Gray's Meadow Remediation and Restoration Project

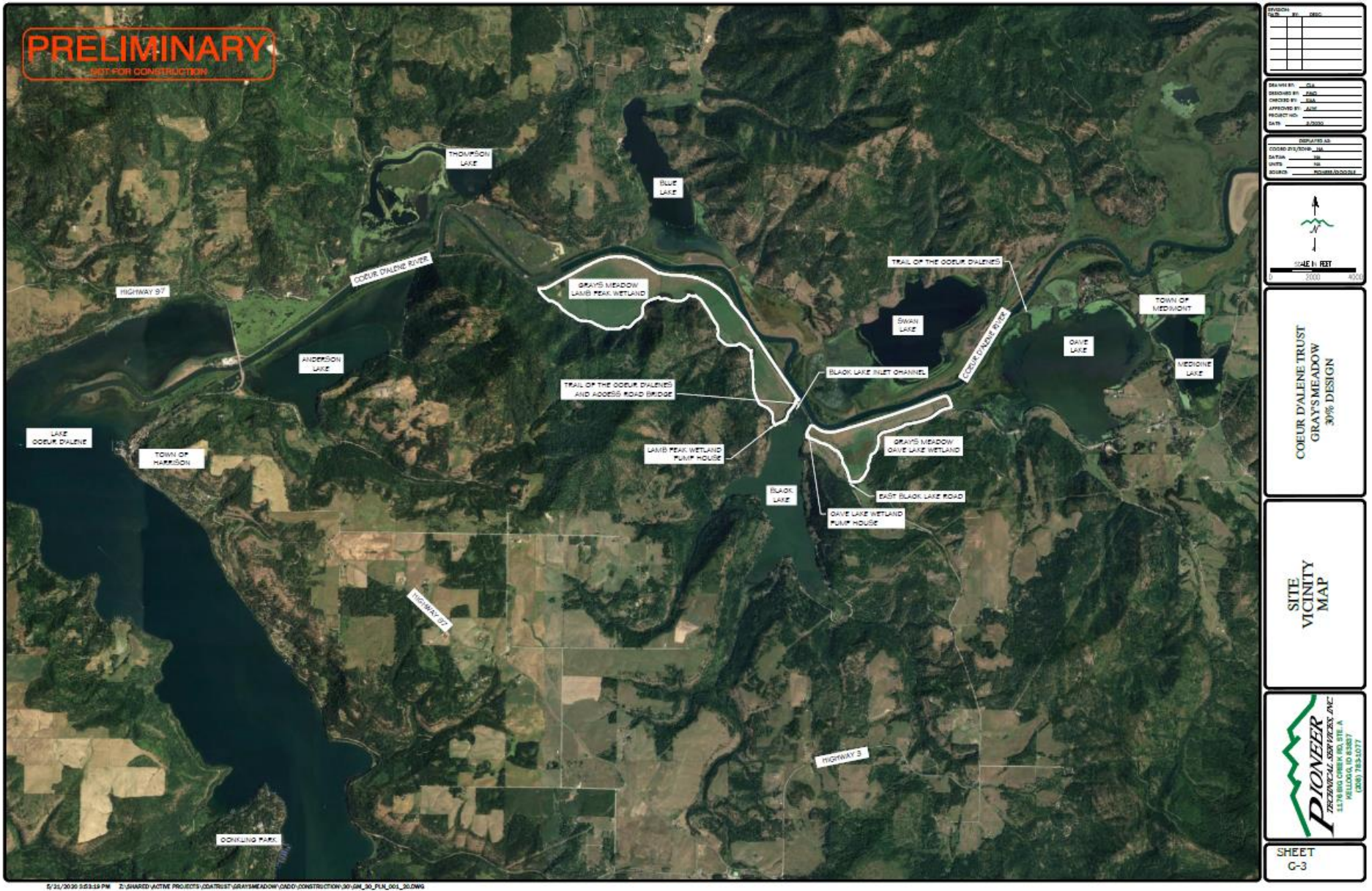
May 18, 2022

BEIPC Meeting

Gray's Meadow Remediation and Restoration

- 695-acre wetland site owned by IDFG that was previously drained for agriculture and is contaminated with heavy metals.
- EPA, IDFG and RP are collaborating to remediate and restore the site toward a healthy and historic wetland condition.
- Reduce metals contamination.
- Return agricultural land to productive wetland habitat.
- Provide clean recreational, educational and cultural opportunities for public use.

