BONNEVILLE POWER ADMINISTRATION

WELCOME

Kootenai National Wildlife Refuge (KNWR) Floodplain Reconnection Project

Open House Meeting

Boundary Co. Annex

April 30, 2024

6 – 8 p.m.

Bonneville POWER ADMINISTRATION

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

What are your thoughts?

During the public-involvement process, BPA wants your feedback:

- What issues should we evaluate?
- What potential environmental impacts should we analyze?
- What alternatives should we consider?

Your comments will help BPA make better decisions on projects that could affect your community and the environment.

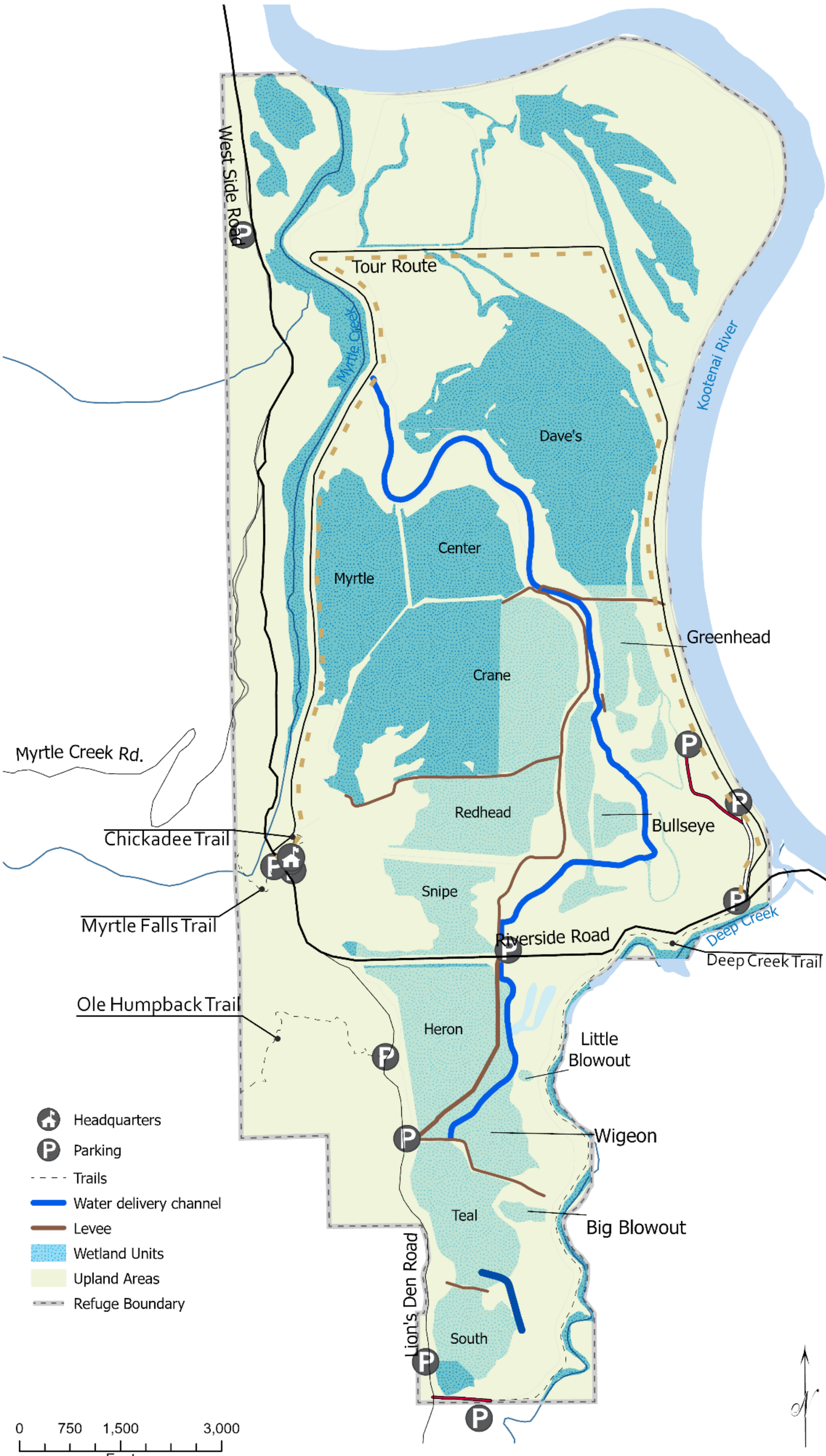
Purpose and Need

BPA needs to respond to requests for funding from the Kootenai Tribe of Idaho (KTOI) to restore floodplain connectivity on the Kootenai River to benefit Endangered Species Act (ESA)-listed Kootenai River White Sturgeon (Endangered) and other fish and wildlife species.

