the WCWCD board who are not open to considering issues with the LPP. A December 2016 appointment of three Board members passed over many qualified applicants who were open to questioning the need for and risk of the LPP, despite the growing public opposition. Instead, they appointed people who held other elected positions within the county, arguing that they were more apt to represent the interests of the public. While this may be true to some degree, it is a very indirect representation, with no direct accountability to the taxpayers. The LPP will require a multiple revenue additions to service the debt, tax increases likely being one. The commissioners were unaware that the board could be an elected position.

The Board has not sought different perspectives, issues or facts from any source other than the district. This leaves the Board with a single source of information that is biased toward the LPP, and an impression of closed-mindedness to the issues presented in this paper.

### **Water Conservation Planning**

Water districts and cities are required by state law<sup>14</sup> to develop and periodically update their water conservation plan. The plans are to define goals, conservation measures to be implemented to achieve them, and when and how (tasks/steps) the measures are to be implemented. A cursory review of the WCWCD and city conservation plans show that they do not approach satisfying these requirements, yet they have been accepted by the state as valid plans. This indicates that plans to implement significant conservation are not intended.

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<sup>13</sup> Utah code governing water districts: [https://le.utah.gov/xcode/Title17B/Chapter2A/C17B-2a-P6\\_1800010118000101.pdf](https://le.utah.gov/xcode/Title17B/Chapter2A/C17B-2a-P6_1800010118000101.pdf)

<sup>14</sup> Utah code governing water conservation plans: [https://le.utah.gov/xcode/Title73/Chapter10/C73-10-S32\\_1800010118000101.pdf](https://le.utah.gov/xcode/Title73/Chapter10/C73-10-S32_1800010118000101.pdf)

## 8 The LPP Proponents' Response to Question and Issues

So far, the DWRe and the WCWCD have refused to respond to the issues and will only give unsubstantiated comments. They refuse to engage on any fact-finding or issue resolution.

Some samples:

*We can easily afford the Pipeline. People who say otherwise don't really understand the financing plan.*

Our response: There is no supporting evidence provided. The state's top 21 economists and the governor do not agree.

*Conservation is just as expensive and won't support the growth.*

Our response: There is no supporting evidence provided. The Local Waters Alternative and the experiences of other Southwest communities show this is not true. The water district refuses to discuss their issues with the costs of the LWA or join us in fact-finding. The costs can be borne incrementally as the population grows without incurring a huge debt. The ballooning interest payment dwarfs the huge up-front debt for the LPP. If, as is stated in study reports and state responses to concerns "current expectations are that all programmatic conservation measures will be adopted prior to the LPP Project" why not see what effect these measures have first before committing our tax dollars to a questionable project? The current conservation plans for the county and cities do not even closely approach a plan for adopting "all programmatic conservation measures".

*The county will die economically without the Pipeline.*

Our response: There is no supporting evidence provided. Other communities (Los Angeles, Las Vegas, Phoenix, Tucson, Albuquerque, etc.) have not found this to be the case. They have greatly reduced water use and have very healthy economies. Utah's economists argue the opposite: that the big debt will have a negative economic effect

*People who are opposed to the pipeline are really out to stop all growth and to limit our economic opportunities.*

Our response: There is no supporting evidence provided. This is a complete fabrication, a scare tactic, against all comparisons with other southwest communities who use much less water. Utah's economists said that increased cost of living from unaffordable pipeline water is the real growth limiter. We favor Smart Growth policies like Vision Dixie that enable growth without destroying a major reason we live here: the natural environment. We're against the waste of our precious natural resource: water.

*We aren't really very wasteful with our water. Comparisons are "apples and oranges". Our culture is different and we want to use water the way we use it. We don't want to be told how to use water. We have lots of visitors and second homes that skew that data.*

Our response: There is no supporting evidence provided. The state and WCWCD could easily incorporate a reasonable number of people per second home (e.g., 2.5) to show what effect those part-time residents actually have on water use but choose not to do that. Already some areas in our county are switching to more drought-tolerant landscaping and a presenter at a WCWCD meeting indicated those homes are receiving higher appraisals than others with traditional landscaping. How much and when other citizens will follow remains to be seen. Incentives could greatly improve this trend.

*The Local Water Alternative is all wrong.....*

- *Wrong on how much we can conserve without being draconian.*
- *Wrong on how much local water there is.*
- *Wrong on what it would cost.*

Our response: There is no supporting evidence provided.

*When we built the Quail Creek reservoir, the debt relative to the population and it's ability to pay for it was comparable to the that of the Pipeline today.*

Our response: This is false, corroborated by Utah's economists' report. . Using the "debt relative to population" and "county tax base" arguments to justify the LPP expense ignores the risks of the LPP otherwise and the fact that the cost will fall on all WC citizens while the increased tax base to support it does not benefit all citizens equally.

