LAKE POWELL PIPELINE
PRELIMINARY FINANCIAL MODELING

NOVEMBER 2013
Setting the Record Straight
OpEd by blogger
Lisa Rutherford
(Ivins resident)
November 14, 2013

House of Representatives
Natural Resources, Agriculture and Environmental Interim Committee
350 North State, Suite 350
PO Box 145030
Salt Lake City, Utah 84114

Lisa Rutherford
173 Painted Hills Drive
Irvins, Utah 84738

Dear Representative Noel,

I attended the October 16 meeting of the Natural Resource/Agriculture/Environmental Interim Committee, a committee on which you serve. After driving all the way from St. George and given my interest in the Lake Powell Pipeline project, I was disappointed to learn at the start of the meeting that agenda item 5 (State Water Development Commission Report) was removed from the meeting’s agenda. Since I was unable to make a public comment at that time, I’m submitting this letter with my thoughts, and would very much like to have these included in the public record of public comments for the upcoming, November 2013 meeting.

As a citizen of Washington County, Utah, I appreciate having the opportunity to turn to you, because the Utah Legislature is the only elected body overseeing this massive $1+ billion water project. Part of why I am writing is because appointed government agencies which enjoy taxation powers over residents like myself have been using my tax funds to advocate for this expensive public works project without any concern for the many, many local residents who are opposed to this project. It is important that a democratic process is in place. State leaders – outside our county where local leaders have been convinced this project is vital – can consider it a bit more critically and rationally. State legislators such as you serve to ensure a democratic process.

There is great pressure by these appointed government water agencies to ensure the Lake Powell Pipeline is completed. After all, $25 million has already been spent so we need to forge ahead, right? I’m sure that even at the state level legislators are getting much pressure from entities wishing to profit from this project. Many Washington County citizens have spoken against the pipeline. At the Governor’s July water meeting in St. George, a standing-room-only affair, most citizens, those not associated with government entities, spoke against the project. Many citizens fear the whole process is tainted. I’m more optimistic about legislators actually wanting information to aid their decision making.

“So, what we get, rather than paying attention to our own Utah economists is a Las Vegas attorney hired by the appointed Washington County Water District for $10,000 per month, to be their spokesperson – to argue their case essentially.”
“Basically what they've done is taken the same old information, the same case that doesn't have proof about how we're going to pay and how the finances work, and they put a slick PR guy in the front of it,”
9. Jeremy Aguero, principal of Applied Analysis, is the Justin Timberlake of Las Vegas economic forecasting events,
Economist: Powell Pipeline Too Costly for Kane County

Assuming 50-year straight-line debt repayment, the fully amortized cost of the project would be between $37.6 million per year and $70.2 million per year, more than the $10.3 million reported in the District’s 2011 net revenues...
“If this initial analysis is correct, Washington County Water Conservancy District would have to increase its net revenues by roughly 370 percent...”
In order for impact fees to pay for the additional debt service of $47 million...they would have to increase by 900 percent...which is problematic.

Summary of Total Projected Debt Service and Revenue Shortfalls. Based upon this information, future anticipated annual debt service to the Washington County Water Conservancy District due to this project could be $47 million.

As stated above, the current net annual revenues of this agency are currently $10.275 million, which is far less than $47 million. To put this amount into stark terms, if this initial analysis is correct, it would require the Washington County Water Conservancy District to increase its net annual revenues by roughly 370 percent \((\frac{47-10}{10})\).

Given the observed decline in growth rates compared to those predicted in 2006, we wonder where the significant increase in revenues required to repay this project will come from. We could find no information to indicate how the Washington County Water Conservancy District can raise this revenue.

Although there has been testimony these revenues could come from real estate impact fees on new homes and presumably commercial buildings, we could not find any projections indicating total annual revenues expected as a result of impact fee increases. The 2011 Washington County Water Conservancy District Audited Financial statement indicates that existing impact fee collections totaled a mere $4.62 million in 2011, and are already accounted for in the district’s net revenues. In order for impact fees to pay the additional debt service level of $47 million, this amount in new impact fees would have to be collected every year during this repayment period. This corresponds to a roughly 10-fold (900 percent) increase in impact fee revenues, which is problematic. Since impact fees are paid only once by new residents and businesses, it is important to determine exactly what rate of growth would be required to raise this large revenue stream and over what period of time.

Accordingly, we suspect that at least some of the increase in revenues would have to come from raising water rates in order to generate an increase in water rate revenues from residents. Depending upon how large these water rate increases would be, they could lead to a significant reduction in total water use. It would be appropriate to ask how a 370 percent increase in net revenues would impact water rates and ratepayers.

Given these facts, the only financially prudent way forward is for the State to carefully study whether Washington County residents have the capacity to actually repay these debt obligations before the State indebits itself with this project. Since this debt service is significantly higher than currently practiced commercial lending standards, we also seek to understand what would occur if this agency defaults on its repayment obligations.
Using TurningPoint
Do You Generally Understand How TurningPoint Works?

