

Wolf Lodge Creek Reach #3 Stream Restoration and Habitat Enhancement Project



Kootenai Shoshone Soil and Water Conservation District

Partners

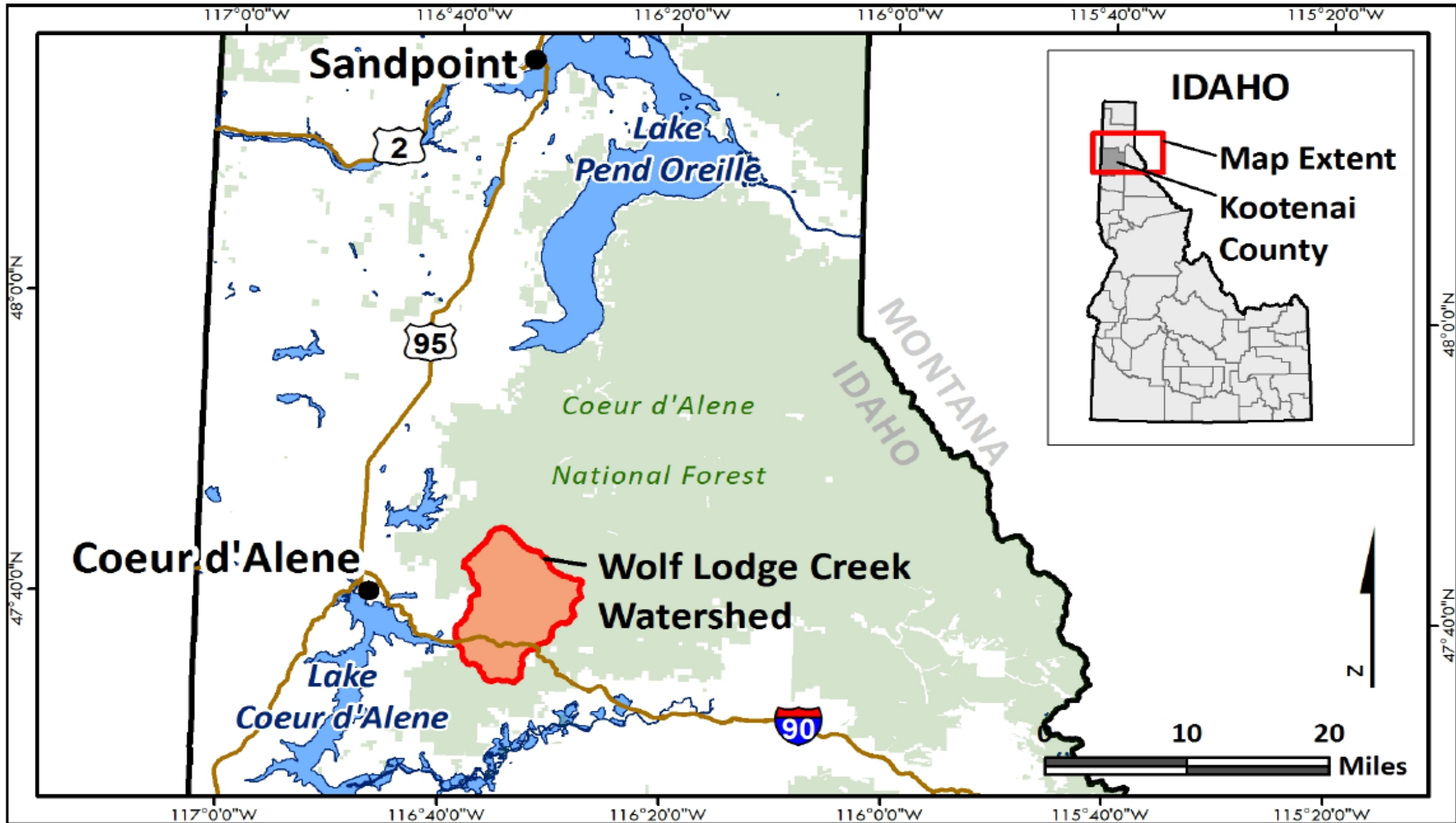
KSSWCD, Coeur d'Alene Lake Management (DEQ),
Restoration Partnership, Avista, North Idaho Flycasters, Fly
Fishers International and 2 private landowners

Sponsors

Idaho Department of Environmental Quality (DEQ)

Location

The Wolf Lodge Creek Reach 3 project is on two adjoining private properties. The project begins at the confluence of Marie Creek and Wolf Lodge Creek and extends downstream of the Wolf Lodge Creek bridge road.