*It's our duty to invest in the water security of the next generation.*

Our response: True! It's our duty to wisely invest in the water security of the next generation. In Washington County's history, this has always meant better management of our local water. We can provide a secure water supply the way we always have, by improving our management of the water we have. Going after risky and expensive water from afar is not wise and is not our heritage.

*If we don't build it now we will never be able to.*

Our response: No supporting evidence. We see no data justifying this statement. If after we become very good managers of our local water, and if the population growth demands more water, and if the river can really support it, why couldn't we build it later? But evidence suggests that the river cannot support it, and our water right isn't senior enough to guaranty it. Waiting will prove it to be fact. And, of course, if the river can't support a pipeline later, we shouldn't build it now since at some point it will be empty.

*Utah must get its share of the Colorado River before it's taken by others.*

Our response: No supporting evidence. The legal basis for this statement is unknown. Utah's share is reducing as the river's flow is reducing. We may already be using all of our share, and then some. Historic flows, further reduced by climate change, do not support the allocated river. Allocations will be reduced.

*All of these little environmental organizations with a couple of thousand members shouldn't have influence with decisions like this. Public representatives, elected by all the people, should make these decisions. All of these representatives are in favor of the pipeline.*

Our response: really? In this state's political condition, issues are rarely much of a consideration in elections. And they have been given a very one-sided argument. A few people are driving the politics of the Pipeline. Citizens have the right to transparency, openness and legitimate alternatives. Politicians and water authorities shouldn't fear an open discussion. In fact, there are many in the major party of the area who vote for leaders but do not support the LPP feeling it's fiscally irresponsible. Issues and politics are not always the same.

## 9 A Proposal for Resolving the Issues

A Washington County Resolution to answer the big questions:

1. How do Washington County constituents have a voice in the LPP go-ahead decisions?
2. What can Washington County afford to pay for their water and still retain the desired vision of the community?
3. How secure is the LPP water right?
4. How can we develop real water conservation plans for the county and its cities: program plans identifying goals, projects, their timelines and budget requirements; and project plans identifying objectives, measures to be addressed, tasks, schedules, responsibilities and committed budgets

Establish an issue resolution and fact-finding activity:

- Composed of experts from LPP Proponents and “Conservation First” proponents
- Moderated by a neutral party
- Address one issue/fact at a time
- Take about a year
- Funded by the state

Challenges:

- The political will
- The mechanics of determining factual basis
- Funding
- Support from the county, state and/or cities
- Getting the water district to participate

## **Revision Record**

Rev 1-8

1. Internal work, just evolving the paper.

## Maintaining this Document

For the editor:

- Use Heading 1, 2, 3, etc. for sections (see styles)
- Keep revision marks “on” when incorporating changes from authors.
- Historical versions are kept within CSU’s internal data management system, as is the latest released version and the latest in-work version. Version numbers and dates are recorded on the cover page and in the file names of historical and in-work versions.
- Maintain the revision record to explain significant changes.
- Make all updates with revision marks on. It’s up to the individual to view them or not.
- Regenerate the ToC periodically and prior to completing the version.
- When the version is completed and ready for release, save it in “history” with the base name plus the version number, with revisions still denoted (not incorporated). Then incorporate the revisions, verify that no errors were hidden by the revision marks, and save it in the internal data management system with the next version id (ready to start the next version) and with revision marks turned on. Replace the version on the website with a pdf of the newly released version, using the same base name only, without the version number, in order to allow links to continue working to the latest version.

For the authors:

- Notify the editor if you want to make a change in order to ensure you have the latest version and that nobody else is updating the same section.
- Leave or turn revision marks on. Use comments to explain your changes if the reasons are not obvious
- Ask for review of the other authors before finalizing your update, and then pass it on to the editor for incorporation.
- Coordinate with the editor if you want to create new sections.

## Issues yet to be addressed/corrected in this Paper

### 1. Water Right

<http://www.deseretnews.com/article/865617715/The-water-question-The-staggering-problem-of-determining-water-rights.html>. The article reads: "Your paper water right may look very big and supply everything you are asking, but the wet water, in reality, can be very different," Kent Jones, the state engineer over water rights, said. **The Colorado River, for example**, holds 1.4 million acre-feet of water for Utah to put to use. **There are applications approved for more than 2 million acre-feet**, and about one half of that is currently in use. Jones said the imbalance has yet to be a problem because the water has not been developed — but the struggle will come with time, and those holding "junior" rights will go wanting.

