

1. February 12, 2020 Town Council Agenda

Documents:

[021220TCA.COURTESY.PDF](#)

2. February 12, 2020 Packet Materials

Documents:

[ITEM A3 - EARTH DAY UPDATE.PDF](#)
[ITEM A4 - INFORMATION ABOUT LAKE POWELL PIPELINE.PDF](#)
[ITEM C1 - PLAT AMENDMENT FOR S-BIT-1 AND S-BIT-2.PDF](#)
[ITEM C2 - CUP MODIFICATION FOR 445 ZPB_REDACTED.PDF](#)
[ITEM C3 - REDROX MUSIC FESTIVAL LOCAL CONSENT.PDF](#)
[ITEM C4 - ROSITAS LOCAL CONSENT.PDF](#)
[ITEM C5 - ZRC LETTER OF SUPPORT.PDF](#)
[ITEM C6 - PROPOSED CEMETERY POLICY REVISIONS.PDF](#)
[ITEM C7 - RAP TAX POLICY.PDF](#)
[ITEM C8 - 2020 PC CHAIR AND VICE CHAIR.PDF](#)

3. Public Comment Letters

Documents:

[PUBLIC COMMENT ON LLP_EXCELL AND PETTIT.PDF](#)



118 Lion Blvd PO Box 187 Springdale UT 84767 * 435-772-3434 fax 435-772-3952

TOWN COUNCIL NOTICE AND AGENDA

THE SPRINGDALE TOWN COUNCIL WILL HOLD A MEETING ON WEDNESDAY, FEBRUARY 12, 2020
AT THE CANYON COMMUNITY CENTER, 126 LION BOULEVARD, SPRINGDALE, UTAH
SPECIAL MEETING STARTS AT 4:00PM. REGULAR MEETING STARTS AT 5:00PM.

SPECIAL MEETING:

Approval of the special meeting agenda

A. Closed Session

1. Discussion of pending or reasonably imminent litigation
2. Strategy session to discuss the purchase, exchange, or lease of real property

B. Action Required by Closed Session

REGULAR MEETING:

Pledge of Allegiance

Approval of the regular meeting agenda

A. Announcements/Information/Community Questions

1. General announcements
2. Zion National Park update – Superintendent Bradybaugh
3. Earth Day update – Ryan Gubler
4. Information about the Lake Powell Pipeline from Washington County Water Conservancy District General Manager Zach Renstrom and Conserve Southwest Utah President Tom Butine
5. Council department reports
6. Community questions and comments

B. Special Recognition

1. Recognition of the Herbert and Lillian Christensen House (Under the Eaves Bed & Breakfast), located at 980 Zion Park Boulevard, for being listed on the National Register of Historic Places by the National Park Service

C. Administrative Action Items

1. Public Hearing - Amended Subdivision Plat: Review of proposed plat amendment application to combine parcels S-BIT-1 and S-BIT-2 into one single parcel in the Bit and Spur Subdivision - Ryan Lee
2. Public Hearing - Conditional Use Permit Modification: Request to modify the conditions of approval of the conditional use permit for a public parking area at 445 Zion Park Boulevard by changing the point of access from SR-9 into the parking area - Travis Barney
3. Request from Redrox Music Festival for Local Consent for an event scheduled November 7-8, 2020 on the ballfield requiring Town-sponsorship and compliance with code section 7-6-13 – Liz Pitts, Hillary McDaniel, Jandalynn Stelter
4. Granting of Local Consent for a Full-Service Restaurant Liquor License for Rosita's Santa Fe Kitchen – Sarah Thompson
5. Consideration of a request from Zion Regional Collaborative to include a Council letter of support with their National Scenic Byway Designation application – Emily Friedman
6. Discussion and possible action concerning revisions to Town policies for the Jolley-Gifford Cemetery
7. Consideration of a change to the RAP Tax Policy allowing funds to be allocated to operational expenses
8. Ratification of the Planning Commission Chair and Vice Chair nominations for 2020
9. Appointment of Rich Levin as Historic Preservation Commissioner for term expiring March 2022

D. Administrative Non-Action Items

1. Review of the updated Springdale build-out analysis
2. General Council discussion

E. Consent Agenda

1. Review of monthly invoices
2. Minutes: January 8th

F. Adjourn

This notice is provided as a courtesy to the community and is not the official notice for this meeting/hearing. This notice is not required by town ordinance or policy. Failure of the Town to provide this notice or failure of a property owner, resident, or other interested party to receive this notice does not constitute a violation of the Town's noticing requirements or policies.

The Town of Springdale complies with the Americans with Disabilities Act by providing accommodations and auxiliary communicative aids and services for all those citizens in need of assistance. Persons requesting these accommodations for Town-sponsored public meetings, services, programs, or events should call Springdale Town Clerk Darci Carlson at 435-772-3434 at least 24 hours before the meeting.

Packet materials for agenda items will be available on the Town website by 5:00pm on February 7, 2020:
<http://www.springdaletown.com/AgendaCenter/Town-Council-4>



Memorandum

To: Town Council
From: Ryan Gubler, Director of Parks and Recreation
Date: February 5, 2020
Re: **Earth Day 2020 Staff Report**

Earth Day 2020

We are excited for the 16th annual Earth Day celebration which will take place on Saturday, April 25, 2020. We want to first start off by paying tribute to both Julie Hancock and Toni Benevento for their previous work in making Earth Day such a great event. Both, along with other town staff and volunteers, worked very hard to give the community a great event and tradition and should be recognized.

This year and in years going forward we will be doing something a little different. Rather than the music festival-type atmosphere that we have had in the past, we'd like to focus more on service and beautification on Earth Day. Our plan is for every year to have some sort of community project that enhances the beauty of the Town and provides a benefit for the community. This will be followed by a community cook-out to say thank you. Our goal is to create an atmosphere of collaboration and give the residents something to work together on. We feel that even though we all have different beliefs, persuasions and even interests, the betterment of the community is something we can all get behind. We hope to see a lot of people there and are excited to see where this takes us.

Trail Project

This year our Earth Day project will be the construction of a single-track, natural surface trail on the Paiute property across from the George A. Barker River Park. The idea for the location of the trail came from local resident and trail engineer Stan Plaisier. Tom, Sophie and I have been working with the Paiute Indian Tribe of Utah in getting permission to build the trail on their property. The trail was approved by their council and the tribe has even offered their assistance in the construction of it. I have included a map showing the location of the trail project at the end of this staff report.

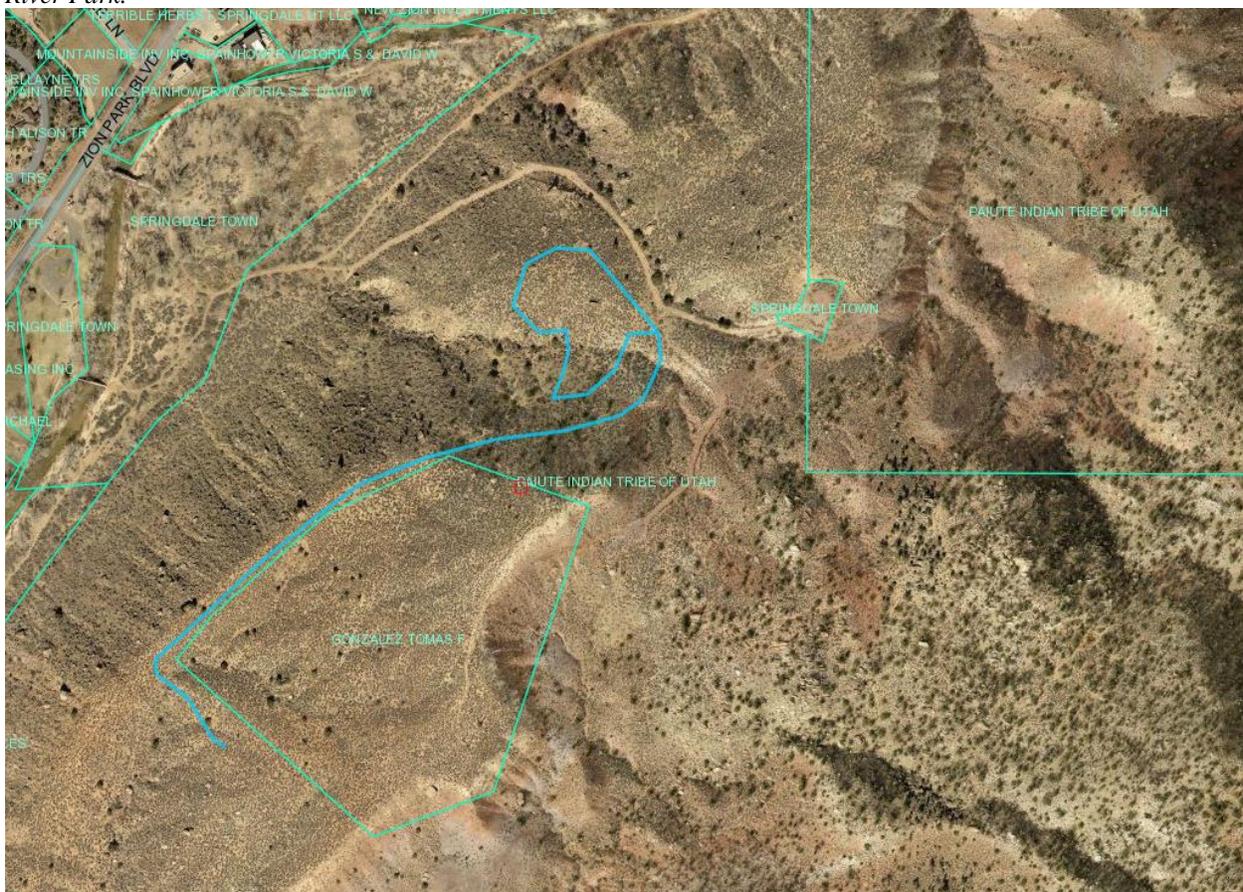
We are enlisting the help of community members along with trail building experts from the Park, the American Conservation Experience, the county trails subcommittee and other organizations to try and complete this section of trail (which will be approximately 0.5 to 0.75 miles) in half a day.

We plan on meeting at the George A. Barker River Park at 7:30 am to discuss the project with the volunteers, go over safety procedures, and give direction before starting the project at 8:00. The trail will be flagged off prior so that there is no confusion as to where construction should take place. Groups of volunteers will be supervised by designated trail experts along the trail as well. We plan on working until about noon, after which people will head down to the park. Town staff will be providing water and snacks to trail workers as they work.

Cookout

Immediately following the project, we will be hosting a community cookout at the George A. Barker River Park. Food and drink will be provided by town staff and will start being served between noon and 12:30. There will be hot dogs, burgers and some vegetarian options along with drinks, sides, and baked goods for sale from Otter Play. Everyone is encouraged to attend the cookout, even those who do not participate in the trail project. We anticipate the cookout to last roughly an hour to an hour and a half, after which Town staff will be dismissed and the Earth Day celebration will conclude.

Pictured below in blue is a rough outline of where the trail will be located. This parcel is located just East of the River Park.



The Lake Powell Pipeline information contained in this PDF is as follows:

Pages 2-36 – *“Risks of Depending on the Colorado River for the Lake Powell Pipeline”*; a project synopsis prepared for the BOR scoping review

Pages 37-74 – *“Lake Powell Pipeline Feasibility for Washington County Water District”*; a 2015 study by Utah economists to the Governor

(Additional documents added on 2/10/20)

Pages 75-78 – *“Issues with the LLP Fact Sheet”*; information based on many years of technical research and analysis by Conserve Southwest Utah

Pages 79-80 – *“A Position on Water”*; an evolving statement authored by Tom Butine

Risks of Depending on the Colorado River for the Lake Powell Pipeline

By Jane Whalen, revised April 2019

The State of Utah (Utah) wants to build the Lake Powell Pipeline to pump water 140 miles from Lake Powell, Arizona to St. George, Utah. Utah estimates it can still develop about 361,000 acre feet of its remaining share of the Colorado River 1.369 million acre feet a year (MAFY) and a portion of this 86,249 acre feet is allocated for the Lake Powell Pipeline (LPP). But, there are risks depending on this remaining share because it may not be physically in the river system due to: increased use; reduced snow pack and stream flows from rising temperatures; over allocation; junior priority of LPP's water right; and unsettled Federal Reserve Water Rights claims of the Indian Tribes.

Conserve Southwest Utah is concerned that the LPP will further diminish an already over-allocated Colorado River, where existing deficits have not yet been addressed. It would increase the diversion from the Colorado River at a time when existing water supply diversions (as well as ecological needs) already result in a functional deficit due to warming temperatures and shorter winters leaving less snow melting at the river's source. We are concerned that the project would worsen water deficits for other beneficial uses of the Colorado River and Lake Powell, and it would otherwise cause significant, immitigable impacts on such uses.

It has been well-documented by the Bureau of Reclamation (BOR) that there is more water allocated in the Colorado River than the river produces annually, even without considering a warming climate. The releases from Lake Powell continue to exceed inflows. This over-allocation is draining the reservoirs faster than anyone predicted. The Colorado River has reached its limit, yet plans are underway to take more water for the LPP.

This is an economic risk that Utah has ignored and is not addressed in the Lake Powell Pipeline studies.

For instance, Utah is not adequately addressing the following issues in their studies:

1. Whether Utah has any remaining share of its 1.369 million acre foot a year (MAFY) to use for the Lake Powell Pipeline. It may already be using 1.369 MAFY due to its Upper Basin Water Rights are in disarray and significantly over allocated.
2. Whether Utah will have sufficient senior water rights to effectively operate the project as a permanent water project since this water right is a junior water right and junior to Central Utah Project.
3. Whether the diversion of water from Lake Powell is in accordance with *the Law of the River*. According to the Colorado River Compact, Utah's Upper Basin water rights may not be used in the Lower Basin where the project is located.

4. Utah incorrectly claims it can divert water in dire conditions, and that it does not have a responsibility to address the risk of climate change on water availability for the Lake Powell Pipeline. We address these issues in detail below:

There are Various Compacts that Govern Management of Colorado River, they include:

1922 Colorado River Compact

The Colorado River Compact was created in 1922 and negotiated during a historically wet period at about 17 million acre feet a year (MAFY) at Lee Ferry, Arizona. Lee Ferry is the dividing line between the Upper and Lower Colorado River Basin States. It was decided 15 MAFY would be equally divided with 7.5 MAFY for the Upper Basin States of Utah, Colorado, New Mexico and Wyoming and 7.5 MAFY for the Lower Basin states of Nevada, Arizona and California. A few excerpts from the Compact:

- i. In Article III (d) of the Compact requires: “The States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in continuing progressive series ...”, which means 7.5 MAFY a year.

- ii. In a shortage Article III (c) of the Compact states that Upper Basin must provide half of deficiency of water for Mexico. Utah is not planning for this in its remaining allocation.

- iii. ARTICLE III (c) (*water for Mexico*)

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System, such waters shall be supplied first from the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b); and if such surplus shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency so recognized in addition to that provided in paragraph (d).”

The 1922 Compact clearly separates the two basins and that 7.5 MAF is for Upper Basin and 7.5 MAF for the Lower Basin State’s use. It is not certain all states agreed to Utah using a Upper Basin water right in the Lower Basin where the project is located. A 2003 Resolution of the Upper Colorado River Commission does not resolve this issue, stating:

“Whereas, the states of Colorado, New Mexico, Utah and Wyoming all support the proposed Lake Powell Pipeline project, but the states are not in agreement as to whether, under the Law of River, Utah may use a part of its Upper Basin apportionment to serve uses in the Lower Basin portion of Utah, without obtaining the consent of the other states. However in the spirit of comity, and without prejudice to the position of any state regarding these unresolved issues, all the states support and to the extent necessary consent to the Lake Powell Pipeline Project in Utah.”¹

According to legal scholars Utah cannot use an Upper Basin water right in the Lower Basin as this Project does.²

For instance, where an allocation is measured is important for the Upper Basin and it is counted at Lee Ferry, AZ. However, the Lake Powell Pipeline will draw its water above Lee Ferry. The practical necessity of administering the various water rights, apportionments, etc. of the Colorado River has led to definitions of consumptive use or depletions generally in terms of “how it shall be measured.” The Upper Colorado River Basin Compact provides that the Upper Colorado Commission is to determine the apportionment made to each state by “...the inflow-outflow method in terms of manmade depletions of the virgin flow at Lee Ferry...”³ This water diversion for the Lake Powell Pipeline is diverted before it gets to Lee Ferry and is used in the Lower Basin and this conflicts with the Colorado River Compact. It may take federal legislation and Basin States agreement to allow this scenario.

There is also another issue that may complicate the matter, there is no agreement on water sharing of the Virgin River between the states of Nevada and Arizona. Utah tried to get an agreement from these states years ago but could not. These issues may come up when other states are asked to agree that the water can be moved from the Upper Basin and used in the Lower Basin. This may take federal legislation and agreement with the Department of Interior as well.

Further, Utah shows on this chart from an article on page 8, Utah Perspectives Colorado River⁴<https://water.utah.gov/InterstateStreams/PDF/TheColoradoRiverart.pdf> it has a share in the Lower Basin. However, I could not find that Utah has a share in the Lower Basin. The article doesn't include how Utah's Lower Basin share is accounted for? This amount of water doesn't show in Utah's Upper Basin share of 1,369,000 AFY.

¹ Resolution of the Upper Colorado River Commission, 2003, See at: <http://www.riversimulator.org/Resources/LawOfTheRiver/HooverDamDocs/Supplements/2003aUCRCResolutionUseAccountingWaterLakePowellPipeline.pdf>

² James S. Lochhead, An Upper Basin Perspective on the California's Claims to Water from the Colorado River Part 1: the Law of the River, pp.322-329, See at: <http://citizensfordixie.org/wp-content/uploads/2015/12/LochheadAn-Upper-Basin-Perspective.pdf>

³ The Upper Colorado River Basin Consumptive Uses and Losses Report 2011-2015, Terminology, page 4

⁴ Utah Perspectives Colorado River, page 8 ⁴<https://water.utah.gov/InterstateStreams/PDF/TheColoradoRiverart.pdf>

Utah's Lower Colorado River Basin Projected Depletions

(Units in acre-feet per year)

	2000	2020	2050
Municipal/Industrial	13,000	22,000	39,000
Secondary (lawn and garden)	6,000	10,000	17,800
Agriculture/Stock	50,000	45,000	38,000
Exports (to New Castle area)	2,600	2,600	2,600
Reservoir Evaporation	5,300	10,600	11,700
Shivwits Paiute Indian Band	300	2,000	4,000
Total Depletion	77,200	92,200	113,100

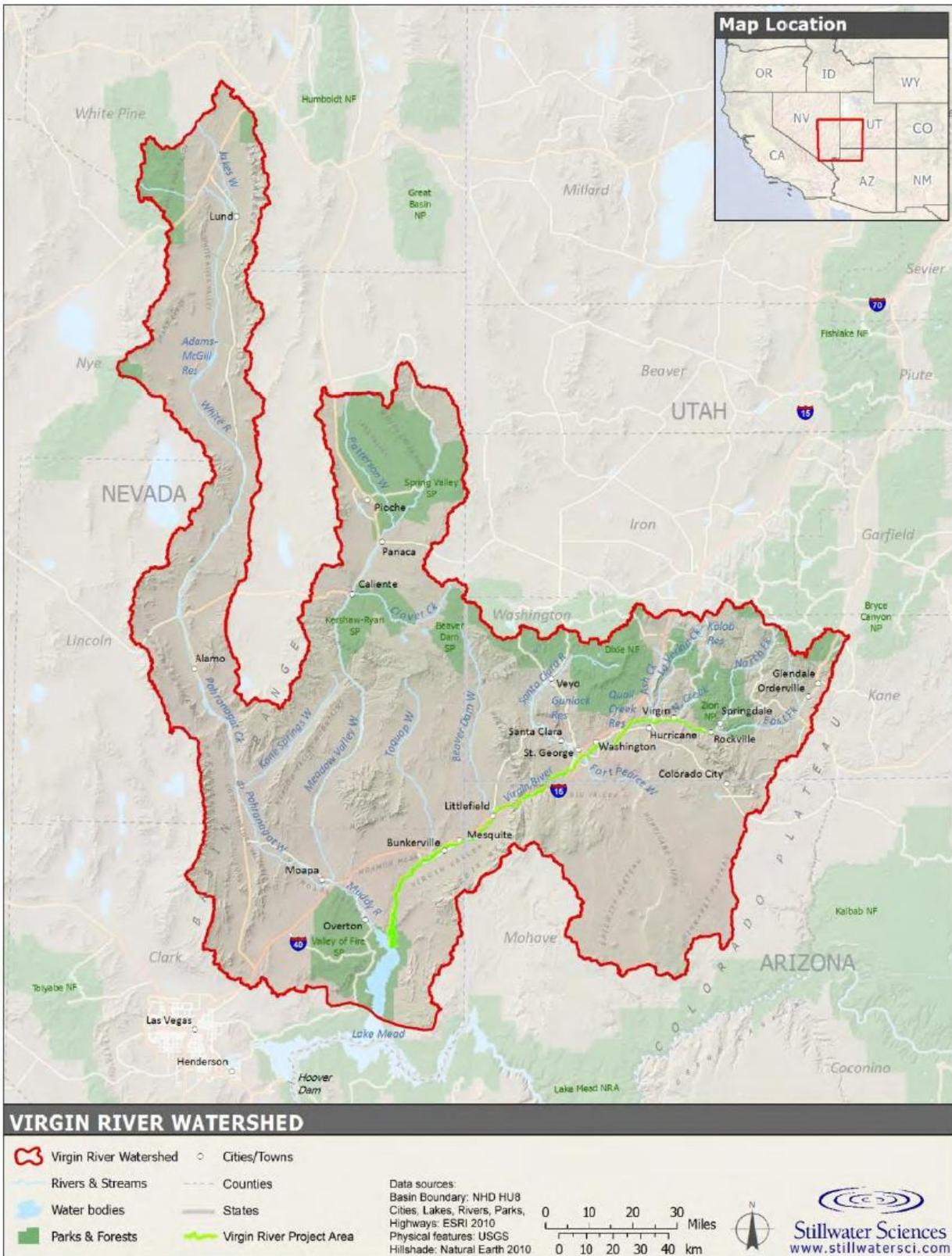
Source: Utah Division of Water Resources

In addition, “Utah officials asked the U.S. Supreme Court to allocate the river in 1960 as part of the court's ruling in the landmark Arizona vs. California water dispute. The case addressed allocation of Colorado River tributaries in Arizona and Nevada. But the court's special master assigned to the case said there was no (current) fight over the Virgin River, so he didn't allocate it.”⁵

A map of the Virgin River watershed.⁶

⁵ <https://www.deseretnews.com/article/295722/A-RIFT-RUNS-THROUGHT-IT--WAR-BREWING-OVER-RIGHTS-TO-VIRGIN-RIVER--WATER.html>. 1993

⁶ 2014 report, Virgin River Ecohydrological Assessment, Walton Foundation, map page2



1928 Boulder Canyon Project Act

The Boulder Canyon Project Act of 1928 authorized construction of a dam in Boulder, or Black Canyon, construction of the All-American Canal to connect the Imperial and Coachella Valleys with the Colorado River, and divided the lower basin waters among the lower basin states. The court decided how the Lower Basin States divided 7.5 million acre feet a year (MAFY). Arizona 2.8 MAFY, Nevada 300,000 acre feet and California 4.4 MAFY which, are fixed allocations and draw their water supply from Lake Mead.

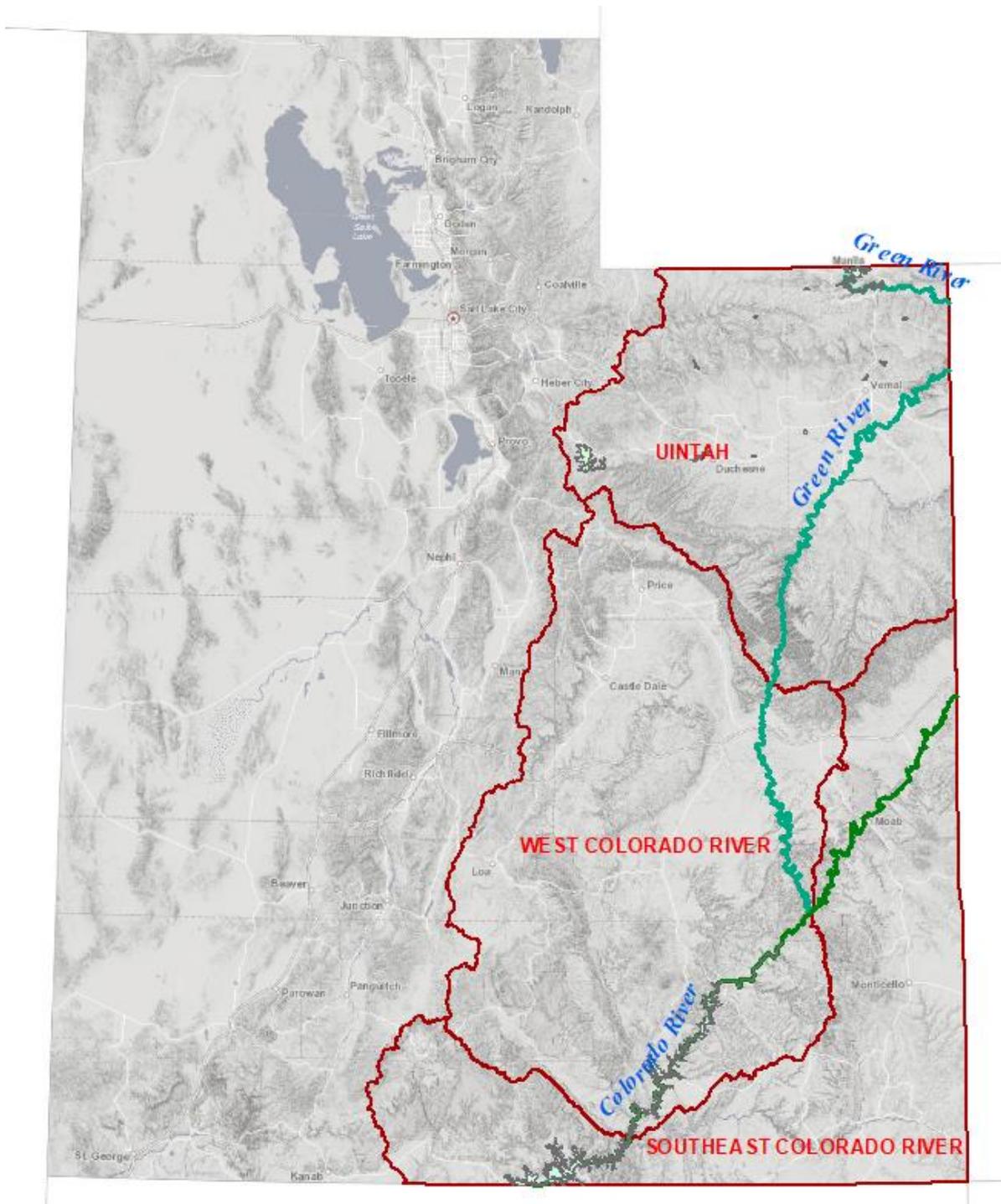
1948 Upper Basin Compact

Utah's Water Rights are only 23%

In 1948 the Upper Basin Compact was agreed to by the states of Utah, Colorado, Wyoming and New Mexico. The states realized a state's water right couldn't be a fixed amount like the Lower Basin. Consequently, each state divided the 7.5 MAFY Upper Basin share by a percentage depending on how much the state's watershed contributes to the Colorado River.

This 7.5 MAF was divided, 51.75% to Colorado, 23% to Utah, 14% to Wyoming and 11.25% to New Mexico and 50,000 AF to Arizona. The percentage apportionment reflected uncertainty over how much water remain after the Upper Basin had fulfilled its obligation to the Lower Basin. In times of shortage/drought, the Upper Basin River Commission will decide the reductions. Utah's 23% remaining share of the Colorado River is particularly vulnerable due to being such a small percentage of the flow. There are additional "upstream" aspect of the Law of the River that might affect the amount of water for the LPP, particularly in times of drought. These Upper Basin rights are more uncertain and variable because they are allocated only a percentage of what is left after obligations to the Lower Basin, and senior water rights are met.

Utah's three hydrologic basins of the Upper Basin Colorado River, Uinta, West Colorado River and Southeast Colorado River basins. MAP



1988 Hydrologic Determination (safe yield)

In connection with Jicarella Apache Nation's water rights settlement a 1988 hydrologic determination was made for the Navajo Reservoir in a Bureau of Reclamation service contract. In this process the Department of Interior determined the Upper Basin States share of 7.5 MAFY should be reduced to 6 MAFY. Based on the BOR using its Colorado River Simulation Systems (CRSS) model for the period 1906-2000. They use natural runoff from Upper Basin averaged 15.3 MAF per year at Lee Ferry, AZ. This natural flow is calculated as if there were no diversions in the river system. This over estimates the annual flow that has been reduced to about 12.5 MAFY

The State of Utah portion is 23% of 6 MAFY, or 1.369 MAFY. Over time the 6 MAFY called safe yield will likely be lowered again because of predicted less snow pack feeding the river; or the Department of Interior adopting a lower annual flow for the river. Utah is currently using about 1.008 million acre feet a year (MAFY) of its allocation and estimates it has about 361,000 acre feet left to develop using 15 MAFY. But, if this yield is reduced Utah's remaining share of river will also be reduced. Utah's water right is not a fixed. There is no guarantee what Utah's allocation will be in the future.

According to various agreements, 8.25 million acre-feet per year (MAFY), on average, must pass the "Compact Point" (the gage one mile downstream of Lee Ferry) every year for use by the Lower Basin States of Nevada, Arizona, and California. This includes 7.5 MAFY for Lower Basin States ⁷and 750,000 acre feet for Mexico.

2007 Hydrological Determination Upper Basin Water Availability from Navajo Reservoir, New Mexico

In April 2005 there was a Navajo water rights settlement for 20,800 acre feet from the Navajo Reservoir. But, this 2007 hydrologic determination stated the flow the Upper Basin states could reasonably plan on is lower at 5.76 million acre feet a year, not 6 MAFY. This determination was made as to the availability of water under a long-term BOR service contract.

Therefore, if you use 5.76 MAFY (minus water for Arizona 50,000 AF) times 23%, equals MAFY 1,313,300 AF, not 1,369,000 AF that Utah is using now. This would not leave enough for the LPP and all the other senior water rights, or unsettled Federal Reserved Water Rights for Indian tribes and other Federal reservations.

For example:

⁷The 1922 Compact Article III (d) states: "The States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in continuing progressive series ..."

6 million acre feet minus- 50,000 AF for AZ equals 5,950,000 acre feet.
23% of 5,950,000 AF= 1,368,000 AF; (Utah is now using this figure)

Utah's Allocation using 6 MAFY
1.369 MAFY using 23% of 6 MAFY
1.008 MAFY used
361,000 AF remaining in Utah's allocation using 15 MAFY

But, if you use less water 5.76 MAF or 5,760,000 AF, minus- 50,000 AF for AZ = 5,710,000 AF, divided by 23%, equals 1,313,300 AF (Less water Utah can use).

It has been eleven years since the last Colorado River Basin 2007 Hydrological Determination on water yield for the Upper Basin was completed. A new determination should be completed before BOR gives a long term service contract to Utah for the Lake Powell Pipeline.

Moreover, due to higher temperatures between 2000 and 2014 the annual Colorado River flows averaged 19% below historic average 1906-1999, the worst 15 year drought on record⁸

For example, to illustrate there would be less water, subtract (19% or 1,140,000 MAF) from 6 MAF minus- 50,000 AF for Arizona equals 1,090,000. Then subtract 1,090,000 from 6 MAF, equals 4,860,000 AF to divide in the Upper Basin. Leaves Utah with 23% of that, or 1,117,800 AF, not 1,369,000 AF.

6,000,000 AF
-50,000 AF State of Arizona
5,950,000 AF
-19 %
1,090,000 AF

5,950,000 AF
-1,090,000 AF 19%
4,860,000 AF to divide between the Upper Basin States

23% of 4,860,000 AF is =1,117,800 AF, not 1,369,000 AF

Thus, this scenario of less water 1,117,800 AF, would leave just 109,800 AF that remains of Utah's allocation, not 361,000 AF and this doesn't leave enough water for LPP, the tribes, or other Federal Reserved Water rights holders, or other senior water rights holders.

⁸ *The Twenty-First Century Colorado River hot drought and implications for the future*. See at http://conserveswu.org/wp-content/uploads/Udall_et_al-2017-Water_Resources_Research.pdf.

December 2007, Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations of Lake Powell and Lake Mead

The Secretary of the Department of the Interior (Secretary), acting through the Bureau of Reclamation, adopted specific interim guidelines for the Colorado River, particularly under drought and low reservoir conditions. The eight-year period from 2000 through 2007 was the driest eight-year period in the 100-year historical record of the Colorado River.⁹ This drought/climate change has reduced Colorado River storage systems. It creates a higher probability of shortage due to depleted storage conditions in these reservoirs. In 2018 the inflow into Lake Powell is projected to be only 3 million acre feet and not the assumed 7 million acre feet. These guidelines do not take into consideration climate change and will expire in 2026. Discussions between the states about new guidelines have already begun.

The Interim Guidelines describe that water in Lake Powell and Lake Mead will be managed jointly and water will be sent to Lake Mead to prevent shortage. The goal is to balance storage in Lake Powell and Lake Mead. Actions will be taken according to the elevations for Powell and Mead set in the Interim Guidelines. The releases from Lake Powell continue to exceed inflows into Lake Powell reducing storage. This agreement called for the Lower Basin States to implement staged reductions in their withdrawals if Lake Mead falls below the series of defined tipping points.

John Fleck mentions in his book what Michael Conner BOR told him about these reductions.

Excerpts from his book:

“As Lake Mead drops, rules kick in that require water users in Nevada, Arizona, and Mexico to remove less water from the system each year. But those reductions are modest, and Connor told me that the Bureau’s worst-case modeling showed that even with the agreed-upon reductions, Lake Mead could quickly drop past a point of no return, to levels at which the current rules would be no help in determining who was entitled to how much.”

“The solution is, in a sense, straightforward. Everyone in the Colorado River Basin has to use less water. It’s possible to apply a simple arithmetic wave of the arm and say, for example, that we could bring the system into balance if everyone used 20 percent less water than they are consuming today. We know from experience, from Yuma to Las Vegas to Albuquerque, that such reductions are possible, that water-using communities are capable of surviving and even thriving with substantially less water than they use today. But no one will voluntarily take such a step without changes in the rules governing basin water use as a whole to ensure that everyone else shares the reductions as well—

⁹ <https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf> BOR Interim Guidelines

that any pain is truly shared. We need new rules. Absent that, we simply end up with a tragedy of the commons.”¹⁰

Eric Millis, Director of Utah Division of Water Resources (DWRe) is concerned about a provision in the Interim Guidelines that requires Lake Powell to be lowered by 20 feet. It is triggered by low elevations of Lake Mead. He recommends this provision be deleted in the future guidelines. This provision reads:

“In Water Years when Lake Powell elevation is projected on January 1 to be at or above the elevation stated in the Lake Powell Equalization Elevation Table, an amount of water will be released from Lake Powell to Lake Mead at a rate greater than 8.23 maf per Water Year to the extent necessary to avoid spills, or equalize storage in the two reservoirs, or otherwise to release 8.23 maf from Lake Powell. The Secretary shall release at least 8.23 maf per Water Year and shall release additional water to the extent that the additional releases will not cause Lake Powell content to be below the elevation stated in the Lake Powell Equalization Elevation Table or cause Lake Mead content to exceed that of Lake Powell; provided, however, if Lake Powell reaches the elevation stated in the Lake Powell Equalization Elevation Table for that Water Year and the September 30 projected Lake Mead elevation is below elevation 1,105 feet, the Secretary shall release additional water from Lake Powell to Lake Mead until the first of the following conditions is projected to occur on September 30: (i) the reservoirs fully equalize; (ii) Lake Mead reaches elevation 1,105 feet; or (iii) Lake Powell reaches 20 feet below the elevation in the Lake Powell Equalization Elevation Table for that year.”¹¹

The Lower Basin Structural Deficit

An imbalance in Lake Mead between inflows and outflows is known as the Lower Basin’s *structural deficit*. Eric Millis, director DWRe gave a presentation at the Utah Water Users Workshop in March 2018 on the structural deficit in existing Compact agreements. The problem is there is more water going out of Lake Mead than the amount of water going into Lake Mead.

According to Mr. Millis given basic apportionments in the Lower Basin 7.5 MAFY, the allotment to Mexico 750,000 AF, with normal 8.23 MAFY release from Lake Powell, Lake Mead storage declines about 12 feet each year.

