

Lake Powell Pipeline

February 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.

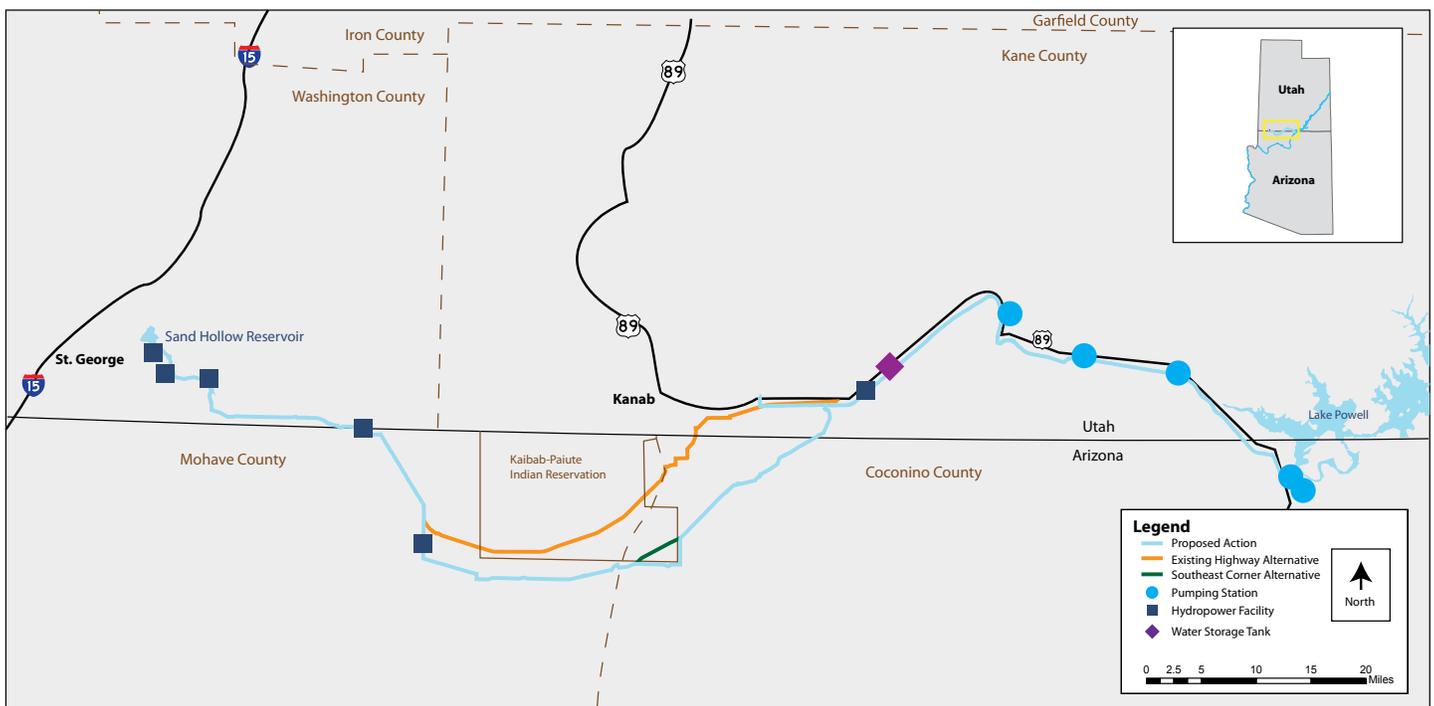
Most southern Utah residents depend exclusively on a single river basin of variable quality and quantity to supply water – the Virgin River basin. This source has met the population’s needs in the past, but Washington County has seen significant growth over the last decade due to its mild climate, spectacular 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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Alternatives

A proposed action and alternatives have been identified as required by the National Environmental Policy Act (NEPA). The Federal Energy Regulatory Commission (FERC) and other public agencies will consider these alternatives in preparing an environmental impact statement (EIS) (see map on cover for a visual of each alternative and the Proposed Action).

Proposed Action (South Alignment)*

The Proposed Action is the southernmost option for constructing the LPP and largely follows the Navajo-McCullough Transmission Line south of the Kaibab Paiute Indian Reservation to minimize impacts. This pipeline alignment would be approximately 140 miles long and is the alternative preferred by the project proponents.

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 Paiute 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 would be constructed parallel to the Navajo-McCullough Transmission Line across the southeast corner of the Kaibab Paiute 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 uses in the Washington County Water Conservancy District (WCWCD) service area. This approach would attempt to

*These alternatives include the following major components:

Water intake system – located at Lake Powell just upstream of Glen Canyon Dam; diverts water at the reservoir and initiates the first stage of the pumping process

Water conveyance system – continues the pumping process up to the highest elevation point of the LPP with a pipeline and four booster pump stations

Hydroelectric system – produces electricity at five in-line hydroelectric generating facilities and one pumped storage facility as water flows from the highest point of the LPP downhill in a pipe to Sand Hollow Reservoir

KCWCD system – water conveyance pipeline connected to the LPP specifically for KCWCD's use

Electrical transmission system – delivers electricity to LPP pumping facilities and transmits power generated in hydroelectric facilities to the region's electrical grid

meet the same water supply need as the LPP through 2060 without relying on pumping Colorado River water from the reservoir.

No Action Alternative

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

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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. Major NEPA and other milestones for the LPP are:

	Action	Status
1.	State files the preliminary license application	Completed 2015
2.	State files the final license application	Completed 2016
3.	State submits studies required for the FERC application	Completed 2016
4.	FERC reviews the submitted application and supporting documents	Completed 2017
5.	U.S. Bureau of Reclamation negotiates an exchange contract with the state of Utah	Underway
6.	FERC issues a Ready for Environmental Analysis (REA)	Completed 2017
7.	FERC works with the cooperating agencies to prepare a draft EIS, which will analyze the project's environmental impacts and other factors	Future activity
8.	FERC seeks input on the draft EIS from the public, non-governmental organizations, Indian tribes and agencies	Future activity
9.	FERC and other federal agencies issue a final EIS that discloses environmental impacts and conditions required for approval	Future activity
10.	Involved agencies will issue individual records of decision and other authorizations	Future activity

Anticipated Project Timeline

