



Lake Powell Pipeline

August 2018

About the Project

The Lake Powell Pipeline (LPP) is a hydro power and a water delivery project that would bring water to 13 communities in southern Utah. The project is part of a comprehensive, long-term water supply plan that includes maximizing use of available local water supply, increasing water conservation, and developing new resources. The project would help local water providers diversify water supplies and meet the needs of growing communities.

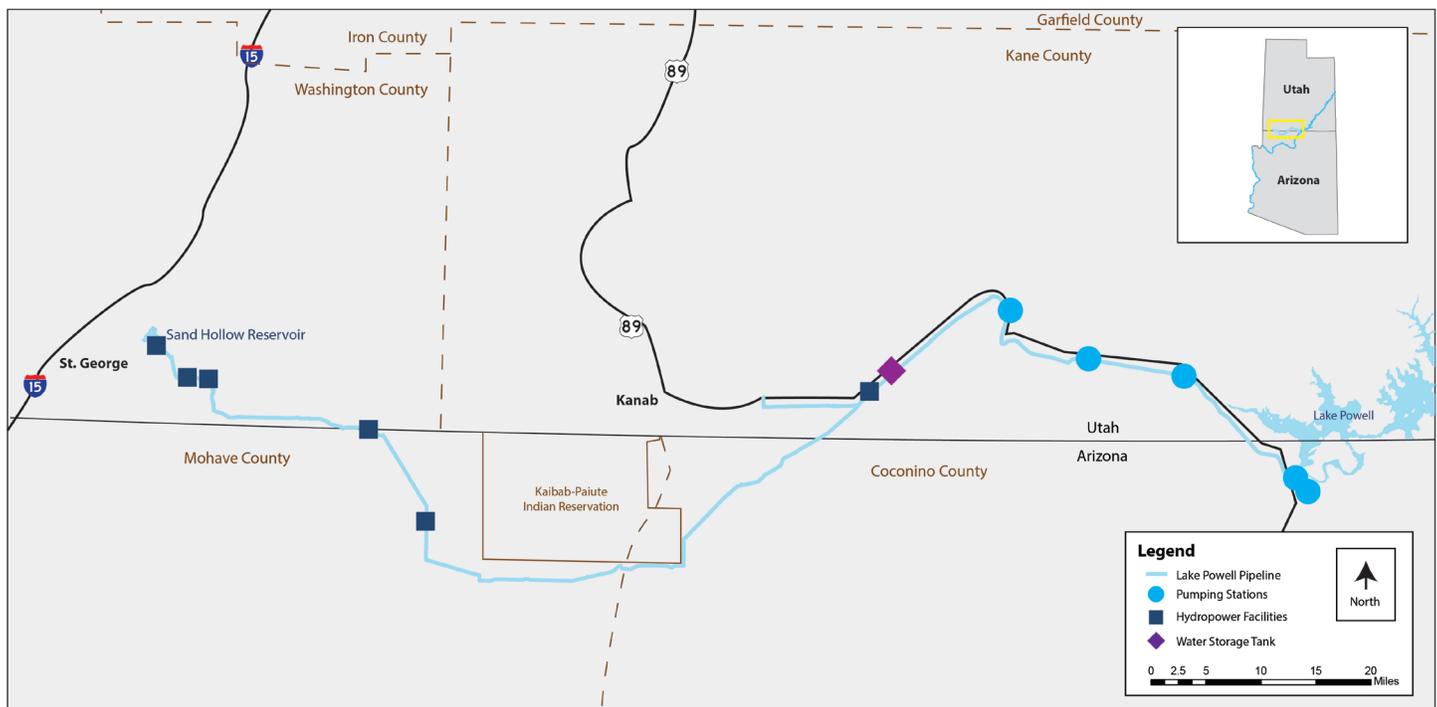
Most southern Utah residents depend exclusively on a single river basin of variable quality and quantity to supply water – the Virgin River basin. This source has met the population’s needs in the past, but Washington County has seen significant growth over the last decade due to its mild climate, spectacular scenery and abundant outdoor recreation opportunities. Young families, retirees and tourists are drawn to this area to take advantage of the benefits of the region. The area is projected to have the largest increase in population

(229 percent) in Utah by 2065, according to the 2017 population estimate prepared by the Gardner Policy Institute at the University of Utah in collaboration with the Utah Governor’s Office of Management and Budget.

