

Aurora, Colo. Springs seek to drill on lower Homestake Creek dam sites



Brent Gardner-Smith/Aspen Journalism

Homestake Creek, flowing toward the Eagle River, near the Alternative A dam site being studied by Aurora Water and Colorado Springs Utilities, about three miles up Homestake Road from U.S. 24. The photo was taken on July 13, 2019.

MINTURN — The cities of Aurora and Colorado Springs are increasing their efforts to develop a reservoir on lower Homestake Creek in the Eagle River basin that would hold between 6,850 acre-feet and 20,000 acre-feet of water.

The two Front Range cities, working together as Homestake Partners, have filed an [application](#) with the U.S. Forest Service to drill test bores at four potential dam sites on the creek, renowned for its complex wetlands.

They briefed members of Colorado's Congressional delegation in April about federal legislation they are drafting that would adjust the Holy Cross Wilderness boundary near the dam sites.

And Aurora spent \$4.1 million in 2018 to purchase a 150-acre private inholding [parcel](#) that accounts for about half the surface area of the 20,000-acre-foot version of the reservoir, removing one obstacle in the way of submitting a comprehensive land-use application to the Forest Service.

"We are in preparation to permit this overall project, to try and get that larger application in, so every piece of the project has had more time and effort spent on it," said Kathy Kitzmann, a water resources principal with [Aurora Water](#).



One of four potential dam sites on lower Homestake Creek, about four miles above U.S. 24, between Minturn and Leadville. From this location, the dam that forms Homestake Reservoir higher up the creek can be seen.

Eagle River MOU

The Whitney Reservoir project is defined in part by the [Eagle River Memorandum of Understanding](#), a 1998 agreement that gives Aurora and Colorado Springs a basis to pursue 20,000 acre-feet of water from the Western Slope.

Parties to the MOU include Aurora, Colorado Springs, Climax Molybdenum Co., Colorado River Water Conservation District, Eagle River Water and Sanitation District, Upper Eagle Regional Water Authority, and Vail Associates.

Peter Fleming, the River District's general counsel, told the district's board in a July 1 [memo](#) that the River District is "not participating in any Homestake Creek based alternative at this time, this effort is now being carried forward solely by the Homestake Partners."

Under the MOU, various parties can pursue projects on their own, and the other parties are bound to support those efforts, but only to the degree that a proposed project meets the objectives of the MOU, including whether a project "minimizes environmental impacts."



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A view, from the Alternative A dam site, of the Homestake Creek valley. The triangle shape in the distance is the dam that forms Homestake Reservoir.

Serious intent

Whitney Reservoir takes its name from Whitney Creek, which flows into Homestake Creek just above the four potential dam alignments now being studied. The dam that would form Whitney Reservoir would stand across Homestake Creek, not Whitney Creek. Homestake Creek flows into the Eagle River at Red Cliff.

Asked how serious the two cities are about the Whitney Reservoir project, Kevin Lusk, the principal engineer at [Colorado Springs Utilities](#), said, "We've been serious about it for the last 20 years."

And he said the recent drilling application "is another step in the continuum from concept to reality."

On June 25, the two cities submitted an application with the Eagle-Holy Cross Ranger District for permission from the White River National Forest to drill 13 test bores 150 feet to explore the geology under the four sites.

The sites are clustered on the creek between 3 and 5 miles above the intersection of U.S. 24 and Homestake Road, shown as Forest Road 703 on most maps. The intersection is not far below Camp Hale, between Minturn and Leadville.

The drilling application [says](#) Aurora and Colorado Springs are conducting "a fatal-flaw level reservoir siting study" that "comprises subsurface exploration to evaluate feasibility of dam construction on lower Homestake Creek."

White River National Forest supervisor Scott Fitzwilliams said review of the drilling application itself is "fairly standard stuff."