Here are excerpts from his power point presentation.¹²

Water Budget at Lake Mead

¹⁰ John Fleck, *Water is for Fighting Over: and Other Myths about Water in the West*

¹¹ see at <https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf> Page 51

¹² <http://conserveswu.org/wp-content/uploads/Eric-Millis-pp-2018.pdf> Utah Water Users Workshop, March 2018

- Inflow (release from Powell) = 9 MAF
- Outflow, AZ, CA, NV and Mexico = - 9.6 MAF
- Mead evaporation losses = -.06 MAF
- Balance = - 1.2 MAF (annual deficit)

Impacts of the Lower Basin Compact's Structural Deficit

- Results in a decline of 12+ feet in Lake Mead every year when releases from Powell are “normal” (8.23 MAF)
- Results in a decline of 4 feet in Lake Mead every year when releases from Powell are “balancing” (9.0 MAF)
- Drives Lower Basin to take shortages
- May bring Lake Powell down with it if more water is required to be released under the 2007 Guidelines
- This list does not include the 1.5 MAFY needed for the Central Arizona Project (CAP)

Bradley Udall's 2017 article further describes how the Central Arizona Project adds to the structural deficit. It also explains how the Central Arizona Project depends on equalization flows from Lake Powell because there was not enough remaining unallocated Lower Basin water. The CAP is delivering about 1.5 MAFY.

An excerpt from this article:

“In the Lower Basin, Arizona could theoretically lose its water allocation for the entire Central Arizona Project canal, a critical \$4.4B, 530 km cross-state 2 bcm/yr water source for 4.7 m people, multiple sovereign Indian nations, and over 120,000 irrigated hectares [Glennon, 1995; Colorado River Basin Stakeholders, 2015]. This canal currently relies on occasional but uncertain “equalization” releases from Lake Powell that only occur with irregular and rare large Powell inflows. The extra water is delivered when Lake Powell reaches levels substantially higher than Lake Mead, a use allowed under the 1922 Colorado River Compact section III (e) and formalized most recently under rules established in a 2007 Record of Decision for coordinated operations of Lakes Powell and Mead and for shortage sharing in the Lower Basin [Department of Interior, 2007]. Under normal operating rules, without these extra inflows, Lake Mead has excess outflows of 1.5 bcm per year, the so-called Lower Basin “structural deficit” [Collum and McCann, 2014]. The structural deficit was created in 1968 when Congress authorized the Central Arizona Project (CAP).....Arizona agreed to rely on this unused, but in the long run unreliable water, because there was not enough remaining unallocated Lower Basin water. The CAP had long been a desire of Arizona and the state was willing to make this bargain despite its flaws [Johnson, 1977]. This same water is first available for use by the Upper Basin under the Colorado River Compact, but heretofore has not been developed for Upper Basin use. A plan to augment the Colorado River with flows from outside the basin, discussed during the hearings on the legislation, but not included in the final package due to opposition from potential source areas, was never revisited by Congress. Reclamation in 2011 said that such augmentation was now unlikely. The structural

deficit only became a problem when the CAP was fully completed in the mid-1990s combined with the drought that began in 2000. Upper Basin demand growth has also played a small role, although Upper Basin demands are still much less than forecast in 1968 for the year 2000 [Tipton and Kalmbach, Inc., 1965; Johnson, 1977]. The recent Lake Mead declines are strongly influenced by this imbalance, and solutions to this deficit have been a recent focus of the Basin states and federal government [Central Arizona Project, 2016; Davis, 2016].”¹³

Over Allocation of Utah’s Water Rights

It is well documented there is more water allocated in the Colorado River than the river produces annually even without considering climate change impacts on diminishing future flows. According to the Bureau of Reclamation (BOR) water demand for Colorado River water has already outstripped supply since 2002 (see Figure 3 below). The Bureau of Reclamation indicated in a study the “apportioned water in accordance with the *Law of River* exceeds the approximate 100 year average “natural flow” of river of 15 million acre feet year (MAFY) at Lee Ferry and is 16.4 MAFY.”¹⁴ (The “natural flow” is estimated in hydrological modeling as what the unregulated, undiverted streamflow would have been absent human intervention.) “The Basin faces a wide range of plausible future long-term imbalance between supply and demand. This imbalance computed as a 10-year running average, ranges from no imbalance to 6 million acre feet (MAF) with a median of 3.2 MAF in 2060.”¹⁵ Compounding the problem is river flows at Lee Ferry during last 15 years have only been 12.5 -13 (MAFY). Yet, these diminishing flows are not used in forecasting water availability for the LPP, by Utah, the Upper Basin River Commission, or BOR. Unfortunately, the BOR is supporting more diversions even if the water is not physically available putting communities at risk

Bradley Udall and Jonathan Overpeak’s 2017 research article explains the risks of lower flows for the Upper Basin States.¹⁶

Some excerpts from this article:

“ 2000 and 2014 annual Colorado River flows averaged 19% below 1906-1999 average, the worst 15 year drought on record. One third or more of the decline was likely due to warming.”

¹³ see at: http://conserveswu.org/wp-content/uploads/Udall_et_al-2017-Water_Resources_Research.pdf.

¹⁴ Colorado River Basin Stakeholders *Moving Forward* to address Challenges identified in the Colorado River Basin Water Supply and Demand Study, Phase 1 Report: Executive Summary, Bureau of Reclamation, May 2015. and https://www.usbr.gov/lc/region/programs/crbstudy/FactSheet_June2013.pdf

¹⁵ Colorado River Basin Stakeholders *Moving Forward* to address Challenges identified in the Colorado River Basin Water Supply and Demand Study, Phase 1 Report: Executive Summary, Bureau of Reclamation, May 2015, page 3.

¹⁶ *The Twenty-First Century Colorado River hot drought and implications for the future*. See at http://conserveswu.org/wp-content/uploads/Udall_et_al-2017-Water_Resources_Research.pdf., pages 2404, 2407

“The Upper Basin also has serious issues, one of which ripples into the Lower Basin. Under such low reservoir conditions, there is also a high likelihood that the Upper Basin states would have to curtail existing water deliveries to cities such as Denver, Colorado Springs, Albuquerque and Salt Lake City in order to make required deliveries to Lake Mead. Heretofore, largely because of the structure of the Colorado River Compact, the Upper Basin and Lower Basin have been managed separately. With permanent flow declines of approximately 20%, however, the required deliveries to Lake Mead would become a hardship on the Upper Basin, as well as create Lower Basin delivery shortages [Reclamation, 2007; Barnett and Pierce, 2009; Rajagopalan et al., 2009]. The original compact, signed during one of the wettest periods in the last 450 years [Woodhouse et al., 2006], did not envision how large scale flow declines would be managed between the basins, and such declines could cause an allocation crisis between the Upper and Lower Basins [Adler, 2008].”

Utah has over promised communities in the Colorado River Upper Basin across the state water that is no longer in the system.

In a 2014 Deseret News article Utah’s water managers explain the over allocation of its water.

Excerpts from this article: ¹⁷

The Water Question: The staggering problem of determining water rights.

"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.

Many of the files are outdated, which means there could be a big difference between what is in the file — paper water — and the actual water that exists or is available — wet water.

“We are growing so much as a state and there is so much demand for water, it is critical we know where these existing uses are and protect them,” said Mike Styler, executive

¹⁷ See at: <http://www.deseretnews.com/article/865617715/The-water-question-The-staggering-problem-of-determining-water-rights.html>; 2014 by Amy Joi O’Donoghue

director of the Utah Department of Natural Resources. "And there is really no new water to be had."

Why should Utahns care? Because the nature of water rights is that there are far more rights than the water that actually exists, so the task is to determine what is real and what is not.

Of the 15 major watershed areas in Utah, just two of them have been researched and adjudicated, which means that the investigation and documentation work was carried out and a judge then issued a decree. ”

Are Utah’s remaining rights of 361,000 acre feet still there?

If you use lower flows than 15 MAFY, it is not.

This chart is from Division Water Resources (DWRe) shows proposed uses for Utah’s remaining share of the river.

Figure 1. (DWRe chart)

Utah’s planned new users Colorado River	Utah’s Total Allocation 1.369 MAFY 1.008 MAFY used
<i>Ute Tribe Reserved Water</i>	105,000 acre feet
<i>Navajo Nation Reserved Water</i>	81,000 acre feet
Lake Powell Pipeline	86,000 acre feet
New Ag uses	40,000 acre feet
New M & I Uses	29,000 acre feet
Total new planned uses	361,000 acre feet

As Figure 1 illustrates Utah assumes it has 361,000 acre feet of water from Colorado River Compact water left to develop. However, if lower flows of below 15 million acre feet a year (MAFY) are used in the analysis Utah’s compact rights are reduced and that eliminates the availability of water for the Lake Powell Pipeline.

An example of over allocation of Utah’s remaining Colorado River share of 361,000 acre feet is illustrated in this DWRe 2005 power point slide:

Potential Depletion Approved Applications (Undeveloped)¹⁸

<u>Applicant</u>	<u>Quantity (AF)</u>
San Juan County WCD	30,000
Central Utah WCD	29,500
Board of W R (et al)	158,000 Flaming Gorge
Wayne County WCD	50,000
Kane County WCD	30,000
Sanpete WCD	5,600
Uintah County WCD	5,000
Others	80,000 Navajo Tribe settlement
Ute Tribe	<u>105,000</u>
TOTAL	493,100 (which is above 361,000 AF)

In addition, we could not find how Utah will account for water use on the Virgin River 100,000 AF. In our research it is not included in Colorado River Upper Basin water rights. Utah may have to delete another 100,000 AF for the Virgin River from Utah’s remaining share of river.

While Utah may not be using its remaining share of the Colorado River on paper there is not enough water supply left to develop if you consider declining future flows. In addition, the waters of Utah’s Upper Basin Colorado River are significantly over appropriated. This situation needs to be resolved before Utah allocates more water for the Lake Powell Pipeline.

Is Utah already using its 1.369 MAFY Allocation?

Utah’s has 1.369 Million Acre Feet Year (MAFY) of depletions from the Colorado River Compact to use and the balance of water has to go downstream to the Lower Basin States. We have heard a lot of talk about that Utah has to hurry and use all its Colorado River rights before other Lower Basin gets the water. But, Utah may already be using its share and is over-allocating its remaining share. There should be a validation process to verify exactly what water rights are in use by straighten out the Upper Basin Water Rights that are currently in disarray.

For instance:

¹⁸ Upper Colorado River Basin Current Water Rights Issues Division of Water Rights April 2005 see at https://www.waterrights.utah.gov/meetinfo/m042005/jdo_2005.ppt

The State's web site of the Upper Basin Water Rights has 2.5 million acre feet of approved depletions. But, Utah is only supposed to deplete 1.4 million acre feet.

Click here web page: see

<https://www.waterrights.utah.gov/distinfo/colorado/WRPriorityDDview.asp> " with new totals at the bottom of page:

- 6,450,413 acre feet diversion; and
- 2,542,092 acre feet depletions

“Water rights can be quantified through both diversion and depletion volumes of water, in acre feet per year (AFY). A water right is permitted to ‘divert’ a specific amount of water, a portion of which will be returned to the river depending on its use (i.e. through agricultural return flows or municipal wastewater treatment plants). The portion of the right that is consumptively used (largely through plant evapotranspiration) is considered ‘depleted’ from the basin. A depletion is defined as the part of water that will not return to the river system. It is the amount of water that is lost from the hydrologic system based on the associated beneficial use. It is evaporated, transpired, incorporated into products or crops, and consumed by humans or livestock

Consequently, there are significantly more approved water right applications, which if developed could potentially exceed Utah's entitlement.¹⁹ All of the approved city water rights holders should be made aware of this over allocation so they can implement water conservation measures to protect their water supply for the future.

Further, 2008 Utah passed a law to accommodate the LPP water right that allows water agencies 50 years to prove up on their water rights and show beneficial use. Utah Code (73-3-12). This was supposed to create some security to cities that they would get water in the future. But this is false promise due to Utah over allocating its share of Upper Colorado River Basin. As water supplies decline it is unclear who will be able to use the water for the long term.

Is the Water Wet?

An important aspect of a water right due diligence investigation is determining whether the water is “wet”. That is, even if the water right exists on paper, is there adequate water available in priority to satisfy the paper entitlement. Many water rights exist that have little or no value because of their legal and physical limitations.

There are two principal factors that can make a water right just a “paper” right. First, does the water right have a sufficient priority to allow it to divert water that may be physically

¹⁹ Water Right Issues in the Upper Colorado River Basin of Utah
<https://www.waterrights.utah.gov/meetinfo/m042005/summary.htm>

available. Second, is water physically available when the water right is in priority. If the answer to either question is “no”, then the water right may exist on paper, but have no real value or use.

Staff from the state’s water agencies said you cannot use water rights listed on this web page to determine depletions because they are not accurate. Some of these water rights were never developed. They said the staff of the River Basin Planning Section Manager Utah Division of Water Resources would have a more accurate list of depletions. The depletions have to be reported to BOR.

Staff gave us a depletion list by river reach see at: http://conserveswu.org/wp-content/uploads/Upper-Basin-DEPLETIONS-2014_Colorado_River_Compact.xls.pdf. We asked for a more specific list on what data was used for this chart. Then, we can cross check with the cities’ water rights approved applications. It will take some more research to verify that Utah didn’t already over allocate its remaining share of the river.

Before the state keeps giving large amounts of money to the Lake Powell Pipeline there should be a determination as to whether, or not water will physically be available for the Lake Powell Pipeline over the long term. We recommend the Governor provide funding to Division of Water Rights to resolve the over allocation of the Colorado River Upper Basin Water Rights so that depletions are recorded accurately. The Governor could ask the Bureau of Reclamation to do a new Hydrological Determination using 12.5 MAFY annual natural flow at Lee Ferry to determine the long term supply for the LPP and safe yield the state can plan on for this project.

Ultimate Phase Central Utah Project

Utah is proposing two service contracts from the Bureau of Reclamation to utilize their remaining water rights from the Ultimate Phase Central Utah Project 158,800 AFY and draw the water from Flaming Gorge Reservoir (FGR). The Lake Powell Pipeline water right is included in the Ultimate Phase Central Utah Project. These water rights have to show proof of beneficial use by 2020 and were undeveloped seasonal unreliable high water rights. However, Utah Division of Water Resources (UDWRe) is asking Bureau of Reclamation (BOR) to give them permanent reliable water rights out of FGR all year long instead.

The two BOR service contracts for the Ultimate Phase of CUP include:

- A BOR 50-year service contract for Utah to draw out 72,641 AFY from FGR to use for development along the Green River, known as the Green River Block (GRB). (a portion of application Water Right No. 41-3479).
- A BOR 50-year service contract to develop the LPP that would draw 86,249 AFY from FGR, let the water flow downstream about 400 miles to Lake Powell, and then draw water for LPP from Lake Powell reservoir (the remaining portion of application Water Right No. 41-

3479). This service contract will be evaluated in the LPP's draft EIS. However, thus far there is no analysis of this Contract in the studies.

UDWRe makes the claim that it has water rights left to use for the LPP and can exchange use of those rights with BOR. However, our preliminary research indicates that the Utah Division of Water Rights has over-allocated the Green River tributaries, and there may not be this extra water to exchange. We did a Government Records Access and Management Act (GRAMA) request from the UDWRe six months ago and asked for the specific rights they are exchanging. Their response thus far is that the records from the UDWRe and the Division of Water rights do not agree with each other. We also did a GRAMA request to UDWRe six months ago and asked for the specific water rights that it claims it is using of its 1.369 MAFY compact allocation. We are still waiting for the responses.

UDWRe is proposing in these two BOR 50-year service contracts that UDWRe will not develop unperfected seasonal high-water Green River tributary flows from the north slope of the Uinta Mountains and instead will leave them in the Green River for the endangered fishes if UDWRe can withdraw this same amount of water out of FGR reservoir for development. However, the seasonal spring high-water Green River tributary flows may not be available to exchange because there are undeveloped senior water rights holders and others who may want to use them in the future or are already using them, such as the Central Utah Project (CUP).

The CUP also depends on these same seasonal high water rights of the Green river tributaries from the north slope of the Uinta Mountains because all the senior surface water rights were already fully appropriated before the CUP was built in 1964, Water Right No. 43-3822. Therefore, the CUP is also a junior water right holder. UDWRe's 1958 Water Right No.41-3479 segregated from water right 41-2963 for the LPP is also junior to the Central Utah Project. Most importantly, the most senior water right holder of the water in the Green River tributaries is the Northern Ute Tribe of the Uintah and Ouray Indian Reservation, with water rights on many Green River streams that have the highest priority dates of 1882 and 1861. These are significant water rights: about 530,665 AFY of diversion on many Green River tributaries. Utah has been trying for many years to negotiate a settlement of the tribe's water rights whereby the tribe would forfeit some of their Green River tributary water rights to the state, but thus far, the tribe has not agreed.

Moreover, UDWRe has not disclosed where their undeveloped high-water Green River tributary flows they want to exchange with BOR are located. More information is needed to verify what amount of water supply is available for UDWRe to exchange for these long-term 50-year service contracts. The CUP Water Right of 1964, No. 43-3822 for 500,000 AFY was identified as a high water seasonal water right. In 1996 since the Ultimate Phase was only partially built the BOR assigned another water right 41-2963 for 447,800 AFY diversion with 158,800 AFY of depletion to UDWRe. It is unclear how the BOR determined there was that much water left over from CUP to give such a large amount of water back to Utah. Also, this would mean there has to be about 1,000,000 AFY extra of high water seasonal flows in Green

River tributaries of the north slope of the Uinta Mountains. We question Utah's assumption that is large amount of water that is extra and can be exchanged with BOR for water out of Flaming Gorge reservoir. This question should be analyzed in the LPP's draft EIS.

Federal Reserved Water Rights

Before Utah allocates a portion of its remaining allocation of the Colorado River to the Lake Powell Pipeline Project it should first settle all of its Federal Reserved Water Rights claims that have priority over the LPP's 1958 junior water right. Here is some background information on Federal Reserved Water Rights that are senior to the LPP's junior water right.

When the United States reserved public land for uses such as Indian reservations, military reservations, National Parks, National Forest lands, or Monuments and other public land reservations, it also implicitly reserved sufficient water to satisfy the primary purposes for which the reservation was created. Reservations made by presidential executive order or those made by an act of Congress have implied Federal Reserved Water Rights. The date of priority of a Federal Reserved Water Right is the date the reservation was established. The United States Supreme Court has determined that the measure of a Federal Reserved Water Right is not dependent on beneficial uses to which the water has been historically applied, but should be quantified based on the water needed to accomplish the primary purpose for which the reservation was established.

While some Federal Reserved Water Rights in Utah have been settled many have not.²⁰ This situation creates the potential for unknown and unquantified Federal Reserve Water Rights to disrupt long established appropriate state water rights if or when the reservation uses are developed even though the rights may have been un-quantified, undeveloped, and unrecorded under state water rights laws for decades. Utah has completed some Federal Reserved Water Rights settlement agreements. But, Bryce Canyon National Park, Capital Reef National Park, Canyonlands National Park and Dinosaur National Monument have pending Federal water rights claims in Utah that may not be included in the accounting of Utah's remaining Colorado River water rights. It is uncertain the amount of National Forest Lands, Bureau of Land Management lands that have Federal Water Rights. All of these unsettled Federal Reserve Water Rights need to be added to Utah's remaining Compact allocation.

Adjudication

²⁰ Reserved water rights power point, Boyd Clayton DWRe, September 26, 2016. See at: https://westernstateengineers.files.wordpress.com/2016/12/clayton_2016fall.pdf

Blake Bingham from the Utah Division of Water Rights gave a [presentation](#) ²¹ at the Utah Users Workshop in March 2018 on Utah's Adjudication process to verify water rights and Federal Reserved Water Rights.

The Adjudication process validates water rights in a court proceeding. It is a long, tedious process of verifying water rights and making a formal determination about the volume of water available and whether it is being put to "beneficial" use. Time and resources are necessary to involve all claimants and collect sufficient data to complete the adjudication process. With growing demands for water, it is imperative the adjudication process be expedited to determine current use and what water might yet be available. As the value of water continues to increase, water right files need to be up to date and accurate through use of the adjudication process. Current funding for State Water Engineer's office is insufficient to complete the adjudication process in a timely manner. However, a water official mentioned at this pace it could take a 150 years to complete the process. New steps are now being taken to shorten this process. But, the Adjudication process does not take into account diminishing flows in the future due to a warming climate. This will impact wildlife, fish and recreation as there will be less water supply to divide among water rights users. In Utah, the rivers, streams and aquifers are mostly over allocated. As water supplies diminish legal disputes will become more frequent. The McCarran Amendment 43 U.S.C. § 666 (1952) allows Federal Reserved water rights cases to be held in state court not federal court if there was an adjudication process. It is important to get the adjudication process moving faster than it is by the state providing more funding for staff.

Tribal Water Rights

The Indian Tribes were not at the table in the 1922 Colorado River Compact, nor in any later compacts and the compacts didn't change or reduce any of their rights. The states have to settle water rights claims with the tribes who have reservations in Utah because Indian rights have to come out of the Utah's remaining 361,000 acre feet Colorado River water right. As river flows decline this could become problematic for the Lake Powell Pipeline water right because tribal rights have priority over the Lake Powell Pipeline's junior water right of 1958.

The U.S. Supreme Court first recognized tribal reserved water rights in a 1908 decision, *Winters vs. United States*, some 14 years prior to the 1922 Compact. In 1963, the Supreme Court ruled that water consumed under tribal rights be counted as part of the allocation made to the state in which the reservation is located.

In 2014, Dan Cordalis, a tribal water rights expert with the nonprofit environmental law firm Earthjustice in Denver, wrote:

"In addition to the existing over-allocation of the river, another "new," major demand is likely to come from Indian tribes, some of which have established the right to divert

²¹ see at: http://conserveswu.org/wp-content/uploads/BlakeBingham_wuwAdjudicationUpdate-pp-2018.pdf

significant quantities of water but have not yet developed the infrastructure to do so, and others whose water rights are promised but have yet to be formally quantified. The latter is the case for 12 of the 28 tribes that reside in the Colorado River Basin.”

“What we do know is that the 16 tribes in the basin that have quantified their rights have established the right to divert nearly 2.9 million acre-feet of water annually from the Colorado River system, but only half of that water is currently being used. It appears, therefore, the remaining tribal claims leave a significant ‘cloud’ over the certainty of existing non-Indian water rights and uses.” It is important to note that these reserved water rights don’t require that the tribes had an actual need at the time of the reservation’s establishment, but are instead based upon future uses of the reserved water. A U.S. Bureau of Reclamation study now underway in cooperation with the Ten Tribes Partnership, a coalition of tribes with Colorado River water rights, is working to determine how much water may be associated with those rights.”²² The Ten Tribes Partnership Report has been completed.²³

The Utah Navajo Water Rights Settlement Act was introduced in Congress by Senator Hatch in 2017 and reintroduced in this Congress by Senator Romney. see at: (<https://www.congress.gov/bill/115th-congress/senate-bill/664>). The agreement is for 81,500 acre of feet of water annually from the San Juan River; \$200 million from U.S. Congress; and \$8 million from Utah. Also, the Bureau of Reclamation shall: (1) plan, design, and construct the water diversion, delivery, and conservation features of the Navajo water development projects. This agreement must be approved by Congress before it can be implemented. As yet, the bill has not been approved by Congress.

The Northern Ute Tribe of the Uintah and Ouray Indian Reservation in Duchesne, Uintah and Grand Counties have Federal Reserved Water Right claims in Utah. Negotiations culminated in a settlement agreement approved by Congress in 1992. But it was never ratified by the tribe. Also, the proposed Ute Indian Water Compact of September 22, 2009 was never ratified either by the tribe.²⁴ This agreement quantified water rights for the tribe limited to 470,594 acre-feet diversion rights and 258,943 acre-feet of depletion from the Upper Colorado River System of the Uinta and Lake Front Rivers and Duchesne River in Utah. Negotiation with Utah is for 105,000 acre foot of depletion out of Utah’s remaining share of its Compact water rights. The priority date for the Ute Tribal Water Rights when transferred to the Green River was October 3, 1861.

In addition, “The Ute Tribe is suing the U. S. Government Bureau of Indian Affairs. The Tribe’s claims against the United States focus, in large part, on the Uintah Indian

²² Managing the Colorado River in the 21st Century: Shared Risks and Collaborative Solutions, see at: <https://www.cobank.com/~media/Files/Searchable%20PDF%20Files/Knowledge%20Exchange/2016/Colorado%20River%20Report%20%20Mar%202016.pdf>

²³ [Ten Tribes Partnership, Colorado River water report](https://www.usbr.gov/lc/region/programs/crbstudy/tws/docs/CRB%20TTP%20TWS%20Front%20Matter%2012-13-2018.pdf)
<https://www.usbr.gov/lc/region/programs/crbstudy/tws/docs/CRB%20TTP%20TWS%20Front%20Matter%2012-13-2018.pdf>

²⁴ Compacts and agreements, See at: <https://www.waterrights.utah.gov/wrinfo/policy/compacts.asp>

Irrigation Project (“UIIP”), an Congressionally-authorized Indian irrigation project designed to irrigate nearly 88,000 acres of Reservation land. The UIIP is a trust asset owned and operated by the United States for the benefit of the Tribe. Today, the UIIP is only delivering irrigation water to about 61,000 acres. The Tribe alleges that this disparity is the result of various breaches of the United States’ fiduciary obligations.”²⁵ See more information on: Central Utah Projects, Upalco and Ute Indian (Ultimate Phase) The Uinta unit (UIIP) was partially developed but the Ute units were not. See at: <https://www.usbr.gov/projects/pdf.php?id=3>. Utah has changed its mind and wants to use some of this water for the LPP.

Negotiations are also underway with the Utah to resolve claims of the Confederated Tribes of the Goshute Reservation in northwestern Utah. A settlement agreement with the Shivwitts Band of Paiute Indians in southern Utah was completed and passed by Congress.

Resolving Indian water rights and the other Federal Reserved Water Rights before allocating more water projects would remove significant uncertainty to what Utah’s remaining share of Colorado River water will be used for. Federal Reserved Water Rights in the Colorado River have to come out of Utah’s remaining share of its Colorado River Compact rights, which is about 361,000 acre feet. With Colorado River flows declining and Utah’s share being only 23% of what remains after earlier priority water rights are met it is uncertain how Utah will meet its obligations to senior water right holders and the Indian Tribes.

Lake Powell Pipeline’s Junior Water Right

The *Doctrine of Prior Appropriation* is the fundamental way water rights are managed within the western states and Utah. The tenet is not used in allocations in the Colorado River Compact between the states. Utah water law is based on a principal of *First in time, First in right* known as the *Doctrine of Prior Appropriation*. This means those holding a water right with the earliest priority date, and who have continued beneficial use of the water, have the right to water from a certain source before others with water rights having later priority dates. As water supplies decline this principal will decide who get shut off and who can remain using the water. The 1958 Lake Powell Pipeline water right is junior to many senior water right holders and is at high risk of being shut off. Utah is ignoring this risk. As Colorado River flows diminish over time Utah’s junior priority water right of 1958 for the Lake Powell Pipeline will be subordinated to senior water rights holders.

The priority date for Lake Powell Pipeline water right is 1958 when the Flaming Gorge reservoir and Central Utah project were approved. This means that all water rights granted prior to 1958 have priority over the Lake Powell Pipeline. Also, the Lake Powell Pipeline water right is junior to the Bonneville Unit of Central Utah Project, junior to the Lower Basin States water rights, and water for Mexico as well as unsettled Federal Reserve Water Rights.

²⁵ see at: <http://utepac.com/media-1/2018/3/8/ute-indian-tribe-sues-the-united-states-alleging-mismanagement-of-the-tribes-water-rights>. March 8, 2018

The Bonneville Unit is the largest and most complex unit of the Central Utah Project. It includes 10 reservoirs, more than 200 miles of aqueducts, tunnels, and canals.

The State decided to use a water right from Ultimate phase of Central Utah Project that was not built for the LPP. The Ultimate Phase of Central Utah Project was not built because US Government decided to no longer fund the project. The BOR thought the Ultimate Phase of the CUP water right should have lapsed in 2009, but Utah extended the water right anyway.

Concerns about the extension of time in 2009 for this Ultimate Phase CUP water right is explained in BOR's letter of protest.²⁶

Water Right No. 41-3479 is a segregated portion of the Flaming Gorge water right, Application to Appropriate No. A30414. This appropriation originally included both the storage of water in Flaming Gorge Reservoir and the beneficial use thereof for the "Ultimate Phase" of the Central Utah Project. After the "Ultimate Phase" was deauthorized, Reclamation assigned this portion of the appropriation to the Utah Board of Water Resources with the understanding that any portion of this water right not developed within 50 years of the original approval date (October 6, 2009) would lapse.

Reclamation is concerned that further extensions on the undeveloped portions of the Flaming Gorge appropriation could jeopardize the future of the Central Utah Project (CUP). To date, over \$2 billion dollars have been spent to develop the CUP, which supplies agricultural, municipal, and industrial water to millions of Utah residents in the Uintah Basin, Heber Valley, and Wasatch Front corridor. The key right for the CUP, Water Right No. 43-3822, has a priority date of November 11, 1964. If all the senior undeveloped water rights in the Green River and San Juan River Basins are developed, Utah would exceed its portion of the Colorado River Compact and the Central Utah Project water rights would be adversely impacted.

Due to the BOR protesting this extension of time for proof of beneficial use beyond 50 year limit (October 6, 2009) Utah made this Lake Powell Pipeline water right junior to the Central Utah Project. The BOR also mentioned in their protest if all senior undeveloped water rights in Green River and San Juan are developed, Utah would exceed it portion of Colorado River Compact. In 2008 Utah legislature passed a bill that "Public water supplier" can keep extending this water right Utah Code (73-3-12).https://le.utah.gov/xcode/Title73/Chapter3/C73-3-S12_1800010118000101.pdf

This bill is a problem because public water suppliers think they have 50 years to show proof of beneficial use but, water supplies are declining. There planning for future supplies is undermined by all the other public water suppliers that also think they have 50 years to show proof of beneficial use for a future water project.

²⁶Letter from BOR to State Engineer Dec 17, 2009https://www.waterrights.utah.gov/asp_apps/DOCDB/DocImageToPDF.asp?file=/docSys/v921/b921/B921002.N.TIF

Problem- LPP water right not in Lake Powell

Recently, Utah disclosed they don't have the water right where they need it in Lake Powell and will have to do water rights exchange with BOR to get the water right into Lake Powell. see at: <http://conserveswu.org/wp-content/uploads/Green-River-Exchange-for-LPP.pdf>.

Utah wants to exchange Green River tributary water rights from the north slope of Uinta Mountains with the BOR for water out of Flaming Gorge reservoir. We asked Utah for the specific water rights for the Green River tributaries that will be exchanged. DWRe said the records from the Division of Water Rights do not agree with the Division of Water Resources and they will have to sort that out.

Other water rights having priority over the Lake Powell Pipeline water right include:

- Water required for Mexico in the 1922 Compact, Article III (c): “If, as a matter of international comity, the United States of America shall hereafter recognize in the United State of Mexico any right to the use of any waters of the Colorado River System.....”²⁷ Requires the Upper Basin to provide one-half the deficiency in the obligation to Mexico when it can't be met through a surplus. The treaty obligation to Mexico is 1.5 MAF. Thus in theory, if there is not surplus the Upper Basin states would have to provide another 750,000 acre feet. Utah does not consider Mexico's water rights in their planning.
- Water required for the Lower Basin is 7.5 million acre feet a year. The 1922 Compact Article III (d) states: “The States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in continuing progressive series ...”²⁸
- The Upper Basin Compact of 1948 Article III. also includes lower basin requirement:²⁹
 - Article IV – “In the event curtailment of use of water by the States of the Upper Division at any time shall become necessary in order that the flow at Lee Ferry shall not be depleted below that required by Article III of the Colorado River Compact, the extent of curtailment by each State of the consumptive use of water apportioned to it by Article III of this Compact shall be in such quantities and at such times as shall be determined by the Commission.....”
- Utah Indian Tribes and other Federal reservations such as National Parks, and

²⁷ The Colorado River Compact Article III (c); See at <https://www.usbr.gov/lc/region/pao/pdfiles/crcompact.pdf>

²⁸ Ibid. Article III (d)

²⁹ Upper Basin Compact 1948, See at: <https://www.usbr.gov/lc/region/pao/pdfiles/ucbsnact.pdf> (emphasis added)

- National Forest Service lands
Senior water rights holders having an earlier date of 1958.

Only using 15 MAFY to Assess Risk? *The problem of over allocation continues*

Another risk of water availability for the LPP is that the Colorado River Upper Basin States and Bureau of Reclamation are using the 100 year historic average of 15 MAFY at Lee Ferry, to make decisions for new withdrawals yet flows have been much less at 12.5-13 MAFY. This overestimates the natural flows. The “natural flow” is estimated in hydrological modeling as what the unregulated, un-diverted streamflow would have been absent human intervention. However, recent scientific studies show the flows have been reduced by 16.5%.³⁰

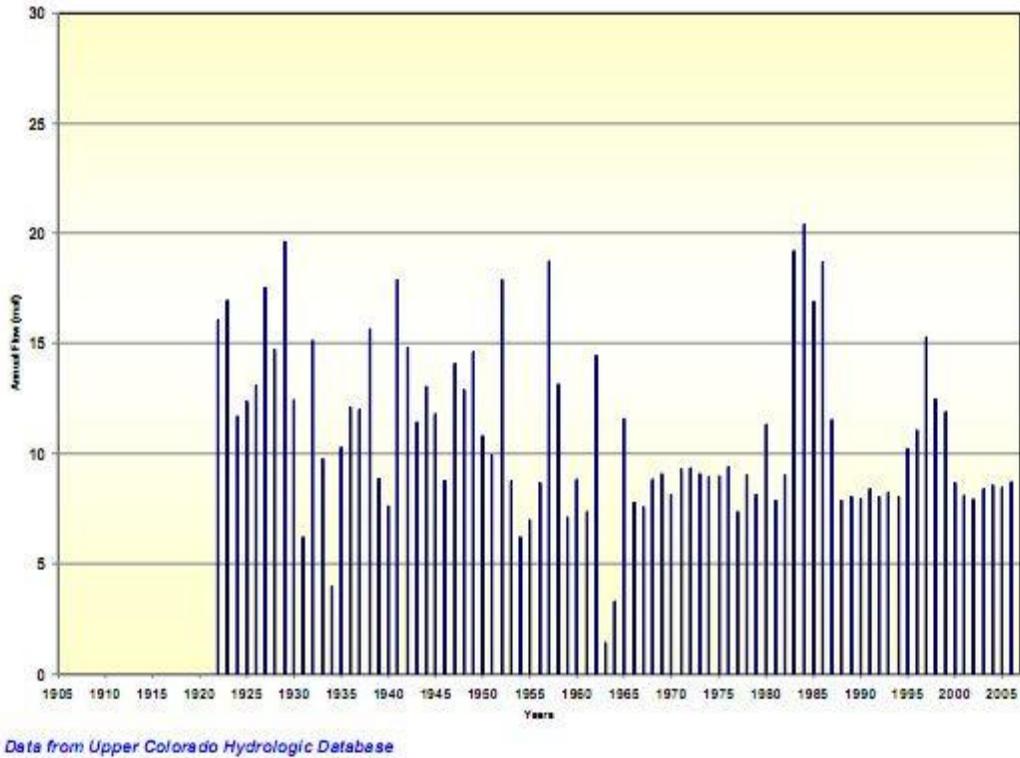
For example, hydrological modeling using the impact of inflow reductions of 5% at Lees Ferry would be 14.28 AFY, a 10% reduction would be 13.53 AFY and a 15% reduction would be 12.78 MAFY less water. With these lower volumes of water the adverse impact to senior water rights holders and aquatic resources could be severe.

The state claims that they considered climate change when assessing water availability for the LPP. However, it is not clear how they did this because the hydrological models they used do not consider climate change. We question the state’s exclusive use of BOR’s CRSS, DNF model, and the Index Sequential Method (ISM), because these methods do not account for the impact of a warming climate, nor does the 2007 Interim Guidelines EIS. The models only use the 100-year average of 15 MAFY at Lees Ferry. The Colorado River Compact allocated 7.5 MAFY to the Upper Basin States and 7.5 MAFY to the Lower Basin States. As mentioned above, stream flows have continued to decline due to increasing temperatures. The Corps could use BOR’s available climate models that reflect declining future flows, such as the Downscaled GCM model results in the Colorado River Basin Study, which uses a mean annual flow of approximately 13.6 MAFY at Lees Ferry. If 13.6 MAFY at Lees Ferry is used in modeling the state would not have remaining water rights to use for the LPP.

This BOR chart (3.3-2) shows flows over a 100 year period could be interpreted to have been declining below 15 MAFY for many years.

³⁰ Mu. Xiao, Udall, Lettenmaier, On the causes of declining Colorado Stream Flows, the Colorado River is the primary surface water resource in the rapidly growing U.S. Southwest. Over the period 1916–2014, the Upper Colorado River Basin naturalized streamflow declined by 16.5%, despite the fact that annual precipitation in the UCRB over that period increased slightly (+1.4%). 2018 see at: <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2018WR023153>.