At full capacity, the proposed LPP would deliver 82,249 acre feet of water per year to Washington County and 4,000 acre feet of water per year to Kane County using water rights held by the Utah Board of Water Resources (UBWR). The LPP would beneficially use six percent of Utah’s annual average reliable water supply from the Colorado River.

The LPP would deliver Utah’s Colorado River water at Lake Powell through an approximately 140-mile long buried pipeline with five pump stations and six hydroelectric facilities to help power the pumps. The proposed pipeline route crosses through both Utah and Arizona, with the majority of the route in Utah.

Map





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The Proposed Action and Alternatives

The state of Utah and Washington and Kane counties have spent years vetting the project alternatives that will be evaluated as part of the federal regulatory review of the LPP. They recommend the Proposed Action as the most reliable, cost-effective and environmentally responsible alternative. Following is a recap of the Proposed Action and alternatives that will be studied.

South Alternative

The South Alternative is identical to the South Variant Alternative, but the route varies in the Pioneer Gap area.

The Proposed Action (South Variant Alternative)

The Proposed Action is the southernmost option for constructing the LPP and mostly follows the Navajo-McCullough Transmission Line south of the Kaibab Indian Reservation. The Proposed Action includes:

- Water intake system at Lake Powell just upstream of Glen Canyon Dam to move water from the lake to the pipeline
- 140 miles of underground pipeline
- Five pumping stations to transport the water through the pipe
- Six hydroelectric facilities/electrical transmission system to produce a portion of the energy to power the pump stations and sell any excess to the grid
- Pipeline to transport water to Kane County

Existing Highway Alternative

The Existing Highway Alternative includes the same major components as the Proposed Action. However, a portion of the pipeline would be constructed across the Kaibab Indian Reservation following Highway 389. This pipeline alignment would be approximately 133 miles long.

Southeast Corner Alternative

The Southeast Corner Alternative includes the same major components as the Proposed Action. However, a portion of the pipeline alignment would be located parallel to the Navajo-McCullough Transmission Line across the southeast corner of the Kaibab Indian Reservation. This pipeline alignment would be approximately 137 miles long.

No Lake Powell Water Alternative

The No Lake Powell Water Alternative would develop the limited remaining surface and groundwater supplies in Washington and Kane counties, permit and develop reverse osmosis treatment of existing low quality water supplies and eliminate most residential outdoor water use in the Washington County Water Conservancy District service area. It would attempt to meet the same water supply need as the LPP without relying on Lake Powell. That alternative will cost more than the Proposed Action.

No Action Alternative

The National Environmental Policy Act requires a No Action Alternative, which describes a future where none of the action alternatives are implemented. The Washington County Water Conservancy District would complete its few remaining local projects, but Washington County's local water supply would be fully exhausted by about 2028. No additional source would be available to meet growing indoor or outdoor water demands. Water shortages would occur each year following 2028.

Comparison of Alternatives

FACTOR	SOUTH VARIANT ALTERNATIVE	SOUTH ALTERNATIVE	EXISTING HIGHWAY ALTERNATIVE	SOUTHEAST CORNER ALTERNATIVE	NO LAKE POWELL WATER ALTERNATIVE	NO ACTION ALTERNATIVE
Meets Projected Water Demands	1	1	1	1	1	1
Provides Second Source of Water	1	1	1	1		
Implements Conservation Measures	1	1	1	1	1	1
Provides Margin of Safety or Planning Reserve	1	1	1	1		
Addresses Risk of Virgin River Basin Supply Variability	1	1	1	1		
Provides a Source of Renewable Energy Peaking Capacity	1	1	1	1		
Provides Financial/Operational Certainty	1	1				
Avoids Legal Impediments to Construction	1	1			1	1

