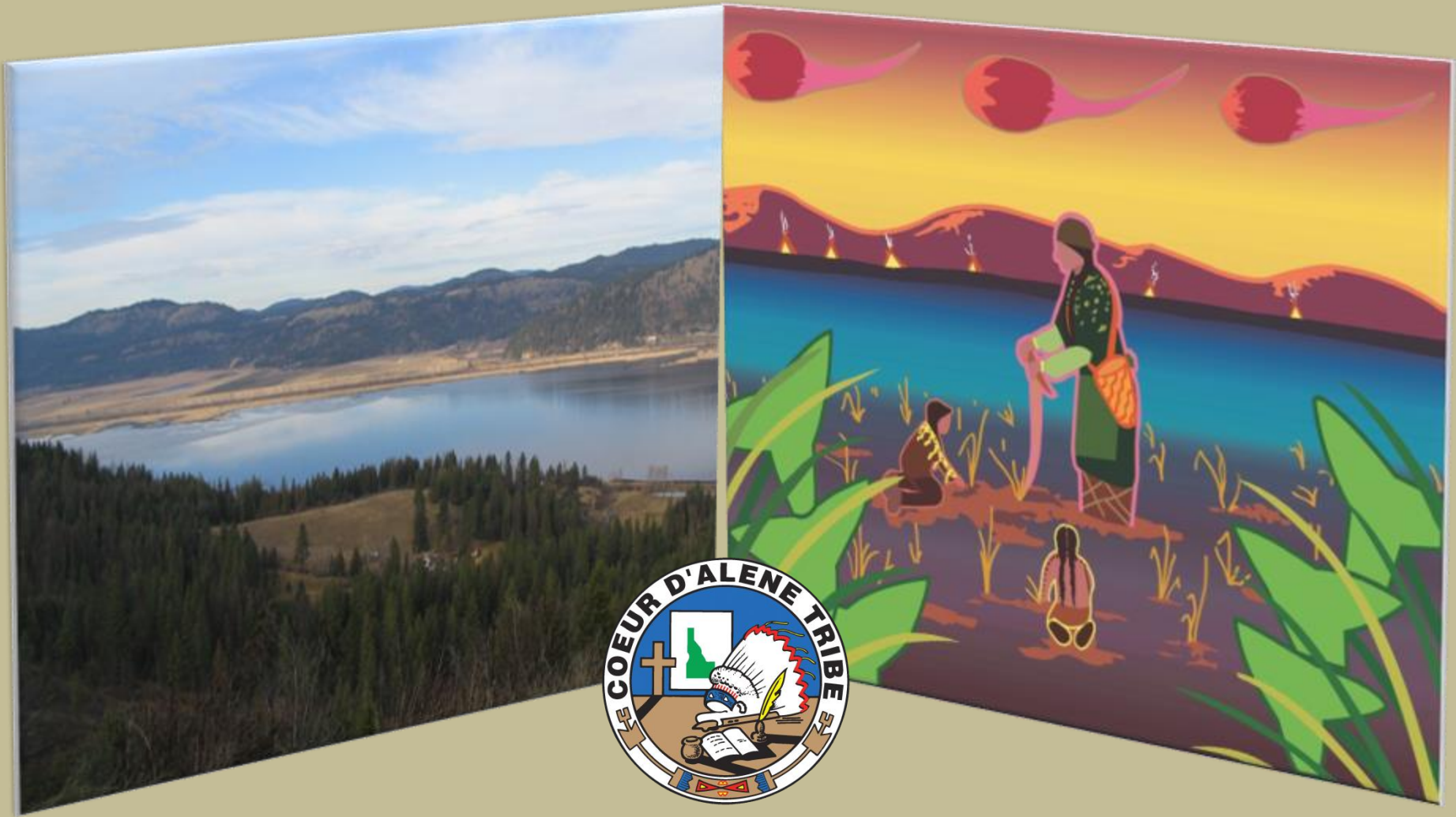


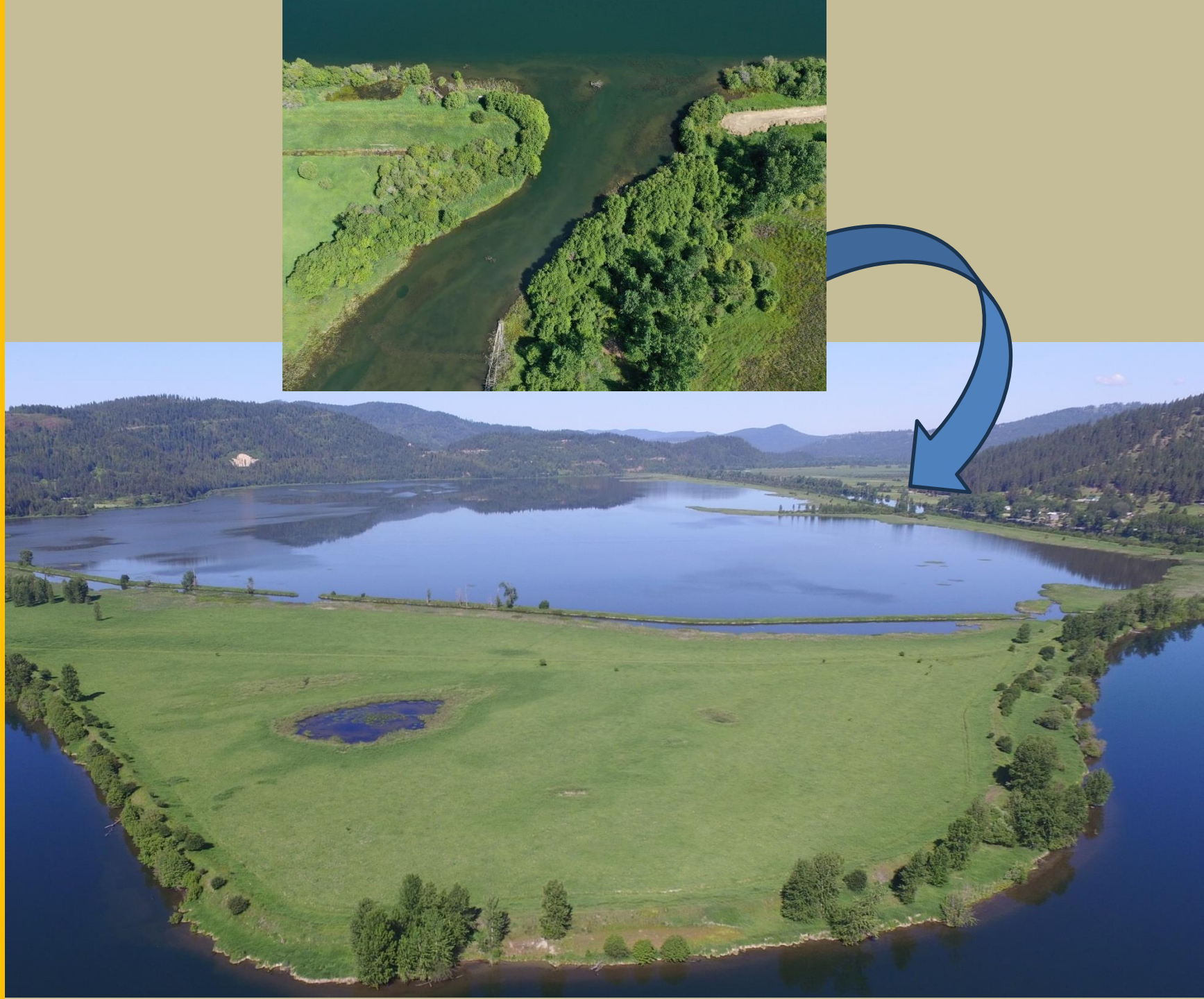
Guf Hnch'mchinmsh