In meeting this need for action, BPA seeks to achieve the following purposes:

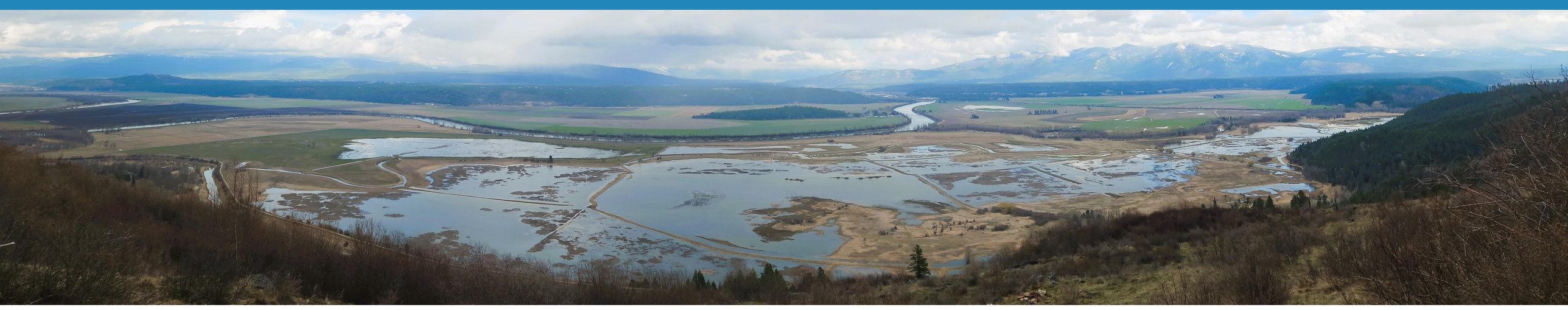
- support efforts to mitigate the effects on fish and wildlife from the Federal Columbia River Power System;
- support conservation of ESA-listed species;
- support BPA's commitments under the existing Memorandum of Agreement with KTOI, as amended; and
- minimize adverse environmental impacts.

Kootenai National Wildlife Refuge



Kootenai NWR (2,774 acres) was established on August 30, 1964, with the establishing purpose to provide stopover and roosting habitat for migratory birds in the Pacific Flyway.

Kootenai NWR

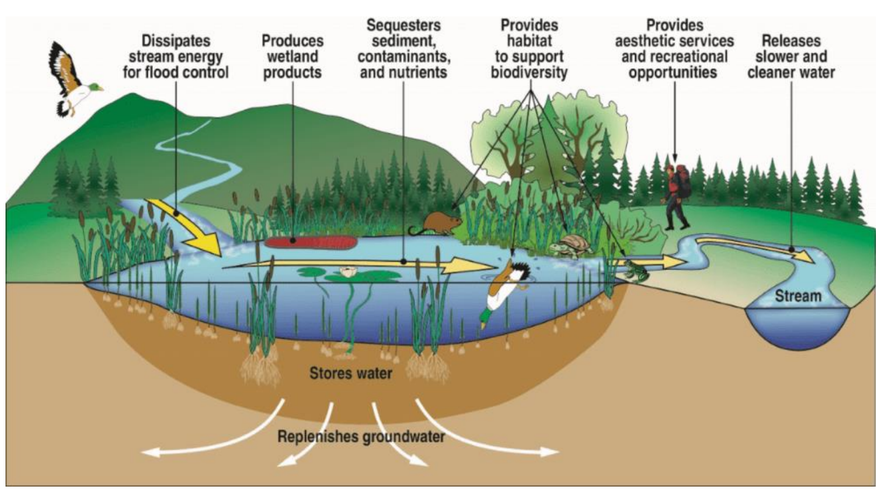


Proposed Project Benefits

- Increase use by migratory waterfowl, shorebirds, and waterbirds of restored floodplain habitat.
- Increase use of native fishes within floodplain habitat.
- Improved visitor safety, use, and satisfaction.

