



& Taxpayer Association of Kane County

## LPP Update 2017

In 2006 the [Lake Powell Pipeline Development Act](#) (Act) was passed. The Utah Division of Water Resources (DWRe), with the support of the Washington County Water Conservancy District (District), undertook the project. 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 to downstream users. We say that the facts don't support their position.

The Act defines the project and funding terms but proponents have not fully disclosed how it will be repaid. With federal approval required, the proponents arranged for the Federal Energy Regulatory Commission (FERC) to be the lead approval agency, rather than the more logical Bureau of Land Management (BLM). Thus the project had to be an energy project so they added a Pumped Storage Project (PSP). The FERC process, originally assumed to be an expedited process, has proven to be more expensive and time consuming than expected. The PSP feature appears unprofitable at best. 10 years and over \$30M have been spent on over 20 studies of the project. Thousands of comments have been submitted, many not properly addressed. *The "final" reports (mid-2016) are too deficient to move the process forward according to FERC.* A response by the proponents is anticipated by April 2017.

### Escalating Costs Prove Challenging

The cost estimate for the LPP has varied significantly over the years – doubling from \$186M in 1996 to \$350-450M in 2005, \$1.06-\$3.2B in 2012 and \$1.3-\$1.6B in 2017 with removal of expensive and contentious PSP project now termed a “future phase.” It also doesn't include the escalating cost of power for the pipeline pumps. Unknown costs are also mentioned in the Opinion of Probable Costs but not quantified. The proponents still say they really don't know how much it will cost, or how it will be repaid, and won't know until after the project is approved. This seems backwards. Interest payments on the debt over the 50 years specified by the Act would more than double the cost of initial construction.

### Elusive Repayment Plan

These onerous obligations will eventually have to be paid, according to the Act, by Washington County taxpayers and to a lesser degree Kane County, within roughly 50 years of the first planned water delivery in 2024. The proponents say the cost of the LPP will be paid by a mixture of increases to impact fees, water rates and surcharges, and property taxes. Several independent scenarios have been developed showing an average result of \$10,000 increase in impact fees and a \$750/yr increase in taxes/rates for all

residents over the 50-year debt service period. Developers are already not building affordable housing due to high impact fees. Given the low average household income in Washington County and the high home costs –result of growth and current impact fees - *this does not seem to support the proponents' goal of enabling generations to live here.*

### Utah University Economists Challenge LPP Repayment Options

A 2016 report from twenty-two university economists sent to the governor and legislators revealed the loan and debt service will raise water rates by almost 600%, increase impact fees to \$14,000 per connection and maintenance, while operating costs for the LPP have been estimated to be \$23-63M/year. As rates go up people will conserve, 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 approved by the legislature and supported by the taxpayers of the state*) and the accruing interest, ballooning over time, will have to be repaid by county residents per the Act. *But, can they pay?* The Water District initially assumed growth and specifically impact fees would cover costs. Recently the costs have been adjusted with 25%

of cost paid by impact fees and 75% of cost paid by taxpayer fees. Also, the district added a Water Development Surcharge on all residents of cities that signed the Regional Pipeline Agreement and it can be raised if needed. *How much can residents handle?* Residents have a right to know how much they will pay for the proposed Lake Powell Pipeline before the project is approved. *Proponents fail to adequately explain how they will be able pay the high annual payments to the state.*

***Lack of a transparent repayment plan with a project of this size is unprecedented and unacceptable.***

## **M&I Water Supply**

Proponents assert the county will run out of water by 2025 (earlier projections said 2020) based on growth rates. 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 *extremely high* water usage. Proponents claim “only” 98,528 AF of existing and future culinary and secondary water supply will be available to the county by 2060. *The 98,528 AF ignores many existing water sources and those that could be developed locally in the future.* Undeclared or underutilized, less risky and cheaper sources include but are not limited to:

- Increased yield from existing district projects
- Increased future agricultural water converting – culinary and secondary use

- Inclusion of water rights from private land owners that convert with development
- Increased reuse and treatment of abundant brackish water
- Increased conservation: enacting water budget with appropriately tiered rates
- Use of secondary water for new residential irrigation
- Step up work on Warner Valley water storage project
- Inclusion of all the towns and cities water rights that can still be developed in the future.