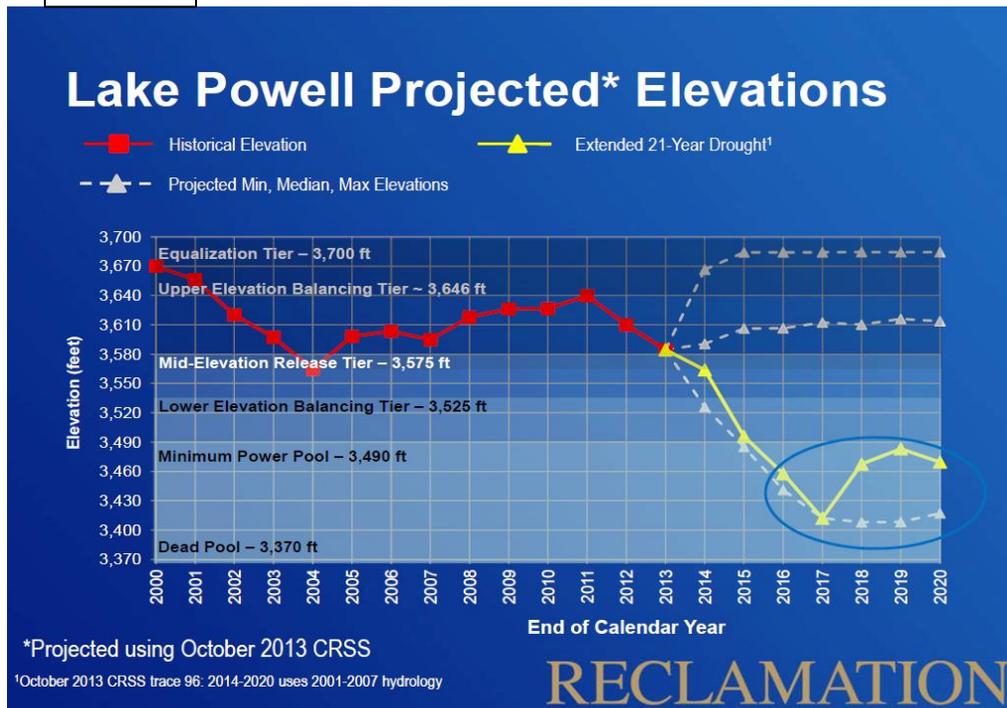
Figure 3.3-2
Historic Annual Flow of the Colorado River at Lees Ferry Gaging Station, Arizona
1922 through 2005



In addition, historical records indicate that droughts of various severities occurred periodically. In 1878-2002 a tree ring study by Connie Woodhouse showed a 25 year drought with a natural flow of only 12.36 MAFY. Further, tree records also show that from 1584 to 1593 there was a 9 year drought averaging only 9.7 MAFY. The BOR's using natural flow of 15 MAFY creates the false sense that there will be adequate water supply to keep reservoirs supplied with enough for all the demands that includes the Lake Powell Pipeline.

In addition, to this flawed use of narrow piece of river flow history, there has been nothing in this

Figure 2.



view of history that includes the impact Climate Change on the Colorado River’s water availability.

In Figure 2, The BOR estimated what will happen if our 16 year drought turns into a 21 year drought with Lake Powell possibility falling below

the level power can be generated.

Utah not considering Climate Change

It is troubling that Utah in the Federal Energy Regulatory Commission’s studies for the Lake Powell Pipeline will not consider future climate change impacts on diminishing future water availability. These conclusions are made without any evidence given to the public, or decision makers.

Here are some conclusions from Utah’s LPP studies:

- “Though the potential impacts of climate change have been studied in the Colorado River Basin, the data needed to quantitatively evaluate these potential impacts with CRSS was not yet available at the time of study.”³¹
- “It is unknown at this time what impacts such management strategies might have on the State of Utah or the LPP Project. The LPP Project intake would be designed at an elevation which would be physically capable of receiving water in times of low storage. There are currently no plans to curtail Upper Basin State’s water use beyond what is required by the Colorado River Compact.”³²

³¹ Study Report 18, Reclamation Colorado River Model Report, Appendix 2, p. 2.

³² Chapter 5 Summary and Conclusions:

- “Under most drought scenarios, the most secure water rights are from reservoirs at the downstream end of river system.”³³

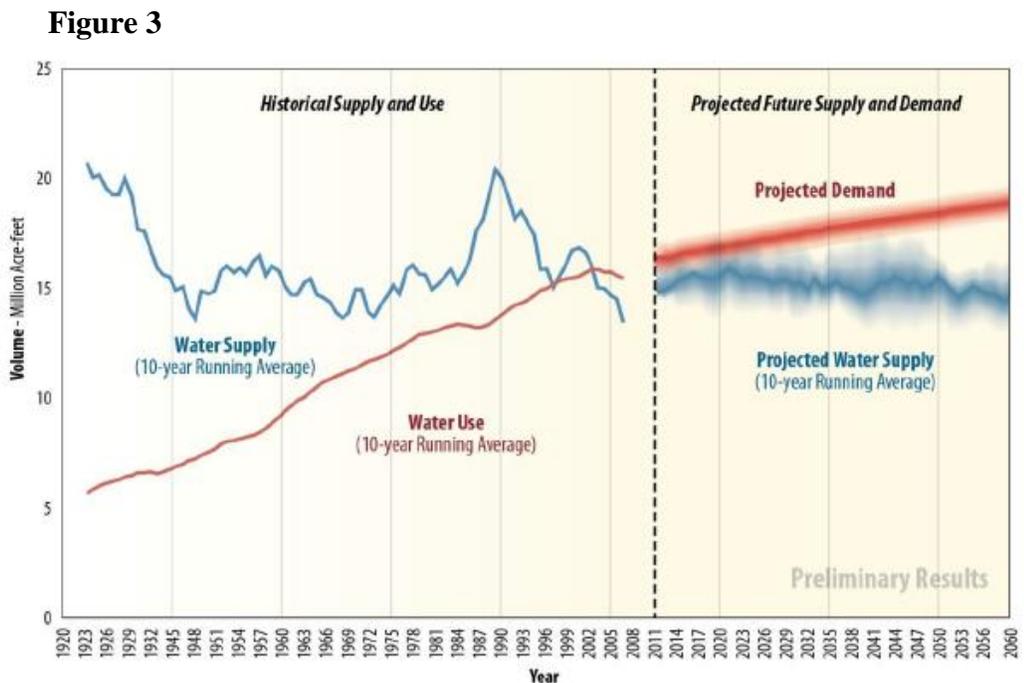
Moreover, state and federal studies, which have been cited thus far in support of the LPP, have not included study results that have already been undertaken on the variability of future river flows. The projected impacts of climate change on the declining snowpack and Colorado River flows are widely accepted within the scientific community, and they should be included directly in planning for future water supplies for the LPP. Climate variability increases the risk of an already over-allocated Colorado River. Most importantly, climate scientists are warning this may not be a drought-which implies a return to normal precipitation in the future-but actually the start of a permanent aridification due to climate change.

Water Demand already Outstrips Supply

In Figure 3, the Bureau of Reclamation, depicts 10-year average supply and demand totals for the Colorado River basin, and illustrates that since 2002 demands have exceeded supply. This is nowhere more evident than in the declining volume of water in storage throughout the basin. The Lake Powell Pipeline proponents must acknowledge that while new demands for Colorado River water may be supplied out of storage in the short term, the inevitable, long-term result is that a new demand in a system already fully used will either itself be shorted, or will result in a shortage to another water use somewhere else in the system.³⁴

The red line represents the water supply and the blue line represents water demand. This figure 3 illustrates clearly that a supply and demand imbalance currently exists the Basin. This imbalance will grow in the future if major changes are not made in how we use water.

Rising Temperatures



³³ LPP Study Report No. 19. p. 3-1,

³⁴ Doug Kenney, Rethinking the future of the Colorado River, Colorado River Governance initiative Dec 2010. See at: http://scholar.law.colorado.edu/cgi/viewcontent.cgi?article=1013&context=books_reports_studies

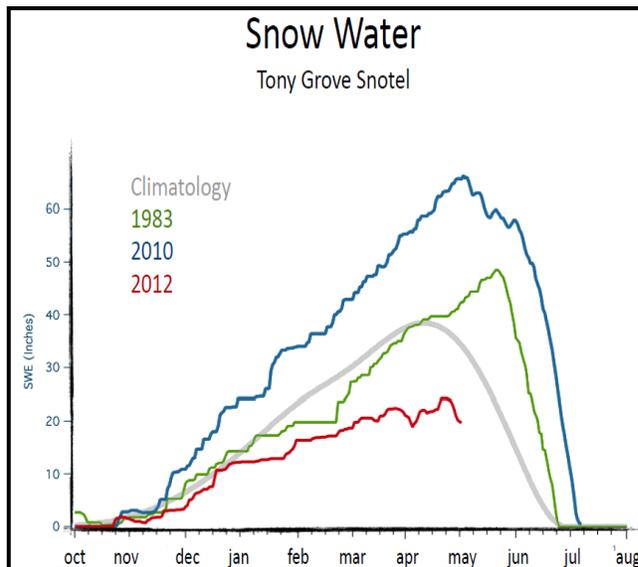
The main source of water for community water systems is snow pack that will be impacted greatly by the increase in temperature that will result in a drastic decrease in the snow water equivalent. The annual average temperature in the Colorado River Basin has increased 1.4 degrees C and nearly 2°C at Lee’s Ferry, AZ since 1906.³⁵

Weather Station, Figure 4

Tony Grove Snotel, NRCS, in Cache Valley, Elevation 8474 ft
SWE- left legend- Snow Water Equivalent is how much water is in snow

In Figure 4, Dr. Robert Gilles from Utah Climate Center, at Utah State University in Logan, Utah illustrates that Utah’s climate is getting warmer with temperatures of all Utah’s cities are going up. Moreover, Utah has had 9% less snow since 1950 and less winter storms. Figure 4, illustrates how much less water is in snow since 2012.

Figure 4



Utah relies heavily on mountain snowpack for its water supply. Traditionally, snowpack accumulates in mountainous regions during the winter months. Water stored in the snowpack is then released to aquifers, streams, lakes, and reservoirs as it melts primarily during spring; this fundamental snowpack hydrology will be impacted by a warming climate.

Our climate is changing because the Earth is warming and Utah is transitioning to a very different hydrological regime. As a result, our water supply will be impacted. Utah’s climate has already changed and has

warmed about 2 degrees Fahrenheit, and in many parts of Utah by much more, in the last century³⁶. In general, Utah’s climate has warmed at a rate of two to four times that of the global climate^{37,38}; this is evidenced by the long-term trend of observational temperature records throughout Utah.

³⁵ The Colorado River Basin and Climate: Perfect storm for the twenty-first Century? 2012 by Carson McMurray; See at: <https://www.coloradocollege.edu/dotAsset/74e91de4-a1ff-4062-b628-030e997b4e0b.pdf>

³⁶ EPA What Climate change means for Utah. See <https://www.epa.gov/sites/production/files/2016-09/documents/climate-change-ut.pdf>

³⁷ Robert R. Gillies 2017, Director of Utah Climate Center, and state Climatologist for the state of Utah; Observational and synoptic analyses of the winter precipitation regime change over Utah. *Journal of Climate*,

The transition to Utah's new climate regime in terms of increasing temperatures and altering precipitation patterns has a probable effect on watershed health. Increased temperatures will drive more evaporation and evapotranspiration (ET), which is the coupled process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants. Increasing air temperatures result in increasing stream temperatures, which in turn will proliferate water pollutant concentrations and so, reduce water quality; also expected is a potential loss of wetlands that purify our water. In addition, higher temperatures increases evaporation from streams and reservoirs with resultant water quality issues, depletion of soil moisture and so, increased irrigation requirements for crops and plants.

As the climate warms, Utah's precipitation receipt will be more in the form of rain than in snow, especially in low and mid elevation mountain regions. Run-off due to snowmelt will occur earlier in the year with higher intensities and shorter durations. As such, late summer river flows are projected to diminish, impacting water users who rely on natural river flows during this time of year. Furthermore, water rights providing diversions from Utah's waterways may be diminished, or need to be altered, due to these changes in snowpack, timing of run-off, and streamflow hydrology.

Risks and Uncertainty

Utah's water agencies and our elected officials are ignoring the risks and uncertainty about building the LPP. Utah's Compact water rights are not fixed like the Lower Basin water rights. It is only a percentage of what remains after other senior water holders are met. Therefore, in the future this LPP water right could further be reduced and revert to the senior water rights holders. There is a real danger that litigation, associated with water rights claims and environmental issues, will compound the problem of water availability for the LPP and could cause economic disruption to the state.

Utah incorrectly claims it can divert water in dire conditions, and that they don't have a responsibility to address the risk of declining flows in the Colorado River. On the contrary, the studies must require a detailed analysis from Utah that proves their assumption about water availability for a permanent water project taxpayers have to spend \$ billions are valid. Further, the studies must ensure the environmental information is accurate so that decision makers can understand the consequences of their decision. The current Lake Powell Pipeline studies lack scientific accuracy that is both reasonable and objective that the agencies and the public can rely upon to make a decision on the pipeline and must be revised. We recommend:

GILLIES, R. R., S.-Y. WANG, AND M. R. BOOTH, 2012: 25, 4670-4698; Climate change impact on the roles of temperature and precipitation in western U.S. snowpack variability. *Geophysical Research*, SCALZITTI, JASON, STRONG, COURTENAY, KOCHANSKI, ADAM, 2016: 43, 10

³⁸ National Climate Assessment (Southwest climate assessment) 2013, See (<http://www.globalchange.gov/what-we-do/assessment>);

- Utah complete an vulnerability analyses that evaluates the risks and uncertainty to the Lake Powell Pipeline water right listed above.
- The Governor requests that the BOR complete a Hydrological Determination for the Lake Powell Pipeline's long term BOR service contract. Using lower flows of 12.5 MAFY rather than 15 MAFY for an annual flow at Lees Ferry.
- The Governor requests that Utah's Upper Basin Colorado River Basin water rights be evaluated to establish the state is not using more than its allocation of 1.369 MAFY. Currently these rights are significantly over appropriated. This situation needs to be dealt with before the LPP is approved. An independent third party should verify if Utah has a remaining share to develop.
- The Governor gives more funding to Division of Water Rights to update the depletions in Utah's Upper Basin Colorado River water rights so that the depletions are correct. Funding for this purpose could be found in Senate Bill 281, if the language is changed to allow for other uses.

Conclusion

It is critical for the state to have accurate information on these issues to protect Utah's economic future. The Utah Division of Water Resources (DWRe) has taken many important steps in improving water use data collection. The next challenge is to update its Upper Basin Colorado River water rights because they are over allocated. Utah has over promised its remaining share of the Colorado River. Water is held in trust for the public and they depend on water rights being accurate. Therefore, these steps should be undertaken now. DWRe held some public meeting in 2005 alerting the public about the over allocation of the Colorado River Upper Basin water rights and they should do that again. This would alert communities to get serious about using their current water sources more efficiently and to implement conservation measures now. Utah needs a shift in focus to lead the way on water use efficiency policies that are lacking today. We suggest the prudent course of action is to implement less costly, less risky, incremental alternative of improved local water management first before spending \$ billions to build the LPP. This would position the counties and the state much better economically and environmentally.

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<https://www.usbr.gov/lc/region/g1000/pdffiles/bcpact.pdf>

The Colorado River Storage Act 1956

<https://www.usbr.gov/lc/region/g1000/pdffiles/crspuc.pdf>

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March 2016

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Lake Powell Pipeline Feasibility for Washington County Water District

The following summarizes concerns about the ability of the Washington County Water Conservancy District (WCWCD) to repay debt issued by the State of Utah for the WCWCD's financial obligation for participating in the proposed Lake Powell Pipeline (LPP).

1. Washington County Water District's Questionable Water Needs. Based on declining population growth, potential to convert additional agricultural water, potential water conservation savings, and previously unconsidered water sources, Washington County has ample water to serve future populations without participation in the Lake Powell Pipeline.

1a. Outdated Population Forecasts. The Governor's Office of Planning and Budget (GOPB) 2012 Baseline Population Projections estimates Washington County will grow to 581,731 residents by the year 2060, 32.4 percent lower than population projections made by the GOPB in 2005.¹ Since the District's water needs projections rely on these population projections, the more updated data pushes the supposed need for the LPP back over 12 years. The labeled *2006 Population* and *2012 Projection with No Conservation* lines in Figure 2 on page 3 illustrates the difference between these two different population forecasts on water use.

1b. Potential Agricultural Water Transfers. In the most recent Kanab Creek/Virgin River Basin Plan by the Division of Water Resources (DWRe) from 1993 (1993 KCVRBP) it was estimated the basin had 25,600 acres of irrigated cropland, diverting over 123,000 acre-feet of water (pg. 10–14), with 87,800 acre-feet of the agricultural diversions in the basin occurring in Washington County. Much of the water diverted for agriculture in Washington County uses inefficient conveyance systems and it is estimated "If the overall irrigation efficiency could be increased one percent, it would save 2,500 acre-feet of water in the basin." (pg. 2–8 1993 KCVRBP).

County	Area ^a (acres)	Diversion (acre-feet)	Depletions (acre-feet)
Washington	16,680	87,800	39,320
Iron	1,520	7,860	1,490
Kane	7,400	27,640	10,490
Total	25,600	123,300	51,300

^aIncludes idle cropland

As future development replaces former agricultural lands in the county, the new development creates a surplus of water formerly used to irrigate crops. Table ES-11 in the 2011 DWRe Water Needs Assessment claims that Washington County can only expect to convert 10,080 acre-feet of agricultural water for M&I needs. However Table 10-6 of the 1993 KCVRBP implies, using linear interpolation, that there will be a reduction of 27,100 acre-feet of irrigated cropland water diversions from 2011 to 2040.² According to the 2012 USDA Census of Agriculture, Washington County had 14,781 acres of irrigated lands in 2012, a reduction of over 10,000 acres since 1993.

The 2015 Legislative Audit of the Division of Water Resources found that "the state engineer typically approves the conversion of 100 percent of agricultural water to municipal use"³ and thus Washington County can expect much more than 10,000 acre-feet of water to be available from agricultural conversions.

¹ <http://governor.utah.gov/DEA/projections.html>, 2012 Baseline Projections, "Population and Households by Area." Available as <http://governor.utah.gov/DEA/ERG/ERG2012/Households%20by%20Area.xlsx>

² Utah State Water Plan, Kanab Creek/Virgin River Basin, Utah Division of Water Resources, August 1993.

³ "A Performance Audit of Projections of Utah's Water Needs," Office of the Legislative Auditor General, May 2015, Page 54. http://le.utah.gov/audit/15_01rpt.pdf

Table ES-11 Future Planned and Potential WCWCD Water Supply Projects

Project	Estimated Reliable Culinary Supply (ac-ft/yr)	Estimated Reliable Secondary Supply (ac-ft/yr)
Ash Creek Pipeline ⁽¹⁾	3,830	0
Maximize Existing Wastewater Reuse ⁽²⁾	0	7,300
Agricultural Conversion from Development ⁽³⁾	0	10,080
Lake Powell Pipeline	69,000	0
Potential Future Wastewater Reuse ⁽⁴⁾	0	27,620
Total Potential Yield from Future Projects	72,830	45,000

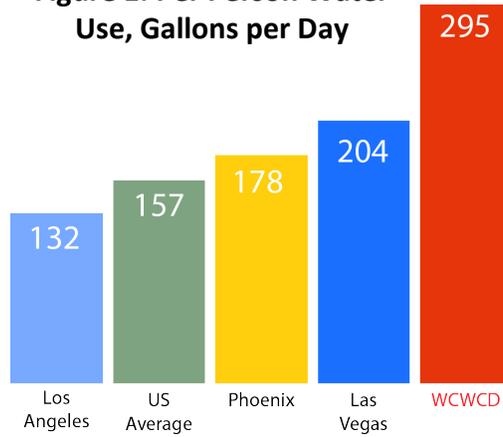
Year	Area* (Acres)	Diversions (acre-feet)	Depletions (acre-feet)
1990	25,600	123,300	51,300
2020	21,400	96,300	43,300
2040	18,600	80,000	37,600

aIncludes some idle land.

WCWCD claims only 10,080 ac-ft of water will be available for municipal use from the conversion of agricultural lands as a function urban growth, yet the 1993 KCVRBP projects there will be 27,100 acre-feet made available by 2040.

1.c Potential Water Conservation Savings. According to the 2011 DWRe Water Needs Assessment, WCWCD uses 295 gallons per capita per day (“GPCD”; p. ES-7) and had 13 percent water conservation savings from 2000–2009 (p. ES-10). If WCWCD encouraged residents to get closer to neighboring cities or the state conservation goal of 220 GPCD,⁴ the district could extend its water supply even further into the future.

Figure 1: Per Person Water Use, Gallons per Day



Since WCWCD’s per person water use is nearly twice the national average, it is clear there is great potential for additional water conservation efforts.

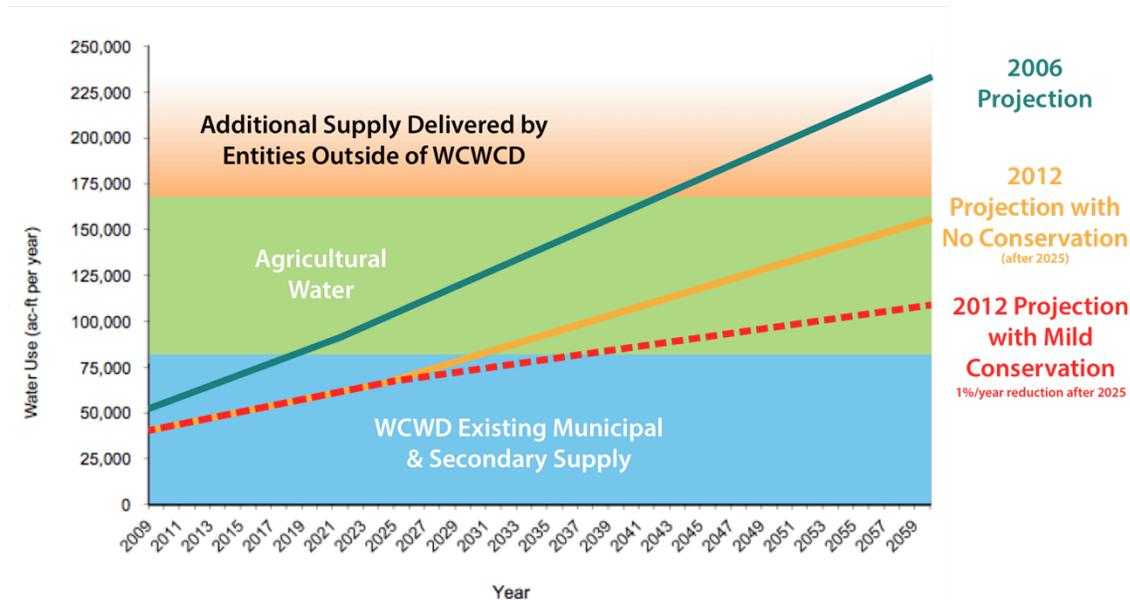
The recent legislative audit noted:

“The Southern Nevada Water Authority, which serves the Las Vegas region, has a goal to reduce water use to 199 by 2035. In contrast, the communities in Southwestern Utah, which have a climate similar to that of Southern Nevada, have a goal to reduce water use to 292 GPCD by the year 2060.”⁵

⁴ Utah baseline per capita water use: <http://state.awra.org/utah/sites/default/files/AdamsMillis-WaterNeeds.pdf>.

⁵ “A Performance Audit of Projections of Utah’s Water Needs,” Office of the Legislative Auditor General, May 2015, Page 41. http://le.utah.gov/audit/15_01rpt.pdf

Water Demand Projections for Washington County



Sources: Lake Powell Pipeline Water Needs Assessment, Division of Water Resources, 2011.
 Governor's Office of Planning and Budget 2012 Baseline Population Projections
 Kanab Creek/Virgin River Basin Plan Division of Water Resources, 1993.

Figure 2: Population projections from the Governor's Office of Planning & Budget demonstrate reduced water demand for Washington County. The recent Legislative Audit of water needs projections questioned the conservation efforts of Utah and criticized the DWRe for not including local sources of water available outside of WCWCD supplies in planning documents. The dotted red line shows water demand if per capita water use was reduced each year after 2025 by 1 percent of the 2025 level.

1d. Previously Unconsidered Water Sources. According to a May 2015 bond rating update for WCWCD from Fitch Ratings:

“The district has ample water supply, is expanding its water reserves through a groundwater recharge program, enjoys surplus system capacity, operates predominantly new infrastructure, and faces no known regulatory issues.”

The District noted it operates a groundwater recharge program that currently provides 100,000 acre-feet of water and will provide access to up to 300,000 af in the future.⁶ This amount of water more than twice the District's supply, yet is not accounted for in the LPP planning documents.

The 2015 Legislative Audit of the state sponsor of the Lake Powell Pipeline, the Utah Division of Water Resources, showed that water planners are ignoring the fact that local water providers have the ability to expand their own sources of water supply. The auditors noted St. George has the ability to expand its water supply without the assistance of WCWCD through new well drilling and other sources.⁷ These future water sources were also not included in the LPP planning documents.

⁶ “Fitch Affirms Washington County Water Conservancy Dist, UT's LTGOs at 'AA+'; Outlook Stable” Business Wire, May 22, 2015. <http://www.businesswire.com/news/home/20150522005845/en/#.VW88PufqITk>

⁷ “A Performance Audit of Projections of Utah's Water Needs,” Office of the Legislative Auditor General, May 2015, Page 62. http://le.utah.gov/audit/15_01rpt.pdf

2. Estimate of Existing Revenues vs. Debt Service for WCWCD.

One important question is whether or not local taxpayers can support Washington County’s repayment obligation for the LPP as is required by Utah Law. The Lake Powell Pipeline (LPP) Development Act (Utah Code 73-28-402) mandates the entire project cost be repaid to the State of Utah with interest.

Repayment of the LPP construction costs requires the District’s total revenues to cover their existing operation and maintenance costs, preexisting debt obligations, debt from LPP construction, and the operation and maintenance costs associated with the LPP.

A review of the WCWCD’s revenue streams is warranted, based on the 2013 Audited Financial Statement Prepared for WCWCD, the “2013 WCWCDAFS”.⁸

2a. Current Revenues

Operating Revenues. WCWCD received \$7,013,377 in water sales revenue, \$926,134 in power sales revenues and \$1,379,171 in Water Development and Connection Fees (page 22 of the 2013 WCWCDAFS). These last two categories are represented as “Power Sales & Surcharges” in the above pie chart.

OPERATING REVENUES:

Power Sales	\$	926,134
Water Sales (net of rebates)		7,013,377
Water Development and Connection Fees		1,379,171
Total Revenues		9,318,682

2013	
	\$ 926,134
	7,013,377
	1,379,171
	<u>9,318,682</u>

WCWCD Revenues

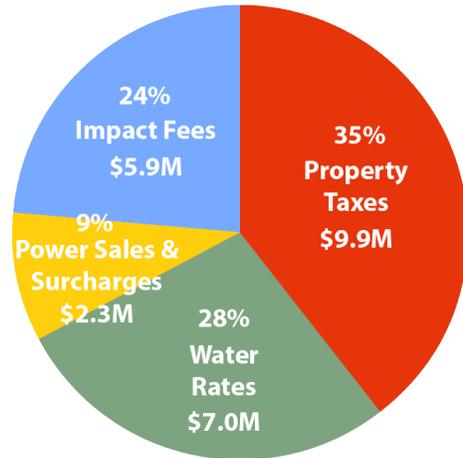


Figure 3: Revenue Sources from 2012 Audited financial statement from WCWCD

Property Tax Revenues. In 2013 WCWCD collected \$9,938,660 from property taxes (see the source in the next paragraph). Its levy rate was 0.000970544 times the taxable value of the county (p. 19 of the 2013 WCWCDAFS).

Impact Fee Revenues. WCWCD collected \$5,919,316 in impact fees for new development in 2013 (page 19 of the 2013 WCWCDAFS):

	General Fund	Virgin River Program	Capital Projects Fund	Total Governmental Funds
REVENUE:				
Property Taxes	\$ 9,938,660	\$ -	\$ -	\$ 9,938,660
Impact Fees - Current Year	-	-	5,919,316	5,919,316

Revenues from Sale of WCWCD’s Surplus Real Property. According to page 7 of the 2013 WCWCDAFS, the District has between 1000–1200 acres in real property that can be sold at market

⁸ “Washington County Water Conservancy District Financial Statement With Other Government Reports For the year ending June 30, 2013.”

value for additional funds. The District claims this property is valued between \$50,000–\$125,000 per acre. For this analysis it was assumed the District would sell 1200 acres at the highest market value to help pay for the LPP, giving the district a one-time revenue source of \$150,000,000.

The District owns real property which is shown on the books at cost. Approximately 1000 - 1200 acres may eventually be declared surplus property and sold at market value. The current fair market value for this property is \$50,000 to \$125,000 per acre. It is anticipated that the value will continue to increase over time. These values are not reflected in the statement of net position.

2b. Existing Debt Service by WCWCD (not including LPP). The WCWCD has \$7,026,322 in annual debt service for previous obligations for FYE 2013, not including debt from the Lake Powell Pipeline, as shown on the 2014 row of the District’s debt service schedule (p. 39 of the 2013 WCWCDAFS). This non-LPP debt service increases annually through 2037 before being extinguished in 2050, totaling \$94.3 million. The District’s debt schedule is included below.

Total remaining principle and interest debt service by year is as follows:

Year Ending December 31	Principal	Interest	Annual Debt Service
2014	\$ 4,235,743	\$ 2,790,579	\$ 7,026,322
2015	4,422,856	2,616,602	7,039,458
2016	4,580,005	2,468,102	7,048,107
2017	4,780,193	2,268,125	7,048,318
2018	4,992,420	2,058,228	7,050,648
2019	4,599,688	1,851,402	6,451,090
2020	4,784,997	1,671,335	6,456,332
2021	4,657,349	1,481,231	6,138,580
2022	3,810,746	1,284,484	5,095,230
2023	3,999,189	1,102,551	5,101,740
2024	4,197,680	911,505	5,109,185
2025	4,380,220	719,745	5,099,965
2026	2,658,811	519,539	3,178,350
2027	2,782,454	396,541	3,178,995
2028	2,921,151	267,724	3,188,875
2029	1,653,905	132,385	1,786,290
2030	1,556,716	53,744	1,610,460
2031	1,558,587	51,873	1,610,460
2032	1,560,520	49,940	1,610,460
2033	1,562,516	47,944	1,610,460
2034	64,578	45,882	110,460
2035	66,709	43,751	110,460
2036	68,909	41,551	110,460
2037	71,183	39,277	110,460
2038	73,532	36,929	110,461
2039	75,956	34,504	110,460
2040	78,462	31,998	110,460
2041	81,051	29,409	110,460
2042	83,724	26,736	110,460
2043	86,486	23,974	110,460
2044	89,339	21,121	110,460
2045	92,286	18,174	110,460
2046	95,331	15,129	110,460
2047	98,476	11,984	110,460
2048	101,724	8,736	110,460
2049	105,080	5,380	110,460
2050	108,340	2,118	110,458
Totals	<u>\$71,136,912</u>	<u>\$23,180,232</u>	<u>\$94,317,144</u>

WCWCD existing debt schedule, not including LPP debt.

2c. Existing Operation and Maintenance Expenses. In addition to its debt obligations, WCWCD has operating and maintenance expenses, totaling \$13,231,636 according to the 2013 WCWCDAFS. These expenses are assumed to grow proportionally to the number of new households in the county, shown in the attached spreadsheet's Column J⁹. Operating and maintenance costs have been included as part of LPP participation in Column L. Our estimates of WCWCD Total Expenses are shown in Column N¹⁰.

3. Estimate of Additional Debt Service from the Lake Powell Pipeline on WCWCD

3a. 50-Year Repayment Obligation for Lake Powell Pipeline by Washington County Taxpayers.

The following is the calculation of total annual debt service the WCWCD would incur to participate in the LPP. The WCWCD has announced they intend to receive 94.5 percent of the project water¹¹, meaning they will be required to repay 94.5 percent of the roughly \$1.4–\$1.8 billion cost.¹² The WCWCD can therefore expect to repay \$1.33 billion – \$1.75 billion in capital costs to repay. Assuming a 50-year repayment period, the annual debt service varies with the interest rate as follows:

**Annual Debt Service Payments for LPP
by the Washington County Water Conservancy District**
Interest Rate

Repayment Cost	0.03	0.04	0.05	0.07
\$1.33 Billion	\$51,631,330	\$61,840,170	\$72,758,808	\$96,260,153
\$1.75 Billion	\$101,799,606	\$130,945,384	\$166,211,969	\$258,354,138

In other words, the repayment obligation from the LPP will add between \$51.6 and \$258 million in additional annual debt burden onto WCWCD's existing debt service, depending on final project cost and interest rate. A reasonable assumption for a 50-year interest rate is 4 percent, meaning an additional \$61.8–131 million in new annual debt payments due to the LPP, shown in the attached spreadsheet's Column K.

3b. LPP Power Generation Revenues and Operation and Maintenance Costs. The different cost estimates put forward in the 2012 Lake Powell Pipeline Modified Draft Study Report 10 are due to different levels of pump-storage power generation capacities presented in the planning documents. The \$1.8 billion cost estimate generates more power sales revenues than the \$1.4 billion project cost projection, but also requires much more operation and maintenance costs. The expected revenues and expenses can be seen here:

Construction Cost	2026 Power Sales Revenue	2026 Operation and Maintenance Expenses
\$1.4 Billion	\$9,947,747	\$23,493,231
\$1.8 Billion	\$72,005,740	\$62,867,794

⁹ The First and Second Scenarios in the spreadsheet represent the low and high cost estimates of the LPP project assumed in our analysis. Existing revenues and expenses of the District were assumed to stay the same in both scenarios (Columns B-F). Differences in the two project cost scenarios resulted in changes to the debt associated with the project (Columns G-P) and the repayment options (Columns Q-V).

¹⁰ Note: Columns K and L differ between the two project cost scenarios.

¹¹ 69,000 af / 73,000 af, Page ES-5, 2011 LPP Water Needs Assessment. (For the CICWCD see "Iron County pulls out of Lake Powell pipeline project," Salt Lake Tribune, March 22, 2012.)

¹² Lake Powell Pipeline Modified Draft Study Report 10, Socioeconomic and Water Resource Economics, February 2012

Based on the expected growth of existing revenue streams due to population increase in the county, WCWCD's revenues can be projected over the next 50 years, as shown in Column H. The deficit schedule for the repayment period can be seen in Columns O and P. These columns show that the District's revenues fall significantly short of the District's expenses for every year of the 50-year repayment schedule (except for any initial payment-free years). Unless the District has an increase in revenues, WCWCD's cumulative debt would grow to between \$5.84–6.76 billion (cell P73) by the end of the project repayment period. Clearly, participation by the WCWCD in the LPP will require significant increases in impact fees and/or water rates.

4. Water Rate and Impact Fee Increases Required to Repay Debt

The fundamental question is whether the WCWCD can make these debt payments via an increase in revenue¹³, and if so how they will raise this revenue.

Increasing Property Taxes. According to Utah law, water conservancy districts in the Lower Colorado River Basin may not tax higher than 0.001 per dollar of taxable value of taxable property in the district.¹⁴ WCWCD currently collects property taxes at the rate of 0.00097. However, even if WCWCD increased their levy to the maximum collection rate, this only increases revenues \$301,642 and revenues would still fall short of their expenses by tens of millions of dollars each year, accumulating to a deficit of billions dollars at the end of the 50-year repayment period. Therefore increasing water rates and/or impact fees must also be implemented by WCWCD.

Increasing Water Rates. Columns Q and R examine whether increasing water rates alone, without any impact fee increases, could repay Washington County Water District's total future debt. Although one might think the WCWCD could simply increase water rates to raise revenues, raising water rates will result in a decrease in total water demand. Because the debt is relatively large, in order for water sales to cover the debt obligations of the project, water sales revenues would need to increase by 320–358 percent, depending upon the total cost of the LPP (spreadsheet cell B10). This would still require the WCWCD to shoulder significant deficits over time, but would result in a balance of essentially zero in 2063 (Columns Q and R; cell R73).

Due to the fact that the price elasticity of demand for water is estimated to be -0.5, repayment through water sales alone would require rate increases of 1665–1995 percent (cell B12). This enormous increase in water rates would lead Washington County water users to need less water in 2060 than they used in 2010 (cells O12 and AA12 of the "Water Demand" worksheet), meaning that there would be no need for the water supplied by the LPP. In other words, if the LPP is financed only by increasing water rates, water would become so expensive that future water demand would drop below the current water demand of WCWCD,¹⁵ even if one ignores other water sources identified above.

Increases in water rates may slow the rate of population growth in Washington County, which would make the LPP both harder to pay back and less necessary. To avoid this and maintain the desirability of homes and building lots in Washington County in the face of increases in water rates, the price of that real estate would have to fall. The lower property values would decrease the

¹³ In the low-cost scenario, we assumed repayments start immediately, which keeps costs as low as possible. In the high-cost scenario, we assumed repayments begin after a delay of 10 years, which is more realistic and raises costs.

¹⁴ Utah Code, Section 17B-2a-1006. <http://le.utah.gov/code/TITLE17B/htm/17B02a100600.htm>

¹⁵ This is because cell B11 is larger than cell B8 in both scenarios.

property taxes collected by the District, forcing water rates to go up more than anticipated and forcing real estate values to go down more than anticipated.