1. Yes, I Understand
2. No, I Do Not Understand

88% Yes, I Understand
12% No, I Do Not Understand
Generally speaking, is Utah’s economy headed in the right direction?

1. Yes, It Is Headed in the Right Direction
2. No, It Is Not Headed in the Right Direction
Financing Water Infrastructure in Utah
LAKE POWELL PIPELINE DEVELOPMENT ACT
Passed by 2006 Utah State Legislature

73-28-101. Title.
This chapter is known as the “Lake Powell Pipeline Development Act.”

Nothing in this chapter may be construed to prevent any person, subject to other provisions of law, from developing the waters of the Colorado River.

73-28-103. Definitions.
As used in this chapter:
(1) “Board” means the Board of Water Resources.
(2) “Committee” means the Project Management Committee created in Section 73-28-103.
(3) (a) “Construction costs” means all costs related to the construction of the project, including the environmental mitigation costs.
(b) Construction costs include:
(i) acquisition of land and rights-of-way;
(ii) board and division expenses related to the project;
(iii) compensation for impairment of existing water rights;
(iv) construction of the project;
(v) design;
(vi) engineering;
(vii) environmental studies;
(viii) legal work;
(ix) permitting;
(x) planning; and
(xi) rebuilding and relocating highways or other facilities affected by the project.
(4) “Developed water” means surface water developed by the project.
(5) “District” means:
Do You Agree that the Lake Powell Pipeline Act Generally Controls How the Pipeline Will Be Developed and Financed?

1. Yes, I Agree
2. No, I Do Not Agree
August 14, 2008

Mr. Dennis Strong
Division of Water Resources
P.O. Box 146201
Salt Lake City, UT 84114-6201

RE: Lake Powell Pipeline Financing

Dear Dennis:

We are grateful for the partnership and help offered by the State of Utah in the Lake Powell Pipeline Project. I am writing this letter to ensure that, as we move forward, we are on the same page with regard to our expectations for financing of the Lake Powell Pipeline Project. Based upon our prior discussion, I understand that the long-term financing plans for the Project would follow the Bear River Project model, which would have the following elements:

- The Districts commit to purchase 70% of the project water prior to commencement of construction.
- The Districts have 10 years from the date of completion of the project to sign up for blocks of that 70%, with each block financed over 50 years from the date we sign up, at 4% interest with annual payments.
- If we sign up for any of the first 70% after the initial 10 year period, the time to pay back is reduced by each year past 10 that we delay.
- For the remaining 30%, the Districts have 50 years from the date of purchasing the water to pay it off at 4% interest.
- No interest would be charged until such time as the actual contract to take the water occurs.
- The Districts would be responsible to pay all Operation & Maintenance and Repair & Replacements costs for the project.

To make sure I understand the arrangement, it means, for example:

- If in year one, our District were to sign up for 15,000 a.f. of water, we would have 50 years from that date to pay for that block.
Key Points Outlined in the August 2008 Thompson Letter

• The Districts commit to purchase 70 percent of the project water prior to commencement of construction.

• The Districts have 10 years from the date of completion of the project to sign up for blocks of that 70 percent, with each block financed over 50 years from the date they sign up, at 4% interest with annual payments.

• If the Districts sign up for any of the first 70 percent after the initial year period, the time to pay back is reduced by each year past 10 that we delay.
Key Points Outlined in the August 2008 Thompson Letter (cont.)

• For the remaining 30 percent, the Districts have 50 years from the date of purchasing the water to pay it off at 4 percent interest.

• No interest would be charged until such time as the actual contract to take the water occurs.

• The Districts would be responsible to pay all operation and maintenance and repair and replacements costs for the project.
October 2008 Letter from the Utah Department of Natural Resources Generally Confirming Mr. Thompson’s Understanding
November 30, 2012

Sen. Michael G. Waddoups  
President of the Senate, Utah

Rep. Rebecca D. Lockhart  
Speaker of the House, Utah

Sen. Curtis S. Bramble, Chair  
Rep. Patrick Painter, Chair  
Revenue and Taxation Intern Committee

To All:

Water resources development is of fundamental importance to the economic and social well-being of Utah’s citizens, businesses, and institutions. The Utah Division of Water Resources (DWR) would like to address misconceptions surrounding the Lake Powell Pipeline (LPP) project recently voiced by some faculty members with the University of Utah and others (letter dated October 16, 2012, attached).