Current management focuses on providing breeding, foraging, and roosting habitat for migratory and breeding birds with specific goals outlined within the Comprehensive Conservation Plan (2011).

THESE GOALS INCLUDE:



Habitat

Provide, manage, and enhance a diverse assemblage of grassland, wetland, and riparian habitats for foraging and nesting migratory waterfowl and other wildlife characteristic of the Kootenai River Valley.

Fish and Wildlife

Protect, maintain, and where feasible restore habitats on the Refuge to benefit native fishes, migratory waterfowl and other wildlife species.

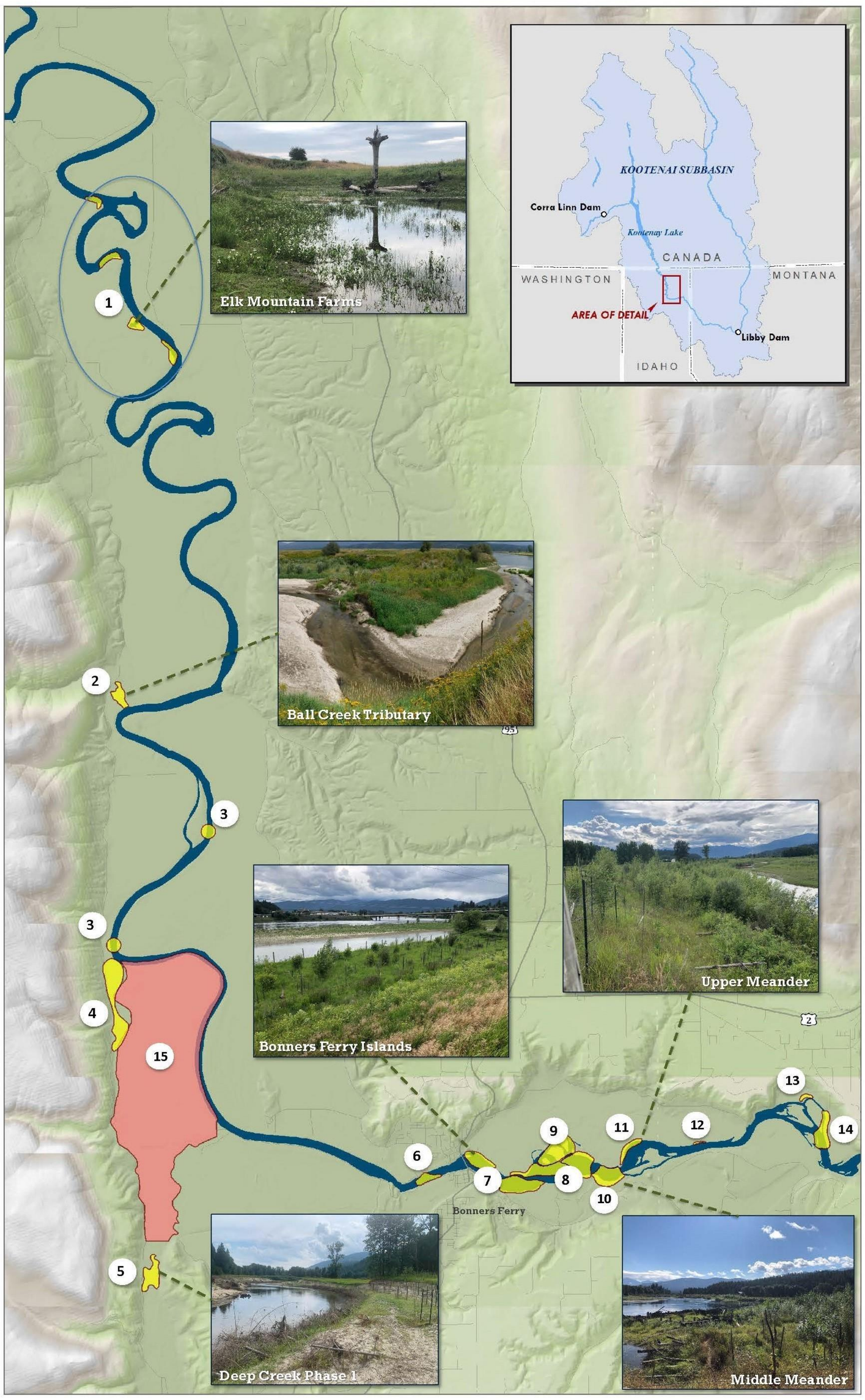
Recreation

Provide high-quality wildlife-dependent recreational opportunities for all ages and abilities that enhances the users' appreciation for and understanding of the Refuge's and the Kootenai River Valley's natural resources.