Wetland Restoration



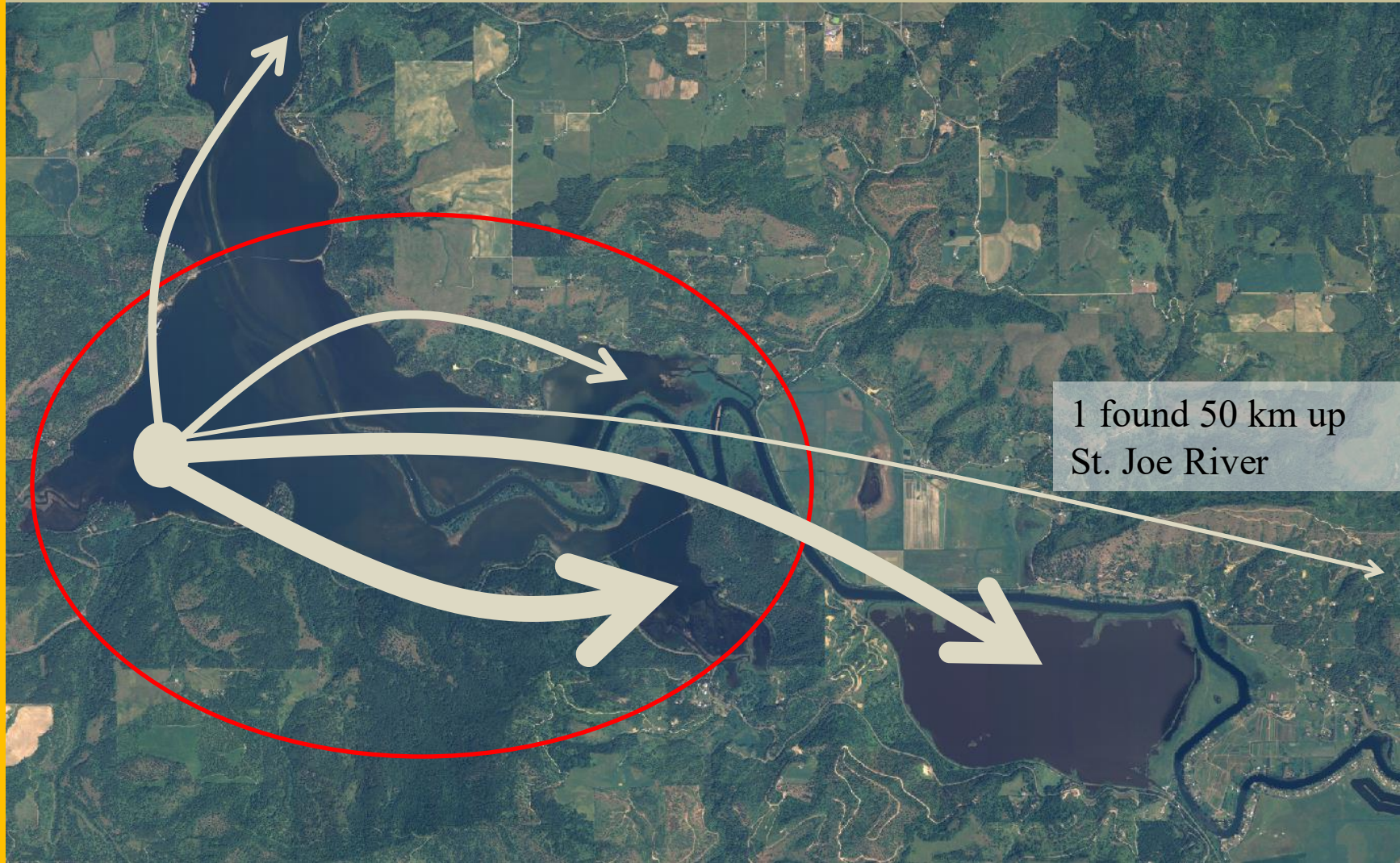
Coeur d'Alene Tribe

Washington Water Power, circa 1906