¹Implements extreme conservation measures and meets resulting reduced demand with between 35,000 and 40,000 AF of agricultural water acquisitions. However, recent analysis has shown that only 23,000 AF of additional agricultural acquisitions may be reliably available for municipal use. [Alternatives Included in the Permit Application](#)

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Agency and Tribe Involvement

Multiple local, state and federal agencies, as well as Indian tribes, are involved in the LPP review process.

These include:

- **Utah Board of Water Resources (UBWR)** will construct, own, operate and maintain the project until transferred and consult with the Project Management Committee (PMC), as outlined in the 2006 Lake Powell Pipeline Development Act.
- **Lake Powell Pipeline Project Management Committee (PMC)** consults with UBWR on the development and implementation of the project and approves all expenditures from the fund under the 2006 Lake Powell Pipeline Development Act.
- **Utah Division of Water Resources (UDWR)** supports UBWR to obtain the relevant approvals from the FERC and other agencies.
- **Washington County Water Conservancy District (WCWCD)** and **Kane County Water Conservancy District (KCWCD)** receive the water as project proponents to supply 13 southern Utah communities.

Each district has a representative that serves on the PMC.

- **Federal Energy Regulatory Commission (FERC)** as the lead federal agency for project review, will develop an EIS in compliance for NEPA. A FERC license will be required for UBWR to construct and operate the hydropower stations.
- Rights of way from the **U.S. Bureau of Land Management**, **U.S. Bureau of Reclamation**, and **National Park Service** will be required for LPP to cross the federal lands they manage. A contract between the state of Utah and the U.S. Bureau of Reclamation will also be required. These agencies are cooperating agencies in preparing the EIS with FERC. A right of way from the **Bureau of Indian Affairs** will be required if the LPP crosses the Kaibab Paiute Indian Reservation.
- **The Kaibab Band of Paiute Indians**, as well as other Indian tribes, provides guidance and consultation on tribal historical, cultural and archeological issues. The tribe is a cooperating agency with FERC for NEPA compliance, but unique to the tribe, it also has the option of serving as an intervenor.

Why the State and Counties Prefer the LPP Proposed Action

The state and water districts have spent many years identifying the best alternative for meeting water supply needs. The state and water districts recommend the Proposed Action as the most reliable, cost effective and environmentally responsible of the alternatives studied.

Key Benefits of the LPP Proposed Action include:

Added Reliability

Most southern Utah residents depend exclusively on a single river basin of variable quality and quantity to supply water. If water quality or quantity problems arise with that one source, it places these communities at great risk. LPP introduces one of the state's most reliable water sources, Colorado River water at Lake Powell, helping to ensure uninterrupted water delivery to homes and businesses now and in the future.

Environmental

Currently the state of Utah has the right to take its water from the Green

River immediately below Flaming Gorge Dam. Under the LPP, the state proposes to take its water just above Glen Canyon Dam, ensuring that more than 86,000 acre feet of water will continue to flow more than 400 river miles downstream in the Colorado River system. The environment, including endangered fish in the affected river reaches, will benefit from these flows in the Green and Colorado rivers.

Drought Protection

Southern Utah has experienced 12 years of drought during the last two decades. The LPP will provide additional water supplies and storage to protect against future droughts.