Kootenai Tribe of Idaho's Kootenai River Habitat Restoration Program

The KRHR Program is a multi-year, ecosystem-based habitat restoration program to restore habitat conditions that support all life stages of endangered Kootenai River white sturgeon, burbot and other native fish. Under this program, the Kootenai Tribe of Idaho is building multiple habitat restoration projects in the Kootenai River.

From 2011 through 2023 the Kootenai Tribe has constructed 14 KRHRP restoration projects in Idaho and others in the Kootenai River basin. Additional projects are planned for the Refuge and Deep Creek in 2024 and 2025.



#	Project Name	Year
1	Elk Mountain Farms	2021
2	Ball Creek Tributary	2019
3	Substrate Enhancement Pilot	2014
4	KNWR Westside Project	2023
5	Deep Creek Phase 1	2022
6	Straight Reach	2016
7	Bonners Ferry Islands	2015 & 2016
8	Lower Meander	2017 & 2018
9	North Side Channels	2012
10	Middle Meander	2013
11	Upper Meander	2012
12	Phase 1B	2011
13	Phase 1A Extension	2013
14	Phase 1A	2011

#15 – Proposed KNWR Floodplain Reconnection Project

In 2009 the Tribe completed the Kootenai River Habitat Restoration Program Master Plan.

The Master Plan identified reach-specific habitat conditions that limited the success of Kootenai sturgeon, burbot and other native fish, and provided restoration strategies and treatments to address those limiting factors. All of the KRHRP projects are designed to work with existing land uses and Libby Dam operations.

Kootenai Tribe of Idaho's Kootenai River Habitat Restoration Program

Need for Program

Historical diking, agricultural conversion, infrastructure development, and construction and operations of Libby Dam have changed the river morphology, upland and riparian vegetation, and aquatic habitat.

These changes limit the ability of many native fish populations, including the endangered Kootenai River white sturgeon and burbot (ling), to survive and thrive in the Kootenai River.

Program Goals

- **Morphology:** Restore river and floodplain ecological processes within the constraints of Libby Dam operations and current land uses.
- **Aquatic:** Restore conditions that support all life stages of native fish and help maintain sustainable populations.
- **Riparian vegetation:** Create streambank and floodplain conditions that help plant communities develop.
- **River stewardship:** Support and create opportunities for river stewardship.

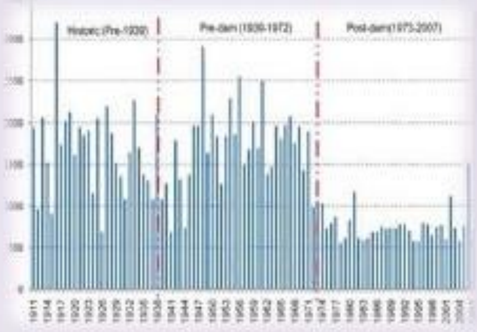
Limiting Factors

Altered flow
Spring flows are 50% less than pre-dam flows, but winter flows have increased 300%.

Altered sediment transport and deposition
Limited floodplain development.

River response to altered hydraulics
Morphological changes, decreased depth, velocity changes.

Poor quality spawning habitat
Lack of rocky substrate on the river bottom where sturgeon currently spawn.



Altered temperature
Water is warmer in winter, cooler in summer.

Loss of nutrients
Nutrients are trapped behind Libby Dam. Floodplains were eliminated. Reduced primary productivity.

Loss of side channels, wetlands, and flood-plain & connection
Decreased habitat and limited food web.

Habitat loss and simplification
Lack of complex and diverse aquatic and riparian habitats.