Project Background



Reduce production of non-native pike

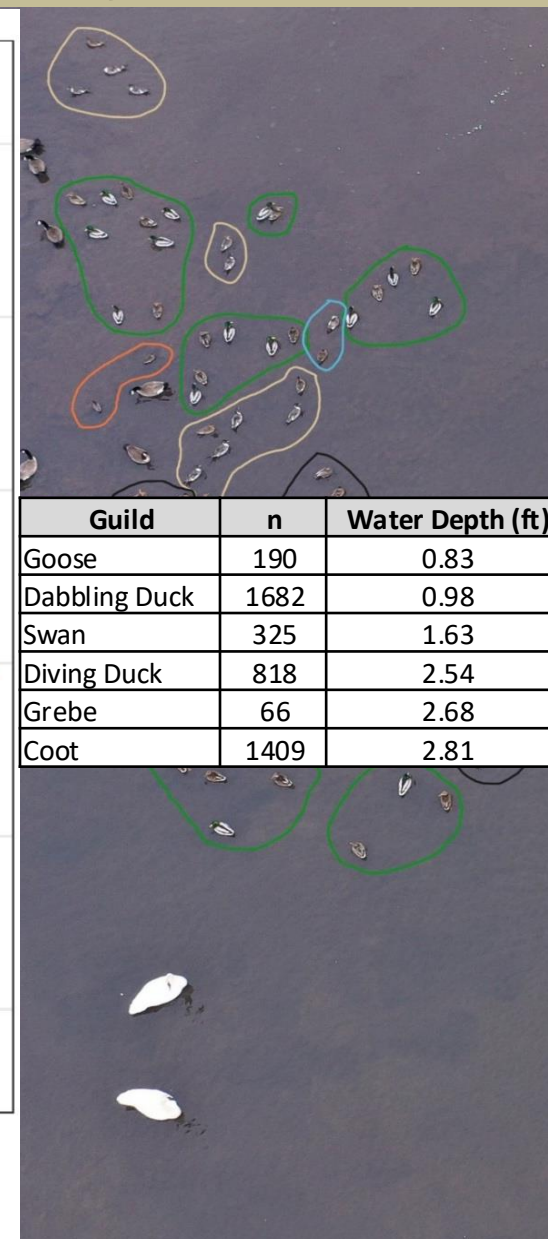