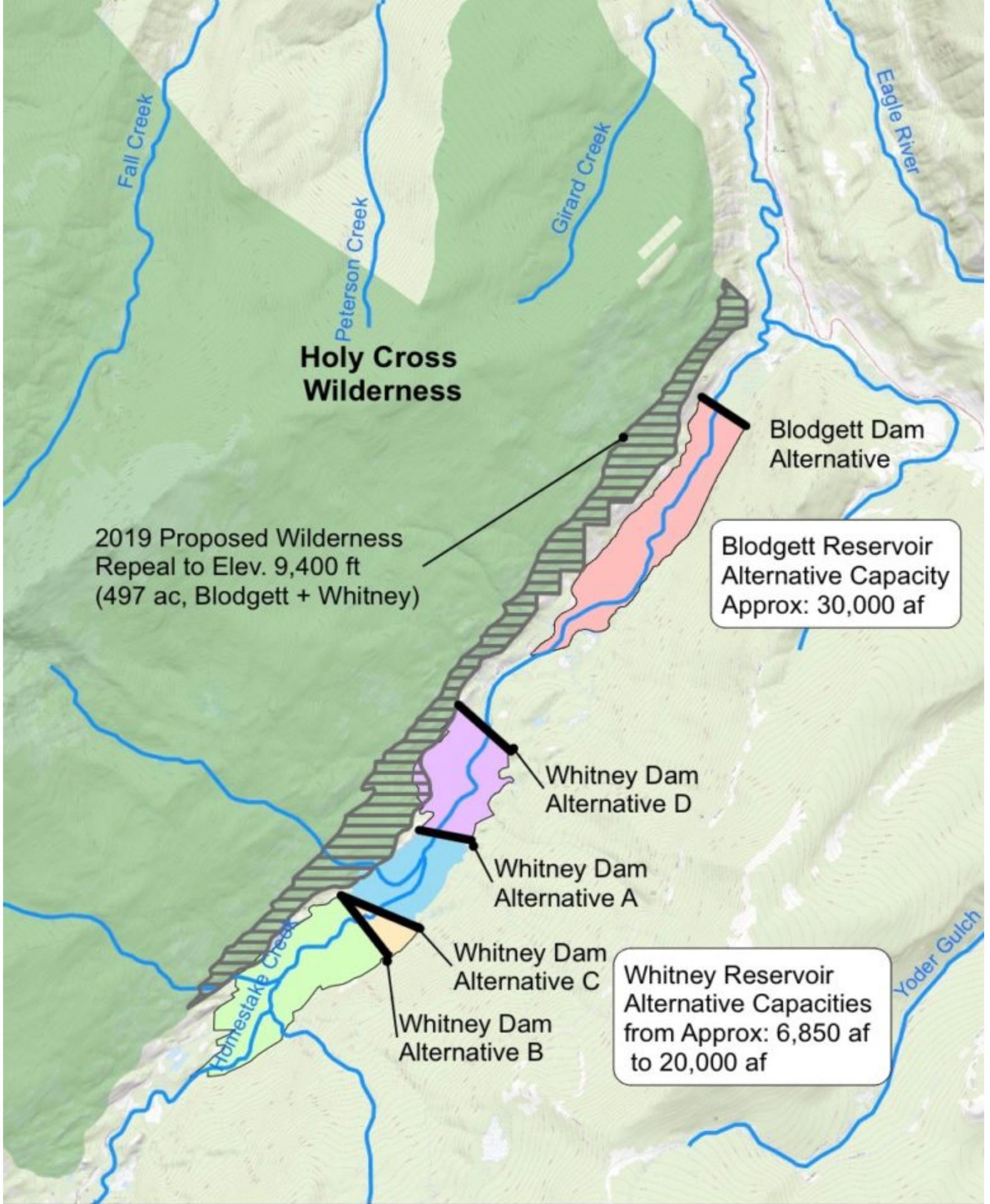
"We'll definitely send out a scoping statement, asking for public comment, but it won't be about a dam," he said. "It will be about drilling the holes."

Each of the 13 borings would take up to five days to drill, so there could be 65 days of drilling this fall or, if the application is not approved this year, in 2020, according to Lusk.

The project [includes](#) taking a "track-mounted drill rig or a buggy-mounted drill rig," a "utility vehicle pulling a small trailer" and a "track-mounted skid steer" onto public lands along 10-foot-wide "temporary access routes."

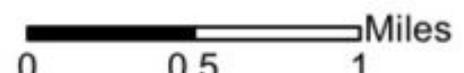
The drill rigs are about 8 feet wide, 22 feet long and 8 feet high. To get the rigs to drilling sites, some wetlands may need to be crossed and trees will be cut as necessary.

The information about the geology under the four sites will help determine the size of a dam on a given alignment and how much water a reservoir would hold, Lusk said. And that could affect how much wilderness area might be encroached on.



PROPOSED WILDERNESS BOUNDARY ADJUSTMENTS
Whitney and Blodgett Reservoirs
Eagle County, Colorado

DRAFT



Source: Aurora Water

A map prepared by Aurora Water that shows a potential 500-acre adjustment to the Holy Cross Wilderness boundary near the potential Whitney Reservoir on lower Homestake Creek. The map as current as of July 16, 2019.

Wilderness boundary

Given that Aurora and Colorado Springs are still working through various options, it's not clear yet how big of an adjustment to the wilderness boundary they might ultimately seek from Congress.