Project description

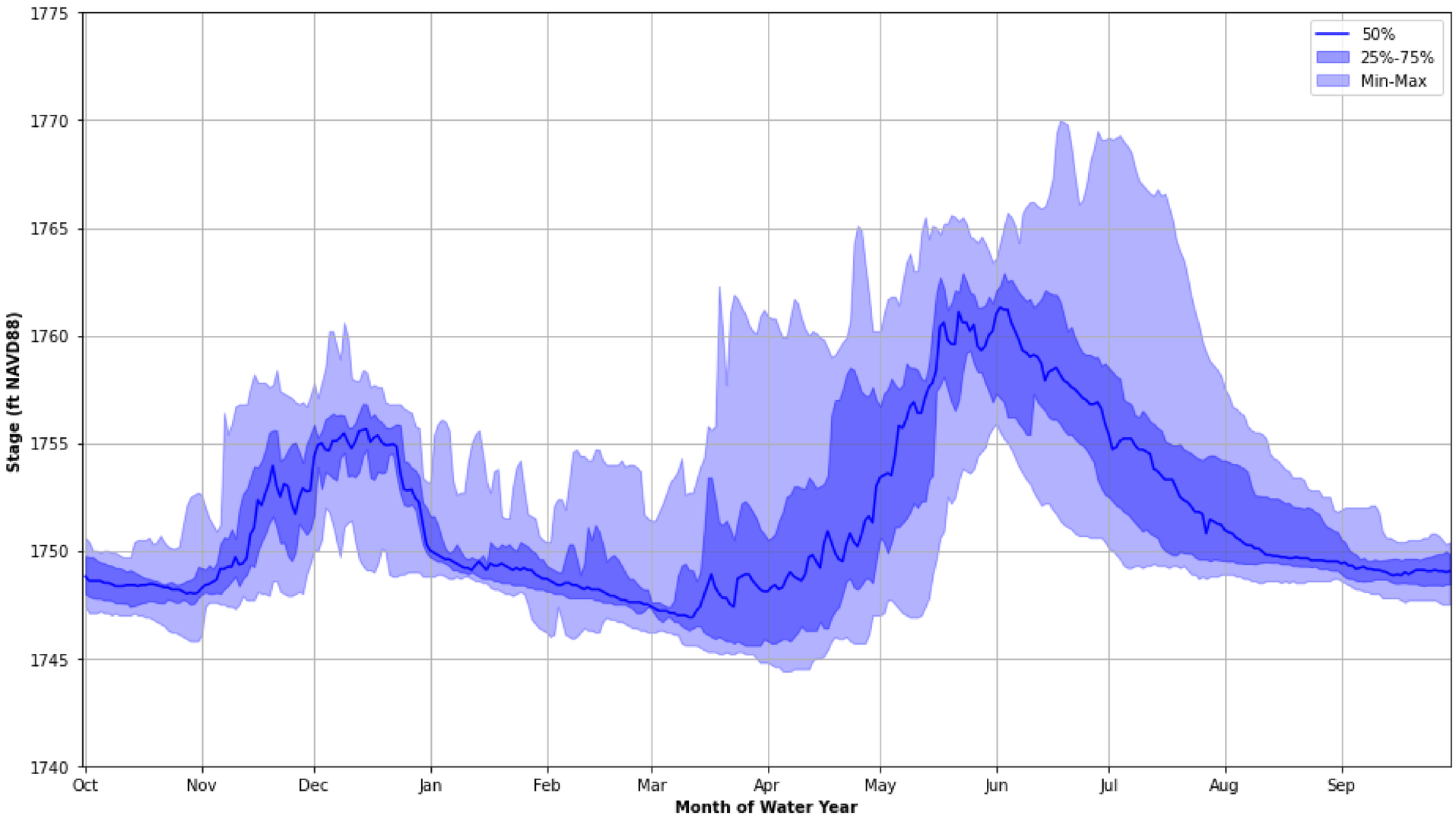
Proposed restoration activities:

- Breach the Kootenai River Levee in up to three locations to allow seasonal inundation of portions of the Kootenai NWR via the Kootenai River.
- Realign and elevate the Refuge's Auto Tour Road to maintain safe vehicle access and provide viewing opportunities during periods of inundation and integrate pull outs and interpretative signage.
- Breach the Deep Creek Levee in up to two locations to allow seasonal inundation of portions of the Kootenai NWR via Deep Creek.
- Elevate and widen Riverside Road to maintain safe vehicle access during periods of inundation.
- Excavate and regrade floodplain topography to improve flow conveyance, increase inundation extent and enhance wetlands.
- Remove reed canary grass and establish woody vegetation in the floodplain to improve habitat diversity for a variety of fish and wildlife species.
- Maintain or modify existing facilities to support continued recreational uses within the Kootenai NWR.