Gray's Meadow Overview



Cave Lake Wetland Pump Improvement Project

Cave Lake Wetland

- Construction began in March 2021 and was completed May 13.
  - Moved pump discharge from Black Lake to the Coeur d'Alene River.
  - Installed 695 linear feet of 24-inch HDPE pipe.
  - Installed outlet structure along Coeur d'Alene River

Lamb Peak Wetland Pump Improvement Project

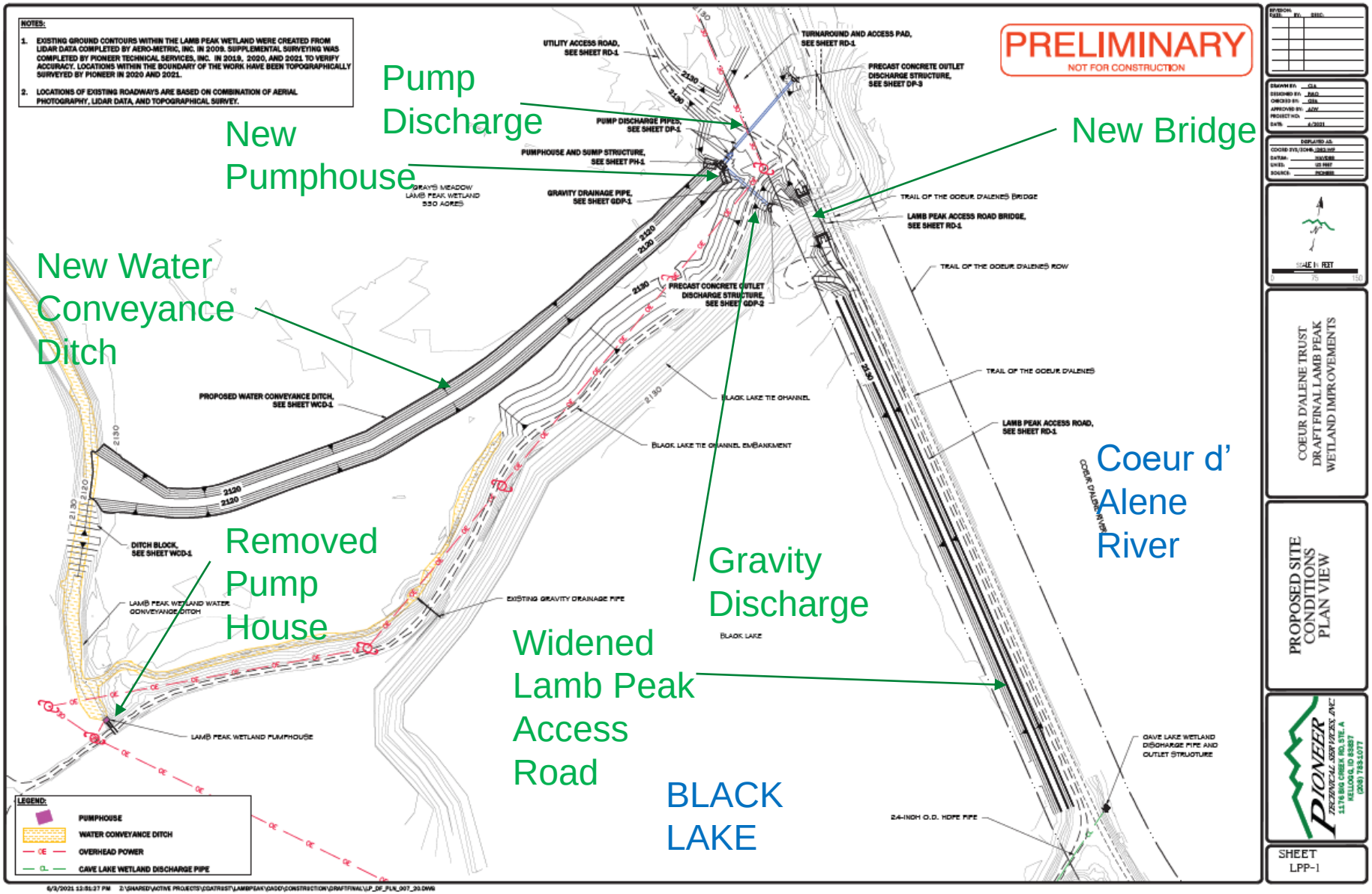
Lamb Peak Wetland Pump Improvement Project

- Construction began October 12, 2021.