Increasing Impact Fees. Columns S and T examine whether increasing impact fees alone, without any additional revenue increases, could repay Washington County Water District's total future debt. Impact fees are the fees new development pays to hook up to the water system, and there has been some discussion about making debt payments through an increase in impact fees. Currently WCWCD has an average impact fee of \$6,102¹⁶ and if the District chose to repay debt just using impact fees, revenues from impact fees would need to increase by 247–276 percent (cell B15), requiring an average impact fee of between \$21,158–\$22,927 (cell B17).

The large impact fees required in Washington County would be among the highest in the nation,¹⁷ likely deterring new growth in the county or significantly lowering property values (or both). Both effects would add even more problems for WCWCD's repayment obligations: the first would lower the amount of impact fees collected, and the second would lower property values and lower the total property taxes collected by the district. Our analysis did not compensate for these factors.

Combination of Increased Water Rates and Impact Fees. The significant debt to participate in the LPP will require WCWCD to raise revenues by tens of millions of dollars every year. The District's only real flexibility in raising revenues for its debt payments comes from deciding the proportion of increased revenues, which will come from increased water rates versus from increased impact fees.

Participating in the \$1.4 billion low-cost alternative of the Lake Powell Pipeline from 2008 planning documents could require the WCWCD to raise its revenues by:

- raising impact fees 123 percent (spreadsheet cell B21), to an average of \$13,630 per connection (spreadsheet cell B22); together with
- raising water rates by 576 percent (spreadsheet cell B20); together with
- selling 1200 acres of land owned by the District; and with
- continuing to collect property taxes near the maximum levy rate allowed by state law.

Participating in the \$1.8 billion high-cost alternative of the Lake Powell Pipeline from 2011 planning could require the WCWCD to raise its revenues by:

- raising impact fees 138 percent (cell B21), to an average of \$14,514 per connection (cell B22); together with
- raising water rates by 678 percent (cell B20); together with
- selling 1200 acres of land owned by the District; and with
- continuing to collect property taxes near the maximum levy rate allowed by state law

In addition, the 576–678 percent increase in water rates means that Washington County water users would demand more than their current water demand¹⁸ but only 84–90 percent of their current water supply in 2060 (worksheet "Water Demand" cells U11 and AG11), so there would be no need for LPP water.

¹⁶ 2013 WCWCD Audited Financial Statement

¹⁷ 2012 National Impact Fee Survey, Duncan Associates: http://www.impactfees.com/publications%20pdf/2012_survey.pdf

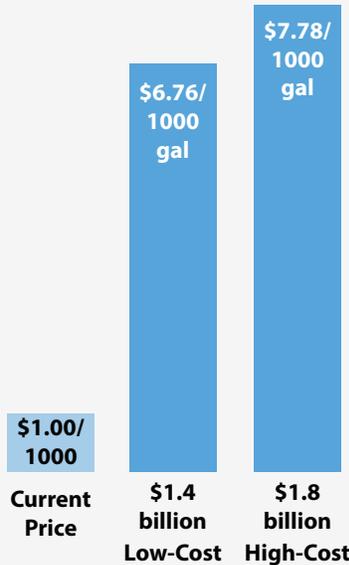
¹⁸ This is because cell B19 is smaller than cell B8 in both scenarios.

Water Rate and Impact Fee Increases from LPP

Debt Repaid with Impact Fees and Water Rates

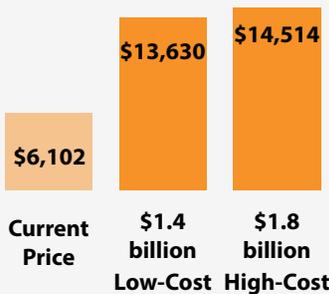
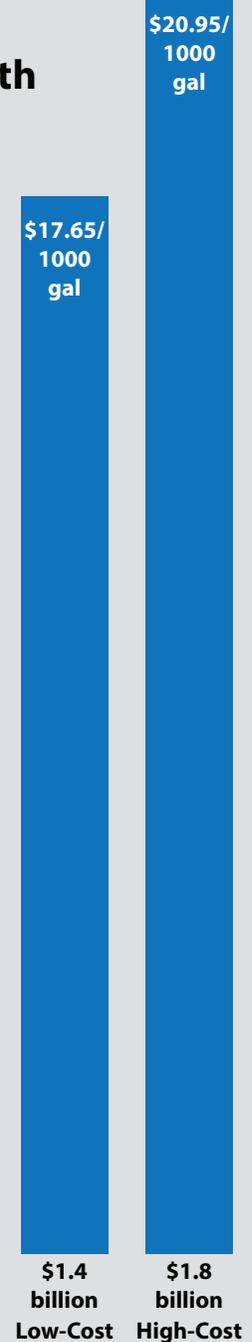
Figure 4: The WCWCD would be required to increase revenues substantially to cover annual LPP debt payments. Since WCWCD cannot raise taxes further, this increase in revenues would have to come from water rates and/or impact fees.

The right side of this graphic shows the increases required by WCWCD if they chose to only increase revenues from one source to repay the debt (cells B12 & B17). The left side of this graphic shows the increases required if WCWCD shifted the increases proportionally on the revenue sources (cells B20 & B22) The upper and lower parts of the graphic show the water price increases and impact fee increases required respectively.



Water Rate Increases

*Typical Washington County City



Impact Fee Increases



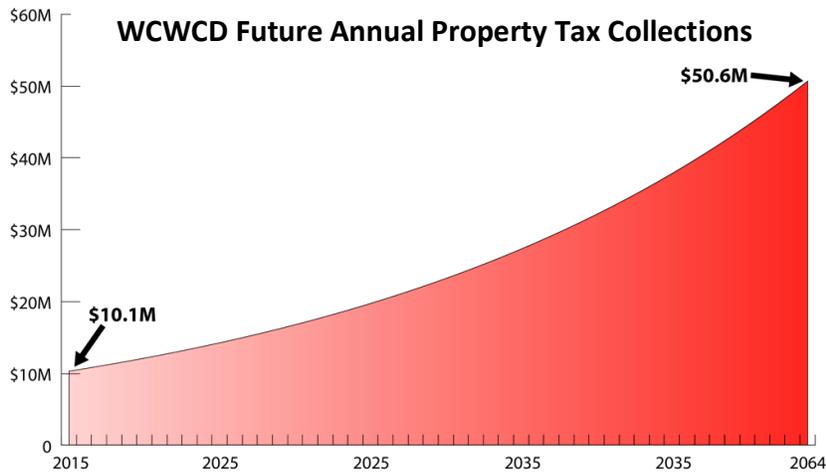
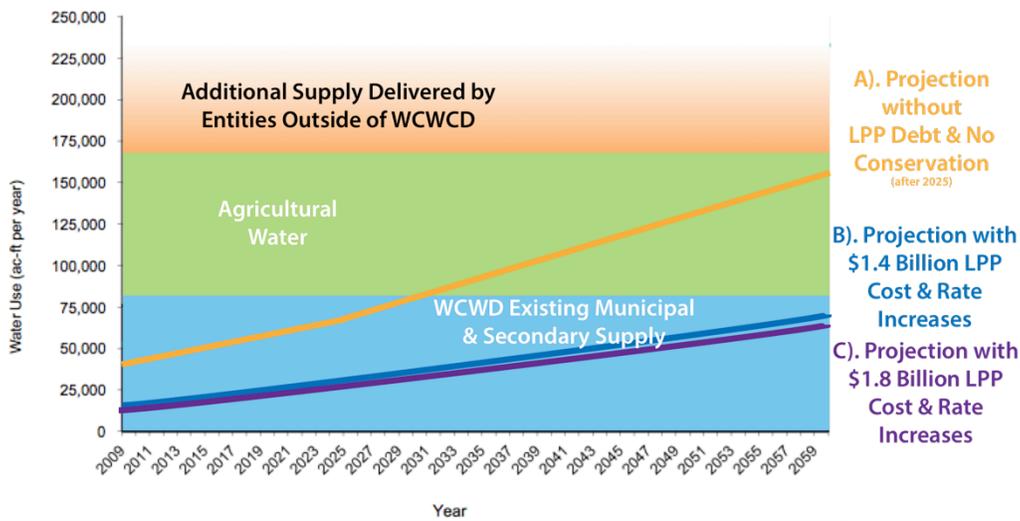


Figure 5. Since WCWCD’s property tax collections are already near their maximum authorized levy amount, the future growth in property tax revenues will come from population growth (column B). Yet even with this increase in revenues the District must increase water rates and impact fees considerably to repay the annual debt from the Lake Powell Pipeline.

Water Demand Projections for Washington County



Sources: Lake Powell Pipeline Water Needs Assessment, Division of Water Resources, 2011.
 Governor's Office of Planning and Budget 2012 Baseline Population Projections
 Kanab Creek/Virgin River Basin Plan Division of Water Resources, 1993.

Figure 6. A). 2012 water demand projection for Washington County, which does not include the effect increased water rates would have on reducing water use. This projection assumes no additional water conservation after 2025, keeping water use at 241 GPCD until 2060. This is also the projection if the LPP is only paid for with impact fees.

B). Under the \$1.4 billion LPP cost projection, WCWCD’s water demand would decrease by 62% due to increased water rates to repay LPP debt (cell J21). This calculation assumes half the LPP debt would be paid through increased water rates and the other half through increased impact fees.

C). Under the \$1.8 billion LPP cost projection, WCWCD’s water demand would decrease by 64% due to increased water rates to repay LPP debt (cell J21). This calculation assumes half the LPP debt would be paid through increased water rates and the other half through increased impact fees.

5. Washington County Water District does not have a current repayment plan.

The most recent repayment plan for the LPP project was in the Regional Water Capital Facilities Plan and Impact Fee Analysis from 2006¹⁹. The 2006 CFP has many problems as it relies on data that is nearly a decade old, including growth projections made before the 2008 economic downturn. The 2006 CFP completely relied on impact fees for repayment of the project, increasing the fees by 5 percent per year to increase revenues. This impact fee increase is not sufficient to repay the WCWCD debt, as shown in Section 4 above.

The plan also relied on an outdated cost estimate for the LPP project of \$562 million. Newer documentation shows the project will cost between \$1.4 billion and \$1.8 billion.

Despite these many problems, the WCWCD continues to rely on this plan to set their impact fee schedule. Due to the decrease in expected new growth in the area and the higher LPP construction costs, the fund is far behind where it should be to repay the project. The 2006 CFP projected the Impact Fee Fund balance to be \$113,770,522 but in reality the 2013 WCWCDAFS showed the district had only \$44,839,323, 61 percent lower than planned in the 2006 CFP.

6. 'Pay-As-You-Go' Repayment Concept Creates Large Subsidy Funded by State Taxpayers

In public discussions related to the repayment problems of the proposed Lake Powell Pipeline, water officials from the Division of Water Resources and the WCWCD coined a repayment concept called "Pay-As-You-Go." In a 2008 correspondence between WCWCD and the Division of Water Resources, the District's General Manager outlined this pay-as-you-go concept, asking for confirmation from the Division about the proposal. The concept would allow the WCWCD to defer paying for the entire project by instead buying smaller portions of the Lake Powell Pipeline's water, which they refer to as "blocks." According to these officials, the District would only pay the costs and interest associated with one small block of water at a time. This would leave the rest of the unused water and its costs to collect interest without any repayment for decades. This letter from WCWCD's general manager explicitly stated that he believed,

"No interest would be charged until such time as the actual contract to take the water occurs."²⁰

This was echoed and confirmed in correspondence from the Division of Water Resources.²¹ The letters stated that WCWCD would not be required to pay interest on the entire project and would only have to pay interest on small blocks of the project which could be purchased at any point during the first 50 years after the project's completion. This would defer paying interest on the entire project, leaving the State of Utah holding billions of dollars of debt for an indeterminate amount of time.

¹⁹ WCWCD Capital Facilities Plan, 2006.

²⁰ August 14, 2008 Letter from the General Manager of WCWCD to the Director of the Division of Water Resources.

²¹ October 14, 2008 Letter from the Director of the Division of Water Resources to the General Manager of WCWCD.

Yet according to the LPP Development Act,

“The board [of Water Resources] shall establish and charge a reasonable interest rate for the unpaid balance of reimbursable preconstruction and construction costs.”²²

We interpret this to mean that if “Pay-As-You-Go” is allowed—and we do not know whether it is allowed under the LPP Development Act—then any due-but-unpaid interest must be added to the principal owed by WCWCD, so that the due-but-unpaid interest must be paid back later with interest (a process called “negative amortization”). Our spreadsheet is constructed using this assumption. By making the District’s repayment schedule to the State uncertain and conditional on how the District’s wishes to take water evolve during the next few decades, this “negative amortization” interpretation of “Pay-As-You-Go” increases the uncertainty of the State’s financial condition during those decades, to the detriment of the State and, potentially, to the detriment of the State’s bond rating.

In addition, if the District discovered the LPP water was not needed after all, as seems likely, the District might never buy LPP water, leaving the State to pay all the costs of the project. In the free market, a lender would not loan money without a documented income stream, and that would be a prudent policy for the State of Utah to follow when it lends.

The alternative to the “negative amortization” interpretation of “Pay-As-You-Go” is to forgive the interest for the Lake Powell Pipeline. This scenario would be much worse for the State and its bond rating since it would constitute an interest-free loan of billions of dollars for several decades from Utah taxpayers to the District. Such a lending scenario is completely alien to free-market lenders (except in bankruptcy proceedings, when attempting to recover funds that in hindsight were imprudently lent). The only grounds upon which interest forgiveness could be justified would be as a permanent subsidy from the State to the District, which would certainly violate the intent of the LPP Development Act. Accordingly, the “permanent interest forgiveness” interpretation of “Pay-As-You-Go” is irrelevant to LPP financing.

7. Consideration of the Public Bond Market

The USA has a deep and sophisticated municipal bond market whose participants are, for the most part, better equipped than anyone else to decide whether repayment plans for a public project are sound. The best solution would be for the WCWCD to go to those markets, instead of to the State of Utah, for LPP financing. If the markets decide the WCWCD’s LPP financing scheme is sound, the markets will happily supply the needed funds. Otherwise, the market will have judged the WCWCD’s LPP financing scheme unsound, and that judgment should stand.

²² Utah Code, Section 73-28-403.

Appendices

Appendix A

Washington County, UT Population Projections

<u>GOPB Estimates</u>	1990	2000	2010	2020	2030	2040	2050	2060
2005 Estimate	48,978	91,090	168,078	279,864	415,510	559,670	709,674	860,378
2012 Estimate	48,978	91,090	138,748	196,762	280,558	371,743	472,567	581,731
# Households (est. 2012)	15,481	30,191	46,545	70,919	112,378	151,647	192,884	237,065

To solve for geometric growth rates: $x_{2060} = x_{2010} * \text{Exp}(r * (2060-2010))$ and solve for r .

But that is for continuous compounding. For annual compounding:

$$x_{2060} = x_{2010} * (1+r)^{(2060-2010)} \text{ and solve for } r.$$

$$\Rightarrow \text{Exp}[\text{Ln}(x_{2060}/x_{2010}) / (2060-2010)] - 1 = r.$$

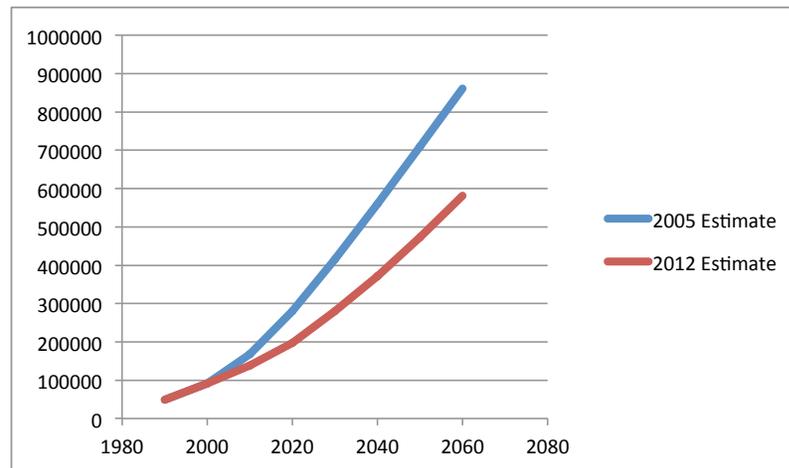
Also, for annual compounding, $x_t = x_0 * (1+r)^t$ implies that

$$x_{(t+1)} - x_t = x_0 * (1+r)^t * r = x_t * r.$$

190,520 change in households

0.03309412 Annually Compounded Household Growth Rate, 2010--2060

0.02908183 Annually Compounded Population Growth Rate, 2010--2060



Source: GOPB 2012 Population Projections

Appendix D

Repayment Obligation Scenarios

Scenario 1 - \$1.4B Cost Option

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	\$9,938,660	2013 Property Tax Collections													Scenario A	Scenario B	DSW/RES/RTS gives the FERC "escalation rate"				
2	\$7,013,377	2013 Water sale revenue													FERC Low Cost	FERC High Cost Estimate					
3	\$6,102	2013 Impact Fee per ERU													\$1,328,461,944	\$1,750,908,555					
4	0.03309	GOPB 50-Year Household Growth Rate Projection													LPP O&M Costs (Column K)	\$23,493,231	\$62,867,794				
5	1.03309	GOPB 50-Year Household Growth Rate Projection, plus one.													LPP Power sale revenue (Column F)	\$9,947,747	\$72,005,740				
6	1.040	enter 1 plus assumed interest rate on reserves													A	enter A or B (capitalized) for which scenario you want to analyze					
7	Q = P ^(1/2)	is the assumed demand curve, so revenues R = P ^(1/2) , so to increase R by a factor of "x" requires P to go up by a factor of "x ² ".													\$1,328,461,944	Loan Amount					
8	5.09324	If price rises by a factor > this, (Q_2060 under new water price) < (Q_2010 under current water price)													2064	year when all debt has to be paid back					
9		Given unchanged impact fees: (see Column P)													2015	initial year of spreadsheet					
10	3.20085	The factor by which water sale revenue needs to increase to eliminate the debt by 2062, minus one													0	enter number of initial payment-free years (can be zero); water rates & impact fees don't change during this time					
11	4.20085	The factor by which water sale revenue needs to increase to eliminate the debt by 2062													4%	enter interest rate					
12	17.64717	The factor by which water prices need to increase to eliminate the debt by 2062													50	years allowed for paying back the loan					Total Expected Project Costs
13	0.23805	The factor by which water demanded will change vs. base case when water prices rise enough to eliminate debt by 2062 (since revenue = PQ = 85%*(2t) Q^(-2) = Q5%*(2t) (1/Q))													\$1,328,461,944	Loan Amount after initial years of negative amortization					
14		Given unchanged water prices: (see Column R)													\$1,328,461,944	Annual Debt Service					
15	2.46738	The factor by which impact fees need to increase to eliminate the debt by 2062, minus one													if enter this, click on this button >	(\$0)	or this >	(\$0)	or this >	(\$0)	or this >
16	3.46738	The factor by which impact fees need to increase to eliminate the debt by 2062													RECALCULATE	to make them zero	to make them zero	to make them zero	to make them zero	to make them zero	to make them zero
17	\$21,158	2013 average Impact Fee per ERU, if Impact Fees increased as much as needed to eliminate the debt by 2062																			
18		Given Split Between Impact Fees and Water Rates: (see Column T)													50%	enter Impact Fees' portion of Split financing					
19	2.60043	The factor by which water sale revenue needs to increase to eliminate the debt by 2062													50%	Water Rates					
20	6.76222	The factor by which water prices need to increase to eliminate the debt by 2062																			
21	2.23369	The factor by which impact fees need to increase to eliminate the debt by 2062																			
22	\$13,630	2013 average Impact Fee per ERU, if Impact Fees increased as much as needed to eliminate the debt by 2062													0.38	The factor by which water demanded will change vs. base case if water prices behave this way.					
23	Year	Property Taxes	Water sale revenue	Power sale revenue and Surcharges	Impact Fees	Real Estate sale revenue	LPP Power sale revenue	TOTAL REVENUES	Annual Debt Service on Existing Debt	Existing O&M	Annual LPP Debt Service	LPP O&M Costs	Total Annual Debt Service	Total Annual Expenses	Net Annual Surplus (Deficit) w/ Increased Water Rate Sale	Cumulative Surplus (Deficit)	Repayment Option 1: Annual Surplus (Deficit) w/ Increased Water Rate Sale	Repayment Option 2: Cumulative Surplus (Deficit) w/ Increased Water Rate Sale	Repayment Option 3: Annual Surplus (Deficit) w/ Split Between Impact Fees and Water Rates	Repayment Option 4: Cumulative Surplus (Deficit) w/ Split Between Impact Fees and Water Rates	
24	2015	\$10,267,571	\$7,245,479	\$2,381,597	\$9,399,311	\$15,000,000	\$0	\$44,293,958	\$7,026,322	\$13,231,636	\$61,840,170	\$0	\$68,866,492	\$82,098,128	(\$37,804,170)	(\$37,804,170)	(\$14,612,457)	(\$14,612,457)	(\$14,612,457)	(\$14,612,457)	
25	2016	\$10,607,367	\$7,485,261	\$2,460,414	\$9,710,373	\$15,000,000	\$0	\$44,263,415	\$7,039,458	\$13,669,525	\$61,840,170	\$0	\$68,866,492	\$82,536,012	(\$37,272,602)	(\$76,588,938)	(\$28,510,334)	(\$13,313,379)	(\$28,510,334)	(\$13,313,379)	
26	2017	\$10,958,409	\$7,732,979	\$2,541,839	\$10,031,729	\$15,000,000	\$0	\$44,264,956	\$7,048,107	\$14,121,906	\$61,840,170	\$0	\$68,879,628	\$83,001,534	(\$36,736,577)	(\$113,389,073)	(\$11,984,446)	(\$11,984,446)	(\$11,984,446)	(\$11,984,446)	
27	2018	\$11,321,668	\$8,000,895	\$2,625,959	\$10,363,720	\$15,000,000	\$0	\$44,299,643	\$7,048,318	\$14,589,258	\$61,840,170	\$0	\$68,888,777	\$83,477,535	(\$36,177,535)	(\$150,666,611)	(\$5,907,212)	(\$5,907,212)	(\$5,907,212)	(\$5,907,212)	
28	2019	\$11,695,728	\$8,283,381	\$2,712,863	\$10,706,699	\$15,000,000	\$0	\$44,368,571	\$7,050,648	\$15,072,077	\$61,840,170	\$0	\$68,898,488	\$83,960,565	(\$35,591,894)	(\$189,105,424)	(\$9,174,453)	(\$9,174,453)	(\$9,174,453)	(\$9,174,453)	
29	2020	\$12,082,788	\$8,526,416	\$2,802,643	\$11,061,027	\$15,000,000	\$0	\$44,472,874	\$6,451,090	\$15,570,874	\$61,840,170	\$0	\$68,909,818	\$84,461,692	(\$34,988,818)	(\$242,056,378)	(\$7,697,012)	(\$7,697,012)	(\$7,697,012)	(\$7,697,012)	
30	2021	\$12,485,657	\$8,808,990	\$2,895,394	\$11,427,082	\$15,000,000	\$0	\$44,613,723	\$6,456,332	\$16,086,178	\$61,840,170	\$0	\$68,921,260	\$84,973,348	(\$34,763,715)	(\$285,502,348)	(\$5,568,711)	(\$84,134,973)	(\$5,568,711)	(\$84,134,973)	
31	2022	\$12,895,760	\$9,100,103	\$2,991,214	\$11,805,251	\$15,000,000	\$0	\$44,792,328	\$6,438,580	\$16,618,536	\$61,840,170	\$0	\$68,936,504	\$85,515,038	(\$34,522,110)	(\$330,045,151)	(\$3,994,617)	(\$91,494,989)	(\$3,994,617)	(\$91,494,989)	
32	2023	\$13,322,534	\$9,401,262	\$3,090,206	\$12,199,536	\$15,000,000	\$0	\$45,009,938	\$6,405,230	\$17,168,512	\$61,840,170	\$0	\$68,952,750	\$86,075,262	(\$34,267,242)	(\$375,384,281)	(\$2,045,263)	(\$97,200,052)	(\$2,045,263)	(\$97,200,052)	
33	2024	\$13,763,431	\$9,712,389	\$3,192,473	\$12,599,550	\$15,000,000	\$0	\$45,267,843	\$5,101,740	\$17,736,688	\$61,840,170	\$0	\$68,969,400	\$86,673,898	(\$33,940,245)	(\$420,803,898)	\$683,686	(\$100,404,368)	\$683,686	(\$100,404,368)	
34	2025	\$14,218,920	\$10,033,812	\$3,298,125	\$13,016,220	\$15,000,000	\$0	\$45,567,377	\$5,109,185	\$18,323,668	\$61,840,170	\$0	\$68,987,500	\$87,314,262	(\$33,594,210)	(\$468,246,511)	(\$1,581,442)	(\$117,001,984)	(\$1,581,442)	(\$117,001,984)	
35	2026	\$14,689,482	\$10,365,872	\$3,407,274	\$13,447,291	\$15,000,000	\$0	\$45,915,666	\$5,099,965	\$18,930,074	\$61,840,170	\$23,493,231	\$66,949,355	\$87,997,659	(\$32,215,944)	(\$511,461,258)	(\$423,335,359)	(\$146,017,423)	(\$423,335,359)	(\$146,017,423)	
36	2027	\$15,175,618	\$10,708,921	\$3,520,035	\$13,892,317	\$15,000,000	\$0	\$46,305,657	\$5,042,548	\$19,556,548	\$61,840,170	\$24,432,960	\$66,949,355	\$88,714,918	(\$31,847,095)	(\$551,461,258)	(\$368,795,418)	(\$174,867,529)	(\$368,795,418)	(\$174,867,529)	
37	2028	\$15,677,841	\$11,063,324	\$3,636,527	\$14,352,071	\$15,000,000	\$0	\$46,739,483	\$5,048,246	\$20,203,755	\$61,840,170	\$25,410,278	\$66,949,355	\$90,487,535	(\$31,427,535)	(\$583,108,813)	(\$314,949,589)	(\$174,867,529)	(\$314,949,589)	(\$174,867,529)	
38	2029	\$16,196,686	\$11,429,455	\$3,756,875	\$14,827,040	\$15,000,000	\$0	\$47,219,917	\$5,048,246	\$20,872,380	\$61,840,170	\$26,426,689	\$66,949,355	\$93,147,118	(\$30,947,118)	(\$615,355,931)	(\$268,795,418)	(\$174,867,529)	(\$268,795,418)	(\$174,867,529)	
39	2030	\$16,732,701	\$11,807,702	\$3,881,205	\$15,317,728	\$15,000,000	\$0	\$47,747,973	\$5,048,246	\$21,563,133	\$61,840,170	\$27,483,757	\$66,949,355	\$95,851,915	(\$30,397,118)	(\$647,853,049)	(\$224,949,589)	(\$174,867,529)	(\$224,949,589)	(\$174,867,529)	
40	2031	\$17,286,455	\$12,198,683	\$4,009,650	\$15,824,654	\$15,000,000	\$0	\$48,321,482	\$5,048,246	\$22,276,746	\$61,840,170	\$28,583,107	\$66,949,355	\$98,593,813	(\$29,837,118)	(\$680,790,167)	(\$180,449,589)	(\$174,867,529)	(\$180,449,589)	(\$174,867,529)	
41	2032	\$17,858,535	\$12,602,155	\$4,142,346	\$16,348,357	\$15,000,000	\$0	\$48,947,973	\$5,048,246	\$23,021,975	\$61,840,170	\$29,726,432	\$66,949,355	\$101,377,535	(\$29,292,118)	(\$714,182,385)	(\$130,949,589)	(\$174,867,529)	(\$130,949,589)	(\$174,867,529)	
42	2033	\$18,449,547	\$13,019,223	\$4,279,433	\$16,889,392	\$15,000,000	\$0	\$49,621,482	\$5,048,246	\$23,800,602	\$61,840,170	\$30,915,489	\$66,949,355	\$104,207,535	(\$28,747,118)	(\$748,129,503)	(\$80,449,589)	(\$174,867,529)	(\$80,449,589)	(\$174,867,529)	
43	2034	\$19,060,816	\$13,450,082	\$4,421,057	\$17,448,331	\$15,000,000	\$0	\$50,347,973	\$5,048,246	\$24,612,435	\$61,840,170	\$32,845,108	\$66,949,355	\$107,092,535	(\$28,192,118)	(\$782,121,621)	(\$30,949,589)	(\$174,867,529)	(\$30,949,589)	(\$174,867,529)	
44	2035	\$19,699,896	\$13,905,201	\$4,578,368	\$18,025,768	\$15,000,000	\$0	\$51,119,482	\$5,048,246	\$25,453,980	\$61,840,170	\$34,830,193	\$66,949,355	\$110,022,535	(\$27,627,118)	(\$816,158,739)	(\$33,049,589)	(\$174,867,529)	(\$33,049,589)	(\$174,867,529)	
45	2036	\$20,342,549	\$14,375,050	\$4,748,521	\$18,622,315	\$15,000,000	\$0	\$51,947,973	\$5,048,246	\$26,338,530	\$61,840,170	\$36,945,108	\$66,949,355	\$113,002,535	(\$27,052,118)	(\$850,195,857)	(\$35,149,589)	(\$174,867,529)	(\$35,149,589)	(\$174,867,529)	
46	2037	\$21,012,768	\$14,860,118	\$4,932,677	\$19,238,604	\$15,000,000	\$0	\$52,829,482	\$5,048,246	\$27,268,645	\$61,840,170	\$39,155,749	\$66,949,355	\$116,122,535	(\$26,467,118)	(\$884,332,975)	(\$37,249,589)	(\$174,867,529)	(\$37,249,589)	(\$174,867,529)	
47	2038	\$21,711,266	\$15,359,980	\$5,138,000	\$19,872,815	\$15,000,000	\$0	\$53,761,973	\$5,048,246	\$28,244,722	\$61,840,170	\$41,460,108	\$66,949,355	\$119,282,535	(\$25,862,118)	(\$918,475,093)	(\$39,349,589)	(\$174,867,529)	(\$39,349,589)	(\$174,867,529)	
48	2039	\$22,442,811	\$15,872,940	\$5,342,662	\$20,539,044	\$15,000,000	\$0	\$54,754,973	\$5,048,246	\$29,370,815	\$61,840,170	\$43,855,193	\$66,949,355	\$122,477,535	(\$25,247,118)	(\$952,622,211)	(\$41,449,589)	(\$174,867,529)	(\$41,449,589)	(\$174,867,529)	
49	2040	\$23,172,075	\$16,351,751	\$5,574,839	\$21,225,567	\$15,000,000	\$0	\$55,801,482	\$5,048,246	\$30,549,810	\$61,840,170	\$46,340,645	\$66,949,355	\$125,712,535	(\$24,612,118)	(\$986,864,329)	(\$43,449,589)	(\$174,867,529)	(\$43,449,589)	(\$174,867,529)	
50	2041	\$23,938,934	\$16,892,898	\$5,821,715	\$21,941,516	\$15,000,000	\$0	\$56,919,482	\$5,048,246	\$31,870,615	\$61,840,170	\$48,920,108	\$66,949,355	\$129,002,535	(\$23,967,118)	(\$1,021,191,447)	(\$45,449,589)	(\$174,867,529)	(\$45,449,589)	(\$174,867,529)	
51	2042	\$24,711,172	\$17,451,954	\$6,087,477	\$22,693,822	\$15,000,000	\$0	\$58,101,482	\$5,048,246	\$33,250,615	\$61,840,170	\$51,500,108	\$66,949,355	\$132,342,535	(\$23,302,118)	(\$1,056,493,565)	(\$47,449,589)	(\$174,867,529)	(\$47,449,589)	(\$174,867,529)	
52	2043	\$25,549,628	\$18,029,311	\$6,362,321	\$23,489,673	\$15,000,000	\$0	\$59,354,973	\$5,048,246	\$34,682,615	\$61,840,170	\$54,180,108	\$66,949,355	\$135,732,535	(\$22,627,118)						

Appendix E

WCWCD Water Demand with LPP Debt

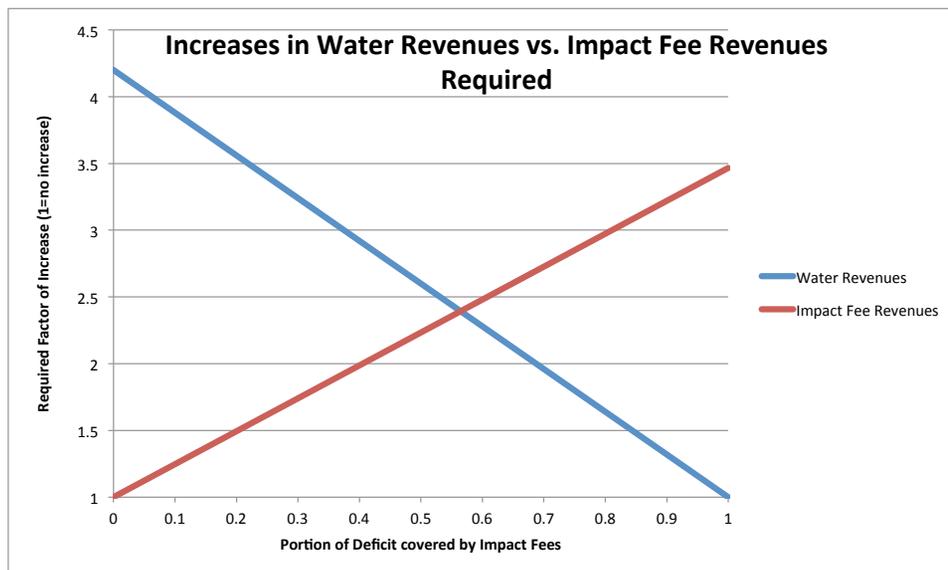
Year	Current Supply	Supply with LPP (GPCD)	Base Per Capita Use (GPCD)	Assumed Conservation from 2005	Per Capita Use with Conservation (GPCD)	Total Projected Water Demand (ac-ft/yr)	First Scenario: Total Demand with Increased Water Prices (ac-ft/yr)	First Scenario: Total Demand with Increased Water Prices and Impact Fees (ac-ft/yr)	First Scenario: GPCD With Increased Water Prices	First Scenario: GPCD With Increased Water Rates and Impact Fees	Second Scenario: Total Demand with Increased Water Prices (ac-ft/yr)	Second Scenario: Total Demand with Increased Water Prices and Impact Fees (ac-ft/yr)	Second Scenario: GPCD With Increased Water Prices	Second Scenario: GPCD With Increased Water Rates and Impact Fees	
2009	82,010	82,010	294.3	0%	294.3	55408	<i>45,739</i>	<i>10,888</i>	<i>17,589</i>	70.1	113.2	<i>9,994</i>	<i>16,403</i>	64.3	105.5
2010	82,010	82,010	294.3	1%	291.4	54854	<i>45,282</i>	<i>10,779</i>	<i>17,413</i>	69.4	112.0	<i>9,894</i>	<i>16,239</i>	63.7	104.5
2020	130,840	151,010	294.3	5%	279.6	87646	<i>61,621</i>	<i>14,669</i>	<i>23,696</i>	66.6	107.5	<i>13,463</i>	<i>22,099</i>	61.1	100.3
2030	130,840	151,010	294.3	9%	267.8	124648	<i>84,164</i>	<i>20,035</i>	<i>32,365</i>	63.8	103.0	<i>18,389</i>	<i>30,183</i>	58.5	96.0
2040	130,840	199,840	294.3	12%	259.0	162359	<i>107,842</i>	<i>25,671</i>	<i>41,471</i>	61.7	99.6	<i>23,562</i>	<i>38,675</i>	56.6	92.9
2050	130,840	199,840	294.3	16%	247.2	196517	<i>130,859</i>	<i>31,151</i>	<i>50,322</i>	58.8	95.1	<i>28,591</i>	<i>46,929</i>	54.0	88.7
2060	130,840	199,840	294.3	18%	241.3	232576	<i>157,252</i>	<i>37,433</i>	<i>60,472</i>	57.4	92.8	<i>34,358</i>	<i>56,394</i>	52.7	86.5
							192%	46%	74%			42%	69%	69% <- 2060 demand as a fraction of 2010 demand	

Red = some water from LPP is actually used (total demand > 130,840 acre-feet)
Blue = no water from LPP is actually used because water's so expensive that > 130,840 acre-feet are not demanded
Blue Italic = no water from LPP is actually used because water's so expensive that > 82,010 acre-feet (2010's supply) are not demanded
 Source: 2011 LPP Water Needs Assessment

Appendix F

WCWCD Debt Repayment: Water Rates vs. Impact Fees

Water Revenues	Impact Fee Revenues	2.26 If Water Revenues rise by a factor > this, Q_2060 < Q_2010.
0	4.20085321	1
1	1	3.467384349



Appendix G

Repayment Scenario Supporting Formulas

by Gabriel A. Lozada, 9/28/15

1. Paths of Demand, Price, and Revenue when Elasticity is $-1/2$

Suppose the demand for water is given by

$$Q_t = \alpha \beta^t P_t^{-1/2} \quad (1)$$

where Q is quantity demanded, P is price, β is one plus the projected population growth rate, and t denotes the date. Assume price is constant:

$$P_t \equiv P \quad \text{for all } t.$$

Then

$$Q_t = \alpha \beta^t P^{-1/2}$$

$$Q_0 = \alpha P^{-1/2} \quad \text{so}$$

$$Q_t = Q_0 \beta^t \quad (\text{which grows at rate } \beta) \quad \text{and}$$

$$\text{total revenue } Q_t P_t = Q_0 \beta^t P = Q_0 P \beta^t \quad (\text{which grows at rate } \beta).$$

Now suppose there is a new situation, denoted by $\hat{}$, and suppose we have discovered that the needed total revenue in the new situation is γ times the total revenue of the old situation:

$$\boxed{\widehat{Q}_t \widehat{P}_t = \gamma \cdot Q_t P_t}. \quad (2)$$

Suppose as before that

$$\widehat{P}_t \equiv \widehat{P} \quad \text{for all } t. \quad \text{and}$$

$$\widehat{Q}_t = \alpha \beta^t \widehat{P}^{-1/2}.$$

Then as before, both \widehat{Q}_t and $\widehat{Q}_t \widehat{P}_t$ grow at rate β , and also $\widehat{Q}_t = \widehat{Q}_0 \beta^t$.