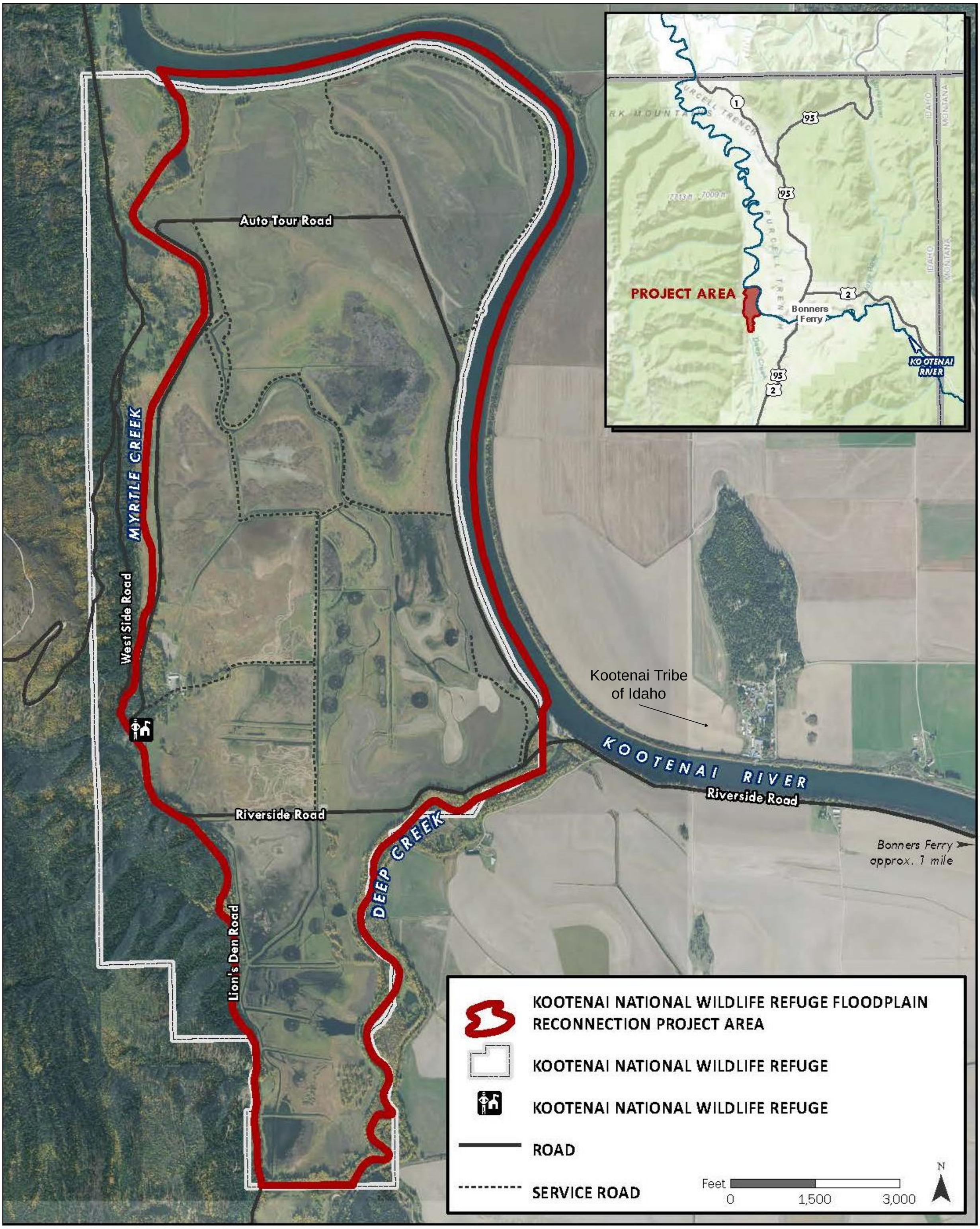
Kootenai River Annual Flow Statistics

KOOTENAI RIVER
RECURRENCE INTERVAL ELEVATIONS
Q1.01 - 1753.0'
Q2 - 1763.7'
Q10 - 1766.7'
Q100 - 1769.0'

KOOTENAI RIVER
INUNDATION DURATION ELEVATIONS
NUMBER OF DAYS EXCEEDED PER YEAR
1757' - 55.2 DAYS
1759' - 33.9 DAYS
1761' - 20.3 DAYS