*Treatment costs for brackish water are rapidly decreasing* as new technologies and economies of scale drive the costs down. *The district is unwilling to declare appropriate and adequate use of its water storage capacity of 390,000 AF – declaring a yield of only 28,900 AFY (~7%) by 2060.*

## **Agriculture Water Supply**

More agricultural rights will convert to urban use by 2060 than what is identified in studies. Studies do not account for all of agricultural water in the county, declared to be 87,000 AF in 1993. The studies only account for 21,420 AF of agricultural water.

## **Population**

The 2060 estimated Washington County population has decreased from 860,000 (ACT 2006) to 581,731 estimated by the GOPB (2012) – *nearly 300,000 less than the earlier projection.* Yet, the proponents have not adjusted the need date for the LPP arguing

instead that the governor’s projections have been low, which history shows is not the case.

## **Per Capita Usage**

Washington County has the highest usage in Utah. Gallons per capita per day (GPCD) is a standard measure which equals “total water used divided by the population using it.” It is used by most agencies and organizations in the U.S. to describe and compare water usage and includes residential, secondary and commercial, institutional and industrial usage (CII). Washington County residents use 325 GPCD (2010).

Conservation-minded communities in the southwest currently use 120-230 GPCD, but Washington County’s goal is to reach 285 GPCD by 2060! The conservation goal appears set low in order to justify the LPP by over estimating water demand. 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. Comparable communities have similar climate, CII, recreation and tourism situation. “Treatable” secondary water, generally not measured in Washington County, is a “best guess” at 55 GPCD and pushes the per capita use up. Largest users include: City of St. George, golf courses, Dixie State University, schools, and parks. *The state’s 2015 legislative audit recommended that all secondary water use be metered.*

## Will Washington County Need LPP to Grow?

The following chart shows the demand for M&I water based on the projected average 3% growth rate with different per capita use (demand) rates. (GPCD = gallons per capita per day)

Year	Population (@ 3%/yr)	Demand @ 300 GPCD		Demand @ 200 GPCD	Demand @ 150 GPCD
		Million Gal	Acre-Ft		
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

\*98,528 is available by 2060 and does not include extraordinary conservation or conversion efforts

### Reasons for High Use/Demand

Utah has some of the cheapest water rates in the country, and Washington County has some of the cheapest in Utah. A commodity that is priced as if it has no value is treated as if it has no value. *Including water costs in property taxes makes water not dependent on how much we use, making Utah one of few states with this practice.* Washington County's water rates are so low that it makes no difference how much a normal home or business uses. *There is overwhelming data that pricing is the most influential factor in water use.* Water budgeting is a highly successful way to dramatically reduce water use. It is estimated that 1/2 to 3/4 of all water used in Washington County is used in agriculture, somewhat less than the 80% state average. Improved conservation of this water would yield water that could be used otherwise. While there are challenges in treating agricultural water, there's been significant research and development in areas with limited and poor quality water. Israel has made huge advances in irrigation techniques and use of brackish water. Washington County's agricultural practices seem extremely outdated and wasteful in comparison.

### LPP Data Accuracy in Question

The **2015 audit of the Utah Division of Water Resources (UDWRe)** (preceded by a 2014 audit of the Utah Division of Drinking Water) shows that our decision-making agencies are sorely lacking necessary data for making a determination on water needed for projects such as the LPP. The 2015 audit found: conservation could reduce water demand much further than UDWRe's low estimates; growth in water supply has not been adequately considered; future agricultural water for M&I use underestimated. Also, *policymakers should consider water pricing in Utah and pursue steps to meter all water use that includes secondary.* Following these audit findings, **Governor Herbert's 2016 budget** called for better data before funding large projects like the LPP. *Bills passed in 2016 that help deal with some of these issues but more is needed.* As noted earlier in this Update, **22 PhD economists from the 3 major Utah universities analyzed** the LPP financing plan and found it fundamentally flawed.