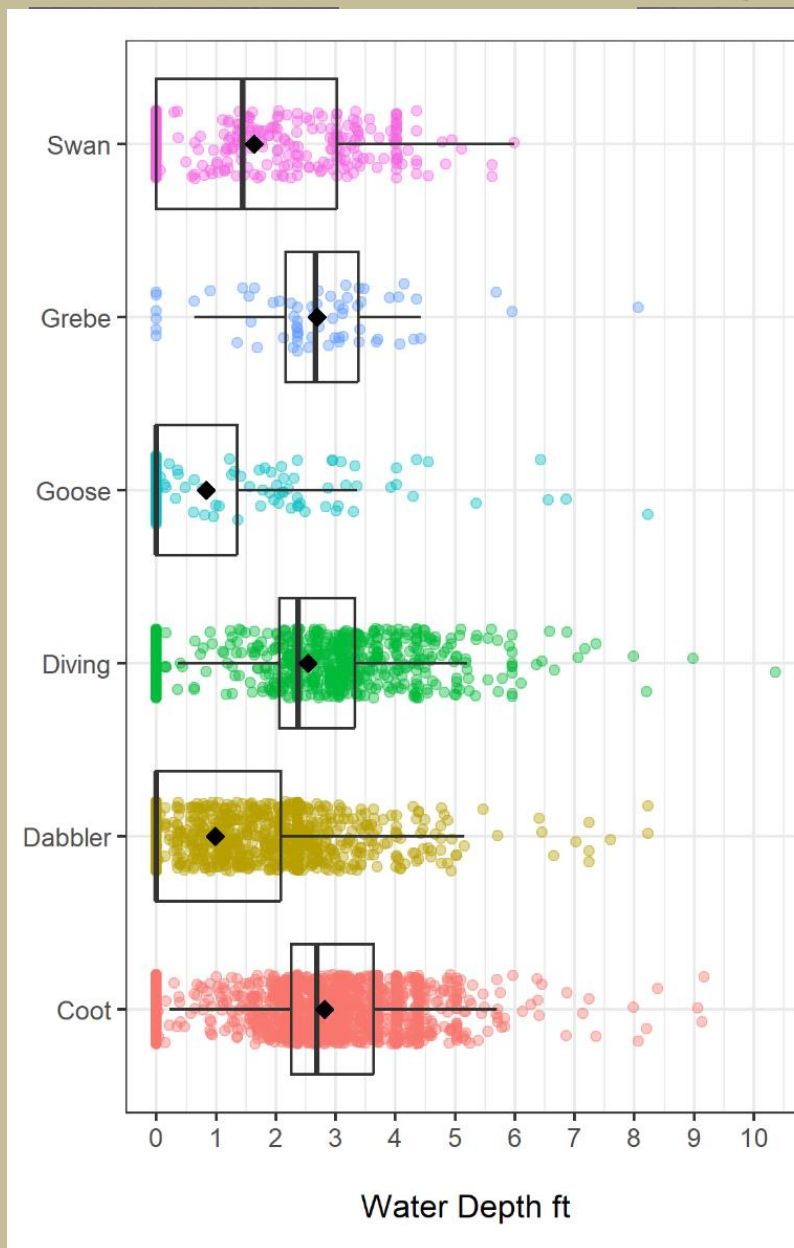


Movement of radio-tagged northern pike, Spring 2019.