Project map


Auto Tour Road
MYRTLE CREEK
West Side Road
Riverside Road
Lion's Den Road
DEEP CREEK
KOOTENAI RIVER
Riverside Road
Kootenai Tribe
of Idaho
Bonners Ferry
approx. 1 mile
PROJECT AREA
Bonners Ferry
KOOTENAI RIVER
IDAHO
MONTANA
95
2
1
KOOTENAI NATIONAL WILDLIFE REFUGE FLOODPLAIN RECONNECTION PROJECT AREA
KOOTENAI NATIONAL WILDLIFE REFUGE
KOOTENAI NATIONAL WILDLIFE REFUGE
ROAD
SERVICE ROAD
Feet
0
1,500
3,000
N

Existing condition

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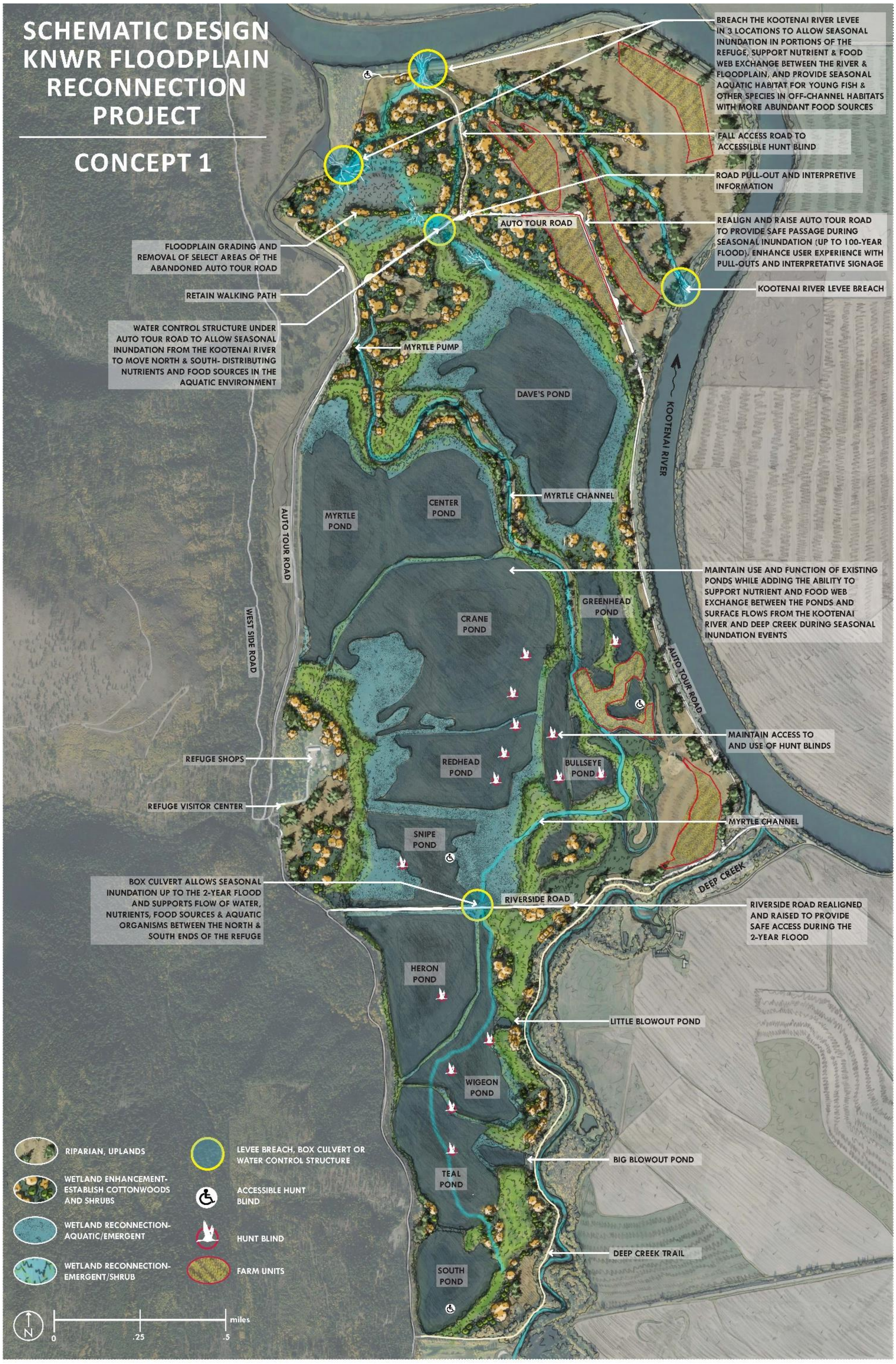
PROJECT PARTNERS