From (2),

$$\widehat{Q}_t \widehat{P}_t = \gamma Q_t P_t$$

$$\widehat{Q}_0 \beta^t \cdot \widehat{P} = \gamma Q_0 \beta^t \cdot P$$

$$\widehat{Q}_0 \cdot \widehat{P} = \gamma Q_0 \cdot P$$

$$\alpha \widehat{P}^{-1/2} \cdot \widehat{P} = \gamma \alpha P^{-1/2} \cdot P$$

$$\widehat{P}^{1/2} = \gamma P^{1/2}$$

$$\boxed{\widehat{P} = \gamma^2 P}. \quad (3)$$

Using (3), $\widehat{Q}_t = \widehat{Q}_0 \beta^t = \alpha \widehat{P}^{-1/2} \beta^t = \alpha (\gamma^2 P)^{-1/2} \beta^t = \gamma^{-1} \alpha P^{-1/2} \beta^t = \gamma^{-1} Q_t$, so

$$\boxed{\widehat{Q}_t = Q_t / \gamma}. \quad (4)$$

Note that in the spreadsheet (worksheets “First Scenario” and “Second Scenario”), $\widehat{Q}_t P_t = Q_t P_t + B10 \cdot Q_t P_t = (1 + B10) Q_t P_t$, so the value of γ in (2) is $1 + B10$ in the spreadsheet; this is B11 and B19.

The answer to the question “when is $\widehat{Q}_{2060} < Q_{2010}$?” is, using (4), when

$$\begin{aligned} Q_{2060} / \gamma &< Q_{2010} \\ Q_{2010} \beta^{2060-2010} / \gamma &< Q_{2010} \\ \beta^{50} &< \gamma. \end{aligned}$$

This underlies B8.

2. Deriving Cost and Benefit Flows from their Present Values given in pages 5-3 to 5-6 of the Draft Socioeconomics and Water Resource Economics Study Report

This section derives relationships used in the spreadsheet tab “DSWRESR,” whose name is the first letters of the “Study Report” named in the title of this section.

The Study Report describes the flows of costs and benefits from 2020 to 2060 (see for example Table 2-1 on page 2-2) in terms of the present value (in 2010) of those flows. Here we derive the implied magnitude of such a flow in our assumed initial year of operation, 2026.

Let the Study Report’s “escalation rate” (the rate of real cost or benefit increases per year) be ϵ . The Study Report provides the value of ϵ but it provides no further information about how the Study Report authors assumed costs and benefits changed over time. In the absence of this information, the best we can do is to assume that their sequence of costs (or benefits)

$$\{c_{2020}, c_{2021}, c_{2022}, \dots, c_{2060}\}$$

is equal to

$$\{c_{2020}, (1+\epsilon)c_{2020}, (1+\epsilon)^2 c_{2020}, \dots, (1+\epsilon)^{40} c_{2020}\}.$$

Let the Study Report’s discount rate be r and let the present value in 2020 of this sequence be denoted by PV_{2020} . Then

$$PV_{2020} = \sum_{t=0}^{40} \frac{(1+\epsilon)^t c_{2020}}{(1+r)^t} = \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)^{41}}{1 - \left(\frac{1+\epsilon}{1+r}\right)} c_{2020},$$

$$c_{2020} = \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)}{1 - \left(\frac{1+\epsilon}{1+r}\right)^{41}} PV_{2020}, \text{ and}$$

$$c_{2026} = (1 + \epsilon)^6 c_{2020} = (1 + \epsilon)^6 \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)}{1 - \left(\frac{1+\epsilon}{1+r}\right)^{41}} PV_{2020}.$$

Since $PV_{2010} = PV_{2020}/(1+r)^{10}$ because the only thing which happens to these flow costs between 2010 and 2020 is discounting, we have

$$c_{2026} = (1 + \epsilon)^6 (1 + r)^{10} \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)}{1 - \left(\frac{1+\epsilon}{1+r}\right)^{41}} PV_{2010}. \quad (5)$$

If we are correct in assuming that the Study Report authors used $c_t = (1 + \epsilon)^{t-2020} c_{2020}$ then (5) would give the same answer for c_{2020} regardless of the values of ϵ and r . However, the values which (5) gives for c_{2020} for the two “no pump storage” cases, Tables 5-1 and 5-2 (spreadsheet columns C and J, rows 12–19), slightly differ; so do the values which (5) gives for c_{2020} for the two “pump storage” cases, Tables 5-3 and 5-4 (spreadsheet columns C and J, rows 29–37). Therefore, the Study Report authors must not have used $c_t = (1 + \epsilon)^{t-2020} c_{2020}$, but something slightly different. There is no way to know what that was (for example, the text “2024” does not appear in the report), so in column N, averages of the c_{2020} values derived from (5) for the two “no pump storage” cases given in the Study Report were calculated, and this average was used for the “no pump storage” c_{2020} in the rest of the spreadsheet. Similarly, in column N, averages of the c_{2020} values derived from (5) for the two “pump storage” cases given in the Study Report were calculated, and that average was used for the “pump storage” c_{2020} in the rest of the spreadsheet.

For construction costs the situation is the same except that the years of construction in the Study Report were 2016 to 2019. So

$$PV_{2016} = \sum_{t=0}^3 \frac{(1 + \epsilon)^t c_{2016}}{(1 + r)^t} = \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)^4}{1 - \left(\frac{1+\epsilon}{1+r}\right)} c_{2016},$$

$$c_{2016} = \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)}{1 - \left(\frac{1+\epsilon}{1+r}\right)^4} PV_{2016}, \text{ and}$$

$$c_{2015} = c_{2016}/(1 + \epsilon).$$

Let the present value for our spreadsheet, in which construction starts in 2015, be denoted by PV'_{2015} , and let our discount rate be r' . The Study Report gives

PV_{2010} . We have

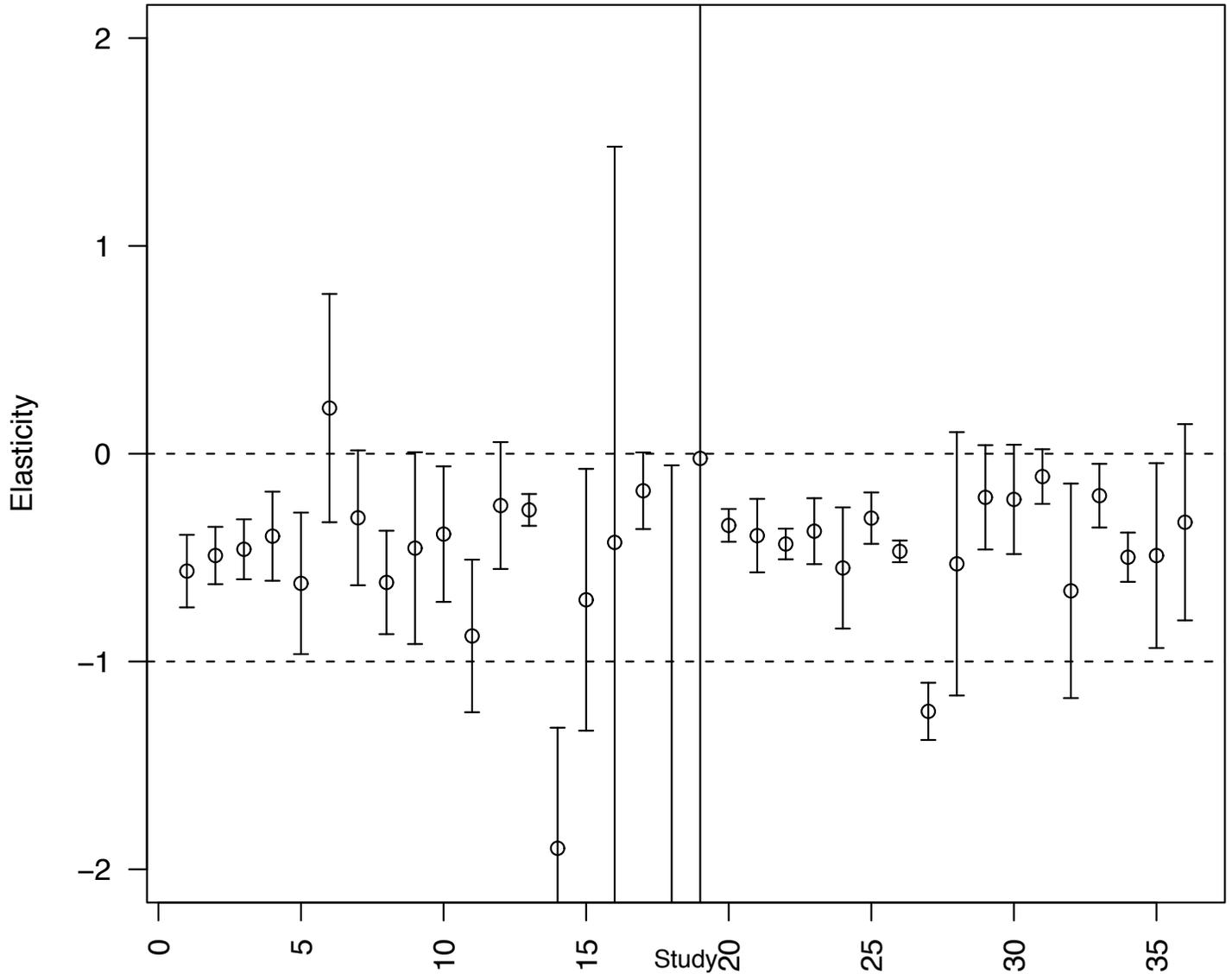
$$\begin{aligned}
PV'_{2015} &= \sum_{t=0}^3 \frac{(1+\epsilon)^t c_{2015}}{(1+r')^t} = \frac{1 - \left(\frac{1+\epsilon}{1+r'}\right)^4}{1 - \left(\frac{1+\epsilon}{1+r'}\right)} c_{2015} \\
&= \frac{1 - \left(\frac{1+\epsilon}{1+r'}\right)^4}{1 - \left(\frac{1+\epsilon}{1+r'}\right)} \frac{c_{2016}}{1+\epsilon} \\
&= \frac{1 - \left(\frac{1+\epsilon}{1+r'}\right)^4}{1 - \left(\frac{1+\epsilon}{1+r'}\right)} \frac{1}{1+\epsilon} \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)}{1 - \left(\frac{1+\epsilon}{1+r}\right)^4} PV_{2016} \\
&= \frac{1 - \left(\frac{1+\epsilon}{1+r'}\right)^4}{1 - \left(\frac{1+\epsilon}{1+r'}\right)} \frac{1}{1+\epsilon} \frac{1 - \left(\frac{1+\epsilon}{1+r}\right)}{1 - \left(\frac{1+\epsilon}{1+r}\right)^4} (1+r)^6 PV_{2010}. \tag{6}
\end{aligned}$$

As before, if we are correct in assuming that the Study Report authors used $c_t = (1+\epsilon)^{t-2016} c_{2016}$ then (6) would give the same answer for c_{2016} and PV'_{2015} regardless of the values of ϵ and r . However, the values which (6) gives for PV'_{2015} for the two “no pump storage” cases, Tables 5-1 and 5-2 (spreadsheet columns D and K, row 16) differ by about one-half of one percent; so do the values which (6) gives for PV'_{2015} for the two “pump storage” cases, Tables 5-3 and 5-4 (spreadsheet columns D and K, row 33). Therefore, the Study Report authors must not have used $c_t = (1+\epsilon)^{t-2016} c_{2016}$, but something very slightly different. There is no way to know what that was (for example, the text “2017” does not appear in the report), so in column O, averages of the PV'_{2015} values derived from (6) for the two “no pump storage” cases given in the Study Report were calculated, and this average was used for the “no pump storage” PV'_{2015} in the rest of the spreadsheet. Similarly, in column O, averages of the PV'_{2015} values derived from (6) for the two “pump storage” cases given in the Study Report were calculated, and that average was used for the “pump storage” PV'_{2015} in the rest of the spreadsheet.

Appendix H

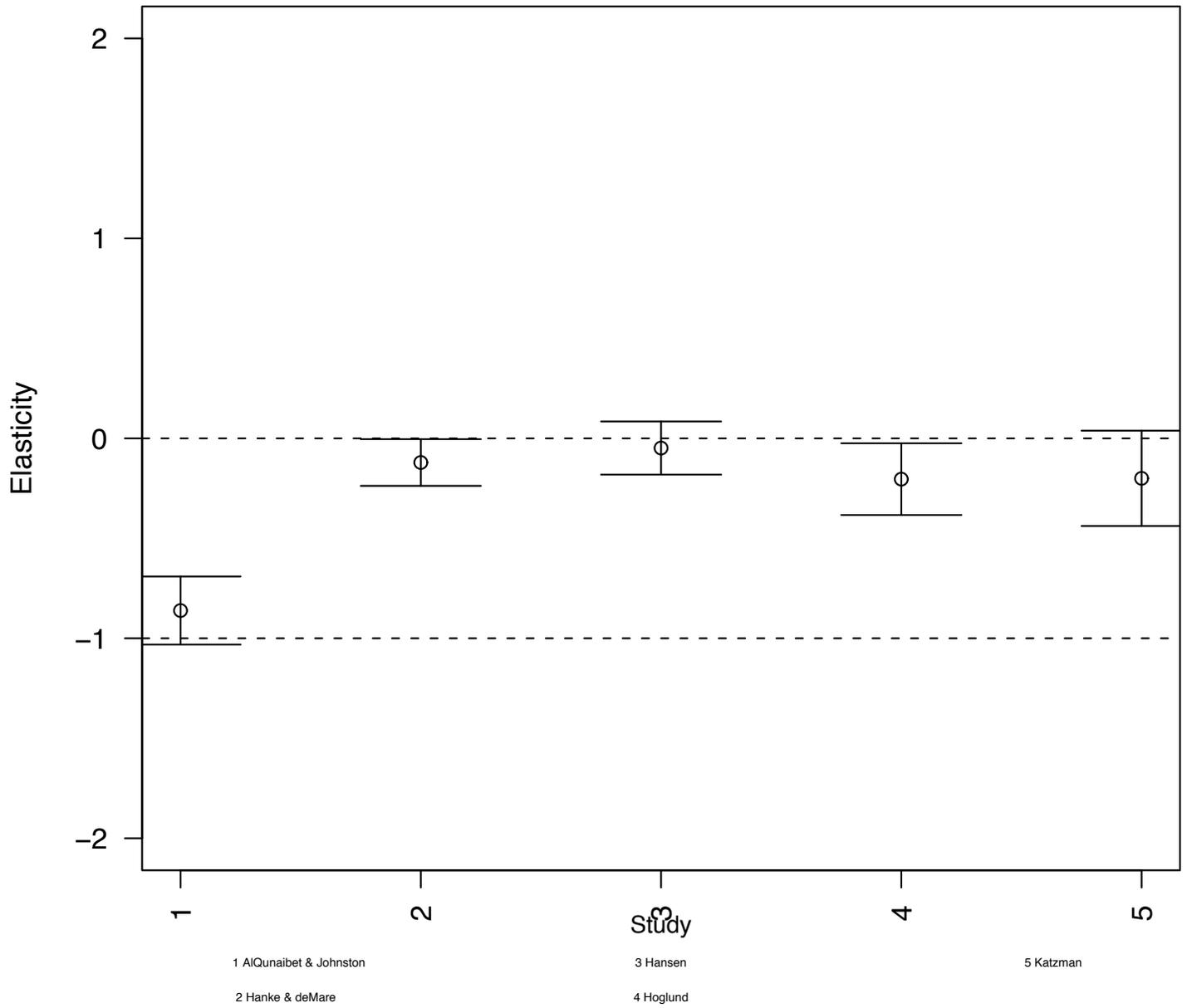
Survey of Water Price Elasticity Publications, Gail Blattenberger, PhD

Elasticity Measurements West/US Studies

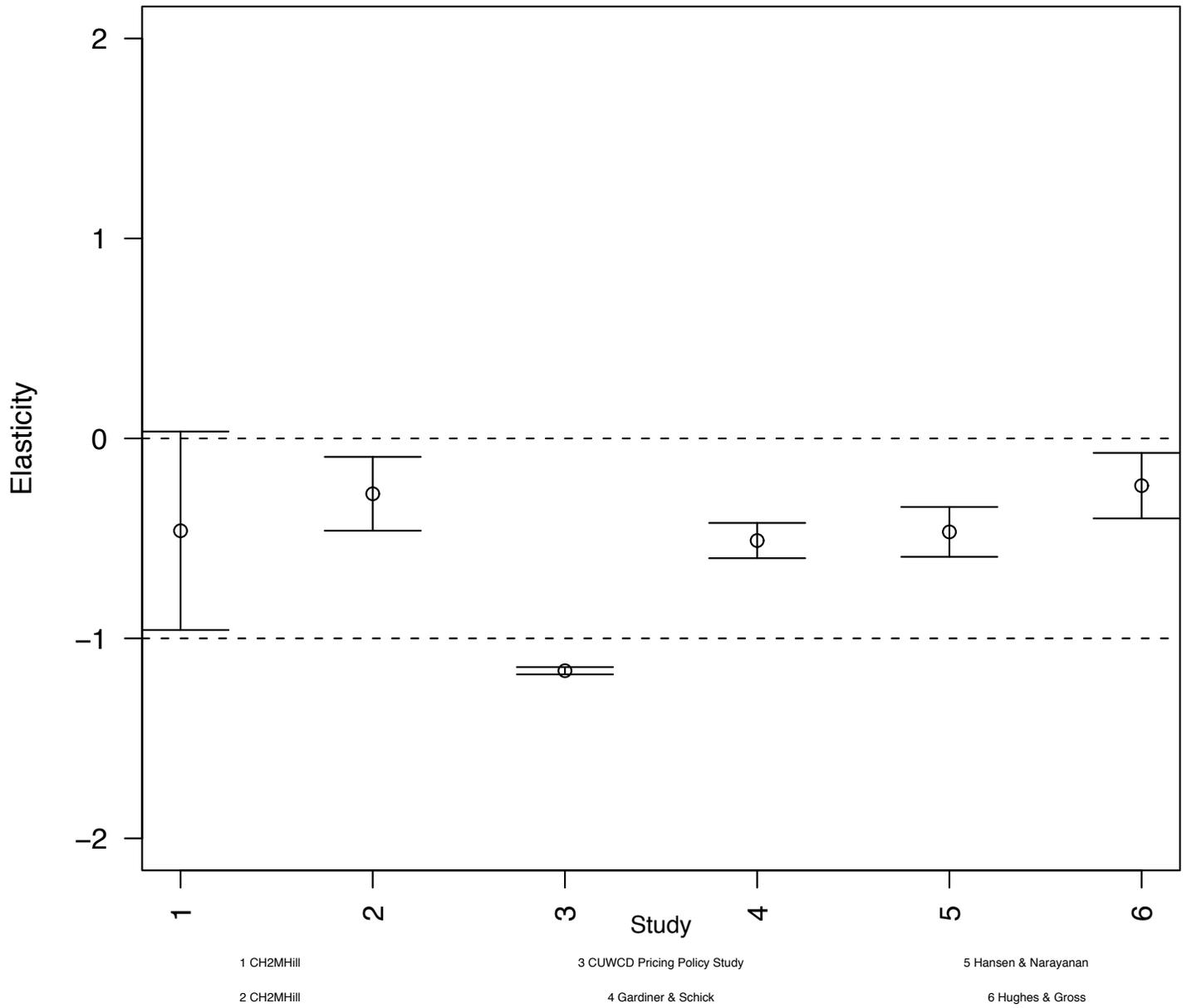


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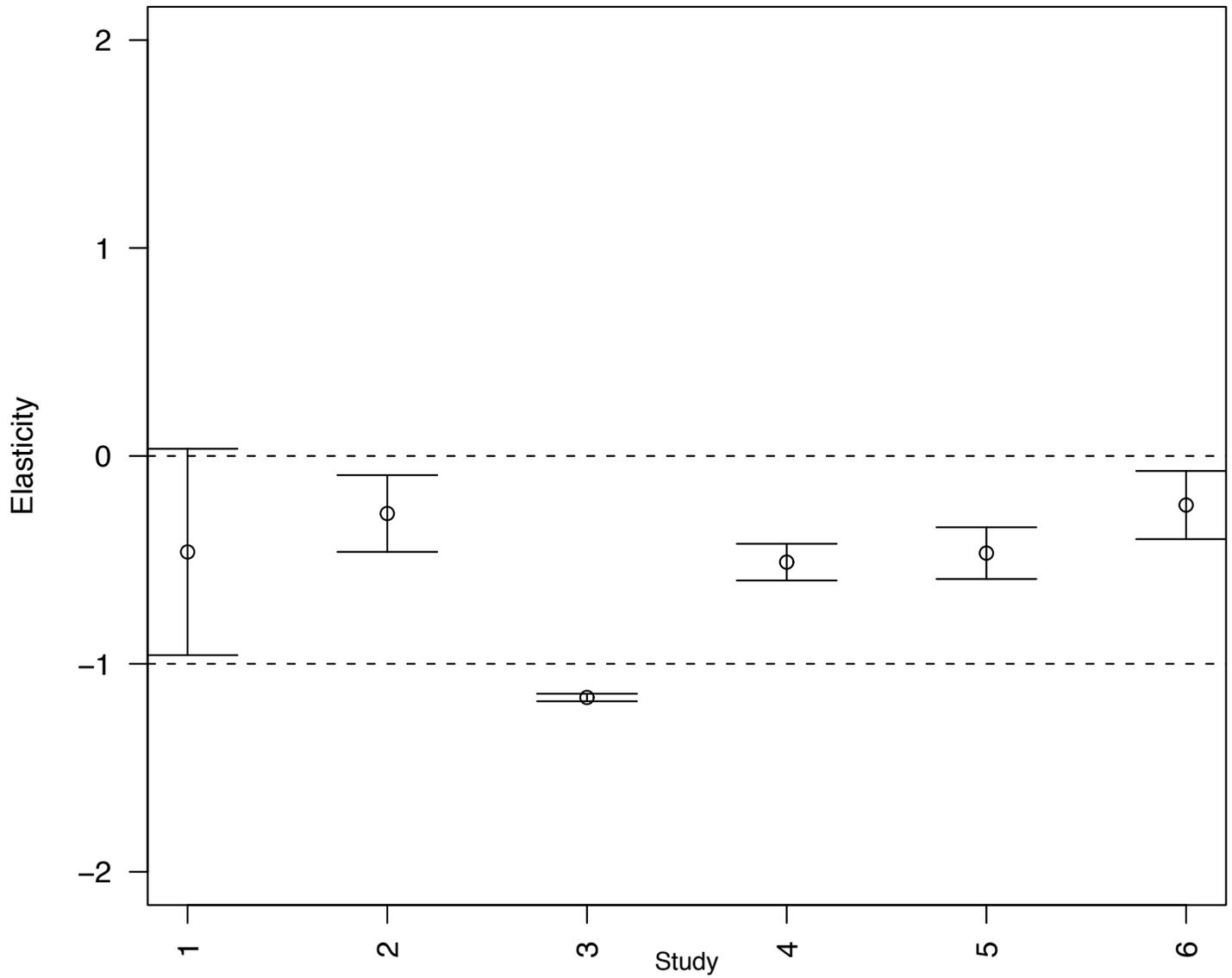
Elasticity Measurements Foreign Studies



Elasticity Measurements Utah Studies

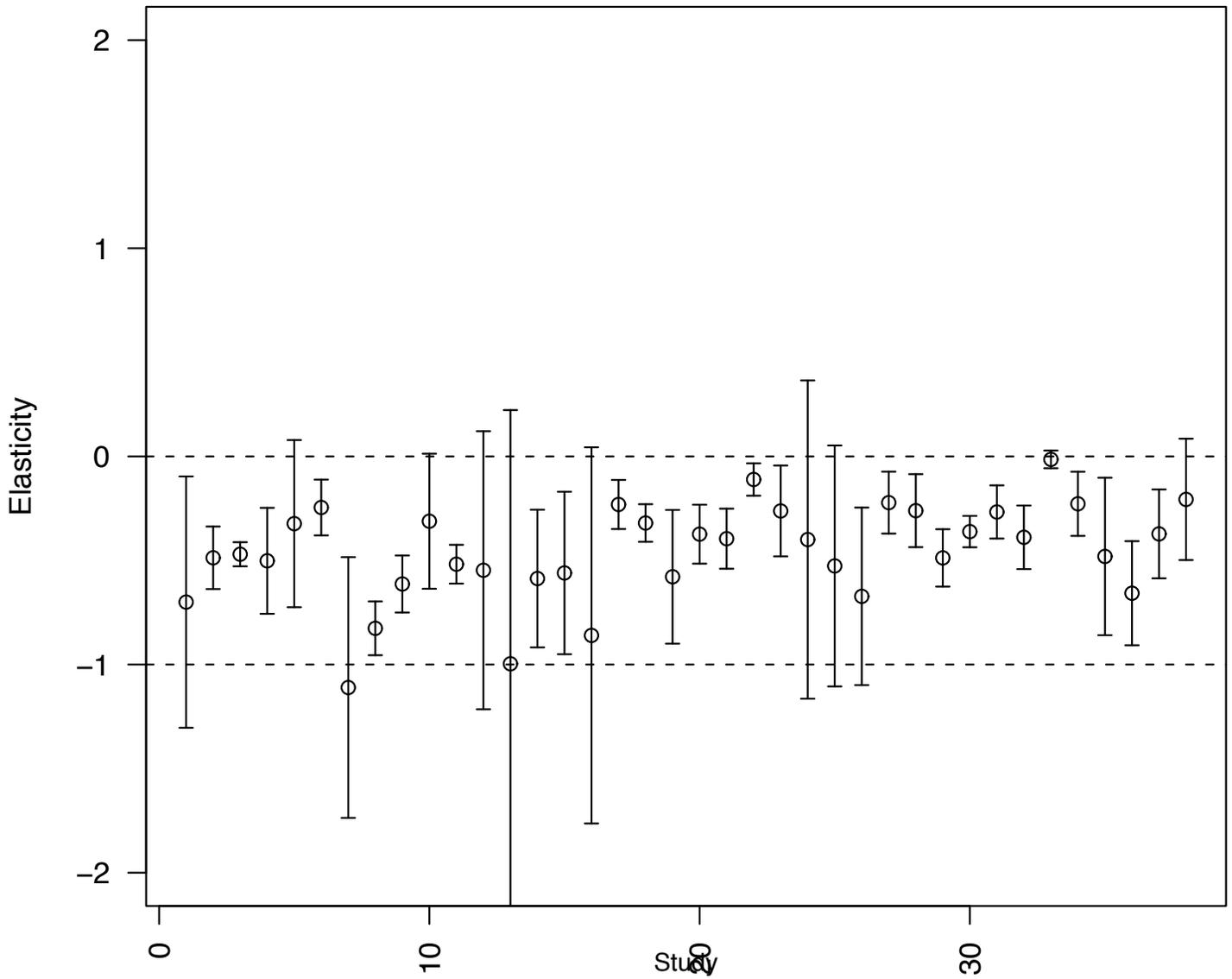


Elasticity Measurements Utah Studies



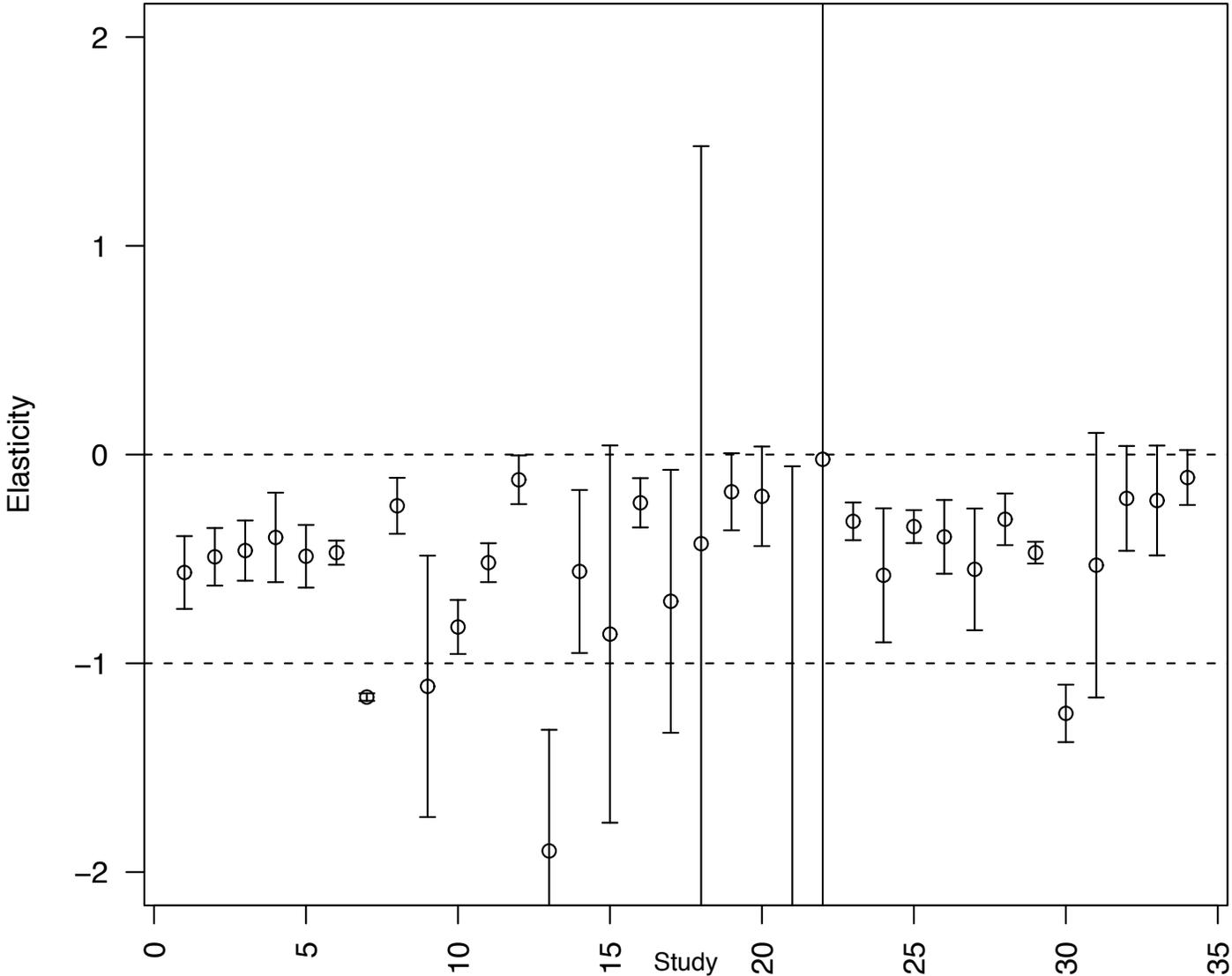
- 1 CH2MHill
- 2 CH2MHill
- 3 CUWCD Pricing Policy Study
- 4 Gardiner & Schick
- 5 Hansen & Narayanan
- 6 Hughes & Gross

Elasticity Measurements East/US Studies



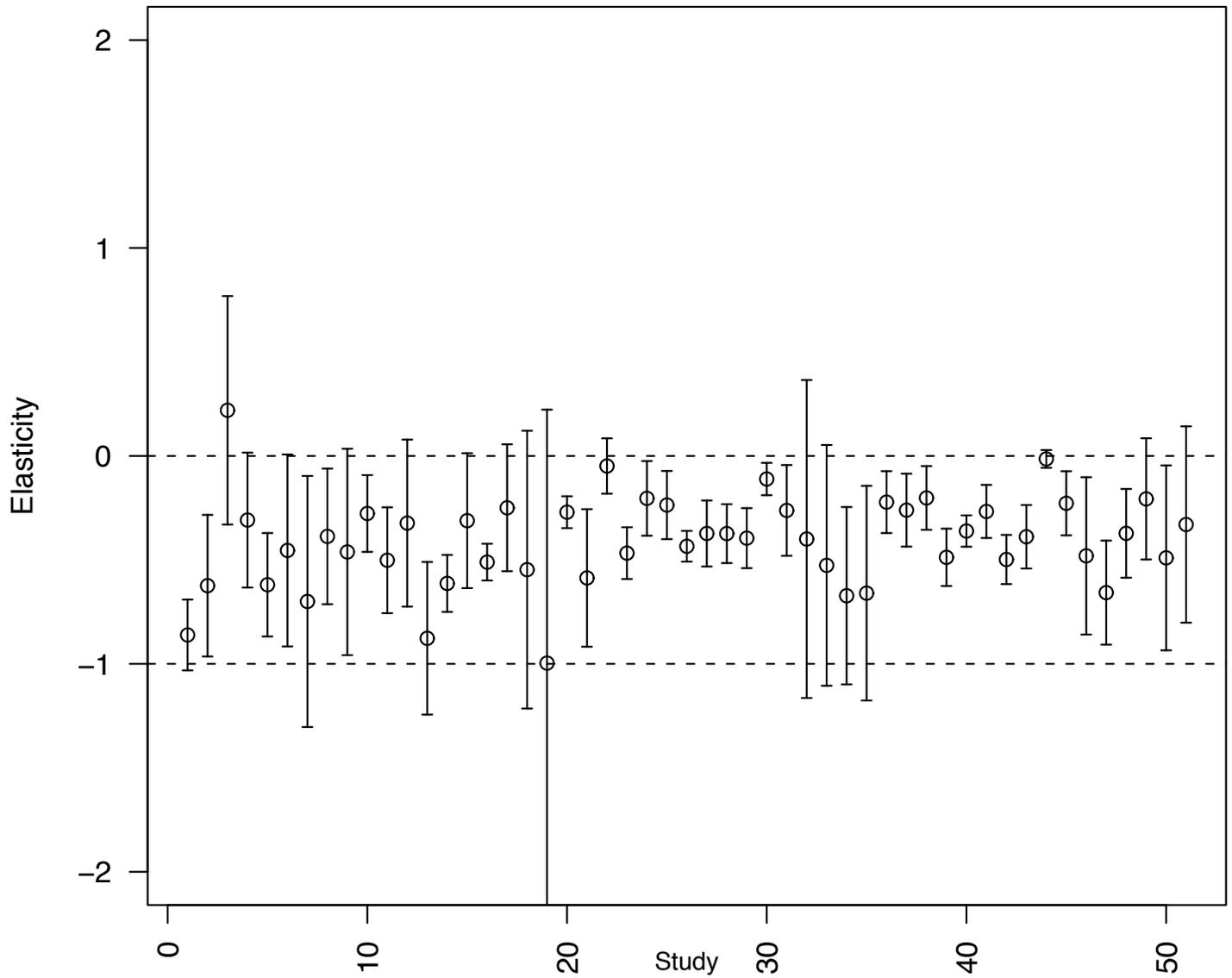
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| 2 Cavanagh, Haneman & Stavins | 15 Hogarty & Mackay | 28 Turnovsky |
| 3 Chicoine & Ramurthy | 16 Hogarty & Mackay | 29 Williams |
| 4 Clarke | 17 Howe & Lineweaver | 30 Williams |
| 5 Cochrane & Cotton | 18 Martin & Wilder | 31 Williams |
| 6 Danielson | 19 Martin & Wilder | 32 Williams & Suh |
| 7 Danielson | 20 Nieswiadomy & Cobb | 33 Wong |
| 8 Deller, Chicoine, & Ramamurthy | 21 Nieswiadomy & Cobb | 34 Wong |
| 9 Foster & Beattie | 22 Schafer & David | 35 Wong |
| 10 Fourt | 23 Schneider & Whittlach | 36 Wong |
| 11 Gibbs | 24 Stevens, Miller, Willis | 37 Wong |
| 12 Gottlieb | 25 Stevens, Miller, Willis | 38 Wong |
| 13 Gottlieb | 26 Stevens, Miller, Willis | |