Resource Objectives - Waterfowl

- Increase the acreage of shallow water habitat
- Extend the time these habitats are available
- Increase habitat quality and diversity

Improve habitat conditions for migratory waterfowl



Guild	n	Water Depth (ft)
Goose	190	0.83
Dabbling Duck	1682	0.98
Swan	325	1.63
Diving Duck	818	2.54
Grebe	66	2.68
Coot	1409	2.81

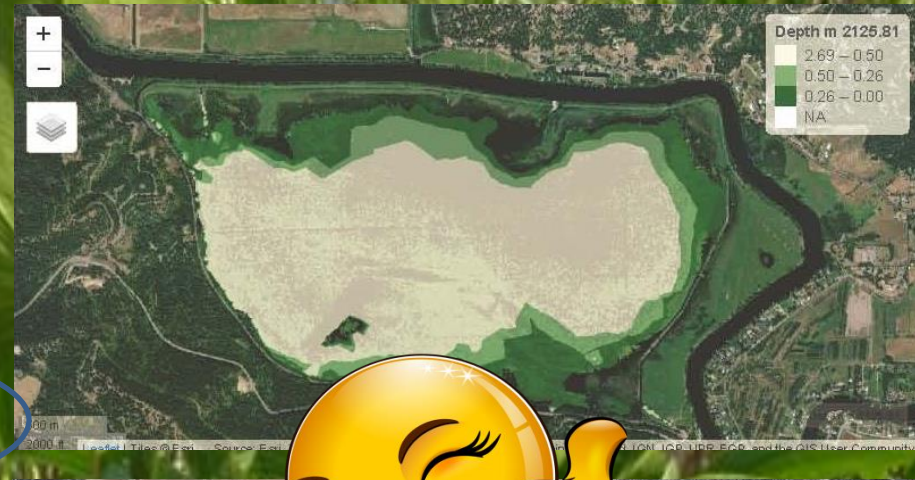
Resource Objectives – Cultural Plants

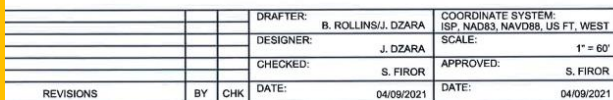
Maximize habitat suitability for water potato (*Sagittaria latifolia*)

Summer pool elevation (NAVD88)	Depth strata (acres) ¹			Total suitable habitat (acres)
	Optimal	Marginal	Too deep	
2128.81	3.1	24.7	1010.6	27.8
2126.81	68.1	86.0	840.8	154.1
2125.81	143.3	118.8	650.1	262.1
2123.81	400.4	65.9	34.4	466.3

Optimal (0-0.264 m);
Marginal (>0.264 – 0.5 m);
Too Deep (>0.5 m)

Marburger, J.E. 1993. Biology and Management of *Sagittaria latifolia* for Wetland Restoration and Creation. *Restoration ecology*, 1(4). Pp 248-255.





SHEET:
DATE:
PROJECT NO.:
SHEET NO.:

Peak flows estimated to overtop the design elevation at the 2.3 year RI flood.

Levee Elevation (ft)	Years Overtopped (in 116 yrs)	% of Years Overtopped	Overtopping Frequency in 10 Years
2131.5	49	43%	4.3
2133.0	39	34%	3.4
2133.7	30	26%	2.6
2134.0	28	24%	2.4
2134.6	20	17%	1.7
2135.0	17	15%	1.5

Note: Based on scaled values interpolated between Ramsdell and St. Maries stream gauges

"We will build a beautiful wall"

Project Construction



“Draining the swamp”