The current proposed legislation developed by the cities asks to remove 497 acres from the wilderness boundary, but it is also expected to include a reversion provision so if all 497 acres are not needed, the boundary adjustment could be reduced.

According to Lusk, in one the of the alternatives studied, about 80 acres would need to be removed from the wilderness area if Whitney Reservoir was to hold 20,000 acre feet of water. However, the cities have yet to rule out the option of building an alternate reservoir below the Whitney Reservoir location – Blodgett Reservoir – which could require a larger boundary adjustment, although not the full 497 acres.

An adjustment to a wilderness boundary requires an act of Congress and the president's signature. In April, representatives from the two cities described the potential boundary change to staffers of U.S. Sens. Michael Bennet and Cory Gardner and U.S. Reps. Scott Tipton, Jason Crow, Joe Neguse and Doug Lamborn.

Fitzwilliams said Monday the Forest Service won't accept a full-blown land-use application for Whitney Reservoir until the wilderness boundary issue has been worked out through federal legislation, if that is still needed after the final version of the reservoir is better defined.

Kitzmann said she is reaching out to stakeholders to continue to refine the

legislative language and the map showing the extent of the proposed boundary change.



Brent Gardner-Smith/Aspen Journalism

A wetland area along Homestake Creek in an area that would be flooded by a potential Whitney Reservoir. Aurora and Colorado Springs, seeking to build the reservoir, have recently submitted a drilling application to the U.S. Forest Service to search for fatal flaws in the geology under four potential dam alignments.

Wetlands and fens

On another front, Aurora Water and Colorado Springs Utilities staffers are hosting a tour this week for the directors of the Colorado Water Conservation Board of the Homestake Plant and Fen Relocation Project, near Leadville.

The CWCB directors, holding their July meeting in Leadville, also will hear a presentation at their meeting about the fen-relocation effort, which consists of moving “fen-like organic soils and plant life” from one location in blocks

or bales to another location and “reassembling them in a specially prepared groundwater-fed basin.”

Many regulatory agencies do not believe it’s possible to re-create complex fen wetlands, according to a CWCB staff [memo](#), but that regulatory stance “may be related to the lack of scientific investigation on fen mitigation.”

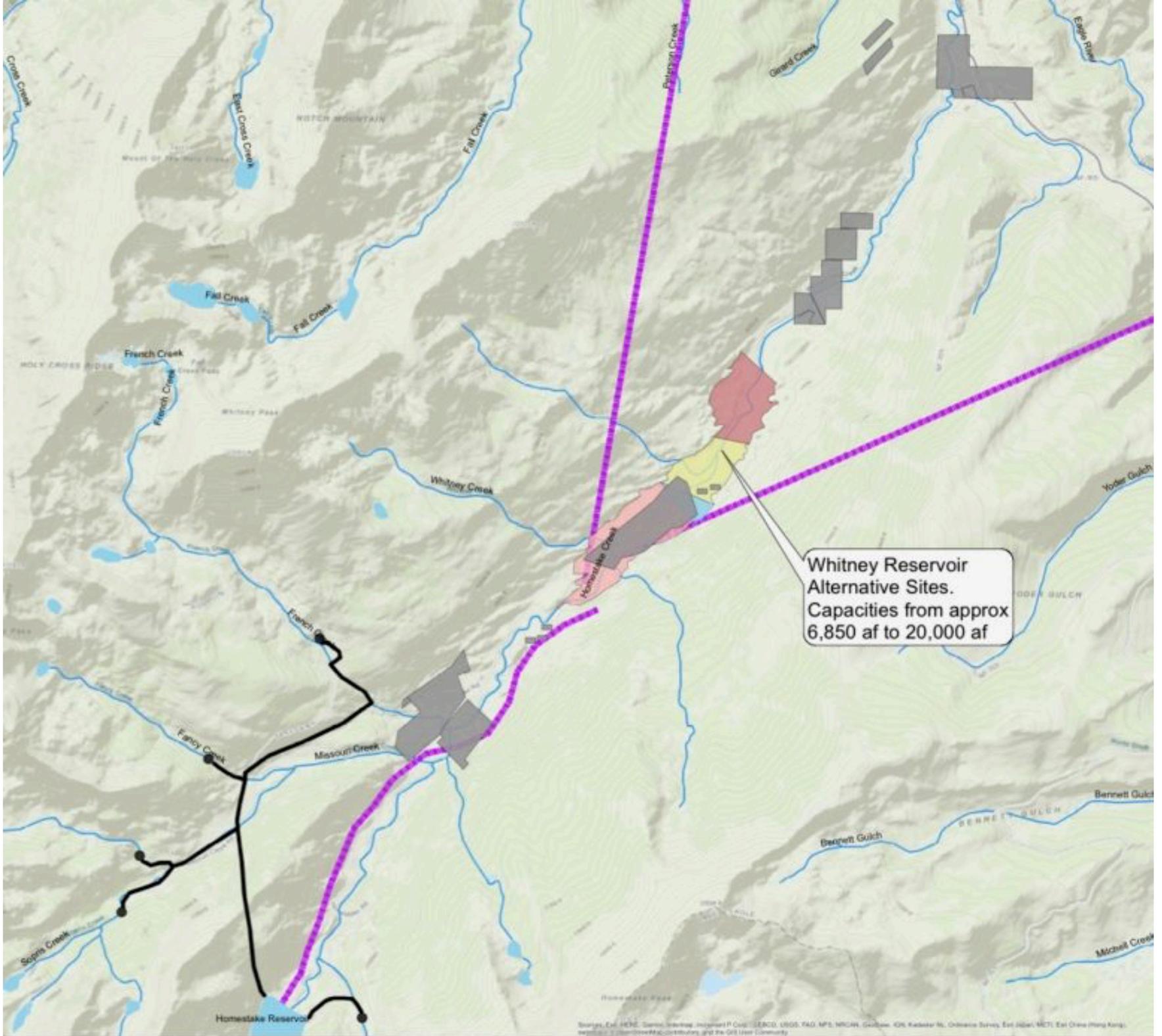
A 2016 study estimated between 26 and 180 acres of wetlands on lower Homestake Creek would be impacted by Whitney Reservoir.