Elasticity Measurements Individual Customer Studies



- | | | |
|-----------------------------------|----------------------|-------------------------|
| 1 Agathe & Billings | 13 Hewitt & Hanemann | 25 Moncur |
| 2 Agathe & Billings | 14 Hogarty & Mackay | 26 Morgan |
| 3 Agathe & Billings | 15 Hogarty & Mackay | 27 Nieswiadomy & Molina |
| 4 Agathe & Billings | 16 Howe & Lineweaver | 28 Nieswiadomy & Molina |
| 5 Cavanagh, Haneman & Stavins | 17 Howe & Lineweaver | 29 Pint |
| 6 Chicoine & Ramurthy | 18 Howe | 30 Pint |
| 7 CUWCD Pricing Policy Study | 19 Jones & Morris | 31 Renwick & Archibald |
| 8 Danielson | 20 Katzman | 32 Renwick & Archibald |
| 9 Danielson | 21 Lyman | 33 Renwick & Archibald |
| 10 Deller, Chicoine, & Ramamurthy | 22 Lyman | 34 Renwick & Archibald |
| 11 Gibbs | 23 Martin & Wilder | |
| 12 Hanke & deMare | 24 Martin & Wilder | |

Elasticity Measurements Aggregate Customer Studies



1 AlQunaibet & Johnston

2 Agathe Billings Dobra Raffiee

3 Berry & Bonen

4 Billings & Agathe

5 Billings

6 Billings & Day

7 Carver & Boland

8 Casuto & Ryan

9 CH2MHill

10 CH2MHill

11 Clarke

12 Cochrane & Cotton

13 Conley

14 Foster & Beattie

15 Fourt

16 Gardiner & Schick

17 Gershon

18 Gottlieb

19 Gottlieb

20 Griffin & Chang

21 Grima

22 Hansen

23 Hansen & Narayanan

24 Hoglund

25 Hughes & Gross

26 Morgan & Smolen

27 Nieswiadomy

28 Nieswiadomy & Cobb

29 Nieswiadomy & Cobb

30 Schafer & David

31 Schneider & Whittlach

32 Stevens, Miller, Willis

33 Stevens, Miller, Willis

34 Stevens, Miller, Willis

35 Timmins

36 Turnovsky

37 Turnovsky

38 Weber

39 Williams

40 Williams

41 Williams

42 Williams

43 Williams & Suh

44 Wong

45 Wong

46 Wong

47 Wong

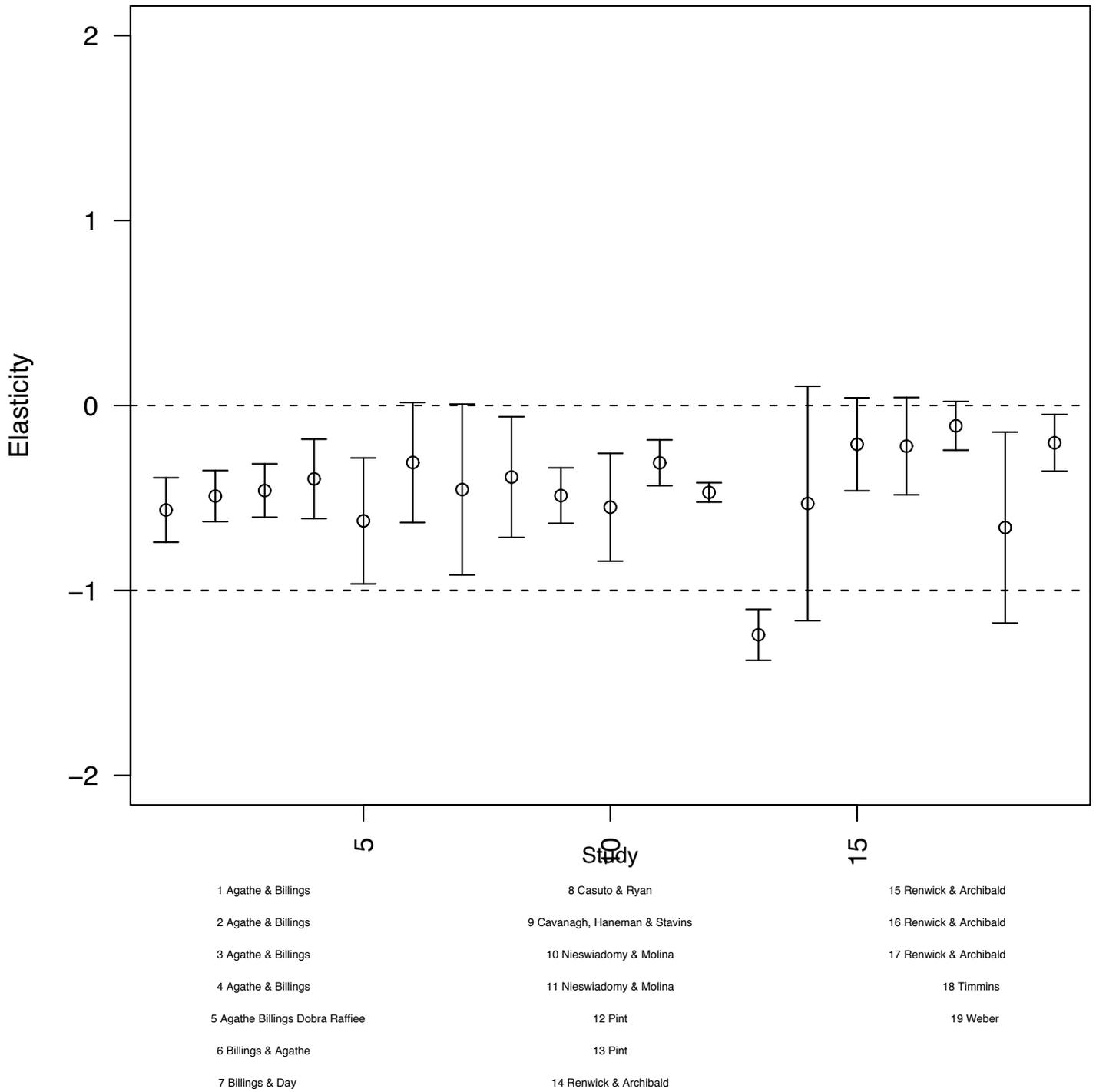
48 Wong

49 Wong

50 Young

51 Young

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Issues with the LPP Fact Sheet

General Issues

1. Factual Basis

Many of the key “facts” in the sheet are in dispute due to insufficient evidence and analysis backing them. These points are addressed in this paper. Our requests over several years for an open and transparent analysis have not yet resonated with our water agencies and elected officials. Due diligence requires that a clear factual basis for decisions concerning the LPP be established, and that decision logically proceed from that basis, fully describing the influence of principles and values. The intent of this paper is to indicate that this factual basis has not yet been adequately established.

2. Missing Facts

Several key points are not addressed:

- a. The security of the LPP water right
Utah’s ~1.4 MAFY¹ allocation from the Colorado River (per the Compact) is based on an assumption that the river flows at 15 MAFY. For the past 20 years it has flowed at 12.5. Climate projections indicate it could reduce to 9 within 50 years². Even at 12.5, Utah is already using all of its real allocation³, not counting any new projects like the LPP or any existing projects taking more water. The key data point in this issue is the “cumulative perfected depletion” of water rights senior to the LPP’s water right⁴. There is no analysis yielding this data; our own analysis indicates this number could easily be larger than the 1.4 MAFY, which itself is unrealistically high.
- b. Contingency plans
There is no concept, much less a plan, for the case of the LPP’s water right being dry or partially dry due to water use by senior water rights. Will those senior water rights reduce their use in order to supply the LPP? Is a partially full LPP economically feasible? Who pays for an LPP that is not fully operational?
- c. Water conservation planning
At some point in our population growth, even the anticipated LPP water supply will not meet our demand. Adjusting our water use at that time will be much more painful and expensive than doing it now because there will be that much more “built-in” water demand that must be reversed (e.g., reduction in lawn size). Why not do it first rather than last?
- d. The financial benefit of focusing on conservation first

¹ AF = acre-feet, the amount of water that covers an acre a foot deep, ~ 326,000 gallons; AFY = acre-feet yearly, a measure of water supply per year; MAFY = million AFY; KAFY = thousand (kilo) AFY

² There are many studies indicating significantly reduced 21st century river flows due to climate impacts in press (e.g., <https://mavensnotebook.com/2019/02/20/dr-brad-udall-is-the-colorado-river-in-crisis/>) and technical (e.g., <https://agupubs.onlinelibrary.wiley.com/doi/10.1002/2016WR019638>) publications. A simple internet query (“Colorado river climate impacts”) yields a long list of references. It is unknown why the BOR is not more forthcoming about it.

³ The BOR and compact states are currently still using the 1922 estimate river flow rates, which were known to be unrealistic even at the time. They will soon be forced to face reality.

⁴ The LPP’s water right is unclear. It appears may be #23591, [ID 41-3479](#), dated 1958 in [Utah’s listing of water rights](#), which lists ~2 MAFY cumulative depletion to that right. The cumulative *perfected* depletion of water rights senior to the LPP has apparently not yet been determined. If it is over 1.4 MAF (Utah’s “paper” allocation), it is at risk even as a “paper” right, much less a “wet” one.

Postponing the LPP until we have a population that can support the debt on a shorter time scale (e.g., 30 years rather than 50 years) would save \$1B in interest costs⁵.

e. Effects of price elasticity

There is no analysis of the projected impact on water demand of the higher costs of water required to pay for the LPP. This effect could reduce the need for the water, which could then have a chain reaction of cost increases (required to pay the fixed cost of the LPP) and water use decreases.

f. Alignment of revenue sources and uses

Current water revenue sources are not well-aligned with water uses. Better alignment⁶ of revenue sources and uses, such that those benefiting from a water service pay for it, could encourage awareness and water conservation to the point where additional water would not be needed, at least for a long time.

g. The certainty of population growth

There are several factors that could impact the projected population growth rate. Investing too early in an expensive project that depends on uncertain growth is a gamble. It would be wise to reduce that uncertainty by waiting as long as possible (2040?) for a clearer projection.

h. Projected local water supply

The basis of the projected local water supply is unclear. It should be validated.

3. A practical, sensible position

The Fact Sheet assumes that we will not (or cannot) make modest conservation efforts in the near-term and postpone consideration of the LPP until facts are better verified. This is untrue. A [practical, sensible position](#) on our water has been presented to our water agencies and elected officials, with a request to review and discuss it, with no response.

Specific Issues with the LPP Fact Sheet

Page 1, paragraph 2: Water Needs Assessment

“Studies estimate that approximately 140,000 acre-feet of new water supplies, including the LPP, will be needed to meet future demands in both counties through 2060. These new supplies are part of a comprehensive, long-term water supply plan that includes new resource development and increased water conservation.”

- Our current water use is very high compared to communities with a conservation ethic⁷. Our water need is driven by outdoor water use, primarily watering lawns⁸.
- This 140 KAFY equates to a 16% reduction in current water use over 30 years, or .5%/yr⁹. A very low target. This reduction will be achieved without any active conservation, a result of smaller building lot sizes, with less landscaping to water. A real/functional water conservation planning could achieve much more¹⁰.

⁵ At the LPP’s estimated cost of \$1.5B, normal interests costs at 5% over the proposed 50-year period would be about \$2.5B. If we could wait 20 years or more for our population to grow as projected, we could plan a 30-year payback rather than a 50-year payback, saving over \$1B in interest.

⁶ [Proposal on Water Revenue Sources and Uses](#)

⁷ 300 gallons per capita daily (GPCD) as opposed to 150-200 GPCD for communities that are good stewards. The water district claims without evidence that this low water use results in barren communities. Our analyses show their claims are false.

⁸ Washington County’s water is split about 65:35 between Agricultural and Municipal/Industrial (M&I) water use. Of the M&I, 80% of the use is outdoors, primarily watering grass.

⁹ Washington County 2060 population projection is about 500,000. 140 KAFY for M&I water use (not counting agriculture) equates to ~ 250 GPCD ((~4.6E10 gal/yr) / (365 days/yr) / 500,000 people)). We currently use ~300, so that means the plan is to reduce water use by 50 GPCD over the next 30 years, or 16%, or .5%/yr.

¹⁰ There are documents with “Water Conservation Plan” in their title, but they do not even meet the very minimal meet state law requirements for a plan, and do not qualify as a plan in any business sense in that they lack goal/objectives, specific projects with tasks, schedules, responsibilities and budget. Reference [water conservation plan analysis](#).

- The water district projects a local supply of 100 KAFY, which would support the projected population using ~180 GPCD, which is a usage that our analysis shows is both easily achievable by 2060 and would support an attractive, vibrant community.

Page 1, paragraph 2: Alternatives to the LPP

“Without the LPP, Washington and Kane counties will need to pursue more expensive options that would not yield the same amount or quality of water. these efforts would produce less water at a higher cost than the LPP”.

- This assertion is provably false and very deceptive. The water district is only considering LPP construction costs in this comparison. These costs, while very large, are dwarfed by the bond interest and O&M costs. Conservation, by its nature has very little capital, interest and operational costs.
- For some unknown reason, the list of potential options/alternatives to the LPP does not include the cheapest, most effective method: a pricing structure that encourages conservation, and a support structure that enables it. This has been shown to decrease water use by as much as 50% in high-use/high-waste communities such as ours. Such a step would enable growth through 2060 with our local water. Also missing from the list is reusing waste water for outdoor use, yet including use of waste water for indoor use, a much more expensive option. The only options listed are the most expensive ones, ignoring the much lower cost and higher yield options.
- We should focus on implementing a tiered water rate and/or water budgets (where wise water use results in a low water bill and high water use is discouraged through active help and higher bills), building codes to encourage wise water use, smart revenue policies, just-in-time education and assistance, coupled with converting agriculture water to M&I as land is developed, greatly reducing water use with very little cost. And it can be done incrementally as we grow, so huge loans with long payback periods and high interest costs can be avoided.

Page 2: LPP Benefits

While there are 4 headings in this section, there are only 2 points

1. Diverse reliable water sources, drought protection, water for the future
 - Agreed: the more reliable sources of water a community has, the better. However, many cities have only one water source. Ours is a fairly large watershed, with a lot of natural aquifer storage. We have a lot of water, much of it unaccounted by the water district.
 - If the LPP’s water right was secure, it would be a reliable source. At that point, the only issues would be stewardship, timing, affordability and the environmental impacts.
2. Economic vitality, water for the future
 - These points don’t care where the water comes from, only that it is adequate. Our local water can also yield these benefits if wisely managed.
 - No matter what, water at some point will probably be a limiting factor. Only wise use and management can provide insurance. Living in the desert is requires a lot of attention to water.

Missing from Fact Sheet: Detriments of the LPP

It is a clear sign of an unbalanced “marketing” argument to present only potential benefits without identifying any detriments. There are clear detriments identified in this paper.

Page 2: Projected Costs

The costs mentioned in this section address only initial capital costs, estimated at \$1.1-\$1.8B. Issues:

- The interest cost of ~\$2.5B¹¹ are not mentioned.
- Operations and maintenance are not mentioned. What could this be: \$100M/yr?
- What happens if the LPP cannot deliver all of the intended water due to Colorado River/water right issues?
- Comparable projects have cost more. What is the probability that this project will be within this estimate, or will be completed on budget?
- The logic of planned revenue sources for the initial capital and interest costs and the O&M costs are not designed to incentivize behavior. The revenue sources should be driven by principles that are accepted by the community (e.g., [Proposal on Water Revenue Sources and Uses](#)).

Page 3: Using Utah's Water

“Utah and the other Upper Basin states (Colorado, Wyoming and New Mexico) are not using all of their allocated water.” “The current annual reliable supply for Utah is 1.4 million-acre feet. The state uses approximately 1 million acre-feet annually, including evaporation and system loss, leaving supplies available for future development.”

These numbers are currently legally/hypothetically true, but, as discussed in General Issue 2a, they are not practical, risk-free numbers to be used in planning a project of the LPP's magnitude. We should be using very conservative numbers in these analyses. It is well known that the Colorado is over-allocated and its flows are declining.

Page 4: Next Steps

As described, the current step is an EIS led by the Bureau of Reclamation. There is tremendous pressure being applied by Utah's congressional delegation and the Department of Interior to approve this project, regardless of the logic supporting it. There are some environmental concerns, but most of the issues are socio-economic. Even under normal condition, federal agencies would be loath to stand in the way of a state's wish to take risks. It will most likely be approved. The timeline, however, misses a couple of important steps: approval by the legislature and the governor (note that currently no further local/voter approval is required). This is where the hard realities of risk and fiscal responsibility will be judged.

The closing line: *“Water providers plan decades in advance to ensure future generations have the water they need. It's critical to advance the LPP to protect southern Utah's economy, environment and quality of life.”*

The 1st sentence is true. It is, however, a leap of faith without factual basis to the 2nd sentence. We should have a position on our water that is the wisest, most practical and sensible one possible, one that does not commit us unnecessarily or unnecessarily early to a risky and expensive path, especially while being poor stewards of a precious natural resource.

¹¹ Assuming \$1.5B capital costs, 5% interest, 50-year period

A Position on Water - Water Conservation and the Lake Powell Pipeline -

Washington County should focus on water conservation, becoming exemplary users of our local water supply, and consider* the Lake Powell Pipeline after

1. use has become exemplary
2. the security of the water right and the climate impacts to the Colorado River flows are better known, and
3. the population growth has been realized and can reduce the interest burden through a shorter loan period.

Rationale and Explanation:

1. Exemplary water use

- We use a lot more water than needed to retain a viable, attractive community. Other comparable Southwestern communities use much less.
- Water agencies contend that because comparisons to other communities are “apples to oranges”, they can’t be compared. This is incorrect. No two real entities are exactly comparable, even two apples. Differences must be recognized and addressed. There is a common scientific method called “normalization” for performing comparisons of data about two entities that are not identical. We should enlist the DWRe to help in making those comparisons.
- Reducing our M&I water use from 300 GPCD to 180 over the next 50 years would enable us to support our projected population growth with our local water. This could be done incrementally, with little or no debt/interest, and with a much lower principle investment than the LPP. We should enlist the DWRe to help determine if/how to make this happen, what the cost/yield is, what different levels of water use in our community would look like, set meaningful and realistic objectives for our future water use, and then build a plan for it.
- There have been few active conservation methods implemented in the county. Many *active* conservation methods (not relying on voluntary or “pull” actions by the public) have high yields and low costs, like conservation-minded revenue streams and water-wise building codes. Even though [Utah law](#) (section 2.a.i) is fairly weak in its requirement for water conservation planning, DWRe guidelines are weaker yet, and even though most “plans” in the state, including those in Washington County, follow those guidelines, they do not meet state requirements, do not qualify as a “plan”, and indicate conservation is not taken seriously.

2. The water right risk

Utah’s ability to support the LPP with its allocation of the Colorado River is based on the assumption that river flows will not decrease much below the 1922 Compact assumption of 15 MAFY. For the past 20 years it has averaged more like 12.5 MAFY. Climate projections indicate a significant chance of it going to 9 MAFY within the next 50 years. At that flow, Utah is currently using more than its allocation, not counting the LPP. There is no concept, much less a plan, for supplying the LPP under those conditions. We should enlist the DWRe and the BOR to help define the concept and the plan.

3. Reduced interest

At the LPP’s estimated cost of \$1.5B, normal interests costs at 5% over the proposed 50-year period would be about \$2.5B. If we could wait 20 years or more for our population to grow as projected, we could plan a 30-year payback rather than a 50-year payback, saving over \$1B in interest.

* *Consider*: a determination and judgment based on environmental (pump station carbon footprint, habitat, waterway, artifact disturbance/destruction, etc.) and financial impacts after the technical supply, demand and economic conditions 1-3 are proven to be met.

Key Questions that should be Answered by Water Agencies and Elected Officials To Form the Basis of Any Position

1. LPP Water Right Security
 - a. What is the projected high-probability long-term Colorado River flow rate?
 - b. What is Utah's allocation of the Colorado River under the projected high-probability long-term flow rate?
 - c. What is the high-probability projected cumulative perfected depletion of all water rights senior to the LPP's water right?
 - d. What is the concept and plan for supplying the LPP's water if senior water rights exhaust Utah's allocation?

2. Washington County Water Supply and Demand
 - a. What is the projected high-probability local water availability?
 - b. What water use would be considered exemplary in comparison to other communities?
 - c. What is the plan to achieve that use?
 - d. In what projected year is the local water supply challenged by exemplary demand?

3. Water Management
 - a. Do water conservation plans in the county (and the DWRe guidelines for them) meet the requirements of state law and normal business practices?
 - b. What elements are required to satisfy the common dictionary and management definitions of a plan?
 - c. How should the county set a water use goal and objective, and have they been set?
 - d. What is the plan to meet demand if the LPP water right is not secure enough to responsibly build the LPP, or if financing cannot be secured?

4. Fiscal Responsibility
 - a. What interest cost could be saved by waiting until exemplary use does not
 - b. What revenue mix would be the fairest (in terms of cost/benefit) and best encourage conservation?
 - c. Are there implications/constraints in state law?

5. Bottom Line
Why does it not make sense from both fiscal and risk reduction perspectives to focus on conservation now and postpone further consideration of the LPP as long as possible?

Current Answers

- 1a. *Perhaps 9 MAFY*
- 1b. *Perhaps as low as 800,000 AFY, depending on interstate agreements.*
- 1c. *Perhaps 1.2MAFY; more than the allocation and current use, not counting the LPP.*
- 1d. *There is none.*
- 2a. *100,000 AFY, per the WCWCD*
- 2b. *Perhaps 180 GPCD*
- 2c. *There is no plan to reduce from the current 300 GPCD.*
- 2d. *2065*
- 3a. *No*
- 3b. *See [analysis and definition](#).*
- 3c. *See [comments on regional water conservation goals](#)*
- 3d. *There is none.*
- 4a. *\$1B*
- 4b. *See proposal*
- 4c. *Yes*
5. *We don't know*



Memorandum

To: Town Council
From: Sophie Frankenburg, Associate Planner; Tom Dansie, Director of Community Development
Date: February 7, 2020
Re: **February 12, 2020 Town Council Meeting**
Plat Amendment Application- S-BIT-1 and S-BIT-2: Ryan Lee

Overview

Ryan Lee has requested an amendment of the Bit and Spur Subdivision Plat. The proposed amendment would combine lots 1 and 2 into one single lot, S-BIT-1-A, as referenced on the proposed amended plat, and remove the existing access easement. No other changes are proposed to this plat. The key issues to consider in this application are its effects on lot size, landscape requirements, and required setbacks.

Applicable Ordinances

The Council should review the following code chapters or sections:

1. Chapter 10-14: Subdivisions (particularly 10-14-13)

Staff Analysis

The only proposed change with the amended plat is to the sideyard property boundary splitting S-BIT-1 and S-BIT-2. This property boundary will be removed to combine the lots into a single 1.71-acre lot. Because no new lot lines will be created with the amendment, the main issues for the Commission to consider are lot size, landscaping, and setbacks from existing structures.

Plat Amendment in Village Commercial

Standard	Requirement	Proposal	Comments
<i>Lot Area</i>	The minimum lot size is 0.5 acres.	The final combined lot will be 1.71 acres.	S-BIT-1 is .85 acres, S-BIT-2 is .86 acres. Since no new lot lines are being created, the total acreage is 1.71. In compliance
<i>Lot width and frontage</i>	Average width of 100 feet, with a minimum of 50 feet. Minimum frontage of 50 feet.	Minimum width is 146 feet. Maximum width 350 feet. Frontage about 350.	In compliance.
<i>Setbacks</i>	Front setbacks must be 30 feet, side setbacks 10 feet adjacent to VC, side yard adjacent to FR 20 feet, and rear setbacks 20 feet.	As analyzed in recent DDR proposals, all structures (existing and approved) comply with setback requirements. Removing the lot line between S-BIT-1 and S-BIT-2 will not impact	In compliance.

		current setback compliance.	
<i>Landscaping</i>	Must retain 60% of the lot as natural open space or landscape.	Both existing properties contain 60% landscaping and/or open space.	Combined property will be in compliance with 60% landscape or open space.

Public Comment

There has been no public comment on this item.

Planning Commission Action

The Planning Commission reviewed this item in a public hearing in their January meeting. The Commission found this action was basically housekeeping, and is in fulfillment of the requirements of recent conditional use permit and DDR approvals.

The Commission recommended approval of the plat amendment, as detailed in the following motion:

Motion made by Barbara Bruno that the Planning Commission recommends approval of the plat amendment combining lots S-BIT-1 and S-BIT-2 into a single lot S-BIT-1-A as referenced on the proposed amended plat. This motion is made specifically because the Commission finds the applicant has met all the requirements for lot area, lot width and frontage, setbacks, and landscaping. And that neither the public nor any person would be materially injured by this amendment. With the following condition: 1) The amended plat must be recorded with the Washington County Recorder’s Office prior to a building permit application. Seconded by Jack Burns.

McComb: Aye

Bruno: Aye

Pitti: Aye

Burns: Aye

Rioux: Aye

Motion passed unanimously.

Existing Plat



RECEIVED

COPY

DEC 04 2019



TOWN OF SPRINGDALE
By JG #013 \$450

TOWN OF SPRINGDALE

118 Lion Blvd PO Box 187 Springdale UT 84767 435-772-3434 fax 435-772-3952

SUBDIVISION PLAT AMENDMENT APPLICATION

FOR OFFICIAL USE ONLY	File # _____
Brief Description of Project: _____	
Application Date: _____ Completed File Date: _____ Review Date: _____	
Notes: _____	
Authorization: _____ Revised 12/06	

Application is hereby made to the Town of Springdale, Utah for a subdivision plat amendment pursuant to Section 10-14-13 of the Springdale Town Code for the following:

APPLICANT INFORMATION:

Name RYAN LEE

Street Address 1855 S. 70 W. LINCOLN, UT 84042

Mailing Address SAME AS

Email Address RYAN.LEE@BLUERAVENSOLAR.COM

Phones (Home) _____ (Cell) 801-318-0336 (Fax) _____ (Business) _____

SUBDIVISION INFORMATION

Subdivision Name BIT AND SPUR SUBDIVISION

Zone VILLAGE COMMERCIAL

SUBMITTAL REQUIREMENTS

The following information must be submitted with this application:

1. Complete amended Final Plat, in compliance with the requirements of section 10-14-8(A) and (C).
2. Name and address of all owners of record of the land contained in the entire plat.
3. Name and address of all owners of record of land adjacent to any street that is proposed to be vacated, altered, or amended.
4. The signatures of each owner (from #2 and #3 above) that consents to the plat amendment.

APPLICATION FEE

The applicant must pay the appropriate before this application will be found complete.

Fee = \$400 plus \$25 per lot affected by the amendment.

Number of lots this application affects 2

Fee for this application \$450

*Note: The applicant will also be charged engineering review and legal review fees incurred by the Town during the review of the plat amendment.

APPLICANT CERTIFICATION

I certify that the information contained in this application is true and correct.

Printed Name: Ryan CBF

Signature: [Handwritten Signature]

Date: 12/9/19

AMENDMENT NOTE:
 THE PURPOSE OF THIS AMENDMENT IS TO COMBINE LOTS 1 & 2 AND REMOVE THE EXISTING ACCESS EASEMENT. NO OTHER CHANGES WERE MADE WITH THIS PLAT.

OWNER'S DEDICATION:
 KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED OWNERS OF THE HEREDON DESCRIBED TRACT OF LAND HAVING CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, AND PUBLIC EASEMENTS TO BE HEREAFTER KNOWN AS:

BIT AND SPUR SUBDIVISION - AMENDED
 FOR GOOD AND VALUABLE CONSIDERATION RECEIVED, THE UNDERSIGNED OWNER(S) DO(ES) HEREBY DEDICATE AND CONVEY TO THE TOWN OF SPRINGDALE FOR PERPETUAL USE OF THE PUBLIC, ALL PARCELS OF LAND SHOWN ON THIS PLAT AS PUBLIC UTILITY EASEMENTS (P.U.E.). ALL LOTS, AND PUBLIC UTILITY EASEMENTS ARE AS NOTED OR SHOWN. THE OWNER(S) DO(ES) HEREBY WARRANT TO THE TOWN OF SPRINGDALE, ITS SUCCESSORS AND ASSIGNS, TITLE TO ALL PROPERTY DEDICATED AND CONVEYED TO PUBLIC USE HEREIN AGAINST THE CLAIMS OF ALL PERSONS.

IN WITNESS WHEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____, 20____.

CODA HOLDINGS LLC, WEST RIM HOLDINGS LLC,
 A UTAH LIMITED LIABILITY COMPANY A UTAH LIMITED LIABILITY COMPANY

MANAGER - _____ MANAGER - _____

ACKNOWLEDGMENT:
 STATE OF UTAH } S.S.
 COUNTY OF WASHINGTON

ON THIS _____ DAY OF _____ IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____ PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED SHE EXECUTED THE SAME.

NOTARY PUBLIC FULL NAME: _____
 COMMISSION NUMBER: _____
 MY COMMISSION EXPIRES: _____
 A NOTARY PUBLIC COMMISSIONED IN UTAH
 (STAMP NOT REQUIRED PER UTAH CODE 46-1-16 (6) IF ABOVE INFORMATION IS FILLED IN)

ACKNOWLEDGMENT:
 STATE OF UTAH } S.S.
 COUNTY OF WASHINGTON

ON THIS _____ DAY OF _____ IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____ PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED SHE EXECUTED THE SAME.

NOTARY PUBLIC FULL NAME: _____
 COMMISSION NUMBER: _____
 MY COMMISSION EXPIRES: _____
 A NOTARY PUBLIC COMMISSIONED IN UTAH
 (STAMP NOT REQUIRED PER UTAH CODE 46-1-16 (6) IF ABOVE INFORMATION IS FILLED IN)

MORTGAGE CONSENT TO RECORD:
 CACHE VALLEY BANK, A MORTGAGEE OF THE SAID TRACT OF LAND DOES HEREBY GIVE CONSENT OF SAID TRACT OF LAND TO BE USED FOR THE USES AND PURPOSES DESCRIBED IN THE PLAT, TO RECORDING PLAT, RECORDING OF COVENANTS, CONDITIONS AND RESTRICTIONS AND JOINS IN ALL DEDICATIONS AND CONVEYANCES.

VICE PRESIDENT _____

ACKNOWLEDGMENT:
 STATE OF UTAH } S.S.
 COUNTY OF WASHINGTON

ON THIS _____ DAY OF _____ IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____ PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED SHE EXECUTED THE SAME.

NOTARY PUBLIC FULL NAME: _____
 COMMISSION NUMBER: _____
 MY COMMISSION EXPIRES: _____
 A NOTARY PUBLIC COMMISSIONED IN UTAH
 (STAMP NOT REQUIRED PER UTAH CODE 46-1-16 (6) IF ABOVE INFORMATION IS FILLED IN)

VICE PRESIDENT _____

SURVEYOR'S CERTIFICATE:

I, BRANDON E. ANDERSON, PROFESSIONAL LAND SURVEYOR NUMBER 4938716, HOLD A LICENSE IN ACCORDANCE WITH TITLE 98, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT AND HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED HEREON IN ACCORDANCE WITH SECTION 17-23-17 AND HEREBY CERTIFY ALL MEASUREMENTS AND DESCRIPTIONS ARE CORRECT. MONUMENTS WILL BE SET AS REPRESENTED ON THIS PLAT I FURTHER CERTIFY THAT BY AUTHORITY OF THE HEREDON OWNER(S), I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND HAVE SUBDIVIDED THE SAME TRACT INTO LOTS TO BE HEREAFTER KNOWN AS:

BIT AND SPUR SUBDIVISION - AMENDED
 THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND POINTS ESTABLISHED ON THE GROUND IN ACCORDANCE WITH THE HEREDON LEGAL DESCRIPTION.



DATE: _____
 BRANDON E. ANDERSON CERTIFICATE NO. 4938716

LEGAL DESCRIPTION:

BEGINNING AT A POINT WHICH LIES SOUTH 0°24'00" WEST 406.86 FEET ALONG THE CENTER SECTION LINE AND EAST 735.59 FEET FROM THE NORTH QUARTER CORNER OF SECTION 32, TOWNSHIP 41 SOUTH, RANGE 10 WEST, SALT LAKE BASE AND MERIDIAN; THENCE SOUTH 56°00'00" EAST 444.83 FEET TO A POINT ON THE NORTHWESTERLY RIGHT OF WAY OF HIGHWAY SR-93; THENCE SOUTH 24°16'00" WEST 501.85 FEET ALONG SAID RIGHT OF WAY THENCE SOUTH 35°02'48" WEST 160.31 FEET ALONG SAID RIGHT OF WAY THENCE NORTH 25°58'48" WEST 99.66 FEET; THENCE NORTH 16°41'05" WEST 60.98 FEET; THENCE NORTH 61°55'29" WEST 96.44 FEET; THENCE NORTH 46°01'34" WEST 81.01 FEET; THENCE NORTH 24°01'27" EAST 61.59 FEET; THENCE NORTH 39°05'01" EAST 81.88 FEET; THENCE NORTH 82°13'12" EAST 46.03 FEET; THENCE SOUTH 54°42'57" EAST 112.62 FEET; THENCE NORTH 22°30'00" EAST 124.66 FEET; THENCE NORTH 23°20'00" WEST 397.98 FEET; THENCE NORTH 32°45'50" EAST 55.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 3.903 ACRES
MORTGAGE CONSENT TO RECORD:
 AMERICAN FIRST CREDIT UNION, A MORTGAGEE OF THE SAID TRACT OF LAND DOES HEREBY GIVE CONSENT OF SAID TRACT OF LAND TO BE USED FOR THE USES AND PURPOSES DESCRIBED IN THE PLAT, TO RECORDING PLAT, RECORDING OF COVENANTS, CONDITIONS AND RESTRICTIONS AND JOINS IN ALL DEDICATIONS AND CONVEYANCES.

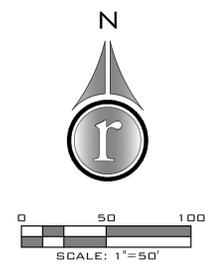
VICE PRESIDENT _____

ACKNOWLEDGMENT:
 STATE OF UTAH } S.S.
 COUNTY OF WASHINGTON

ON THIS _____ DAY OF _____ IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____ PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED SHE EXECUTED THE SAME.

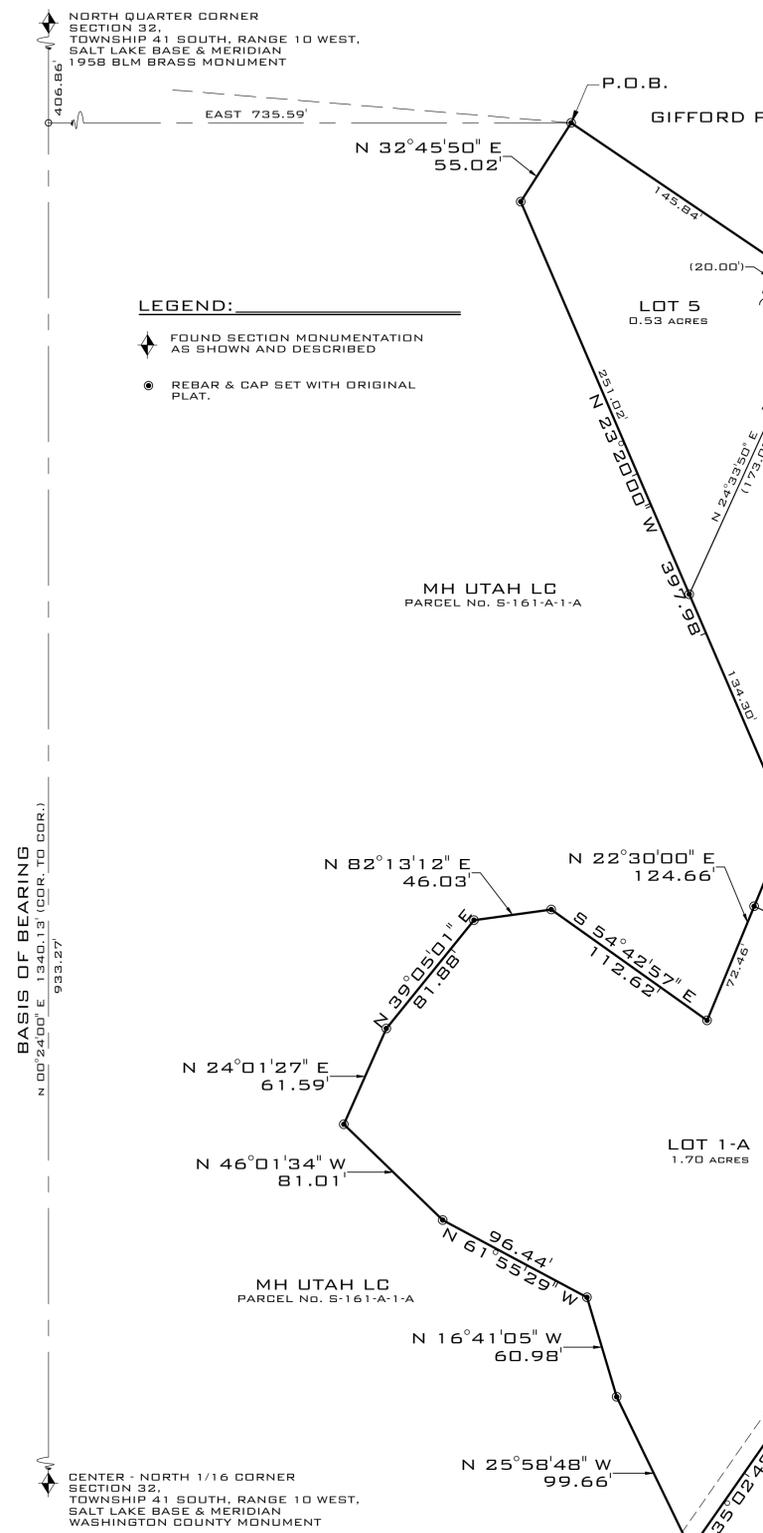
NOTARY PUBLIC FULL NAME: _____
 COMMISSION NUMBER: _____
 MY COMMISSION EXPIRES: _____
 A NOTARY PUBLIC COMMISSIONED IN UTAH
 (STAMP NOT REQUIRED PER UTAH CODE 46-1-16 (6) IF ABOVE INFORMATION IS FILLED IN)

VICE PRESIDENT _____



THE FINAL PLAT FOR
BIT AND SPUR
SUBDIVISION
 A COMMERCIAL SUBDIVISION
 - A M E N D E D -

LOCATED IN THE NORTHEAST QUARTER OF SECTION 32
 TOWNSHIP 41 SOUTH, RANGE 10 WEST,
 SALT LAKE BASE AND MERIDIAN
 TOWN OF SPRINGDALE, WASHINGTON COUNTY, UTAH



LEGEND:

- FOUND SECTION MONUMENTATION AS SHOWN AND DESCRIBED
- REBAR & CAP SET WITH ORIGINAL PLAT.