### Pumped Storage Project Does Not Help LPP

The LPP also includes a pumped storage project (PSP) unwisely located on the Hurricane Cliffs fault line. Using uphill pumping and downhill flow from one reservoir to another, energy "could" be produced and sold. However, FERC has not approved a pumped storage project in 20 years. Information shows they are not cost effective. The PSP is estimated to cost \$661 million with high annual costs of \$57 million. Although a key "financial" component of the LPP, the PSP is now listed as a "future phase" and the full cost has been moved directly onto Washington County.

### Is the Colorado River a Reliable Water Source? NO

According to the Bureau of Reclamation the river is over-allocated and flows will continue to decrease due to a hotter and dryer climate. Since 2000, demand has already outstripped supply. Also, the 1922 Colorado River Compact allocations of 15 MAFY were based on wet years. Historically high flows of 15 MAFY have diminished to today's 12.5 MAFY. The Colorado River Compact upper basin allocation of 7.45 MAFY has been reduced to 6 MAFY. Utah is using about 1 MAFY and wants to

develop its remaining “paper” allocation of 0.369 MAFY. *Utah’s upper basin rights are only 23% of whatever is left after Compact obligations to senior water rights holders are met – not a fixed amount as in the lower basin.* Therefore as water is reduced and there is a shortage senior water rights will have priority over LPP’s junior right.

## **LPP’s Water Right Is Not Secure**

The LPP water right is junior to the Central Utah Project, junior to the Lower Basin water rights, and junior to Ute and Navajo tribal rights. *The LPP is high risk if the security of the junior water right cannot be substantiated.* Kent Jones state engineer of Utah Division of Water Rights said the state has over allocated its Colorado River water rights by 700,000 AF. He also said “Junior water rights” holders will go wanting. “Paper” rights and “wet water” can be very different.

## **Climate Change Impact**

Snow pack, the main source of water for community water systems, will be reduced greatly by increasing temperatures. Dr. Robert Gilles from Utah Climate Center

found the temperatures of all Utah’s cities are going up. Utah has had 9% less snow since 1950 and less winter storms generally. The Colorado River flows are predicted to be reduced by 10-30% over the next 50 years. LPP proponents use climate change as an excuse to build the LPP since the Virgin River may also be affected but refuse to adequately consider effects on the Colorado River.

## **Local Water Supply Alternative**

In 2012, Conserve Southwest Utah (then Citizens for Dixie’s Future) engaged Western Resource Advocates, to study the Lake Powell Pipeline Project. The “*Local Waters Alternative to the Lake Powell Pipeline*” (LWA) describes a much less costly, achievable alternative. The LWA estimated 138,000 AFY of Washington County local water could be developed by 2060 even without considering all the extra supplies outline here. The District estimates only 98,528 acre feet will be available by 2060. 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.* However, RO costs are rapidly falling as system production increases and costs could be borne incrementally, avoiding the huge initial outlay and 50-year interest payments (which are greater than the initial cost). LPP proponents claim – with no evidence – residential outdoor water use would be eliminated and the community would turn into rocks and concrete (false as evidenced by comparable communities). Treatment of secondary water is dismissed by the state while 40-50% of our M&I water goes to commercial, industrial and institutional use; other comparable communities use 20-30%. *CII use should be explored in greater detail before telling citizens they will have to eliminate all their landscaping.* The District downplays the yield and exaggerates the cost of the LWA. The LWA has these *key* recommendations along with many others:

- Implement conservation rate structures
- Meter and report culinary and secondary water
- Embed water efficiency in new developments and public

## **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 facilities with generating station. Projects begins at Lake Powell and ends at Sand Hollow Reservoir with some additional small water delivery lines.

***With reasonable conservation and better management of our local water supplies listed above, we can support Washington County’s population projected to reach 581,732 by 2060 and beyond!***

***Full “white paper” version with supporting references and resources available at:***

<http://conserveswu.org/wp-content/uploads/Lake-Powell-Pipeline-White-Paper.pdf>