Background

Wolf Lodge Creek is a 3rd order perennial stream that drains a 40 square mile watershed into Wolf Lodge Bay on the northeast side of the Coeur d'Alene Lake.

Wolf Lodge Creek is an important habitat for westslope cutthroat trout and other wildlife and is an important tributary to the Coeur d'Alene Lake.

This reach has been substantially altered from its historical condition by human actions including agriculture, riparian shrub and tree clearing, residential development, and timber harvesting. Past channelization and hard bank stabilization projects have led to unfavorable channel geometry, increased bank erosion rates, and loss of aquatic and riparian habitat

Wolf Lodge Creek Reach 3 photos showing bank erosion and channel conditions



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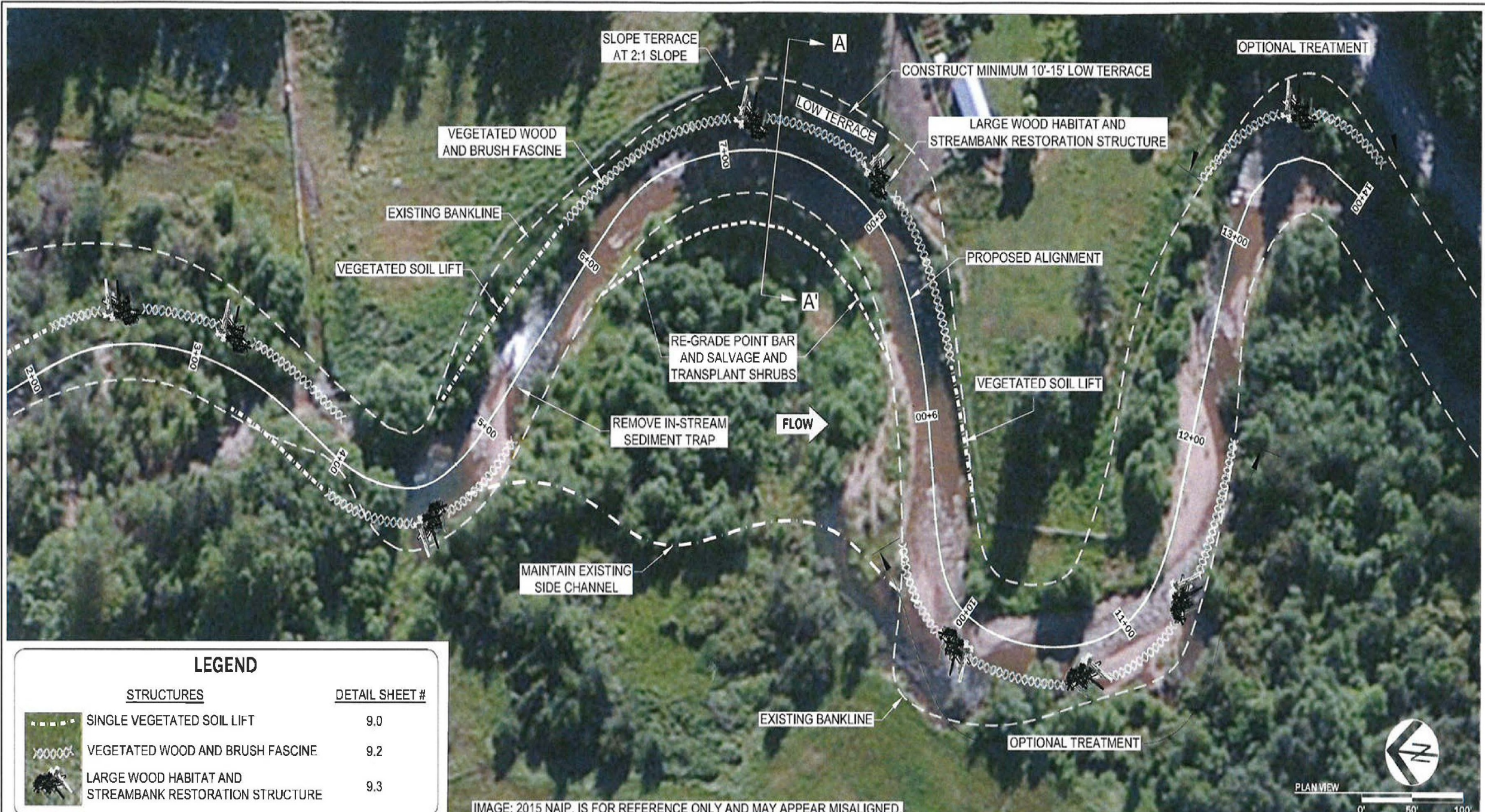
Project Goals

