

## Objective

The Carey Act of 1894 authored by Wyoming senator Joseph Carey allowed for the privatized reclamation of one million acres of uncultivated, potentially productive land as a “free enterprise alternative to federal reclamation [1].” Irrigation companies constructed canals and charged settlers for the water usage. This research project sought to understand why one of these projects, the Big Lost River Irrigation Project, failed and what the consequences were of this failure.

## Methods

To construct a narrative explaining why the Big Lost River irrigation system was abandoned, primary sources including newspapers and government reports, and secondary sources in academic journals, were reviewed. Field work photography and aerial imagery were also employed to identify the canal system’s remaining abandoned structures.

## “Choicest Lands”

Although a 1902 federal report declared that the Big Lost River area lacked necessary water resources to support large-scale reclamation, a project proceeded [2]. Irrigation companies like the Intermountain Colonization Company (ICC) advertised the sale of water rights on Big Lost River land (1907). The ICC vigorously promoted the land’s potential: “choicest lands,” “best climate,” “plenty of water,” “sure crops,” and the purchase was “better than life insurance [3].”

## Faltering in Construction

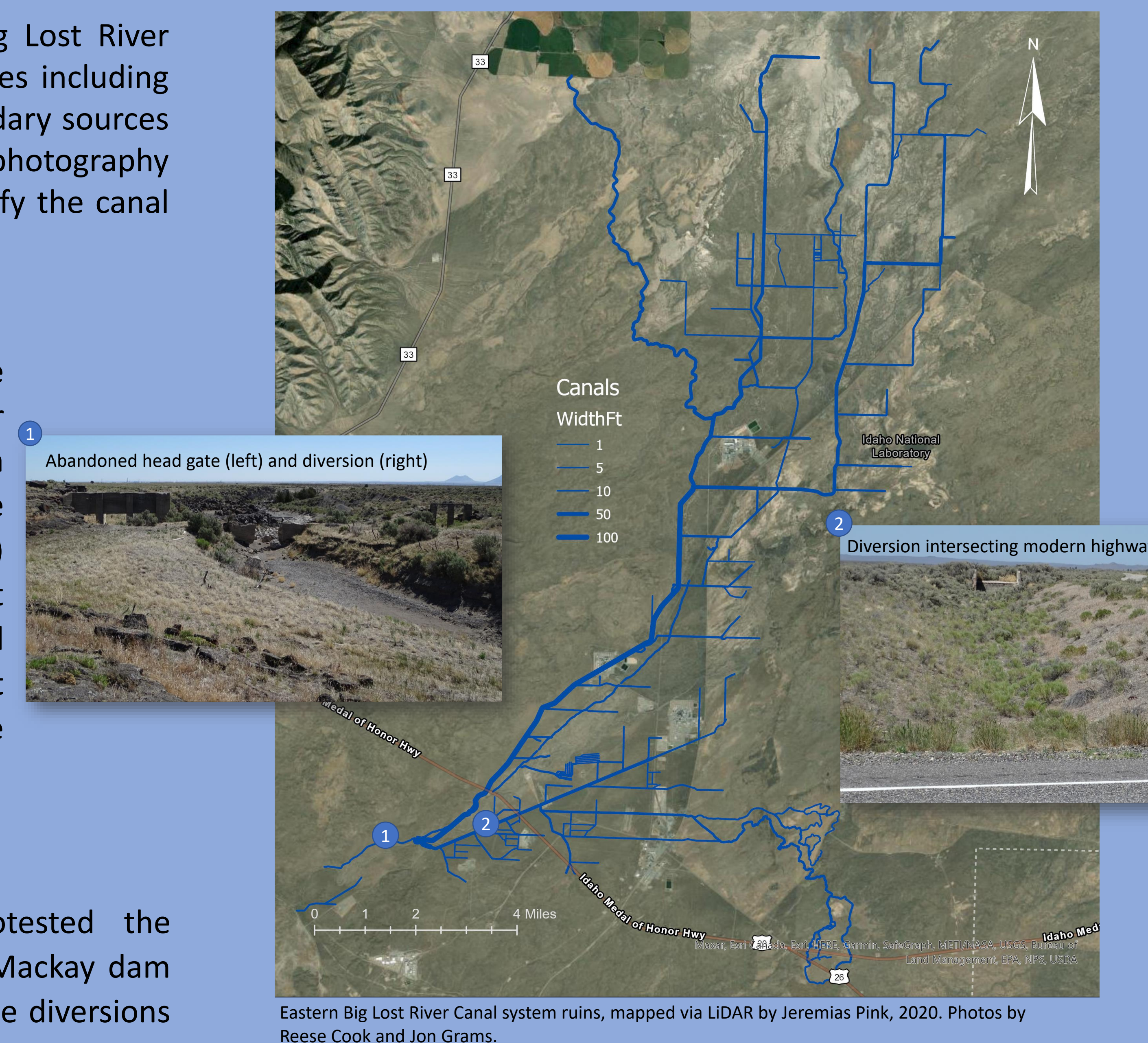
Several established ranchers of Mackay protested the project’s development. The construction of the Mackay dam posed safety concerns to residents and large-scale diversions restricted the water available to Mackay ranchers. A 1916 litigation demonstrated how these concerns held up the progression of the canal project construction for decades, giving it a poor reputation [4].