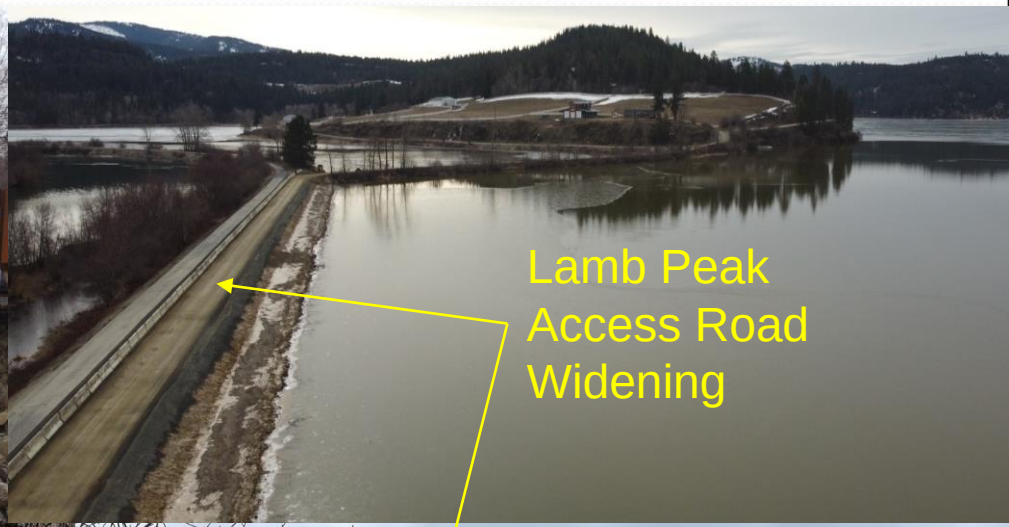
- Work includes:
  - Moving pump outlet to Coeur d'Alene River.
  - Installing gravity discharge to Black Lake tie-channel.
  - Moving pumphouse closer to outlet locations within the wetland.
  - Replacing bridge over top Black Lake tie-channel to handle construction equipment.
  - Widening Lamb Peak Access road for construction equipment.

- Construction anticipated to be completed by mid May of 2022.