1. The LPP project has received extensive and well-reviewed economic analyses under the supervision of the DWR, as required by state statute and federal requirements. These analyses, conducted by senior resource economists relying on an open review of the methodology and assumptions adopted, concluded that the LPP project’s benefits exceed the project’s costs. The project would clearly yield net benefits to Utah citizens and the state’s economy. The October 16 comments expressed by the faculty members do not refer to the completed economic analyses; nor did the faculty members offer any comments on those analyses during the formal comment period conducted by the DWR as part of the federal licensing and permitting process. Their comments are predicated on a brief review of the Washington County Water Conservancy District’s (WCWCD) 2011 financial profile.

2. A key problem is that the faculty members have over-simplified the repayment of the project by the water conservancy districts. Project financing will not be a simple “straightline” amortization schedule, as they have implied. The Lake Powell Pipeline Development Act explains the repayment plan that was put forth by the Legislature. It requires that state financing of the project will be repaid, including interest, by the water conservancy districts over a 50-year period commensurate with community growth.

3. Another key factor that appears diminished within the faculty member comments is an adequate appreciation for the future water demand growth within the WCWCD. It is this growth that will fund the basic project...
“A key problem is that the faculty members have over-simplified the repayment of the project by the water conservancy districts. Project financing will not be a simple ‘straight line’ amortization schedule, as they have implied.”
Washington County is estimated to have a buildout population of approximately 607,334.
Does Washington County Currently Have Sufficient Water Resources to Service its Buildout Population?

1. Yes, It Does Have Sufficient Resources
2. No, It Does Not Have Sufficient Resources

[Pie chart showing 94% for the first option and 6% for the second option]
<table>
<thead>
<tr>
<th>Time Period</th>
<th>Additional Supply Required (Af/Yr)</th>
<th>Projected Water Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2020</td>
<td>20,000</td>
<td>$434.5MM</td>
</tr>
<tr>
<td>2021-2030</td>
<td>28,000</td>
<td>$667.0MM</td>
</tr>
<tr>
<td>2031-2040</td>
<td>30,000</td>
<td>$804.9MM</td>
</tr>
<tr>
<td>2041-2050</td>
<td>32,000</td>
<td>$883.1MM</td>
</tr>
<tr>
<td>2051-2060</td>
<td>33,000</td>
<td>$968.5MM</td>
</tr>
<tr>
<td>TOTAL</td>
<td>143,000</td>
<td>$3,758MM</td>
</tr>
<tr>
<td>Decade</td>
<td>Population Ending</td>
<td>Conservation Goal</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>2000</td>
<td>85,540</td>
<td>0%</td>
</tr>
<tr>
<td>2001-2010</td>
<td>146,060</td>
<td>26%</td>
</tr>
<tr>
<td>2011-2020</td>
<td>206,208</td>
<td>28%</td>
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<tr>
<td>2021-2030</td>
<td>292,284</td>
<td>30%</td>
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<tr>
<td>2031-2040</td>
<td>386,220</td>
<td>32%</td>
</tr>
<tr>
<td>2041-2050</td>
<td>490,223</td>
<td>33%</td>
</tr>
<tr>
<td>2051-2060</td>
<td>603,176</td>
<td>35%</td>
</tr>
</tbody>
</table>

| Total      | 143,000           | $3,758.0          | $1,417.1             |

1. Population ending data from Governor's Office of Management and Budget
2. Percentage reduction from 2000 per capita use at end of decade, per state goal of 35% by 2025
3. GPD: gallons per day calculated by DWR; first number is residential indoor use; second number is residential indoor and outdoor use (including secondary; third number is residential indoor and outdoor plus commercial, industrial, and institutional (CDI)
4. The aggregate water supply needed in addition to previous decade to meet demands of the decade for the basin as a whole, conditions may exist where shortages in one area of the basin cannot be met by the surpluses in another.

Additional costs are projected using average unit costs of cities and districts. Transmission and storage is estimated at $1,300 per CFD; treatment plant at $2,000 per gpd source development at $1,740 per AFY; and conservation at $4,000 per AFY. The total community cost of conservation is estimated using data from a 2012 Vodola study. Repair and replacement costs are based on 2% of current assessed value (auditor reports) and anticipated capital projects of cities and districts. Assets with an expected life greater than 50 yrs are excluded from repair and replacement.
5. In 2012 dollars.
6. 2001 is the baseline year. 2000 and 2010 data are current approximations for those decades. 2011-2050 data is projected.
Population Growth...

The Governor’s Office of Planning and Budget estimates that Washington County’s population will grow at an annual rate of 2.9 percent from 2013 and 2060.

This rate is significantly slower than the region’s historical rate of population growth, but is significantly faster than the rate reported between 2009 and 2012.
Do You Believe that Washington County Will Grow Faster, Grow Slower, or Grow About the Same As Projected by the GOPB?

1. Faster than Projected
2. About the Same as Projected
3. Slower than Projected
Which Rate of Growth Do You Think Most Closely Approximates What Washington County Can Expect?