BASIS OF BEARING
 N 00°24'00" E 1340.13 (COR. TO COR.)
 933.27

CENTER - NORTH 1/16 CORNER SECTION 32, TOWNSHIP 41 SOUTH, RANGE 10 WEST, SALT LAKE BASE & MERIDIAN WASHINGTON COUNTY MONUMENT



352 EAST RIVERSIDE DRIVE, SUITE A-2, ST. GEORGE, UTAH 84790
 PH (435) 673-8586 FX (435) 673-8397 - WWW.RACIVIL.COM

SURVEY/FPLAT-AMD FILE NUMBER:	11/21/2019 DATE:	B.E.A. DRAWN:
10953-18 JOB NUMBER:	1"=30' SCALE:	B.E.A. CHECKED:

ENGINEER'S APPROVAL:
 THE HEREDON SUBDIVISION HAS BEEN REVIEWED AND IS APPROVED IN ACCORDANCE WITH INFORMATION ON FILE IN THIS OFFICE, THIS _____ DAY OF _____, 20____.

ENGINEER
 TOWN OF SPRINGDALE, UTAH

APPROVAL OF THE PLANNING COMMISSION:
 ON THIS THE _____ DAY OF _____, A.D. 20____ THE PLANNING COMMISSION OF THE TOWN OF SPRINGDALE, UTAH HAVING REVIEWED THE ABOVE SUBDIVISION PLAT AND HAVING FOUND THAT IT COMPLIES WITH THE REQUIREMENTS OF THE TOWN'S ORDINANCES, AND BY AUTHORIZATION OF SAID COMMISSION HEREBY APPROVE SAID SUBDIVISION FOR ACCEPTANCE BY THE TOWN OF SPRINGDALE, UTAH.

CHAIRMAN OF THE PLANNING COMMISSION
 TOWN OF SPRINGDALE, UTAH

APPROVAL AND ACCEPTANCE BY THE TOWN OF SPRINGDALE, UTAH:
 WE THE MAYOR AND CITY COUNCIL OF THE TOWN OF SPRINGDALE, UTAH HAVE REVIEWED THE ABOVE SUBDIVISION PLAT AND BY AUTHORIZATION OF SAID CITY COUNCIL RECORDED IN THE MINUTES OF ITS MEETING OF THE _____ DAY OF _____, A.D. 20____, HEREBY ACCEPT SAID SUBDIVISION WITH ALL COMMITMENTS AND ALL OBLIGATIONS PERTAINING THERETO.

MAYOR
 TOWN OF SPRINGDALE, UTAH

ATTEST: CITY RECORDER

APPROVAL AS TO FORM:
 APPROVED AS TO FORM, THIS _____ DAY OF _____, A.D. 20____.

CITY ATTORNEY
 TOWN OF SPRINGDALE, UTAH

TREASURER APPROVAL:
 I, WASHINGTON COUNTY TREASURER, CERTIFY ON THIS _____ DAY OF _____, A.D. 20____ THAT ALL TAXES, SPECIAL ASSESSMENTS, AND FEES DUE AND OWING ON THIS SUBDIVISION PLAT HAVE BEEN PAID IN FULL.

WASHINGTON COUNTY
 TREASURER

RECORDED NO.: _____

FEE _____

COUNTY RECORDER
 WASHINGTON COUNTY, UTAH



Memorandum

To: Town Council
From: Thomas Dansie, Director of Community Development
Date: February 7, 2020
Re: **February 12, 2020 Planning Commission Meeting**
Conditional Use Permit Modification: Request to Revise Conditions of Approval Parking Lot – Parcel S-105 (S-103-G), 445 Zion Park Blvd, Travis Barney

Overview

In 2017 the Town approved a conditional use permit to operate a public parking facility on parcel S-103-G (now parcel S-105), located adjacent to the rear of the Whiptail Grill. The parcel is zoned Valley Residential (VR). Until early 2017, public parking areas were allowed as a conditional use in the Valley Residential zone. The Town has since amended the code and removed public parking as a conditional use in the VR zone.

The general standards for conditional use permits require uses which generate more than 10 vehicular trips per day to be “located on a dedicated public street.” (See 10-3A-4(F)) To ensure compliance with this standard, the Council imposed a condition on the permit that required the VR zone parcel S-103-G to be combined with the Whiptail Grill parcel (S-104-A) which is adjacent to SR9. This lot combination allowed the Council to determine affirmatively that the public parking area was “located on a dedicated public street.”

Travis Barney, owner of the public parking area, is now requesting a modification of this condition of the permit. Mr. Barney is requesting that the public parking area parcel be combined with the Zion Canyon Campground parcel (S-95) instead of the Whiptail Grill parcel (S-104-A). Access to the public parking area would then come off SR9 and through the campground. Access to the parking would no longer come off SR9 and through the Whiptail Grill parcel.

Mr. Barney intends to transfer ownership of the public parking facility to Stewart Ferber, owner of the Zion Canyon Campground. This transfer will not be possible unless the condition of the permit is modified to allow the public parking area parcel to be combined with the campground parcel instead of the Whiptail Grill parcel. This will also allow access to the parking area to come through the campground, and not the Whiptail grill.

Even though the Town no longer allows public parking as a conditional use in the VR zone, the conditional use permit standards in place at the time the permit was issued, as well as the conditions of permit, are still binding on the public parking use. The Council should review the requested modification in terms of compliance with the standards in place when the permit was issued, as well as the conditions attached to the permit.

The sole question for the Town to consider is:

Will the public parking area continue to meet all the standards for public parking area conditional use permits in the VR zone if the public parking area is combined with the Zion Canyon Campground parcel, instead of the Whiptail Grill parcel?

The following additional information is important background to frame the Town's analysis of the requested modification:

- The public parking parcel (S-103-G) was combined with the Whiptail Grill parcel (S-104-A) in January of 2017, in fulfillment of the condition of the permit. Staff confirmed this lot combination with the County Recorder in January 2017. Recorder's notes on the Whiptail Grill parcel indicate the combination was complete in January 2017. However, after the lot combination was completed, Mr. Barney and Wayne Hamilton (who owns adjacent property not involved with the conditional use permit) filed a Record of Survey to clarify the location of the lot line between their respective properties. Although the purpose of the record of survey was to clarify the lot line between Mr. Barney and Mr. Hamilton's property, it had the secondary and unintended effect of uncombining the public parking parcel from the Whiptail Grill parcel. When the Record of Survey was recorded, the County Recorder uncombined the public parking parcel from the Whiptail Grill Parcel. The Recorder also gave the public parking parcel a new parcel number (S-105).
- The public parking parcel is separated from the Zion Canyon Campground physically by a large wash. It is not currently possible to access the public parking parcel from the campground parcel in a vehicle. Mr. Ferber has applied and been given approval to install a box culvert in the wash. Once this work is complete it will be possible to have vehicular access from the campground to the public parking parcel on top of the box culvert.
- There is a commercially zoned parcel (S-103-B-1) in between the public parking parcel and the campground parcel. Access to the public parking parcel would need to cross this intervening parcel. Mr. Ferber owns this intervening parcel. This parcel (S-103-B-1) would need to be combined with the campground parcel (S-95) in order for the public parking parcel (S-105) to also be combined with the campground parcel.
- According to the Record of Survey discussed above, there is a deed gap between the public parking parcel and the Whiptail Grill parcel, as well as between the public parking parcel and the intervening commercially zoned property (S-103-B-1) adjacent to the campground. The deed gaps need to be rectified in order for the public parking parcel to be combined with either the Whiptail Grill parcel or the campground parcel.
- Because the box culvert in the wash is not currently installed, and therefore access from the campground is not currently possible, Mr. Barney would like to continue to operate the paid parking business on the public parking parcel. Mr. Barney is requesting the Town modify the condition on the permit to allow the public parking parcel to be combined with the campground parcel, but also allow him to continue to operate the paid parking business until there is vehicular access to the parking area from the campground.
- Staff understands Mr. Ferber does not intend to operate a paid parking business on the public parking area. Rather, he intends to use the public parking area to support the commercial businesses on the campground parcel.

An aerial image and map showing some of the information above is attached to this report.

Applicable Ordinances

The Council should review the following code chapters or sections:

1. Chapter 10-11B: Village Commercial Zone
2. Chapter 10-3A: Conditional Uses
3. Conditional Use Permit

Staff Analysis

The Town Code contains general and specific standards to evaluate all conditional use permit requests. If the proposal complies, or can be made to comply through the imposition of reasonable conditions, to the establish standards the town must approve the conditional use permit. If the request cannot comply with established standards the town should deny the conditional use permit.

The Town analyzed the proposed parking area for compliance with these standards at the time the permit was issued (2017). At that time the Town found the use met all the standards, subject to the conditions of the permit, and issued the permit.

The Town does not need to reanalyze the public parking use for compliance with all the conditional use permit standards. That analysis has already been done. The Town only needs to analyze how the requested modification (combining the public parking with the Zion Canyon Campground instead of the Whiptail Grill) will impact compliance with the standards.

General Standards

There are six general standards with which all conditional permit requests must comply (see section 10-3A-4). They are analyzed below.

A. The proposed use shall comply with all applicable land use standards contained in this title.

When reviewing the original conditional use permit for the public parking area, the Town analyzed compliance with land use standards. The Town found the parking area would comply with all these standards. As constructed, the parking area continues to comply with these standards.

The Town should consider whether combining the public parking parcel with the campground parcel, instead of the Whiptail Grill parcel, will impact compliance with these standards.

Since both the campground parcel and public parking parcel currently comply with all applicable land use standards, staff finds that this conditional use standard will continue to be met if the public parking parcel is combined with the campground parcel.

B. The proposed use shall not unreasonably interfere with the lawful use of surrounding properties.

The public parking area has been in operation for the past two years, without any documented interference with the lawful use of the surrounding properties. Changing the access point from the Whiptail Grill parcel to the Zion Canyon Campground parcel is unlikely to have any negative impact on surrounding properties, with the exception of the Ferber-owned intervening parcel (S-103-B-1).

The proposed new access would traverse parcel S-103-B-1, thereby interfering with its lawful use. However, this property (S-103-B-1) is owned by Mr. Ferber, who will also own the public parking parcel. Mr. Ferber's plans are to use the public parking parcel in conjunction with the development on the campground parcel and intervening parcel (S-103-B-1). In this way the public parking use will complement, rather than interfere, with the lawful use of parcel S-103-B-1.

C. The proposed use shall not create a need for essential municipal services which cannot be reasonably met within three (3) months and the party seeking the conditional use is willing and able to contribute to the cost of said services.

During review of the original conditional use permit the Town expressed concern about the public parking use's potential to create the need for additional public restrooms, which the Council found are

an essential municipal service. The permit contains a condition that requires Mr. Barney to make the restrooms available at the Whiptail Grill open and available to patrons of the public parking use.

If the public parking parcel is no longer combined with the Whiptail Grill it will not be practical to provide restroom facilities for parking patrons on the Whiptail Grill parcel. Should the Town wish to approve the conditional use permit modification, staff recommends a condition of approval that requires Mr. Ferber to make restroom facilities at the campground parcel available for people parking in the public parking area.

D. The proposed use shall not emit excessive noise, or noxious odors, and shall not otherwise adversely impact the quality of air or water.

The public parking parcel has been in operation for two years without documented incidents of excessive noise, noxious odors, or impacts on air or water quality. Changing the access point for the parking area will not affect compliance with this standard.

E. If located immediately adjacent to a residential zone, the proposed use shall provide a screening fence or wall at least six feet (6') in height along the common boundary between the proposed use and the residential zone.

The Town required a screen fence to be installed around the public parking area. Staff recommends the Town require that fence to remain in place.

F. If the proposed use is projected to generate more than ten (10) vehicular trips per day, the use must be located on a dedicated public street.

The parking area generates in excess of 10 vehicular trips per day on typical in-season days. Thus, it is required to be located on a dedicated public street. To ensure the parking area is located on a public street the Town required the public parking parcel to be combined with the Whiptail Grill parcel.

The requested permit modification is to allow the public parking area parcel to be combined with the Zion Canyon Campground parcel, instead of the Whiptail Grill parcel. The Town needs to determine if the public parking use would still “be located on a dedicated public street” if combined with the Zion Canyon Campground. This is the crux of the analysis for the Town.

In prior conditional use permit reviews, the Town has generally interpreted this standard of being “located on a dedicated public street” to require the property containing the use to have frontage on a dedicated public street. Under this interpretation, combining the public parking area with the campground parcel (as well as the intervening parcel S-103-B-1) rather than the Whiptail Grill parcel will not impact compliance with this standard. The public parking area will continue to be located on a property with frontage on a dedicated public street.

However, in some instances the Town has expressed concern about conditional uses that, even if on a property with frontage on a dedicated public street, are located a long distance from a dedicated street (either as the crow flies, or via vehicular access). The public parking area is located 200 feet from SR9 as the crow flies, and 325 feet from SR9 via vehicular access through the campground parcel. Staff finds these distances are not out of line with the proximity to a dedicated street of other approved conditional use permits.

Specific Standards

At the time the conditional use permit for the public parking area was issued, there were four specific standards with which all public parking areas and facilities needed to comply. However, because public parking areas are no longer allowed as a conditional use in the VR zone, these standards are no longer in the code. Nevertheless, since conditional use permits run with the land, these standards are still in effect for the public parking area. They must continue to be met with the proposed modification of access point.

These standards are analyzed below.

A. Measures must be taken to screen the view of the parking areas from the view of surrounding property owners.

As discussed above, the public parking area has already been screened from view of surrounding property owners by fencing. Combining the public parking with the campground instead of the Whiptail Grill will not impact compliance with this standard.

B. Access to the parking area may be located no closer than seventy-five feet (75') from any existing main structure on adjacent property in the FR or VR zone.

Both the existing and proposed new accesses to the parking area is located in excess of seventy-five feet from any structure in a residential zone.

C. Parking lot lighting must be turned off after ten o'clock (10:00) PM

There is no lighting in the parking area. Combining the parking area with the campground instead of the Whiptail Grill will not impact the lighting standard.

D. Parking areas in the VR zone may contain no more than one hundred (100) spaces.

The public parking area contains 32 parking spaces. This number will not change when combined with the campground parcel instead of the Whiptail Grill Parcel.

Public Comment

The Commission received one public comment letter prior to their hearing on this issue. The comment letter had no opposition to the modification of the permit. But it did highlight a number of concerns associated with the potential impacts of switching the parking lot from the Whiptail Grill to the Campground. A copy of this letter is attached.

Planning Commission Recommendation

The Commission reviewed this item in public hearing during their January regular meeting. The Commission expressed general support for the requested modification of the permit. However, the Commission was concerned about the perceived lack of input and definitive plans from Mr. Ferber. Travis Barney presented the application to the Commission and represented Mr. Ferber's plans to the Commission. However, the Commission requested a written statement from Mr. Ferber about his plans for the parking area. Mr. Ferber has submitted the requested letter. It is attached to this report.

The Commission discussed the term "public parking" and whether or not Mr. Ferber's plans for the parking area would continue to fall under the definition of public parking. The Town Code defines public parking as:

Off-street parking spaces open to the general public, with or without charge, not required by section 10-23-4 of this title for any other use on the property or developed to support any other use on the property.

Mr. Ferber intends to use the subject parking area as part of the overall parking available to customers of the existing and potential future businesses on the campground parcel. The Commission discussed whether or not this proposed use would continue to fall under the definition of “public parking.” Some members of the Commission expressed concern that Mr. Ferber’s proposed use of the property would no longer be “public parking” since it would primarily serve his businesses. Other Commissioners were unconcerned about the end users of the parking area.

The Commission ultimately recommended approval of the conditional use permit modification, as detailed in the motion below:

Motion made by Jack Burns, that based on the findings discussed in the Commission deliberation, the Commission recommends approval of the conditional use permit modification to allow the public parking area to be combined with the Zion Canyon Campground parcel, instead of the Whiptail Grill parcel. All conditions of the original conditional use permit issued in 2017 continue to apply to the use, except as specifically modified here: 1) Existing condition #1 on the permit is modified to read as follows: The subject parcel must be combined with the Zion Canyon Campground parcel (S-95) and the intervening parcel (S-103-B-1); 2) Existing condition #2 on the permit is deleted; 3) Existing condition #7 on the permit is modified to read as follows: The applicant is required to provide adequate public restroom facilities to parking facility patrons which will be provided through the businesses on the Zion Canyon Campground parcel; 4) The Town must receive a letter of authorization from Stewart Ferber that acknowledges his understanding and support for the proposed change, and further, his understanding what the implications of the change will mean as it relates to his parcel and the conditional use. Seconded by Barbara Bruno.

McComb: Aye

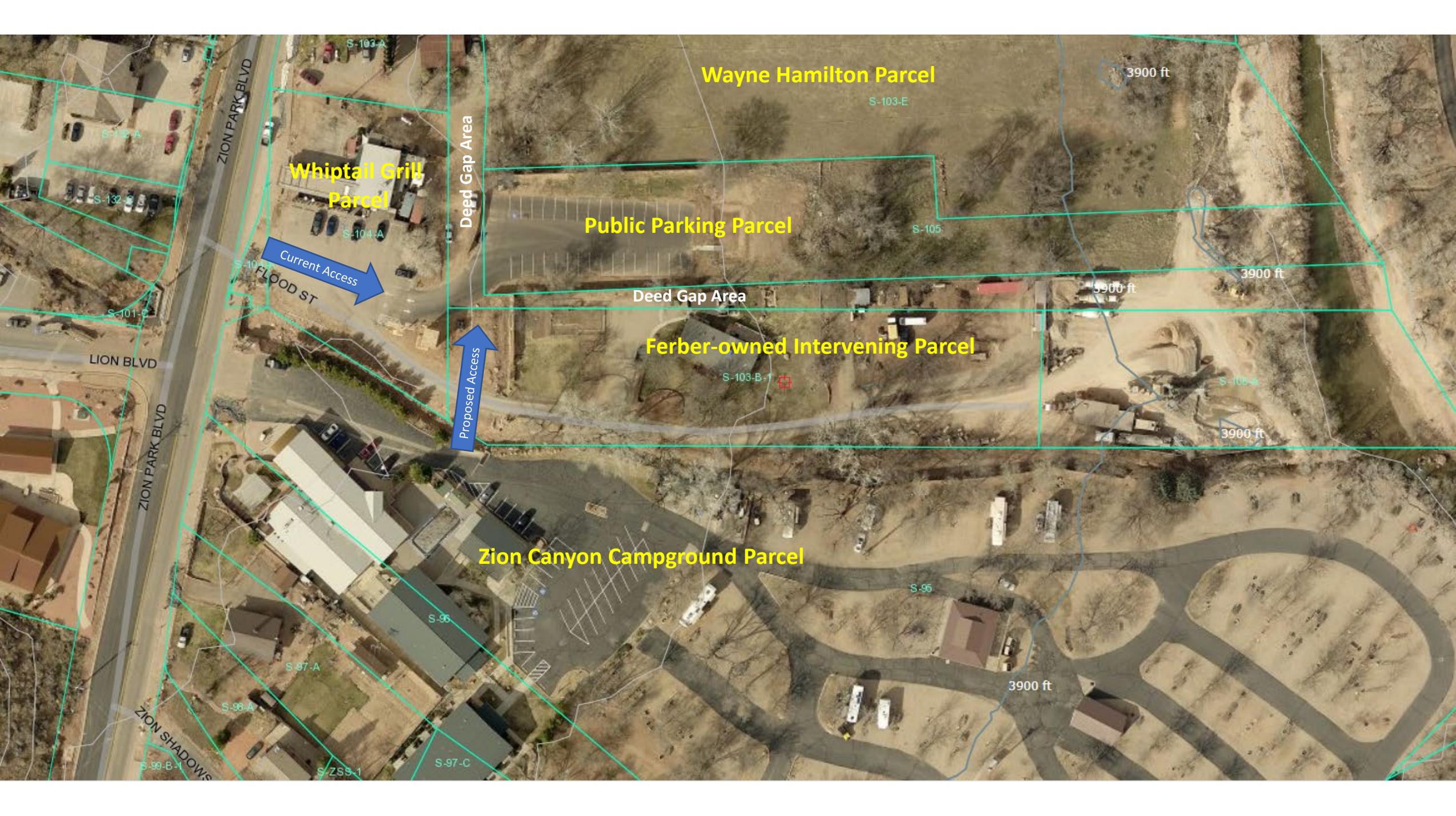
Bruno: Aye

Pitti: Aye

Burns: Aye

Rioux: Aye

Motion passed unanimously.



Wayne Hamilton Parcel

Whiptail Grill Parcel

Public Parking Parcel

Deed Gap Area

Ferber-owned Intervening Parcel

Zion Canyon Campground Parcel

Current Access

Proposed Access

3900 ft

3900 ft

3900 ft

3900 ft

ZION PARK BLVD

FLOOD ST

LION BLVD

ZION PARK BLVD

ZION SHADOWS

S-103-A

S-103-E

S-105

S-103-B-1

S-106-A

S-96

S-97-A

S-97-C

S-96-A

S-99-B-1

S-ZSS-1

3900 ft

3900 ft

3900 ft

3900 ft



Conditional Use Permit

This Conditional Use Permit is issued to:

Travis Barney

Name of Applicant/Owner

445 Zion Park Blvd

Address of Conditional Use Site

Springdale

City

UT

State

84767

Zip

This Conditional Use Permit was reviewed by the Planning Commission on February 15, 2017 and approved by the Town Council on March 8, 2017. The permit authorizes the following use: Public Parking Area in Valley Residential Zone

pursuant to chapter 10-3A and section 10-3A-5 (B)(5) of the Springdale Town Code.

The conditions listed below have been imposed by the Town Council to mitigate the reasonably anticipated detrimental effects of the proposed use. The use must conform to these conditions, as well as all applicable standards contained in chapter 10-3A of the Town Code (listed on back of this permit), or the permit is subject to suspension pursuant to section 10-3A-3 of the Town Code.

Conditions:

- General Conditional Use Permit Standards in section 10-3A-4 (listed on back)
- Specific Standards for Public Home Occupations in section 10-22-9(F) referenced by section 10-3A-5(B)(4) (listed on back)
- Conditions imposed by the Springdale Town Council:
 1. The subject property is located in the Valley Residential Zone.
 2. The proposed use falls within the common use and understanding of the term "public parking area and facility," which is a conditional use in the Valley Residential Zone.
 3. Based on 10-3(A), the proposed use will comply with all applicable land use standards contained in the Springdale Zoning Ordinance.
 4. Based on 10-3(B), the proposed use will not unreasonably interfere with the lawful use of surrounding properties.
 5. Based on 10-3(C), the proposed use will not create a need for essential municipal services.
 6. Based on 10-3(D), the proposed use will not emit excessive noises, or noxious odors, and shall not otherwise adversely impact the quality of air or water.
 7. Based on 10-3(B), the proposed use will not create loud noise that is sustained for more than one minute and is perceptible on a residentially zoned property between 11:00pm and 7:00am.
 8. Based on the specific standard A, the property will be screened with a fence that is at least eight feet (8') tall along the common boundary between the proposed use and surrounding property owners.
 9. Based on the specific standard F, the proposed use, upon compliance with the conditions of this permit, will be located on a dedicated public street.
 10. Based on specific standard B, access to the parking area is at least 75 feet from any existing main structure on adjacent property in the FR or VR zone.
 11. There will be no lighting. Hours of operation are daylight only.
 12. The parking area will have no more than 32 spaces. CONDITIONS CONTINUED ON BACK OF PERMIT

[Signature] 3/20/17 Date
Director of Community Development

Applicant [Signature] Date 3/20/17

Attest:
[Signature]
Deputy Clerk

General Standards (see section 10-3A-4 of the Town Code):

- A. The proposed use shall comply with all applicable land use standards contained in this title.
- B. The proposed use shall not unreasonably interfere with the lawful use of surrounding properties.
- C. The proposed use shall not create a need for essential municipal services which cannot be reasonably met within three (3) months and the party seeking the conditional use is willing and able to contribute to the cost of said services.
- D. The proposed use shall not emit excessive noise, or noxious odors, and shall not otherwise adversely impact the quality of air or water.
 - 1. If located either in or less than 100 feet from a residential zone, the proposed use shall not create loud noise that is sustained for more than one minute and is perceptible on a residentially zoned property after the hour of 11 PM or before the hour of 7 AM.
- E. If located immediately adjacent to a residential zone, the proposed use shall provide a screening fence or wall at least 6 feet in height along the common boundary between the proposed use and the residential zone.
- F. If the proposed use is projected to generate more than ten vehicular trips per day, the use must be located on a dedicated public street.

Specific Standards (Section 10-3A-5 (B)(5) of the Town Code):

- 5. Public Parking Areas And Facilities:
 - a. Measures must be taken to screen the view of the parking area from the view of surrounding property owners.
 - b. Access to the parking area may be located no closer than seventy five feet (75') from any existing main structure on adjacent property in the FR or VR zone.
 - c. Parking lot lighting must be turned off after ten o'clock (10:00) P.M.
 - d. Parking areas in the VR zone may contain no more than one hundred (100) spaces. (Ord. 2007-04, 7-11-2007)

I have read and understand the general and specific standards of the Conditional Use Permit. T.B.

initial

Suspension of a Conditional Use Permit (Section 10-3A-3 of the Town Code):

The Town Council may suspend a conditional use permit, following notice and a public hearing pursuant to section 10-3-1 of this title. A conditional use permit may be suspended if the town council finds one or more of the following:

- A. That the permit was obtained by misrepresentation or fraud;
- B. That the conditions imposed upon said use permit have not been met; or
- C. That the detrimental effects of the use are not substantially mitigated by the conditions and that no modification or substitution of said conditions will serve to substantially mitigate such detrimental effects.

If a conditional use permit is suspended, the conditional use may not be operated on the property for which the conditional use permit was issued until such time as all of the original conditions are reinstated in accordance with the original conditional use permit. Once all of the original conditions are reinstated, the owner of the property to which the suspended conditional use applies may apply to the planning commission and town council to lift the suspension by following the procedures outlined in section 10-3A-2.

Conditions Continued:

The motion is further based on the following conditions imposed on the use: 1. The subject parcel must be combined with the Whiptail Grill parcel (parcel S-104-A). 2. The parking lot may be operated only on the parcel that is now zoned as Valley Residential (parcel S-103-G) and not on the parcel that is to be joined with the subject parcel Whiptail Grill (parcel S-104-A). 3. The applicant must submit an application for review and approval for the Design/Development Review for any improvements to be made to the property. 4. Based on specific standard A, substantial and maintained year-round screening, landscaping, or fencing must be installed to mitigate the impact of the parking area on adjacent residential zoned property as approved during the Design/Development Review process. 5. An eight-foot (8') fence is required between all residential and commercially zoned properties but screening is not needed on the Whiptail Grill side of the property (parcel S-104-A). 6. The applicant must post a "No Idling" sign, a "No Occupied Overnight Parking" sign, and a sign that says the walking distance and time to the Park entrance. 7. The applicant is required to provide adequate public restroom facilities to parking facility patrons which will be provided through the restaurant business. 8. The applicant is required to pave all parking areas before operating the parking lot with a hard surface, either concrete or asphalt, to mitigate sound, dust and spillage. 9. Based on the traffic impact report, the cost of any additional infrastructure improvements identified by the Town engineer beyond what has already been identified as elements of the conditions to the permit at present, will be covered by the applicant.

From: [stewart ferber](#)
To: [Tom Dansie](#); [travis Barney](#)
Subject: PARKING LOT
Date: Monday, January 27, 2020 7:58:20 PM

To whom this may concern,

I am trading two parcels of property located at 1423 & 1437 Zion Park blvd., Springdale Utah, This property is known as S-80, and S-74-A. I am receiving part of 445 Zion Park blvd. Also referred to as the "Paid Parking Lot" parcel S-105. I am also creating a new parcel "The Gap" that is required by the Town, and needed to connect physically parcel S-105 to S-103-B-1 and ultimately to Parcel S-95 known as (Zion Canyon Campground). Both properties in the trade will be delivered free and clear with no water rights or assumptions and in "As-is" condition. The parties acknowledge the Town has no part in the trade other than to approve the "Paid Parking Lot" to continue to a "Parking lot" with different parking uses. I am connecting the parcels with a soon to be already approved culvert. I am allowing Travis Barney and his entities to continue using the Parking lot for the entire 2020 season, Ending on the last day of November 2020. Mr. Barney will provide Insurance and Name Ferber Enterprises as a beneficial party for liability. Mr. Barney will continue to operate under current Town regulations as set forth in his original conditional use permit. Mr. Barney will maintain the parking lot in its present good condition and will remove personal belongings on the last day of November 2020. Mr. Barney will continue to access the "Paid Parking Lot" through his Whiptail grille, once the season is over, the access easement through the Whiptail grille will be deleted, and the New access will be through the Ferber Property and or existing easement currently used by Bud Lee Construction and Ferber Now. Mr. Barney will no longer have access or use to the "Paid Parking Lot".

Future Use:

The property known as the "Paid Parking Lot" will be used as a commercial parking lot, used by motel guests, campers or anyone else on the Ferber property who needs to park. There will be no overnight camping on the Property. There will be no buildings built on the property, the property will be used as a "Parking Lot" in conjunction with The "Ferbbers current and future business". The Property located at 1423 & 1437 Zion Park blvd. is zoned village commercial and as I understand, Mr. Barney is going to build cabins that were approved, but has only the limitations of the Zoning if he wishes to change his direction.

Stewart Ferber

Travis Barney

RECEIVED

DEC 20 2019

TOWN OF SPRINGDALE
By KTB #192 #400?



118 Lion Blvd PO Box 187 Springdale UT 84767 435-772-3434 fax 435-772-3952

APPLICATION FOR CONDITIONAL USE

FOR OFFICIAL USE ONLY	File # _____
Brief Description of Project: _____	
Application Date: _____	Completed File Date: _____ Review Date: _____
Notes: _____	
Authorization: _____	Revised 02/05

Application is hereby made to the Planning Commission and Town Council of Springdale, Utah for a Conditional Use Permit pursuant to Chapter 10-3A of the Springdale Town Code for the following:

APPLICANT INFORMATION:

Name: Travis Barney

Street Address: _____

Mailing Address: _____

Email Address: whiptailgrill@yahoo.com

Phones (Home) _____ (Cell) 632-7950 (Fax) _____ (Business) _____

SITE INFORMATION

Project Address: 445 Zion Park Blvd.

Tax Code Number: _____ Zone: Valley Res.

APPLICATION FEE

Non-refundable fee of \$400.00 must be paid to the Town at the time this application is filed.

CONDITIONAL USE DESCRIPTION

Please describe the nature of the Conditional Use request: See attached

narrative

Conditional Use Permit Description

I would like to amend the conditional use permit for the parking lot parcel located at 445 Zion Park Blvd. The access to this parcel would be changed to 479 Zion Park Blvd located at the entrance to the Zion Canyon Campground. Stew Ferber is currently engineering a box culvert to cover the ditch and will pave or asphalt over the box culvert to gain access to the 445 address that contains the parking lot. He is currently in the process of acquiring this property from Travis which will give Stew ownership of the parking lot parcel in January. I would like to lease this parking lot from Stew and use the current access to the parking lot from the 445 address until the box culvert project is finished and Stew has access to this property from the 479 Zion Park Blvd access which is shown on the site map supplied with this application. In summary, my access to this property and use for parking revenue will remain the same until access to this parcel is complete from Zion Canyon Campground (479 Zion Park Blvd) after which I will abandon this lease from Mr. Ferber to operate a paid parking lot.

Travis Barney

Weeping Rock Holdings

Zion Park Lot



Dear Springdale Planning Commissioners, Mayor Smith, Tom Dansie,

To address tonite's public hearing, please include my statement below in your hearing.

The sole question for the Town to consider is:

Will the public parking area continue to meet all the standards for public parking area conditional use permits in the VR zone if the public parking area is combined with the Zion Canyon Campground parcel, instead of the Whiptail Grill parcel?

Addressing General Standards, section 10-3A-4-B:

“The proposed use shall not interfere with the lawful use of surrounding properties.”

Park Lane History:

Being a 40 year resident of that neighborhood who knew well the past residents of these properties for some 40+ years before me, the original intention of Park Lane was to allow Warren Hamilton, Wayne's father, to be able to access the agricultural acreage property east of my property. Without this access, the Hamilton property would be in landlock. As a neighborly favor, the Dratter's and Reusch's got together and granted an easement to Hamilton to access his property, that access is now Park Lane, between my property and Travis's. The zoning map came along in 1983 (?) designating the Dratter property (S-103-G) residential and the zone remains residential with the conditional use permit. This lot was used agriculturally until Travis put in the parking lot in 2017. Historically, it has never been used residentially to my knowledge.

Please accept this as documented interference:

I have done all the maintenance for Park Lane. Traffic there has increased considerably with the parking lot. Often with music blaring, Whiptail employees speed up and down Park Lane to and from work having been instructed to use that access rather than the south side of Whiptail Grill. Tourists coming and going from the parking lot use Park Lane to reach Zion Park Blvd. They wander into both mine and the Hamilton property. My property has been impacted negatively by this increased traffic.

If this change is granted, I strongly request that ALL Whiptail Grill employees and tourist traffic be directed to the south side of the building as to not interfere with me, the surrounding property. I request a gate be installed, kept locked and used only as needed. This gate should be included in final compliance with the requested changes.

General Standards, section 10-3A-4-D:

“The proposed use shall not emit excessive noise, or noxious odors, and adversely impact the quality of air or water.”

Thus far, the existing property has complied. However, if the property is to be used as a waiting area for registration for the campground, engines must be turned off while parked & waiting. This is of high concern to me and without question will adversely impact noise & my air quality.

General Standards, section 10-3A-4-E:

"If located immediately adjacent to a residential zone, the proposed use shall provide a screening fence or wall at least six feet (6') in height along the common boundary between the proposed use and the residential zone.

I am not aware if Springdale has an ordinance concerning the finished side of a fence be placed to the outside of the property. In this case, the finished side of this fence is to the inside of the property. We neighbors look at the framed, unfinished, side of this fence, not a pretty sight.

In conclusion and my opinion, I see the parking lot being used as a holding/waiting area for the campground as a great idea hopefully solving the congestion that registration of large RV's currently causes on SR-9.

Please document and honor my complaints and concerns about Park Lane within this conditional use change request to ensure that, General Standards, section 10-3A-4-B: "The proposed use shall not interfere with the lawful use of surrounding properties."

Sincerely,

Julie C. McKown

425 Zion Park Bl.

Flanigan's Villas

Springdale, UT. 84767

February 3, 2020

Dear Springdale Town Council-

The Redrox Music Festival -- formerly Women's Redrock Music Festival -- is looking for a new home. The Festival, now in its 13th year of programming, had its home in Torrey, Utah from August of 2007 to 2018. In our search, we have identified the Springdale Town Park as a potential venue and are excited at the prospect of working with the Council, as well as local businesses and residents to re-launch this celebratory and life-affirming event in a new and beautiful locale.

We are currently working on permit applications to secure the park for November 6 & 7, 2020. We expect approximately 300 Festival attendees in 2020 -- steadily growing up to and beyond the 600+ attendee count at the 10th anniversary Festival held in 2017.

From its humble beginnings in 2007, to becoming an internationally acclaimed event, the Women's Redrock Music Festival has had remarkable impact. The original mission of WRMF was to foster "Music by women for everyone." To this end, we have engaged performers from throughout Utah, North America and from as far away as India. As the Festival and the women's music movement have evolved, we have chosen to expand the mission and change the name of the event to The Redrox Music Festival - to become more inclusive of all marginalized genders, to support local, national, and international performers and to promote arts & culture in Utah.

