



August 6, 2020

Rick Baxter
Program Manager
United States Bureau of Reclamation
302 East Lakeview Parkway
Provo, UT 84606

Re: Lake Powell Pipeline

Dear Mr. Baxter:

On behalf of the Board of Trustees of the Washington County Water Conservancy District, I would like to thank you and your team at the Bureau of Reclamation for the thoughtful and comprehensive analysis you have conducted on the Lake Powell Pipeline project. The board approved this letter by motion during our August 5, 2020 meeting and authorized me to sign and submit it to you. We appreciate the opportunity to summarize why a second reliable source of water is critical to Washington County.

As board members, each of us has a legal and fiduciary duty to provide a safe, adequate, and reliable water supply for the people of Washington County. This obligation is imposed on us by Utah state law and delegated to us by the elected leaders who appointed us to serve. We consider the project to be of historic significance to our district and county.

The importance of a second water source

Washington County's water currently comes exclusively from the Virgin River drainage. The drainage is a single, hydrologically connected source that is almost completely allocated, leaving no available supply to meet the demands of future growth. Also, its reliability varies having endured years of drought mixed with occasional floods. Climate change studies suggest that the drainage could face even greater unpredictability in the future.

The county's population has been growing rapidly and demographic experts forecast that it will continue to do so. We began working on the Lake Powell Pipeline several years ago when it became apparent that water from the Virgin River drainage would not meet the needs of our growing population. The need for a second source is even more crucial as our population expands because even more people will be harmed when our original source becomes inadequate.

To account for unforeseen contingencies, we include a 15-year planning reserve in our water demand projections. This planning reserve is consistent with standard water management practices and is essential to mitigate the risk of a shortage. Given that water projects take a long time to permit, plan, and construct, a 15-year reserve gives us time to respond when unforeseen events occur.

By seeking to diversify and strengthen the reliability of our water supply, the district is taking the same reasonable planning measures practiced by other prudent water managers. Every water user, from the small farmer to the municipal or regional water supplier, understands the importance of having a supplemental source of water. This is not a novel concept. Gas and electric utilities also strive to diversify their supply – and no utility is more vital to survival than water. Extensive academic literature recognizes the symbiotic relationship between a reliable water supply and the economic and social viability of a community.¹

For instance, water managers throughout the west recognize the importance of diversifying their water supply to mitigate the risks of relying exclusively on a single, variable source. Arizona built a 350-mile canal to bring Colorado River water to cities including Tucson and Phoenix. Colorado constructed new infrastructure to import out-of-basin water to cities such as Denver, Colorado Springs, Boulder, and others. California also built canals and pipelines to deliver second water sources throughout the state.

Much like these water suppliers, we have been working diligently to avoid the economic and social impacts that would result from a water shortage. We have carefully studied our current resources and calculated how far we can extend our existing supply by maximizing reuse, converting agricultural water to culinary water, and pursuing conservation measures.

Even though we are implementing all three of these strategies, their combined results will not meet the need of our growing population.

For example, the amount of water we can capture for reuse is limited by the amount of water already available from the Virgin River drainage system. We are expanding the capacity of our reuse plant, but without a second source there will not be enough water. Climate change projections heighten this problem.

Likewise, we cannot meet our future water demand through conversion of agricultural to culinary water. We are acquiring agricultural water when we can, but there is not enough to meet our need even if we dry up all the county's agricultural land. Also, we cannot guarantee that we can obtain agricultural water without the coercive use of condemnation. Further, our agricultural water is not suitable for culinary purposes due to natural contamination from local hot springs. Treating the agricultural water requires reverse osmosis technology that is more environmentally impactful and costly than the Lake Powell Pipeline. Finally, we do not want to destroy the agricultural heritage and economic contribution of our family farms.

Conservation is also an important part of meeting our future water supply needs. But, without a second source, there will be too little water no matter how much we conserve. We could mathematically divide our current water supply across our projected population to

create a hypothetical “conservation” goal. But that goal would create an illusion that damages the social and economic viability of our community. An unrealistic conservation goal would foster the appearance of adequate water on paper, thereby undermining planning for the delivery of actual water.

A conservation goal must protect against the harmful consequences of underestimating future demand. To realistically account for conservation in the years ahead, we established a goal of an additional 20 percent reduction in per capita daily use through 2060. The 20 percent goal recognizes that we have already substantially reduced our per capita water use by 30 percent between 2000 and 2018. The 20 percent conservation goal reflects:

- our recognition that the easiest conservation actions have already been achieved;
- our understanding that we lack legal authority to impose mandatory conservation requirements;
- the advice of economists regarding how water rate increases affect consumer demand; and
- how residents respond to conservation incentives due to evolving attitudes and developing technology.

An independent evaluation by an internationally recognized water conservation organization concluded that our conservation plan compares favorably with those of our peers.² Further, our goal takes into account and aligns well with the state of Utah’s recently updated regional water conservation goals.³

The district’s conservation goal is not static. We will monitor and adjust our conservation efforts as events unfold. If we conserve more water than expected by 2060, our descendants will have more flexibility in planning and responding to contingencies. But, if we wrongfully anticipate more conservation than we can realistically achieve, we will saddle our descendants with enormous social and economic hardship.

Even though the district is maximizing reuse, converting agricultural water, and pursuing a realistic conservation goal, none of these strategies will produce more water. Without a second source, these strategies:

- will not protect against single system failure;
- will not secure a supply buffer to insulate against regulatory changes, more rapid population growth, or more extreme climate variability;
- cannot be implemented without significant cost to our community exceeding that of the Lake Powell Pipeline;
- will potentially harm environmental values, create heat islands and reduce local return flows; and
- will undermine community values associated with recreation, parks, and open spaces.

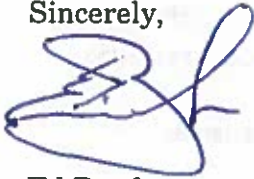
As we have studied these issues, we have sought the advice of qualified economists, engineers, demographers, climatologists, and hydrologists. We have analyzed multiple contingencies and uncertainties. We have tried to examine our biases, challenge our

assumptions, and eliminate our blind spots. We have included an attachment with this letter that illustrates a variety of the scenarios we have considered.

After carefully weighing many variables, we have concluded that relying solely on reuse, agricultural conversion, and conservation is a risky bet that will not meet our county's future water needs. That is why our top priority is obtaining a reliable second source of supply.

In our judgement, securing water from the Colorado River via the Lake Powell Pipeline is the best alternative for the people of Washington County.

Sincerely,



Ed Bowler
Chair, Board of Trustees
Washington County Water Conservancy District

Attachment: Comparison of alternatives spreadsheet

¹ E.g., Racher, Robert S., White Paper, *The Value of Water Supply Reliability in the CII Sector* (2015).

² Maddaus Water Management, *Water Conservation Programs: A Comparative Evaluation* (2018).

³ Utah Division of Water Resources, *Utah's Regional M&I Water Conservation Goals* (2019).