Lamb Peak Wetland



Lamb Peak Wetland



Lamb Peak Wetland

Sump Structure

Floor for Pumphouse and Conveyance Channel

Pump Discharge Outlet

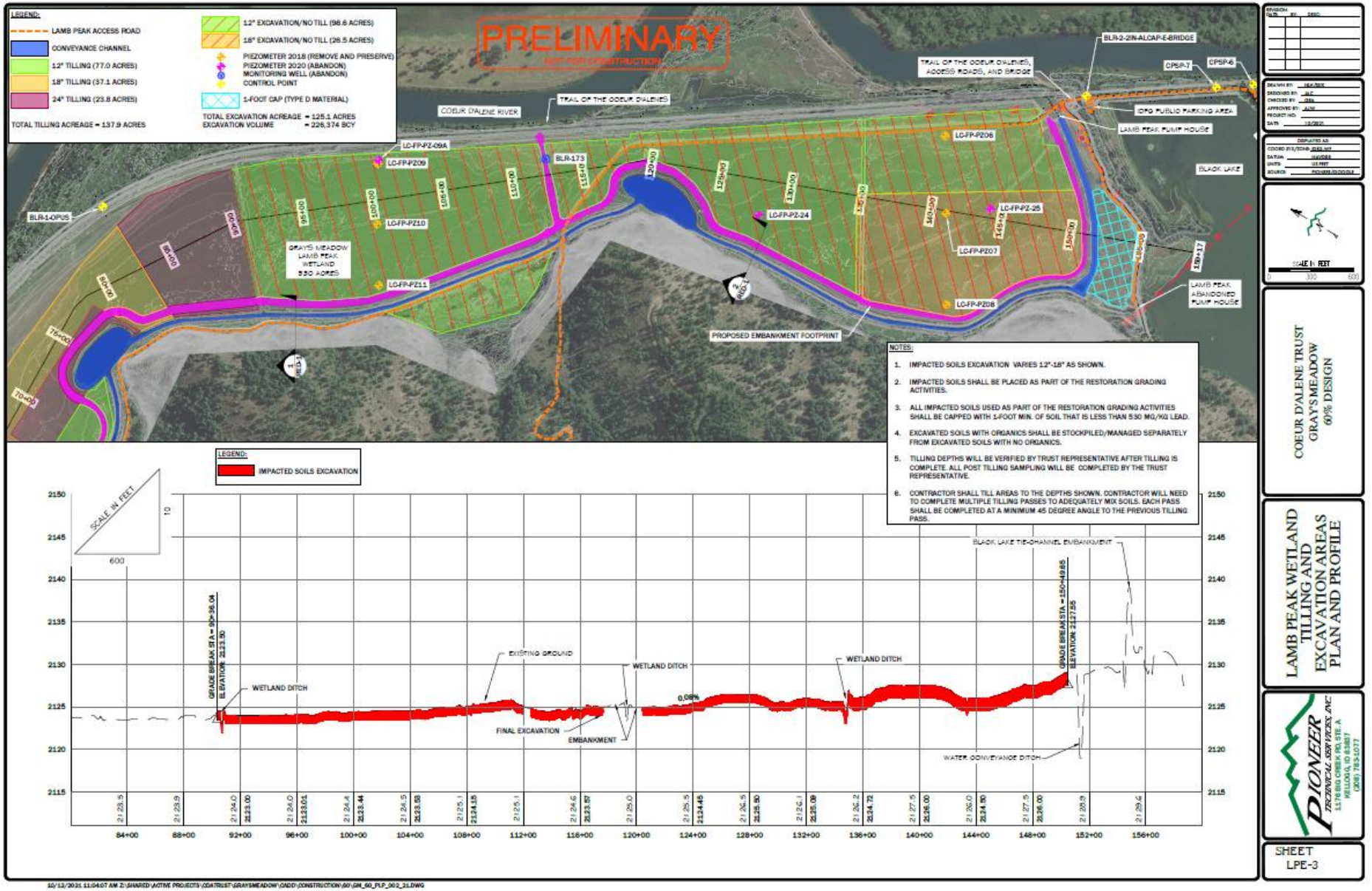
Gravity Discharge Outlet Installation

Remediation Design

- Remediate soils above 530 mg/kg lead
- Till or remove and cap with 1-foot clean soil to isolate from foraging waterfowl, prevent erosion
- Cover with water to minimum depth of 6 feet year round