A conceptual restoration design for Wolf Lodge Creek Reach 3 was developed for 1400 feet of Wolf Lodge Creek on two private properties. It addresses several large meander bends that are migrating at accelerating rates. The project goals are to re-establish proper channel dimensions and streambank conditions that will reduce rates of lateral channel migration, property loss, and sedimentation and re-establish important habitat for westslope cutthroat trout and aquatic organisms



Project Objectives

- Produce clean water consistent with supporting aquatic life and beneficial uses
- Incorporate streambank stabilization techniques that provide interim stability and support development of mature riparian vegetation
- Remove the historical hardened stream restoration features that are no longer functioning
- Create complex aquatic habitat components such as depth, velocity, substrate, cover, and pools that support populations of wild trout and other aquatic organisms
- Reshape the existing channel to the proper dimensions to increase sediment transport capacity through the reach
- Coordinate restoration plans with the landowner to ensure restoration treatments are compatible with existing and future land uses.



LEGEND

STRUCTURES

DETAIL SHEET



SINGLE VEGETATED SOIL LIFT

9.0



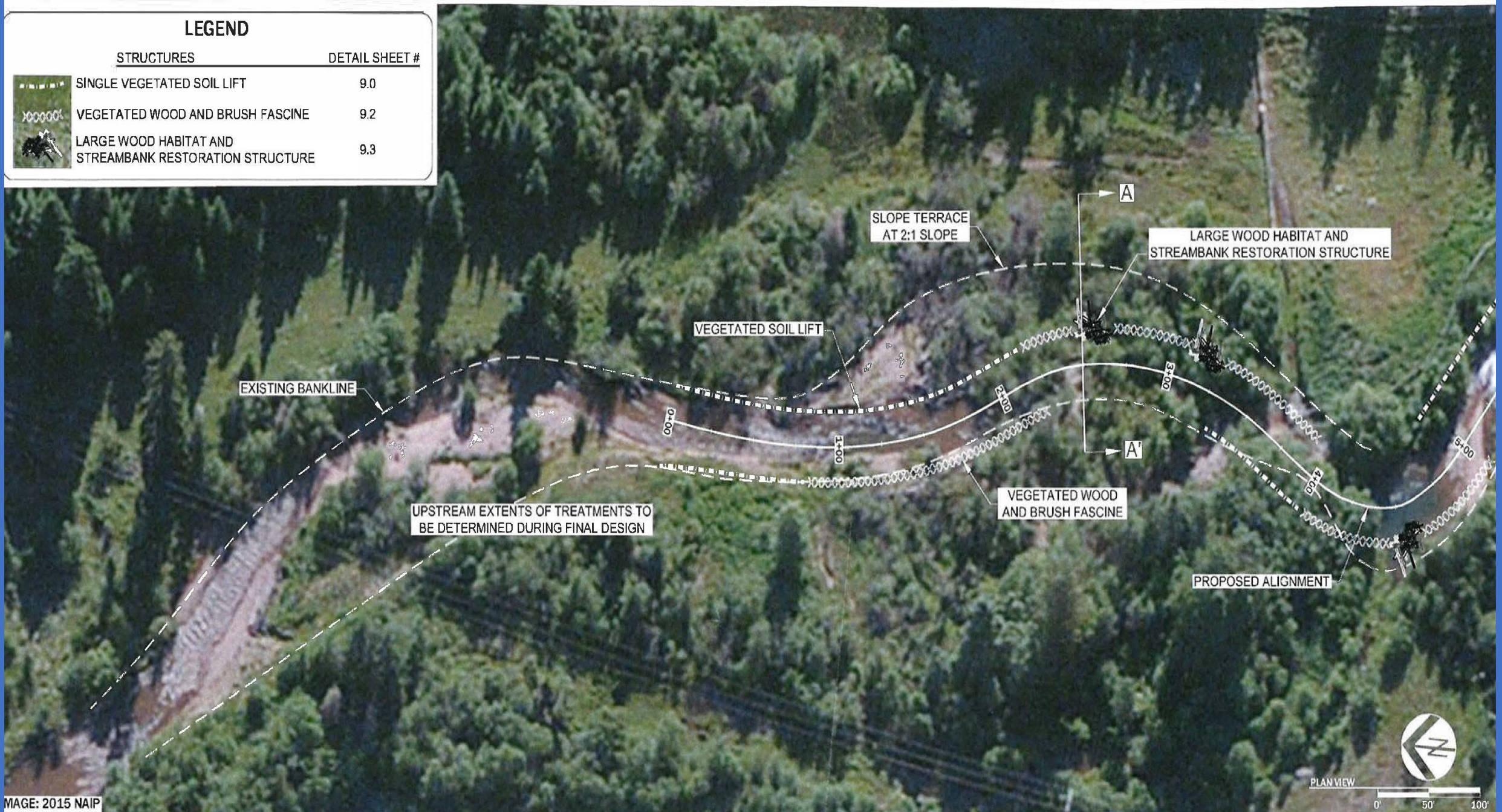
VEGETATED WOOD AND BRUSH FASCINE

9.2



LARGE WOOD HABITAT AND
STREAMBANK RESTORATION STRUCTURE

9.3



Project Specifications – 3 Phases

- Restoration work will occur on 1,400 feet of channel on two private properties.
- Phase 1 will be to complete full engineering design using the existing Site Plan. Phase 1 was awarded to River Design Group.
