

Draft Green River Pipeline Cost Analysis

In 2020, the Utah Legislature instructed the Utah Division of Water Resources to update the estimated project costs associated with a [2002 Draft Green River Pipeline Cost Analysis](#) and the [2003 addendum](#) (Utah Code 73-10-35). The study analyzed the potential cost of importing 60,000 acre-feet of water from the Green River of the Colorado River Basin and delivering the water to the Bear River and Weber basins. Since then, inflation, facilities, and material costs have increased dramatically, making this project less likely today than when it was originally considered. The list below outlines the key takeaways from the [updated report](#).

- Updated project costs, depending on alignment, range from an estimated \$732 million to \$1.455 billion.
- Unit cost for delivered raw (untreated) water range from \$615 per acre-foot delivered to the Bear River to \$1,455 per acre-foot delivered to the Weber/Provo canal diversion.
- The routes investigated range in length from 69.4 miles to 142.0 miles.
- Points of diversion would originate at Fontenelle or Flaming Gorge reservoirs.
- Delivery destinations include the Bear River below the town of Randolph, Echo and Rockport reservoirs on the Weber River, and the Weber/Provo diversion canal.

Costs in this study compare with those of the most recent Lake Powell Pipeline study (comparable length of 140 miles), which is also an estimate with a cost range of +/- 25%. As with the Lake Powell Pipeline, the cost of environmental studies and mitigation have not been included in this report.

Although this report updates the costs contained in the original “Draft Green River Pipeline Cost Analysis,” the Utah Division of Water Resources recognizes that is a coarse estimate and a more detailed analysis including field visits, updated material costs, and design details would be necessary to more accurately represent the actual cost. The division did not finalize the original draft due to a host of potential challenges and obstacles.

Some of the difficulties associated with the project include:

- Importing water into the Bear River would require a possible revision of the Bear River Compact and would require approval from Utah, Idaho and Wyoming, and Congress.
- Diverting water in Wyoming for use in Utah would require obtaining water rights from the State of Wyoming. Potential alignments are located in Wyoming and would require approval.
- While Utah’s current depletions from the Colorado River are well below the state’s allocation under the Colorado River Compact, all future uses are currently in place and accounted for.



These uses include:

- Lake Powell Pipeline Development Project
- Tribal water settlements
- Modest increases to existing exports and in-basin uses
- Any proposed project that aims to export water beyond what has been outlined by Utah’s State Engineer would come under heavy scrutiny from the Colorado River Basin States and their stakeholders (including Utah’s).
- Currently, there is no water right associated with a potential Green River development project.
- Acquiring a water right to divert would be a challenge and creates significant water rights priority issues.
- Several endangered fish species inhabit the aquatic environment downstream of the project.

Cost Comparison of Proposed State Projects

One request the Division received for this update was for a cost comparison of the different state projects currently being investigated. The table below lists the total costs and annualized unit costs for the lowest and highest cost proposal for each project. These cost comparisons are somewhat cursory due to the differing levels of detail included in each of the cost studies. It should also be noted that any of the Green River Project proposals that deliver water into the Bear River (such as the lowest cost Green River option shown below) would incur the additional costs of the Bear River Project in order to deliver water to the Wasatch Front. If the same water were to be used for environmental needs in the Great Salt Lake, it would not.

Cost Comparison of Bear River, Green River and Lake Powell Proposals

| Proposed Project | Low Total Project Cost | High Total Project Cost | Annualized Low Unit Cost Ac-ft | Annualized High Unit Cost Ac-ft |
|-------------------------|------------------------|-------------------------|--------------------------------|---------------------------------|
| Bear River [†] | \$1.5 Billion | \$2.8 Billion | \$314 | \$582 |
| Green River* | \$732 Million | \$1.499 Billion | \$615 | \$1,455 |
| Lake Powell* | \$1.184 Billion | \$1.924 Billion | \$647 | \$1,051 |

[†] The Bear River Development used a 50-year repayment with a 4.0% rate.

* The annualized acre-feet for Lake Powell and Green River Pipeline projects were calculated with a 50 year repayment period at a 3.90% rate.