Cave Lake Wetland Remediation

Lamb Peak Remediation

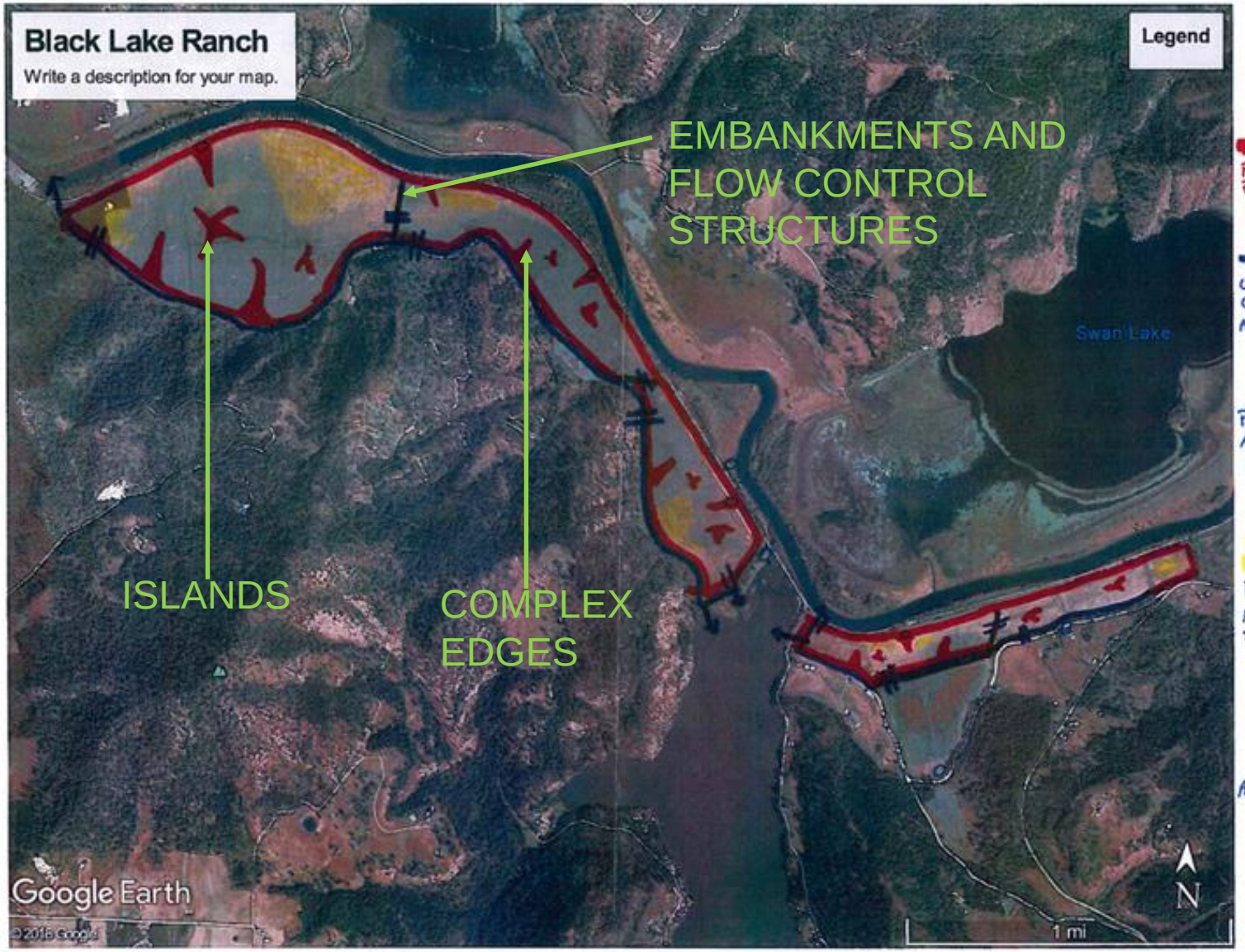


Restoration Design

Restoration Design

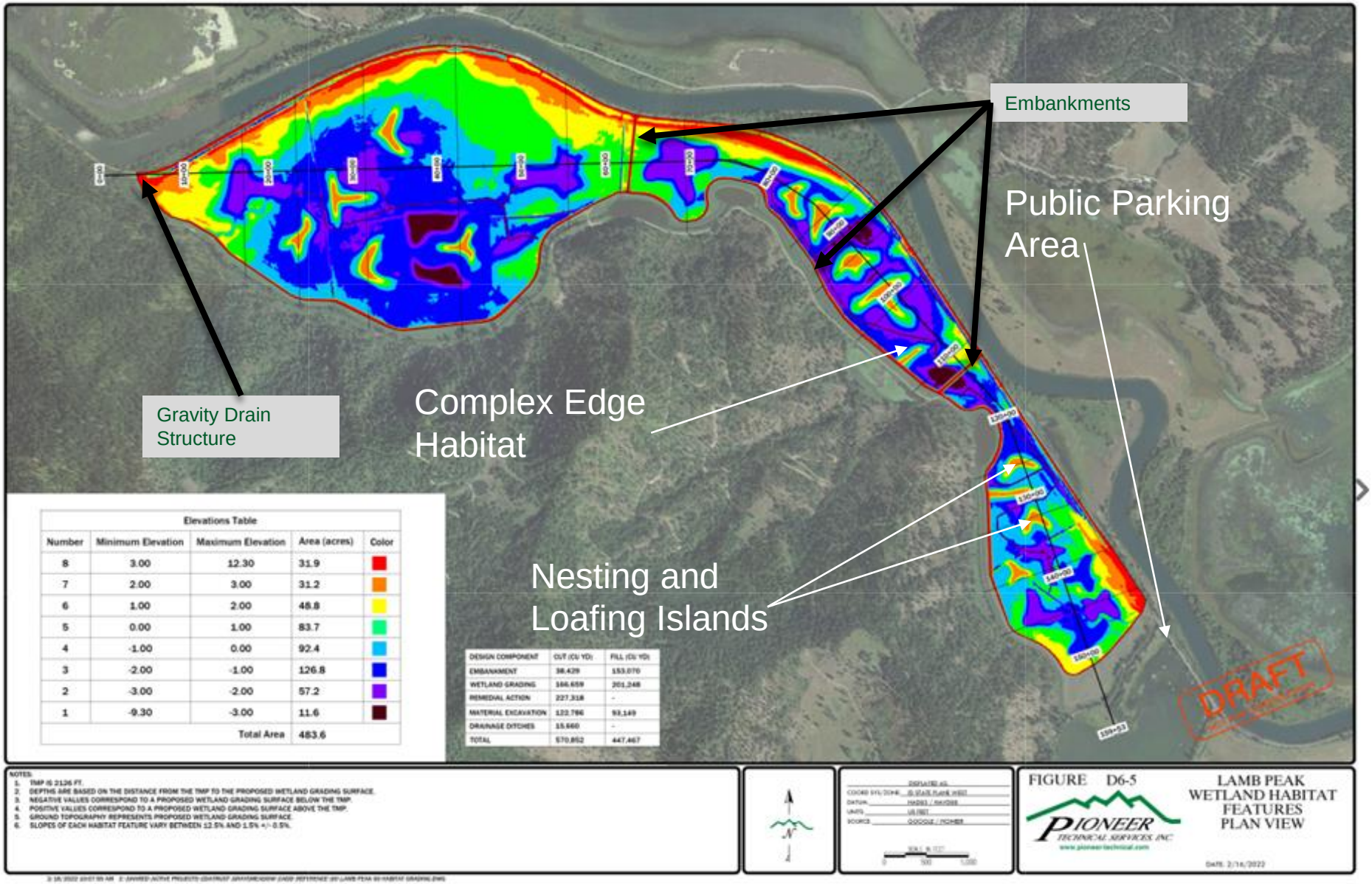
- Six wetland cells throughout the Cave Lake and Lamb Peak Wetlands, 3 cells in each.
- Allow for water surface elevations to flux plus 3 feet and minus 3 of the Typical Management Pool elevation.
- Provide infrastructure for water management and maintenance.
  - Inlet and Outlet Controls within each cell (3 cells in each wetland)
  - Inlet and Outlet Controls within each wetland (Lamb Peak and Cave Lake)
- Develop habitat grading to represent the IDFG wetland depth-area targets.
- Incorporate variable and diverse topography with varying edge habitat into the grading to provide hydrological variability in depth and duration.