In 2019 we also found a new fiscal sponsor - Rock Camp SLC whose mission is to empower girls, transgender, and gender-expansive youth from all backgrounds through music education, collaboration, and performance.

We are committed to supporting the town and county in which the Festival is held and the delicate and awesome wonder that is the surrounding Utah red rock desert. In Torrey, as the Festival grew, we worked closely with local suppliers and governments to bring business to the area and enhance arts & culture in Wayne County while minimizing the environmental impact of the event.

Critical to the success of the Festival in Torrey was the collaboration with local businesses and residents:

- On average, 50% of our Festival volunteers and staff were Wayne County residents.
- All Festival food vendors were exclusively local to Southern Utah – including Café Diablo, Castle Rock Coffee Co., Sweetwater Gypsies Pizza & Magnolia Street Cafe
- Many local artisans and organizations were engaged as Festival Vendors – including the Dark Sky Initiative, Dennis Bertucci Furniture, Prehistoric Artwear and many others.
- A portion of Festival proceeds were used to fund an annual scholarship for a Wayne County high school student planning to pursue higher education in the arts
- Approximately 400 hotel room-nights & 50+ camp sites were booked annually for Festival performers and attendees
- Festival after-parties were held at The Saddlery & The Rim Rock Inn

To ensure that our event had minimal environmental impact, we:

- Coordinated removal of all waste through local contractors

- Removed all recyclables to SL County for proper handling
- Introduced filtered drinking water stations and encouraged participants to bring refillable water containers to reduce the amount of plastic consumption
- Educated and encouraged attendees to appreciate and take care of the land we were using

As people who enjoy and appreciate Utah’s beauty, we are dedicated to continuing these efforts, as well as adopting new practices that will align with the values of Springdale – including adhering to noise ordinances and minimizing traffic.

We are looking forward to making meaningful, mutually beneficial, long-term connections with the town of Springdale, your businesses, organizations, and residents and have begun informally reaching out to some, including Zion Canyon Brew Pub, Under the Eaves Inn, and Dixie State College LGBT Resource Center. We’ve also joined the Zion Canyon Arts & Humanities Council.

Included with this letter are:

1. Event logistics, waste management and security plan
2. A proposed Festival site map
3. Sample advertisements and program images from previous festivals

More information about the Festival can also be found at:

<https://www.facebook.com/womensredrockmusicfest/>

We are asking to come speak to the Council during your February 12 meeting to explore a Town sponsorship of the Redrox Music Festival. We sincerely hope that you will consider our proposal favorably and look forward to speaking with you.

With Kind Regards,

Hillary, Jandy & Liz

Festival Directors

REDROX
MUSIC FESTIVAL

Hillary McDaniel: 801-380-4248

Jandalynn Stelter: 719-588-8861

Liz Pitts: 801-300-0884

redroxmusicfestival@gmail.com

REDROX

MUSIC FESTIVAL

November 6 & 7, 2020 • Town Park – Ballfield & Gazebo • Springdale, Utah

Event Logistics, Waste Management & Security Plan

The goal of this plan for the Redrox Music Festival is to present a safe and secure environment for the festival's public, staff, performers, vendors and volunteers.

Training & Security

To ensure the safety of festival attendees and the general population, all festival volunteers will be well trained on alcohol control, security and medical emergency procedures.

- All festival volunteers and staff will be trained on alcohol control measures.
- At least one CPR certified volunteer will be on-grounds during all festival operating hours including set-up and strike.
- Festival staff and volunteers will also follow local 911 protocol and work with Springdale Town & Washington County Sheriffs and EMS personnel as advised.

Festival Grounds

Festival grounds will remain well-lit during all hours of operation and any hazards (tree stumps, low hanging branches, etc.) will be flagged.

Festival Entrances & Exits

Trained security volunteers will be stationed at the concert venue entrance and exits to ensure that outside alcohol and weapons do not enter our festival grounds, that the alcohol we have sold does not leave our festival grounds, and that patrons who appear to be intoxicated have safe transportation available. Entrance, Exit & Emergency Exit signage will be posted and key volunteers will be trained to appropriately handle emergency evacuation scenarios.

First Aid, Public Health & Water Stations

A first aid kit and free water will be available at the ticket/raffle tent. The appropriate # of porta potty's and hand washing stations will be available and maintained by volunteers. See site map for details.

Waste Management & Recycling

The Redrox Music Festival's waste management goals include the desire to reduce our impact on the environment through waste reduction and diversion of recyclable materials from the landfill.

Number of trash/recycling combo bins:

1 combo bin for every 100 festival attendees (5 total for 500 attendees)

1 combo bin for each food/beverage vendor (3 total)

1 combo bin for every 5 booth vendors (3 total for 15 vendors)

1 combo bin for back of house area

1 combo bin for backstage area

Staffing

- Redrox Music Festival staff and volunteers will be onsite throughout event, setup, and strike. These team members will be dedicated to placing trash/recycling bins on grounds, emptying and replacing bags throughout the event, and providing general cleanup of grounds and picnic areas throughout the event.
- Teams will engage guests in recycling activities, promote and assist with correct recycling, support vendors and other teams by providing assistance with recycling, waste diversion, and answering questions.
- Teams will also be responsible for all recycling and water station signage on site. This will include general recycling, water, and trash only signs. All signage to be printed on post-consumer recycled FCS certified or tree-free paper.

Waste Removal

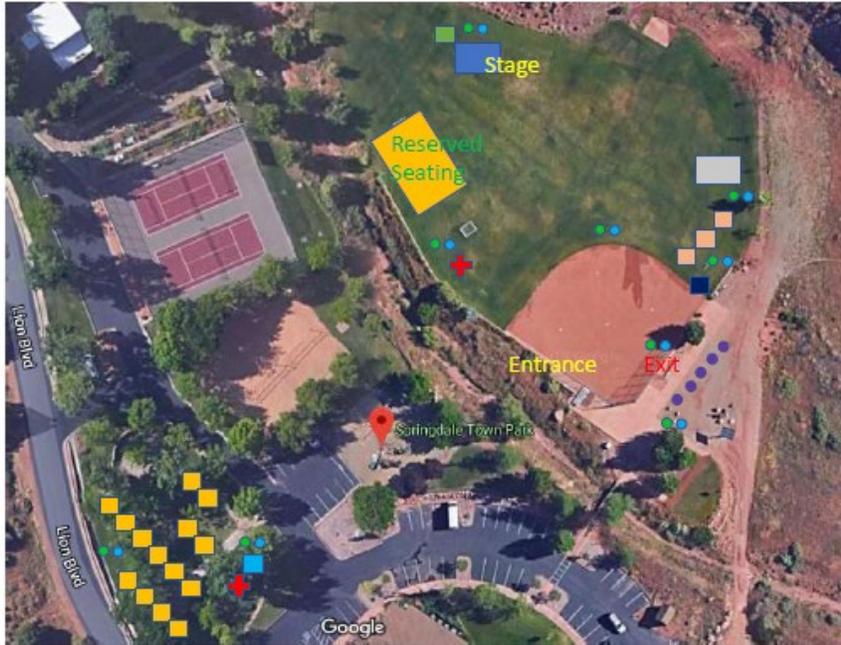
- All trash and recycling will be collected by Redrox staff and volunteers throughout the event and taken to the nearest landfill and recycling facility for disposal. In previous years, the festival has transported all recycling back to Salt Lake City, UT for disposal and this is a possibility for 2020 if needed.

Proposed 2020 Site Map

REDROX MUSIC FESTIVAL

Springdale Town Park
November 6 & 7, 2020
Site Map

-  Green Room
-  Vendor Booths
-  Food Vendors
-  Beer Wine Tent
-  First Aid/Water Station
-  Tickets & Wristbands
-  Potties & Handwash
-  Security/Back of House
-  Trash/Recycling Bins



Previous Year's Sample Poster Ads and Program Images



NOTE: Ownership of this restaurant is changing however the DBA will remain the same.

FULL-SERVICE RESTAURANT LIQUOR LICENSE

Local Consent

PURPOSE: Local business licensing authority provides written consent to the Alcoholic Beverage Control Commission (1) to issue an on-premise alcohol license for a person to store, sell, offer for sale, furnish, or allow the consumption of an alcoholic product on the premises of the applicant.

AUTHORITY: Utah Code 32B-1-202; 32B-5-201, 203, 205 and 206

Town of Springdale

Local business license authority

City

Town

County

hereby grants its consent to the issuance of a full-service restaurant liquor license to:

Business Name (DBA): Rositas Santa Fe Kitchen

Entity Name (or owner's name if sole proprietor): Hysteria Lane LLC

Location Address: 2501 Zion Park Blvd. Springdale UT 84767

Authorized Signature

Name/Title

Date

This is a suggested format. A locally produced city, town, or county form is also acceptable.
The local consent must be submitted to the DABC by the applicant as part of a complete application.



Zion Regional Collaborative

Memorandum

To: Town Council

From: Emily Friedman, Coordinator

Date: 2/12/2020

Re: Town Council Meeting

Letter of Support for National Scenic Byway Designation

In 1990, the Utah State Legislature designated SR-9 between I-15 and Mt. Carmel a State Scenic Byway. About two decades later, a group of coordinated stakeholders, the Zion Canyon Corridor Council (ZC3), decided to pursue the federal equivalent of this designation: National Scenic Byway status. However, almost immediately following the ZC3's decision, the NSB program was defunded and deprioritized at the federal level. Earlier this fall, the President signed into law a bill revitalizing the program. The Zion Regional Collaborative, successor to the ZC3, will once again pursue this designation if local stakeholders support the effort. The ZRC is requesting a Letter of Support for its application to the National Scenic Byways Program. A draft Letter of Support is attached to this memo; feel free to use it as you deem appropriate.

Background

The National Scenic Byways Program (NSBP) was established in 1991 under the Intermodal Surface Transportation Efficiency Act. The Department of Transportation (DOT) recognizes roads throughout the US who possess one or more "intrinsic qualities." The qualities recognized are those which are archeological, cultural, historic, natural, recreational, or scenic. Since its inception, the NSBP has designated over 150 roads across the country.

The intention of National Scenic Byway (NSB) designation is, "to help recognize, preserve and enhance selected roads throughout the United States." The Federal Highway Administration (FHWA) administers the program. The primary role of the administrator has been to provide financial assistance to NSB's through the use of FHWA grants (intended to assist with interpretive planning, promotional efforts, etc). The administrator also facilitates national and international marketing efforts. However, since 2012, the NSB Program has been largely dormant. The newest NSB's were designated in 2009, about a decade ago.

Recently, federal legislators expressed an interest in rekindling the program. In September, the President signed the "Reviving America's Scenic Byways Act" into law. This law requires the Department of Transportation to request nominations and designate new byways within the year.

Timeline of Prior Efforts and Actions

1990: The Utah State Legislature designates State Route 9 (SR-9) between I-15 and US-89 as a State Scenic Byway.

2008: A group of local stakeholders meets to discuss the possibility of seeking NSB recognition. This group eventually becomes the Zion Canyon Corridor Council (the "ZC3"). The ZC3 narrows the scope of the NSB to a

section of SR-9 between the intersection with Rt. 17 in La Verkin and the East Entrance to Zion National Park. This new, potential NSB is referred to as Zion Scenic Byway to differentiate it from the entirety of the State Scenic Byway.

2011: The ZC3 finishes development of a Corridor Management Plan for Zion Scenic Byway. The CMP is adopted by resolution of all communities along the Byway's path, the County, and the Utah State Legislature.

2015: The ZC3 uses leftover grant funds from the CMP project to develop an Interpretive Plan. The Interpretive Plan "provides a vision for visitor experiences along the byway and defines the goals, objectives, primary theme, subthemes, and messages."

2015/2016: A new organization, the Zion Regional Collaborative, forms in response to a desire for improved communication and increased collaboration amongst regional stakeholders. This group assumes all Zion Park Scenic Byway Committee duties from the discontinued ZC3.

Present: The ZRC manages all byway efforts through a designated subcommittee. The Zion Regional Collaborative is the current proponent of this nomination for National Scenic Byway designation.

Potential Benefits to National Scenic Byway Designation

Added Funding Resources: Historically, both the FHWA and State governments have provided grants exclusively available to National Scenic Byways. In 2012, the last year discretionary grant funding was available to National Scenic Byways through the FHWA, available funds topped \$20,000,000. As of 2012, Utah's own Scenic Byway 12 (between Torrey and Panguitch) had received \$1.3 million in grant funds for project development and implementation on the byway. That includes funding every year between 2006 and 2012. Unlike many grants that require equal matching, the Federal grants for NSB's have typically included an 80% Federal share. While the bill passed in September did not include a stipulation for grant funding, Scenic Byway contacts emphasize that this funding may still reappear in the future.

Increased Visitation and Visitor Spending: Multiple studies have illustrated increased visitation and associated visitor spending on scenic byways. In 2014, Zions Bank completed a study on the economic impact of National Scenic Byway Route 12 in Utah (between Panguitch and Torrey) on its surrounding communities. Zions Bank estimated the annual economic impact of the Byway at over \$12,000,000. They based this figure on an analysis of daily visitor expenditures and a survey of the importance of the Scenic Byway as a factor in visitation. 47.2% of visitors who completed a survey distributed by Zions Bank ranked the byway designation of Route 12 as "Extremely Important" (5 out of 5) in their decision to drive the route.

Support for Marketing: In the past, the National Scenic Byways Program has independently marketed the byways to national and international travelers. The NSBP uses its own internal marketing resources to conduct this outreach, adding visibility to byways with no added cost to the byway communities themselves. The Program also possesses many marketing resources not readily available to individual communities, including increased capacity for language translations, access to partnerships, and name recognition. Generally, the NSBP provides expert assistance to local byway communities subsequent to designation.

Sense of Pride for Byway Communities: While difficult to quantify, the NSB Program also emphasizes the importance of community pride in a designation. National recognition confirms to communities the significance of their surroundings. It also provides a platform for collaboration and cooperation as communities come together to develop their byway.

Potential Concerns around National Scenic Byway Designation

Land Use Restrictions: The enacting legislation for National Scenic Byways prevents the erection of any outdoor advertising (billboards) adjacent to the route, with the intention of preserving viewsheds. While this added restriction is relevant to byways in other regions, in Utah, the law is redundant. Utah State Scenic Byway designation mandates the same outdoor advertising restrictions as federal designation. Thus, these outdoor advertising restrictions have already been in place on the Zion Scenic Byway for almost three decades. Other than this pre-existing restriction, there are no further federal land use laws associated with NSB designation. Local control still supersedes federal management, which is outlined clearly in the byway's Corridor Management Plan.

Increased Pressure on Zion National Park Entrance Stations: In July of 2019, Zion National Park reported an estimated 106,000 vehicles entering through the Southern Entrance. Another 47,000 vehicles were reported during that same month entering through the Eastern Entrance. While the park is currently expanding the Southern Entrance station, both entrances are still likely to face formidable crowds during the peak season. Previous studies have illustrated increased traffic based on National Scenic Byway designation. Added visitation could have potentially negative effects on the park's overburdened entrance stations. Congestion at the Southern Entrance station often forces cars to back up into Springdale, with impacts on local businesses, residents, and pedestrians/cyclists.

Increased Traffic through Municipalities: National Scenic Byway designation typically increases visitation in the region around the Byway. A 2014 study by Zions Bank focused on the economic impacts of Route 12 between Torrey and Panguitch found a 25% increase in visitation on the Byway between 2001 and 2012. This translates into an average of 60,000 additional annual visits between 2001 and 2012. That being said, it's important to note that visitation at all "Mighty Five" National Parks (two of which are located along Route 12) increased during this same time period. Increased traffic could have potentially adverse effects on local communities.

Requested Action

The Zion Regional Collaborative requests a Letter of Support from the Council to be included with an application for National Scenic Byway designation.



February 12, 2020

To whom it may concern,

The Town of Springdale is proud to support the proposed Zion Scenic Byway. Springdale forms a notch in the southwest portion of Zion National Park. Save for a small opening of approximately half a mile through which SR-9 passes, the park almost entirely surrounds us.

Our immersion in this landscape offers a unique perspective into this area's suitability for National Scenic Byway designation. Everywhere we look, the Zion Scenic Byway's intrinsic qualities materialize. From our Town Offices, a glance left will reveal the crown of Mount Kinesava and the 7000-foot monolith appropriately named West Temple. On the right, the imposing form of The Watchman peers down at the hotels, restaurants, shops, and homes that constitute our community. We are lucky to have such a close connection with this landscape.

National Scenic Byway designation would allow us to share that same landscape with the nation. We welcome opportunities to bring both national and international visitors to our community. This visitation promotes economic growth, infrastructure improvements (like the paved multi-use path currently being built through town), and a sense of pride in our region.

Springdale has long recognized the benefits of designating SR-9 a National Scenic Byway. In 2008, the Town helped create the Zion Canyon Corridor Council (the ZC3), partially to help investigate and promote this proposed nomination. The ZC3 evolved into the Zion Regional Collaborative in 2015. Springdale continued to support this new cooperative initiative and its ongoing efforts to seek designation for the Zion Scenic Byway.

In conclusion, we hope the Department of Transportation chooses to recognize the Zion Scenic Byway as one of America's premier roads. From our point of view here in the canyon's bottom, the road's worthiness is clear.

Sincerely,

Stanley J. Smith
Mayor, Town of Springdale



To: Mayor and Town Council
From: Darci Carlson, Town Clerk
Date: February 12, 2020
Re: Revisions to Town policies for the Jolley-Gifford Cemetery

Prudent and responsible planning takes the long view and this is one reason why the Town invests in and implements suggestions from master plan documents. Although Springdale does not have a formal guiding document related to the Jolley-Gifford Cemetery, the Clerk’s Office would like to propose a few considerations for the Council. The goal is to be forward-thinking and promote the longevity and sustainability of this limited resource.

1. Resident-only purchase of plots - Using the cemetery software search feature, the following data was returned related to the status of plots in the cemetery:

- Total number of plots in the Jolley-Gifford cemetery: 3,109
- Plots available (for vault or cremains): 2,030 (65.2% remaining inventory)
- Plots occupied, reserved, sold, or unavailable: 1,079 (34.7% used inventory)

Currently cemetery policy allows residents and non-residents to purchase plots. With the increase in visitation, it is no surprise that many from outside the area discover our beautiful cemetery and decide it is a great place to rest for eternity. Many don’t have a meaningful or long-standing connection to our Town, or paid taxes to help defray the ongoing costs of care and maintenance. As a point of reference, during my tenure as Clerk (from October 2014 to present), the Town has sold 71 plots in the cemetery. The breakdown of those sales, based on the resident status of the purchaser, is as follows:

Date	Plot	Date	Plot	Date	Plot	Key	
2014	2_7_1	2016 (cont)	4_28_7	2018 (cont)	1_24_4		Non-resident
	2_7_2		4_28_8		2_3_7		Resident
	2_7_3		4_28_5		2_3_6		
2015	4_15_2		4_12_1		2_3_2	71	# sold
	4_15_3		4_12_2		2_3_3	37	52%
	3_51_4		4_12_3		2_3_4	34	48%
	3_50_1		4_13_1		2_3_8		
	1_22_1		4_13_2		2_2_5		
	4_23_9		4_4_10		4_10_10		
	4_23_7		3_96_2		4_10_9		
	2_82_10		1_78_2		1_25_7		
	2_11_1	2017	1_78_3		4_1_10		
	2_66_8		1_78_6		2_3_1		
	2_66_7		1_78_7	2019	2_3_5		
	4_7_5		1_78_8		3_99_12		
	3_96_8		1_77_5		3_99_11		
	3_96_10		4_24_5		2_4_5		
	3_96-11		3_86_8		2_5_8		
	3-96-7		3_85_5		2_5_7		
	1_85_5	2018	1_56_5		1_23_5		
	1_85_6		1_8_2		1_23_6		
2016	1_8_1		1_8_3		1_24_8		
	1_3_1		4_3_9	2020	1_56_6		
	4_28_6		1_23_1				

The concept of a resident-only cemetery (which could also include former residents) is not new. While conducting research for this report, it was discovered several cemeteries on the east coast are already designated as resident-only. Another municipality, Boynton Beach, FL (in Palm Beach County) recently changed their public cemetery from resident/non-resident to resident-only citing limited supply and the attractiveness of their lower costs compared to nearby cities.

In speaking with cemetery sextons and clerks across the state, there was a high level of interest in this concept. Many asked for a copy of this final staff report and a follow-up how the Springdale Town Council responded. It appears this idea may gain some state-wide momentum, and for legitimate reasons. Should the existing cemetery become filled, municipal leaders understand large tracts of land are rare. Additionally, the expense involved in developing another cemetery is high. Once plots in our cemetery are no longer available, it will be difficult for the Town to expand and/or develop more space for this purpose. Perhaps this isn't anything the Town needs to worry about today or even five years down the road, however future Councils and residents will be grateful for the planning and forethought of today.

A key to making this transition would be to define 'resident', and possibly 'former resident' too. Purchase of a plot in the Jolley-Gifford Cemetery could be based on satisfying one of, or a combination of, the following components:

- Length of time component: Could require a minimum residency of X number of years (possibly consecutive or not). Former residents may have to verify they were a Springdale resident for a minimum of X number of years.
- Proof of residency: Require proof at the time of purchase in the form of a driver's license with a Springdale address, and/or voter registration.
- Determination of domicile: Require evidence of a person's domicile as determined by ownership of a home and/or the rental of an apartment within Springdale. Or, confirmation of the address listed on the decedents tax return at the time of death.

If this concept of 'resident-only' is something the Council would like to pursue, specific language can be developed for your future consideration.

2. Errors and omissions clause: Although the Town's cemetery software portrays plots in perfect geometric orientation, reality is different. Over the course of time, measuring methodologies for burials have differed slightly causing a ripple effect throughout rows and sections. Sometimes this causes anxiety for staff as they prepare to open plots for a present-day burial based on what was sold many years ago. In highly concentrated areas of the cemetery where a number of burials are located, this can be exceptionally problematic because space for a vault may not actually exist despite the plot being sold years earlier. Current day staff is well aware of these issues and now, before selling any plot, we take extra care probing and measuring to assure the space purchased can be successfully accessed later. If, however, there is an issue in the future, it would be helpful for the Town to adopt a disclaimer that provides a contingency for issues of errors and omissions.

Based on consult with legal, the following has been suggested: *The Town of Springdale reserves the right to correct any errors and omissions made by it in connection with its issuance of this certificate of burial right, including but not limited to errors or omissions in the plot description or the unavailability of the plot at the time of interment. The Town of Springdale may, in its sole discretion, cancel any certificate of burial right and substitute another conveyance of equal value or similar location in lieu thereof, or cancel the certificate of burial right and refund the reasonable value of the certificate based on the rate in effect at the time the certificate is presented to the Town of Springdale.*

Staff recommends this language be printed on each Certificate of Burial Right moving forward. Additionally, this language should be adopted into the Jolley-Gifford Cemetery Policies and Regulations and possibly added to [section 7-5-5](#) of Town code. If, Town staff runs into the unfortunate, and hopefully infrequent, situation when a purchased plot cannot accommodate a burial, we would have a viable contingency plan.

3. Increase in cemetery fees: The Clerk’s Office believes our pricing structure for the Jolley-Gifford Cemetery, including plot purchase and open/close fees are too low. In response, we conducted an analysis of these fees compared to those in other Utah municipalities. The following data was collected:

Municipality	Resident Plot	Non-Resident Plot	Resident Open/Close (vault - weekday)	Non-Resident Open/Close (vault-weekday)
Springdale	\$ 350	\$ 600	\$ 200	\$ 250
Hurricane	\$ 550	\$ 750	\$ 275	\$ 275
Ivins	\$ 850	\$ 1,150	\$ 300	\$ 300
Kanab	\$ 450	\$ 900	\$ 200	\$ 350
Orem	\$ 1,230	\$ 1,540	\$ 615	\$ 770
Parowan	\$ 350	\$ 900	\$ 300	\$ 400
Provo	\$ 1,200	\$ 1,200	\$ 650	\$ 650
Rockville	\$ 150	\$ 850	\$ 150	\$ 150
Santa Clara	\$ 600	\$ 1,250	\$ 300	\$ 550
Spanish Fork	\$ 600	\$ 900	\$ 350	\$ 600
St. George	\$ 750	\$ 1,050	\$ 400	\$ 550
Toquerville	\$ 410	\$ 710	\$ 400	\$ 400
Washington City	\$ 500	\$ 1,000	\$ 400	\$ 500
Average including Springdale	\$ 615	\$ 985	\$ 349	\$ 442
Average excluding Springdale	\$ 637	\$ 1,017	\$ 362	\$ 458
Springdale cost below Average	\$ (287)	\$ (417)	\$ (162)	\$ (208)
Springdale % of Average	55%	59%	55%	55%

Based on this information, Springdale prices are significantly lower. Since plots are a limited commodity, Council should consider increasing fees to be more in-line with other Utah rates. If the Council decides not to restrict the cemetery to resident-only, significantly raising the cost of non-resident rates could also dissuade this type of plot purchase.

Current ordinance specifies cemetery plots shall not be further sold, transferred, conveyed, or assigned to any person or entity except the Town. The Town will buy back any lot sold for the original price paid by the purchaser but does not collect any administration fee associated with this service. The Clerk’s Office recommends a \$25.00 to \$35.00 administration fee be charged to anyone wishing to sell their plot back to the Town. This type of fee is common in other municipalities and helps defray the cost to process the request and return the cemetery plot back into inventory.

If the Council decides to increase cemetery rates, staff will bring an amendment to the fee schedule on the March agenda.

4. Allowance for pet burials: Human relationships with their pets can be an exceptionally special and meaningful part of life. Therefore, it is no surprise that when a pet dies it can be quite painful and traumatic. Having a special place to memorialize that animal can ease this pain and provide a way for pet owners to say goodbye in a loving way.

Currently the Town’s cemetery ordinance allows human remains only. Based on conversations with the county and state, there are no laws prohibiting animal burials; it is up to the individual cemetery to decide whether they

want to offer this option. Based on research, there is a growing acceptance of the idea of humans and pets being buried together. For the most part, other states have been taking a largely piecemeal approach to legalization. Last year New York allowed the burial of animal cremains in human cemeteries with the caveat that both humans and pets be interred at the same time. Whether or not this is a serious consideration should depend, in part, on what people consider to be the role of pets in our lives. Many people consider their pets to be part of their family and for some, pets are their family.

The Council may consider the following options:

- 1) Continue to only allow human remains be buried in the Jolley-Gifford cemetery;
- 2) Designate a section in the future Memorial Park as a pet memorial to accommodate pet cremains burials (Town would need to subsequently establish associated policies, procedures, fees);
- 3) Allow pet cremains in the Jolley-Gifford Cemetery only if these cremains are included inside the coffin/urn of an owner at the time they are interred.

If Council is interested in pursuing this idea, staff can further research, and bring back draft ordinance language for consideration/action.



Memorandum

To: Mayor, Town Council
From: Rick Wixom
Date: February 5, 2020
Re: **February 12, 2020 Town Council Meeting**
RAP Tax Policy Discussion

The Town has been collecting RAP (recreation, arts and parks) funds since 2015, after the County approved the tax on a County-wide basis. RAP taxes are assessed by retailers as part of taxable transactions and forwarded to the Tax Commission, who then distributes the funds to Washington County. The County distributes the funds to the cities and towns based on the following formula:

Total RAP Tax

15% to Washington County for cultural organizations
85% distributed based on 2/3 population - 1/3 point of sale

The population/point of sale split allows communities that have little taxable sales to still realize the benefits of the tax in their community.

Over the past four fiscal years, the Town's RAP revenues have been as follows:

FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Balance as of 2/6/20
\$35,844	\$28,465	\$36,941	\$39,511	\$121,183

Early in the process the Town Council discussed and approved a vision/policy for the distribution of the tax. Attached is the document that identifies the Council's vision for utilizing RAP funds, as well as a description of the application process and project priority list.

The Council has approved several applications to use RAP funds over the past few years.

- Z-Arts was approved for funding for a sculpture that was installed at HooDoos Market (\$13,000 approved).
- The Red Rock Weavers Guild was approved for funding for the community quilt project (\$1,000 approved) and for a street light mosaic project (\$5,000 approved).
- The Southern Utah Bike Alliance was approved for funding for a bike hub at the Pizza Noodle (\$16,200 approved).
- Total approved for RAP funded projects: \$35,200

- During the same time several other projects have sought funding which was not approved for various reasons; generally because the applications didn't fully comply with the Council's RAP policy and vision.

Key in the Council's vision to date has been the concept of "projects" over "programs." The Council wanted the funds to be used to create recreation, arts, or parks projects, not to be used on administrative or operational costs. The discussion for the Council during this agenda item is whether that standard should be kept or changed.

The state law that establishes the RAP tax program certainly allows for the tax to be used for administrative or operational expenses. The County's distribution system provides 15% of the collected tax to be used specifically for cultural organizations, including to help cover their operational costs.

During the Town's due diligence process with the history/visitor center, the potential revenues for the center included requesting an allocation of RAP tax funds from both the County and the Town of about \$5,000/year from each entity (see packet material from 10/9/19 meeting). For this to be a realistic option for the history/visitor center, the Council would need to change the adopted policy for distributing RAP tax funds.

Local non-profits might also benefit from a change in the RAP policy of the Town. Last year Z-Arts went through an internal process looking at the future of their organization. As I understand it, one of their key topics of discussion was their expenses in relation to their revenues, particularly membership dues. It was suggested at the time that one possible approach to creating a more sustainable future for the organization might be to approach the Town about using RAP funds to cover the revenue typically generated by membership, roughly \$2,500. This would enable the organization to put more time and energy into providing programs to the community, instead of membership drives.

Of course, there are other non-profit organizations besides Z-Arts. This was just one example of how funds could be used to benefit organizations that benefit the community. And, of course, the money available from RAP tax wouldn't be able to solve all financial woes. Nor should it. Staff believes that most of the RAP funds should continue to be used for the purposes originally described by the Council's vision; the improvement of existing recreation, arts and parks projects, or the development of new recreation, arts and park projects. However, we also believe that setting aside some portion, in an amount determined by the Council to be appropriate, could be used to further programs that benefit the Town's residents.

Rap Tax Funds Policy

Budgeted amount for FY 2019-20: \$30,000.

The amount of RAP tax funds is expected to increase slightly year to year depending on taxable sales within Washington County.

Town Council Vision for Utilizing RAP Funds:

The Town Council has identified the following as its vision for utilizing the Town's portion of the RAP Tax funds:

- RAP Funds will be used for projects within the Town of Springdale to benefit residents and visitors.
- Funds to be used on the improvement of existing recreation, arts and parks projects, or the development of new recreation, arts and park projects. Funds will not be used on administrative or operational costs for organizations.
- The Council will not set or designate a specific percentage of RAP funds to be used for recreation, arts and parks as demands, funding assistance and other factors will change over time.
- The Council encourages cultural organizations to apply for RAP funds directly from Washington County.

Funding process:

In order to meet the above vision, the Town will create a project priority list and develop an application process for the distribution of funds:

- The Council will develop a five-year priority list for recreation, arts and parks projects in consultation with community partners - including Z-Arts, bike enthusiasts, park users (tennis, volleyball, and pickle ball clubs and groups), and others.
- The Council will review project applications for inclusion of the project on the priority list. Alternatively, the Council may appoint a committee to perform this review and provide a recommendation to the Council.
- Projects must be on priority list in order to receive funding through RAP funds.
- The Town, an organized club or group, a non-profit, or an individual may apply for project funding.
- An application form will be developed to identify specifics about the project, including:
 - The anticipated funding need.
 - Source(s) of other possible funding assistance.
 - Timing of improvements.
- The application will include as a minimum the following criteria:
 - How the goals and priorities of the Town will be met by the proposed project.
 - Who will be the primary beneficiary of the proposed project?
 - The ability of the proposer to complete the proposed project.
- Applications for projects will be considered once a year, during the Town's annual budgeting process. Applications for funding should be provided to the Town Manager prior to April 15th of each year. Applications will be made available through the Town's website.
- During the budget approval of each fiscal year, the Town Council will determine when and for what purpose RAP funds will be used. The Council may save or set aside funds for multiple years to satisfy a long-term recreation, arts or parks project.



Staff Report

To: Mayor and Town Council
From: Darci Carlson, Town Clerk
Date: February 12, 2020
Re: **Ratification of the 2020 Planning Commission Chair and Vice Chair nominations for 2020**

During the Planning Commission regular meeting held January 15, 2020, Commissioners recommended nominations for Chair and Vice Chair for the coming year. Here is an excerpt from the minutes of that meeting pertaining to the recommendation:

Nomination and recommendation for the 2020 Planning Commission Chair and Vice Chair: Mr. Pitti explained each year the Commission recommended a new Chair and Vice Chair. Mr. Marriott's term would be up soon and Ms. Elger had been elected to the Town Council.

Mr. Pitti nominated Mr. Burns as Chair, stating he always came prepared and brought an even tone to the conversation.

- Mr. Burns appreciated the vote of confidence.

Mr. Pitti nominated Barbara Bruno as Vice Chair.

Motion made by Joe Pitti to recommend the nomination of Jack Burns for Planning Commission Chair and Barbara Bruno for Vice Chair. Seconded by Dawn McComb.

McComb: Aye

Bruno: Aye

Pitti: Aye

Burns: Aye

Rioux: Aye

Motion passed unanimously.

Subject: Comment on Lake Powell Pipeline Project

Mayor and Town Council Members,

We are writing to ask you, as a municipality, to formally oppose the Lake Powell Pipeline project. Even though Springdale is not dependent on the Washington County Water Conservancy District (WCWCD) for its water, the disastrous effects of the Lake Powell Pipeline will affect all of us living here.

As you know, objective and informed evaluations of the costs, the necessity, and the effectiveness of the proposed pipeline indicate that alternative means of supplying adequate and sustainable water to Washington and Kane Counties make the pipeline project overly costly and unnecessary. As well, objective scientific projections of climate conditions in the southwest and projected water volume in the upper Colorado River basin make the proposed pipeline unlikely to be a reliable source of water in the near future.

Please consider the following:

- Even though Springdale water users are commendably conservative, that is not the case in the rest of Washington County; the Division of Water Resources reports **that Washington County users, at 302 gallons per capita per day, are the heaviest water users in the United States, the U.S. average being 138 gpcd! Isn't it obvious that conservation should address the lion's share of necessity?**
- Add to that the reality that **Washington County's water rates are among the country's least expensive; it follows that increased rates will reduce usage.** Furthermore, amendments to zoning ordinances to regulate types of landscaping will conserve huge amounts of water annually among those cities with highest usage—like St. George. There is so much that can be done to wisely use existing water supplies; we simply have to live smarter.
- It is also obvious that Washington County has been less than truthful when it has reported its water supplies. **The WCWCD claimed to the Utah Executive Finance Board in June 2018 that they have a water supply of 60,000 acre-feet, but they told Fitch Ratings in 2017 that they have access to 100,000 acre-feet of water. And the District's own newsletter in 2011 claimed their excess water supply to be 105,000 acre-feet.**
- Unfortunately, hiding the actual amount of available water is not the only misrepresentation made by WCWCD. They have also over-inflated the future water needs, altered documents to fabricate the need for the Pipeline in Kane County, inflated population growth forecasts, and failed to report the significant gains in municipal water supplies by agricultural land conversion.
- Speaking of agricultural usage, the vast amount of water delivered by the district is used inefficiently. **Only 20% of the District's water deliveries are supplied to homes and businesses, while the other 80% is supplied to about 400 individuals for agricultural irrigation, and for watering golf courses and landscaping.** This is largely unmetered untreated water, and a recent Division of Water Resources study indicates that a number of secondary water users in Utah over-water their landscapes by more than 100%.
- Let us address the current \$3.24 billion price tag for the pipeline: It is the intention of WCWCD that this **cost will be paid by ALL UTAHNS, not just District users. Some projections say that water rates will go up by 500% in Washington County, and new construction impact fees will sky-rocket.** And of course, all of us will see our property taxes go much higher. As Springdale residents, our property tax assessment to the WCWCD was \$151.20 this year, and we are not even being supplied with District water! Imagine how this amount will climb when we are forced to pay for St. George's endless thirst for more water.

Finally, **there isn't enough water available in the Colorado River for this project.** Recent modeling of the river's flows by the Bureau of Reclamation forecasts a 90% chance that Lake Mead will drop below a critical threshold over the next two

years, at which time, mandatory cutbacks for downstream water users will be enforced. Even though downstream users in the lower basin have already made enormous sacrifices to conserve water, our use in the upper basin is profligate and it is an offense to our partners in the Colorado River Compact. And while the Compact guarantees us a certain percentage of the river's flow, it doesn't guarantee us a specific *amount* of water. There will simply be less for all of us. It is also worth noting that the water flows in the upper Colorado are diminishing at an alarming rate. Currently, the levels on Lake Powell are only 58 feet above the level required for hydropower generation. And the Lake Powell Pipeline intends to remove 86,000 acre-feet annually?

Please consider adopting a resolution on behalf of all your citizens to oppose the Lake Powell Pipeline Project.

Sincerely,

Louise Excell and David Pettit
Springdale