- Phase II and III are construction of the full engineering design using a construction contractor (to be awarded under a bidding process) and volunteer assistance. Project construction includes site preparation and materials staging, preparation of access roads and clear-water diversions, floodplain earthwork, channel and streambank structures, and revegetation with materials sourcing

Project Specifications – 3 Phases

- To minimize impact to water quality, Phase II and III will occur during low-flow conditions.
- Phase II includes site dewatering. Temporary bypass channels will be constructed where necessary to isolate the work area. Existing side channels will also be used as temporary diversions where feasible.
- Following dewatering, the stream channel will be shaped to the appropriate dimensions including riffle, run, pool and glide habitat features.
- Under Phase II, an existing (non-functioning) sediment trap and rock weir (installed in early 2000) will be removed.

Project Specifications – 3 Phases

- Phase III includes implementation of the floodplain treatments which include floodplain micro-topography, plantings, and seeding.
- In addition, existing vegetation will be salvaged and transplanted onto constructed streambank surfaces.
- Following floodplain treatment, flow will be incrementally reintroduced into the new channel and segments of the existing channel will be backfilled and reclaimed.
- Estimated completion time is 2021

Benefits

- Improved habitats will help provide greater opportunities for cutthroat trout populations to persist and grow as well as other aquatic species.
- This project would greatly reduce sedimentation.
- This project will contribute to reducing the nutrient loads from Wolf Lodge Creek into Coeur d'Alene Lake.
- In addition, stream temperature will benefit from improvements to the stream channel and floodplain as well as addition of riparian vegetation.

Questions?