“This is one of the finest wetlands we can find on our forest — it’s unbelievable,” Fitzwilliams said. “From an environmental impact standpoint, this would not be a project that we would be favorable to.”

But Lusk said the fen-relocation project near Leadville is “proof of concept” that replacing fens, while “a tough nut to crack,” can be done.

Fitzwilliams may be hard to persuade.

“You can mitigate,” he said, “but you can’t replace 10,000 years of work.”



- DRAFT -
Full ERMOU Project Development
Whitney Reservoir to Homestake Reservoir

Legend

- Private Property
- Existing Conveyance Infrastructure
- ERMOU Conveyance Infrastructure Concepts

N
 0 0.25 0.5 1 1.5 Miles

Source: Colorado Springs Utilities

A map from Colorado Springs Utilities that shows how tunnels could bring water to Whitney Reservoir from Fall and Peterson creeks, and from the Eagle River. The map also shows the route of a pipeline to pump water from Whitney Reservoir to Homestake Reservoir.



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Homestake Reservoir, which is partially in Pitkin County, but mainly in Eagle County. Below the reservoir the Homestake Creek valley is visible, as well as short section of what's known as Homestake Road. Water held in the potential Whitney Reservoir would be pumped up to Homestake Reservoir and then sent to the Front Range.

Forebay and pumping

Despite the wetlands and wilderness challenges, Lusk and Kitzmann said no fatal flaws have been found yet in what they view as an important future element of their water-supply systems.

The new reservoir would serve as a collection point for water brought in via tunnels from the Eagle River and Fall and Peterson creeks, and for water captured from Homestake Creek.

The reservoir would also serve as a forebay, as the water captured in

Whitney Reservoir would be pumped 7 miles up to Homestake Reservoir. Once there, it can be sent through a tunnel under the Continental Divide to Turquoise Reservoir, near Leadville, and then on to Aurora and Colorado Springs.

The two cities own and manage Homestake Reservoir, the upper end of which is in Pitkin County. The reservoir opened in 1967 and normally stores 43,600 acre-feet of water from seven high-mountain creeks behind a 231-foot-tall dam. About 25,000 acre-feet a year is sent through the Homestake Tunnel each year to the Front Range.

Homestake Partners also has a conditional water-storage right from 1995 to store 9,300 acre-feet of water behind a potential 110-foot-tall dam in what is called Blodgett Reservoir, located on Homestake Creek below the Whitney Reservoir sites. Blodgett Reservoir also has a longer history, and has been viewed as an alternate location for older water rights – appropriated in 1952 and adjudicated in 1962 – that are tied to Homestake Reservoir.

Aspen Journalism covers rivers and water in collaboration with The Aspen Times and other Swift Communications newspapers. The Times [published](#) this story on Wednesday, July 17, 2019. This version includes a clarification concerning the size of the adjustment to the wilderness boundary and the date of the water rights for Blodgett Reservoir.