Settlers eventually lost confidence in private enterprise’s ability to execute the project. By 1917, most of the eastern basin lands were still inhospitable due to lack of water supply infrastructure yet more than seven hundred water rights had already been sold.

## Abandoned Before Completion

Poor planning and design were evident in the canal system’s origin. Project managers did not anticipate the impact of basalt “sinks” east of the mountain range. Due to the porous basalt texture of the soil the river’s tributaries disappeared beneath the surface.

Unfortunately beginning in the 1920’s through the 1930’s, just after the project was finally taking off, the Big Lost River Valley experienced crippling drought that compounded the system’s water shortage issues.



The eastern portion of the canal system and half of the homesteads in the area were abandoned. Scarcity of water even caused Mackay ranchers desperate to irrigate their lands to attempt to blow up the Mackay dam in 1933 [5]. The irrigation system was never revived partly because a new efficient means of water diversion, drilling deep wells and directly pumping groundwater, became increasingly utilized by 1950. Deep wells were viable even in years of little rain and runoff.

## Consequences for the Future

In March 1949 when the Atomic Energy Commission (AEC) chose the Big Lost River basin as a new remote nuclear test site, the location of a failed reclamation project was to transform into a “prosperous scientific-industrial community” [6]. The isolation of the Big Lost River basin and the well-populated Idaho Falls-Pocatello area capable of absorbing 25,000 new employees were the major advantages.

## Unforeseen Preservation

While the AEC anticipated an expanded scientific community, they did not anticipate how establishing the 890-square-mile site would result in an ecological, archaeological, and historical preserve. Restricted access protected the sagebrush steppe (accounting for 40% of site lands) from livestock grazing, making it the largest undisturbed ecosystem of this type. The steppe supports raptors, elk, small mammals, reptiles, pronghorn and sage grouse.



Sage grouse, Bureau of Land Management.



A rock cairn on INL, recorded by CRMO staff Josh and Will, 2020.

The INL now also protects and preserves archaeological and historic resources through the Cultural Resources Management Office, such as prehistoric artifacts and the Experimental Breeder Reactor-I, a National Historic Landmark.



First-ever nuclear power was generated at EBR-I, U.S. Dept. of Energy.

- [1] Hugh T. Lovin, “The Carey Act in Idaho, 1895-1925, An Experiment in Free Enterprise Reclamation,” *Pacific Northwest Quarterly*, 122.
- [2] F.H. Newell, *First Annual Report of the Reclamation Service*, 1902 , 183.
- [3] *The Idaho Republican*, Blackfoot, Jun. 21, 1907, image 12, *Chronicling America*, Library of Congress.
- [4] *The Blackfoot Optimist*, Feb. 17, 1916, image 7, *Chronicling America*, Library of Congress.
- [5] “History of Mackay Reservoir and Mt. McCaleb,” U.S. Bureau of Land Management, Feb. 5, 2013.
- [6] Jack M. Hall, “The National Reactor Testing Station: The Atomic Energy Commission in Idaho, 1949-1962,” *Pacific Northwest Quarterly*, Vol. 85, No. 1, *The Nuclear Northwest*, 15-16.
- [7] *Irrigation in Idaho*, No. 260, Idaho Historical Society, Reference Series, reissued June 1971, 260.
- [8] E. Jay Anderson, “The Idaho National Engineering and Environment Laboratory: An Ecological Treasure of the Upper Snake River Plain,” *Rangelands*, Vol. 21, No. 5, October 1999, 11-12, 16.