Restoration Grading From the Beginning



ATTACHMENT 6

Lamb Peak Wetland Grading



Elevations Table				
Number	Minimum Elevation	Maximum Elevation	Area (acres)	Color
8	3.00	12.30	31.9	
7	2.00	3.00	31.2	
6	1.00	2.00	48.8	
5	0.00	1.00	83.7	
4	-1.00	0.00	92.4	
3	-2.00	-1.00	126.8	
2	-3.00	-2.00	57.2	
1	-9.30	-3.00	11.6	
		Total Area	483.6	

DESIGN COMPONENT	CUT (CU YD)	FILL (CU YD)
EMBANKMENT	38,429	153,070
WETLAND GRADING	184,659	201,248
REMEDIAL ACTION	227,318	-
MATERIAL EXCAVATION	122,796	93,149
DRAINAGE DITCHES	15,660	-
TOTAL	570,852	447,467

NOTES:
1. TMP IS 2126 FT.
2. DEPTHS ARE BASED ON THE DISTANCE FROM THE TMP TO THE PROPOSED WETLAND GRADING SURFACE.
3. NEGATIVE VALUES CORRESPOND TO A PROPOSED WETLAND GRADING SURFACE BELOW THE TMP.
4. POSITIVE VALUES CORRESPOND TO A PROPOSED WETLAND GRADING SURFACE ABOVE THE TMP.
5. GROUND TOPOGRAPHY REPRESENTS PROPOSED WETLAND GRADING SURFACE.
6. SLOPES OF EACH HABITAT FEATURE VARY BETWEEN 12.5% AND 1.5% +/- 0.5%.

FIGURE D6-5

LAMB PEAK WETLAND HABITAT FEATURES PLAN VIEW

PIONEER TECHNICAL SERVICES INC

Date: 2/14/2022

Schedule

- Lamb Peak Construction complete in May 2022.
- 100% Basis of Design Report/Remedial Action and Restoration Work Plan – May 2022.
- Contractor procurement - June and July 2022
- Remediation and Restoration Construction - August 2022 through 2024.


Questions?
Welcome to the Coeur d'Alene River Wildlife Management Area
Gray's Meadow
IDAHO FISH & GAME
NO GARBAGE SERVICE
PACK-IT-IN
PACK-IT-OUT
PROHIBITED ACTIVITIES