Project Construction



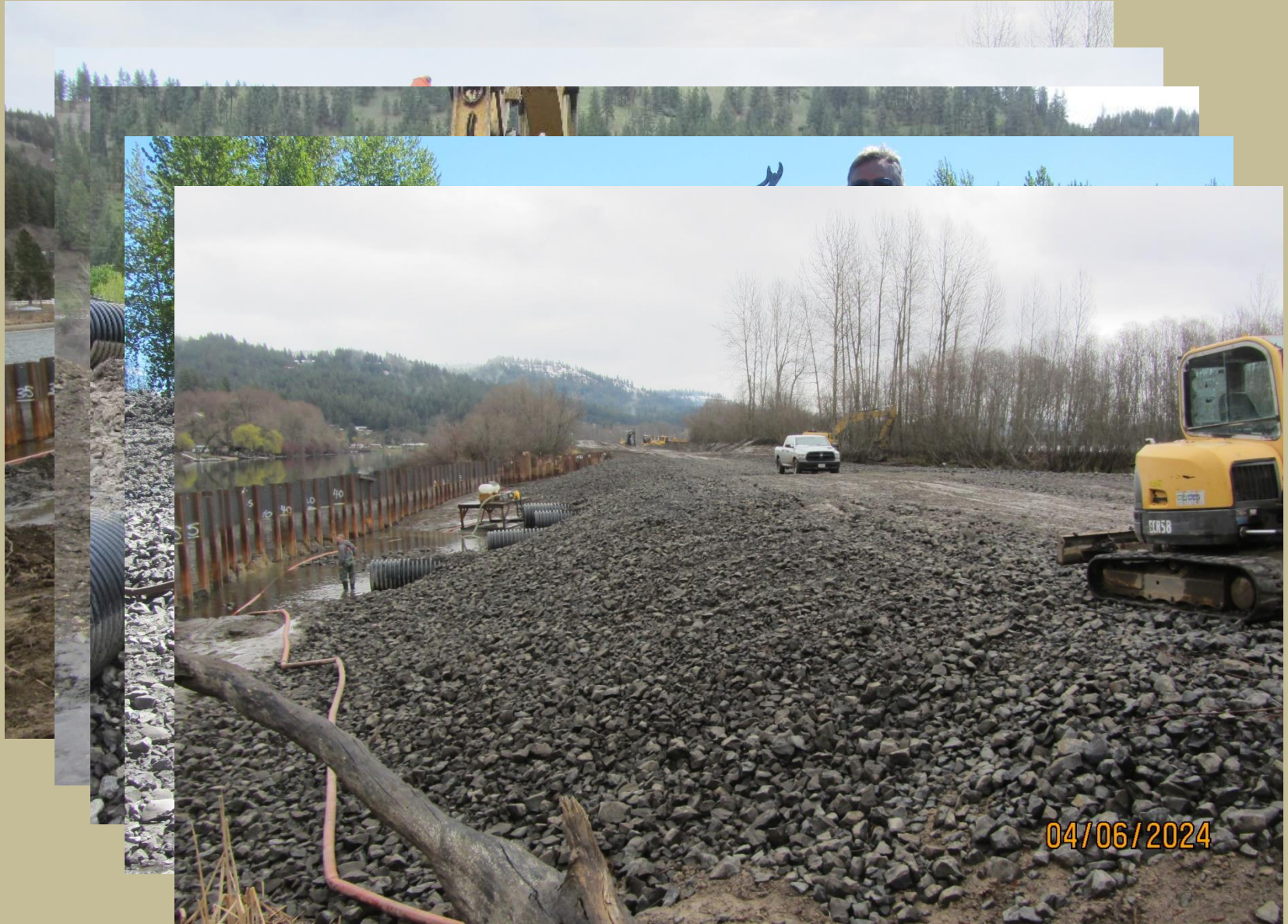
"Muck rakers, LLC "

Project Construction



"Building back better"

Project Construction



"A birds eye view"

Project Construction



May 21, 2024

“What did this cost?!!!”

Description	Cost
Planning/Design/Permitting	\$233,730
Construction	\$1,612,276
Total Project Cost	\$1,846,006

Our Partners (%cost share)