1. -1.9%
2. -0.9%
3. 0.0%
4. 0.9%
5. 1.9%
6. 2.9% (GOBP)
7. 3.9%
8. 4.9%
9. 5.9%
10. 6.9%
Should Washington County reduce its supply expectations to reflect the impacts of drought and climate change?

1. Yes, Expectations Should Be Reduced
   - 69%

2. No, Expectations Should Not Be Reduced
   - 31%
About how much would you say this reduction for drought/climate change should be?

1. 1%
2. 3%
3. 5%
4. 10%
5. 12%
6. 15%
7. 17%
8. 20%
9. 25%
10. 30%
Should Washington County Utilize 100 Percent of Its Available Water Resources before Developing New Water Resources?

1. Yes, 100 Percent of Resources Should be Utilized First
2. No, Resource Development Should Precede Additional Demand
About how many years of growth should Washington County hold in reserve?

1. 0 Years
2. 2 Years
3. 5 Years
4. 7 Years
5. 10 Years
6. 15 Years
7. 20 Years
8. 25 Years
9. 30 Years
10. 35 Years
Conservation...

Washington County is currently demanding approximately 270 gallons per capita per day.

The Governor’s conservation goal would reduce the value to 251 gallons per capita per day by 2025.

Conservation would increase capacity of the existing water system, but does not come without a cost.
Passive Water Conservation
natural replacement of toilets, clothes washers, and other standard domestic fixtures

Active Water Conservation
education programs, landscape audits, landscape restrictions, rebates for landscape changes and turf replacement programs, required retrofits on sale of property, leakage detection programs, elimination of single pass cooling
SWSI 2010 MUNICIPAL AND INDUSTRIAL WATER CONSERVATION STRATEGIES

January 2011

Prepared for:

Prepared by:

Passive Water Conservation $0

Active Water Conservation $10,600
Low Scenario
$5,838

Mid Scenario
$7,296

High Scenario
$8,183
Using the Maddaus conservation study, the estimated one-time cost to save one acre-foot is $3,824 for the utility, and $13,980 for the community, the latter of which includes costs to both customers and the utility. These conservation cost estimates are roughly in line with reported costs of conservation in Colorado, which range from about $5,000 - $10,000 per acre foot.”
What Level of Conservation Do You Think is Reasonable for Washington County by 2025?

1. 318 GPCD (-5%)
2. 302 GPCD (-10%)
3. 285 GPCD (-15%)
4. 268 GPCD (-20%)
5. 251 GPCD (-25%)
6. 235 GPCD (-30%)
7. 218 GPCD (-35%)
8. 201 GPCD (-40%)
9. 184 GPCD (-45%)
10. 168 GPCD (-50%)
What Level of Conservation Do You Think is Reasonable for Washington County by 2050?

1. 318 GPCD (-5%)
2. 302 GPCD (-10%)
3. 285 GPCD (-15%)
4. 268 GPCD (-20%)
5. 251 GPCD (-25%)
6. 235 GPCD (-30%)
7. 218 GPCD (-35%)
8. 201 GPCD (-40%)
9. 184 GPCD (-45%)
10. 168 GPCD (-50%)
The Economists’ Models
Lake Powell Pipeline
Act Model
The Big Three

- Reliability
- Capacity
- Conservation
How much would you be willing to pay per gallon to ensure water system reliability into the foreseeable future?

1. 0.0¢
2. 0.10¢
3. 0.25¢
4. 0.50¢
5. 0.75¢
6. 1¢
7. 5¢
8. 10¢
9. 25¢
10. 50¢
How much would you be willing to pay per gallon to ensure Washington County has the ability to grow into the future?

1. 0.0¢
2. 0.10¢
3. 0.25¢
4. 0.50¢
5. 0.75¢
6. 1¢
7. 5¢
8. 10¢
9. 25¢
10. 50¢
How much would you be willing to pay per gallon for water conservation?

1. 0.0¢
2. 0.10¢
3. 0.25¢
4. 0.50¢
5. 0.75¢
6. 1¢
7. 5¢
8. 10¢
9. 25¢
10. 50¢
Who should bear the majority of the construction cost burden for the Lake Powell Pipeline?

1. Existing Rate Payers
2. New Growth
Should the sale of land be used to offset this cost?

1. Yes, It Should Be Used
2. No, It Should Not Be Used

69% for Yes, 31% for No.
What share should XXXXXXXX bear of that total?

1. 55%
2. 60%
3. 65%
4. 70%
5. 75%
6. 80%
7. 85%
8. 90%
9. 95%
10. 100%
Who should bear the majority of the burden for the cost of conservation?

1. Existing Rate Payers
2. New Growth
What share should XXXXXXXX bear of that total?

1. 55%
2. 60%
3. 65%
4. 70%
5. 75%
6. 80%
7. 85%
8. 90%
9. 95%
10. 100%
What Is Not Considered Here