Economic Viability

The availability of a reliable water supply is critical to sustaining the economy and continuing to attract a diverse base of employers to southern Utah. The LPP will support more than 90,000 jobs and 8,000-plus Utah businesses.¹

1. Lake Powell Pipeline, Socioeconomics and Water Resource Economics, April 2016

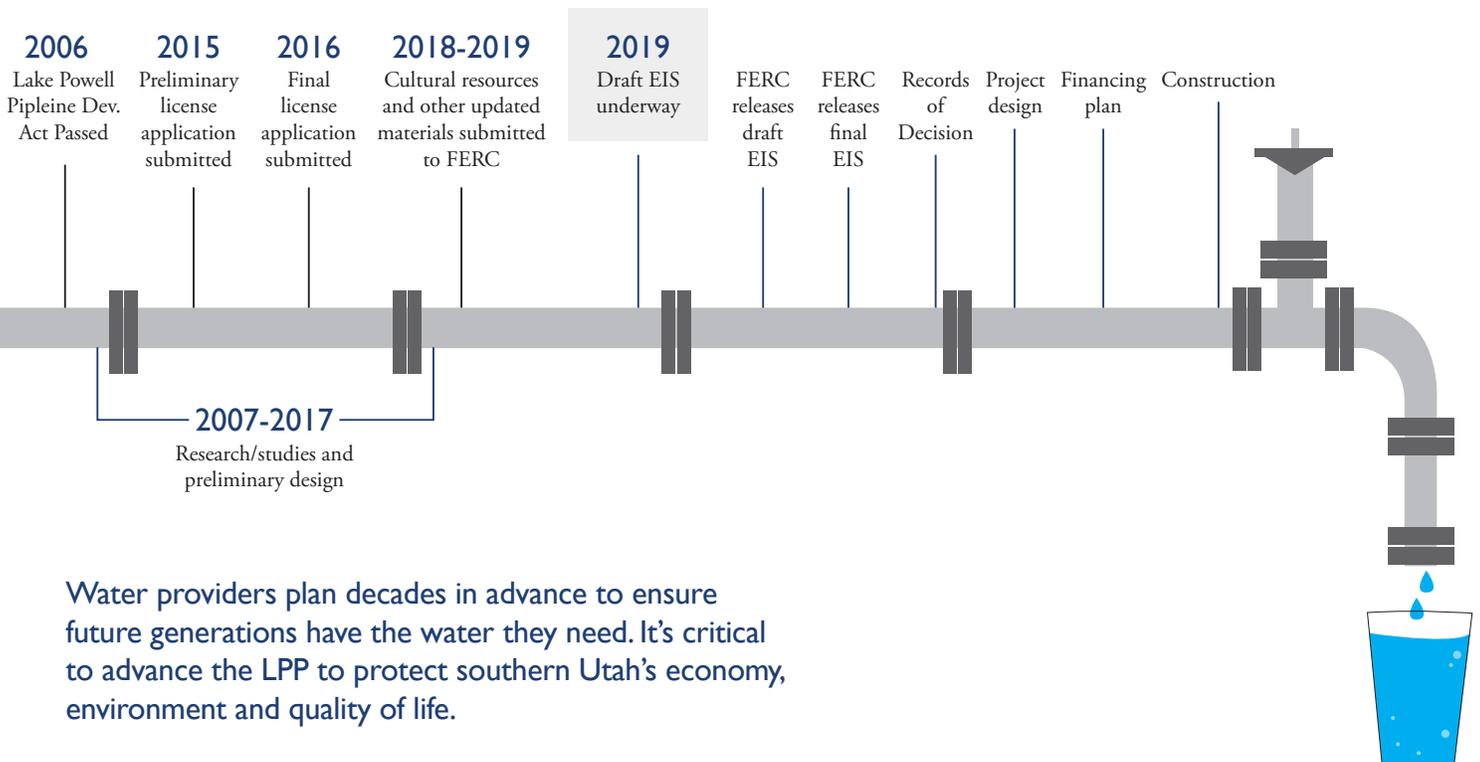
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Upcoming Major Steps & Milestones

Before the LPP can be approved, a variety of laws require federal agencies to take specific actions. As an example, NEPA requires federal agencies to consider the environmental impacts of their proposed actions and

reasonable alternatives to those actions. Studies and reports have been completed to support the license application, right of way requests and NEPA process.

Anticipated Project Timeline



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.