 Natural Resources Conservation Service
 U.S. DEPARTMENT OF AGRICULTURE
 43%


 Bonneville
 POWER ADMINISTRATION
 23%

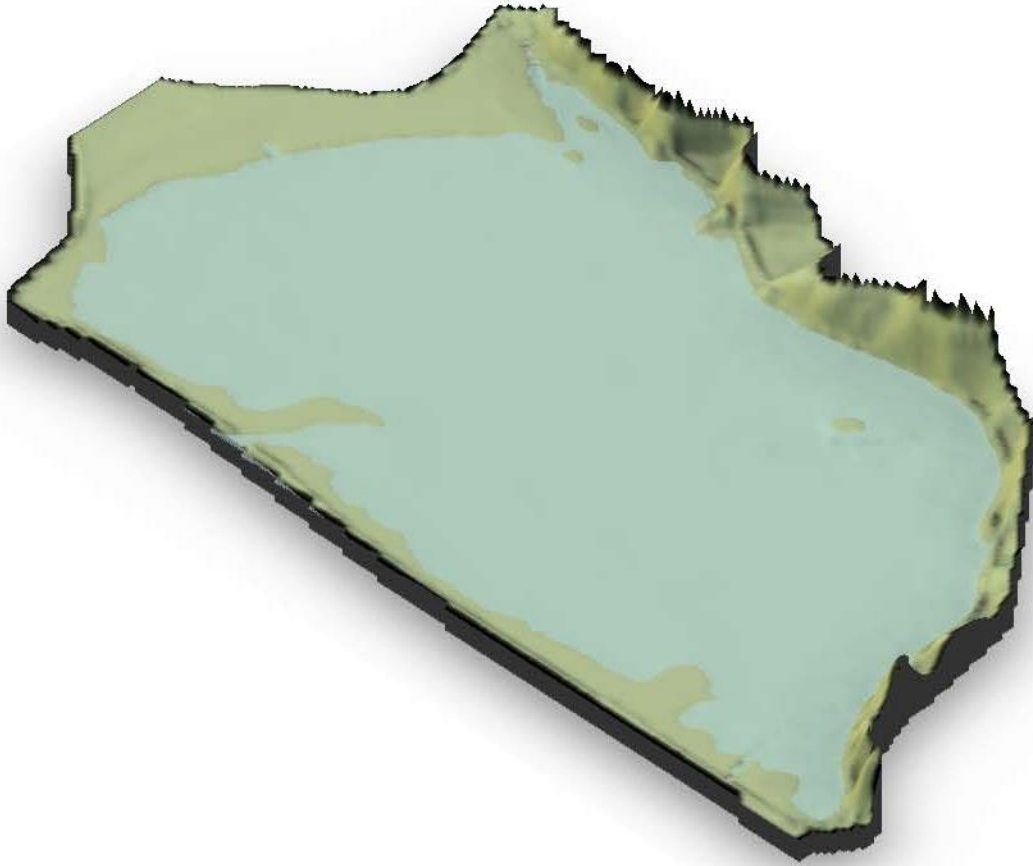

 Restoration
 Partnership
 23%

U.S. Department of the Interior
 Indian Affairs
 7%


 United States
 Environmental Protection
 Agency
 4%

Post -Project Outcomes

2128 ft ASL



“Setting the stage for native fish recovery”

Post -Project Outcomes



"A safe haven for birds"

Post -Project Outcomes

Tundra Swans



White-faced Ibis



Cinnamon Teal



Pectoral Sandpiper

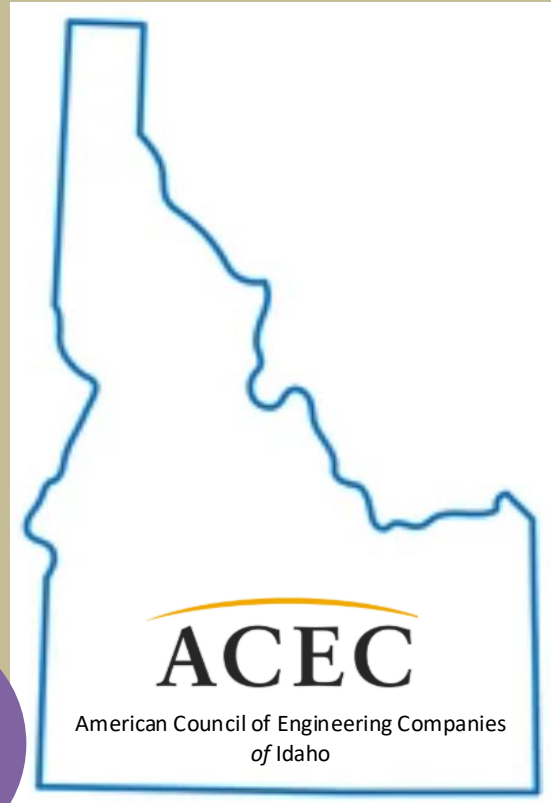


"An ancient ecosystem springs back to life"

Post -Project Outcomes



Post -Project Outcomes



1st Place

2025 Engineering Excellence Award
Water Resources



Questions