### 2. Drinking water reserves

### 3. On Impact Fees

On 2017-01-22 17:19, Jane Whalen wrote:

**Utah Water Law and Water Rights BLOG – great information on what is going on with water legislation at the legislature**

<http://utahwaterrights.blogspot.com/>

**Water Infrastructure Revisions** (Sen. Stuart Adams) no bill number yet

**Public Water Supplier Amendments** (Rep. Merrill Nelson) no bill number yet

#### **S.B. 11: Water Development Commission Amendments**

[Senate Bill 11](#), which is sponsored by Senator Margaret Dayton and has been recommended by the Natural Resources, Agriculture, and Environment Interim Committee, modifies the membership of the State Water Development Commission. **The bill removes the following nonvoting members from the Commission**: the state treasurer; two representatives of the Governor's Office, including one representative from the Governor's Office of Management and Budget; the executive director of the Department of Natural Resources; the executive director of the Department of Environmental Quality; the commissioner of agriculture and food; a member of the Board of Water Resources; and a representative with experience with finance and economics. The bill adds one nonvoting member to the Commission: a representative of the governor's cabinet or the Governor's Office.

#### **Public Water Supplier Amendments - Instream Flows** (Sen. Jani Iwamoto)

Preliminary drafts of this bill modify Utah's instream flow statute (Section 73-3-30) to allow public water suppliers to change perfected water rights for instream use. The instream flows must be located within the public water supplier's jurisdictional boundaries and the related [change application](#) can be up to ten years. The bill would also specify that all approved instream flow change applications will be administered according to the change application's priority date relative to all other rights in the stream system, thereby making the application the most junior right in the system. This represents a change from the current statute, which specifies that change applications for instream flows are distributed according to the application's priority date relative only to other rights the stream section specified in the application, rather than the entire stream system.

Friday, October 7, 2016

Washington Townhomes LLC v. Washington County Water Conservancy District

The Utah Supreme Court recently issued its decision in the case of *Washington Townhomes LLC v. Washington County Water Conservancy District*. The case started as a class action

lawsuit by property owners and developers who **paid impact fees to Washington County Water Conservancy District**. These plaintiffs asserted that the impact fees violated the Utah Impact Fees Act and constituted a taking under the state and federal constitutions. The District defended its impact fees by asserting that the fees were based on a "level of service" standard imposed by the [Utah Division of Drinking Water](#), and by asserting that its adoption of the level of service standard was a legislative judgment that should survive judicial scrutiny.

The district court agreed with the District, and concluded that the level of service that was adopted by the District and that was based on DDW standards was "legal and reasonable as a matter of law." Accordingly, the court granted partial summary judgment in favor of the District. Additionally, pursuant to a stipulation of the plaintiffs and the District, the court certified that the case could be immediately appealed under [Rule 54\(b\)](#) of the Utah Rules of Civil Procedure. The case was then appealed to the Utah Supreme Court.

The Supreme Court did not get to the substantive question of whether the impact fees were properly based on the DDW standards. Rather, the Supreme Court dismissed the appeal on jurisdictional grounds. The Supreme Court determined that although the district court's ruling made an important determination in the case context, the ruling did not qualify for appeal certification under Rule 54(b) because the ruling did not finally dispose of any claim and did not finally adjudicate the interests of a party to the case.

The Supreme Court further considered whether to exercise its discretion to treat the appeal as a petition for interlocutory appeal under [Rule 5](#) of the Utah Rules of Appellate Procedure. The Supreme Court noted the precedent that an interlocutory appeal is appropriate "to adjudicate principles of law or procedure in advance as a necessary foundation upon which the trial may proceed." Although the Supreme Court noted that the level of service question was an important issue in the case, the Supreme Court declined to accept the appeal because it determined that the district court's ruling was unclear and had unanswered factual and legal questions. For example, the Supreme Court felt that there was an unanswered question as to whether the District was legally required to build infrastructure and facilities in accordance with the DDW level of service standards. Accordingly, the Supreme Court declined to accept the appeal, dismissed the appeal, and sent the case back to the district court for further proceedings.

To read the full text of the opinion, [click here](#).

**From:** lisar@bajabb.com  
**Sent:** Sunday, January 22, 2017 2:06 PM  
**To:** Jane Whalen  
**Cc:** Tom Butine ; Paul Vandam ; Zach Frankel ; Amelia Nuding ; Sky Chaney  
**Subject:** Re: Blog on current water legislation and past legal cases

This is interesting info, Jane, and of particular interest to me is this in the case against the District. Don't know exactly what future impact it will have at the district court level, but seems interesting:

Although the Supreme Court noted that the level of service question was an important issue in the case, the Supreme Court declined to accept the appeal because it determined that the district court's ruling was unclear and had unanswered factual and legal questions. For example, **the Supreme Court felt that there was an unanswered question as to whether the District was legally required to build infrastructure and facilities in accordance with the DDW level of service standards**. Accordingly, the Supreme Court declined to accept the

appeal, dismissed the appeal, and sent the case back to the district court for further proceedings.

Report to the Legislature Number 2014-13

Drinking Water Rule letter