U.S. Department of Transportation
Federal Highway Administration

COUNTY of BOUNDARY EST. 1915

Project concept 1



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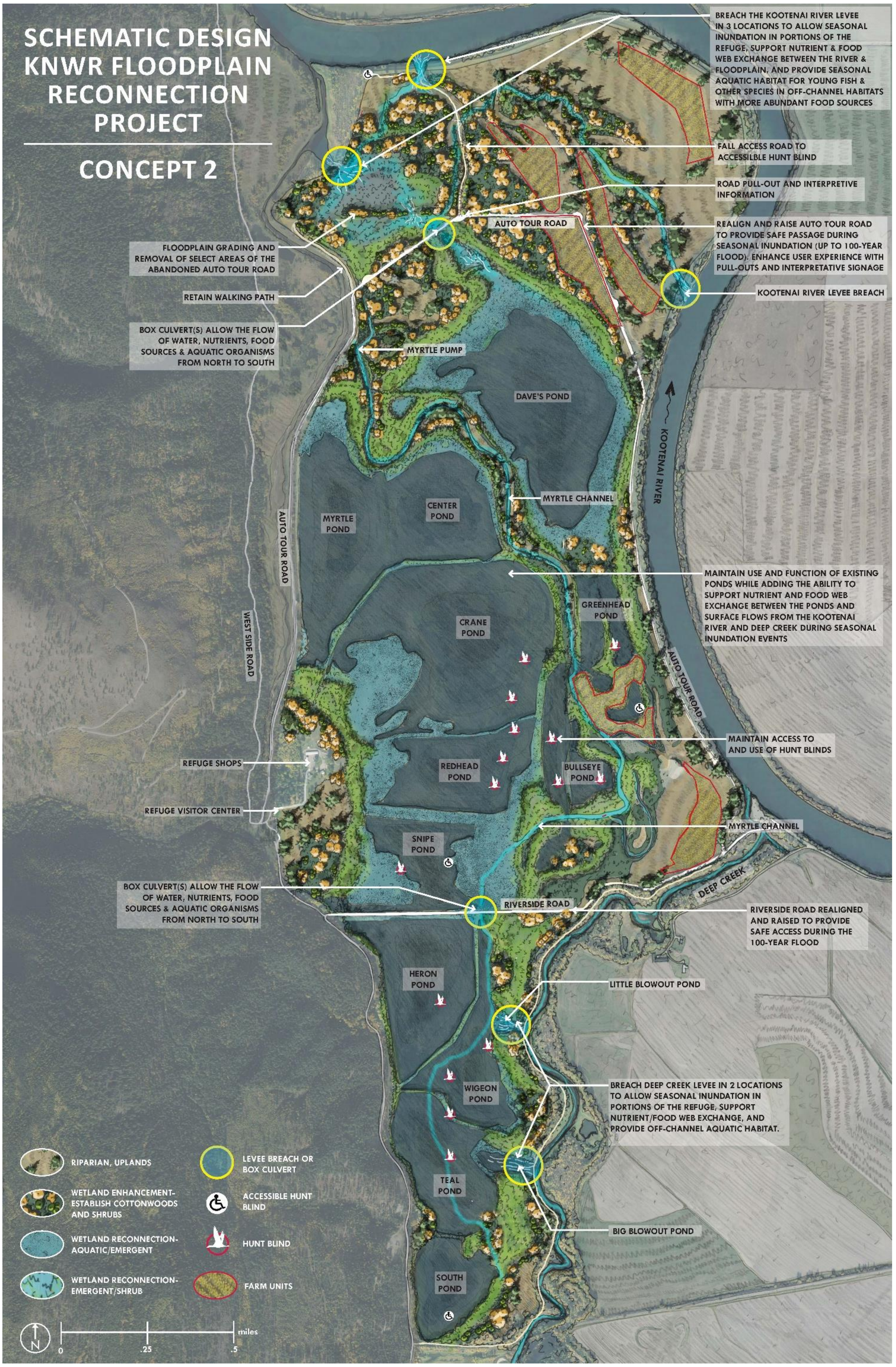
Project concept 2



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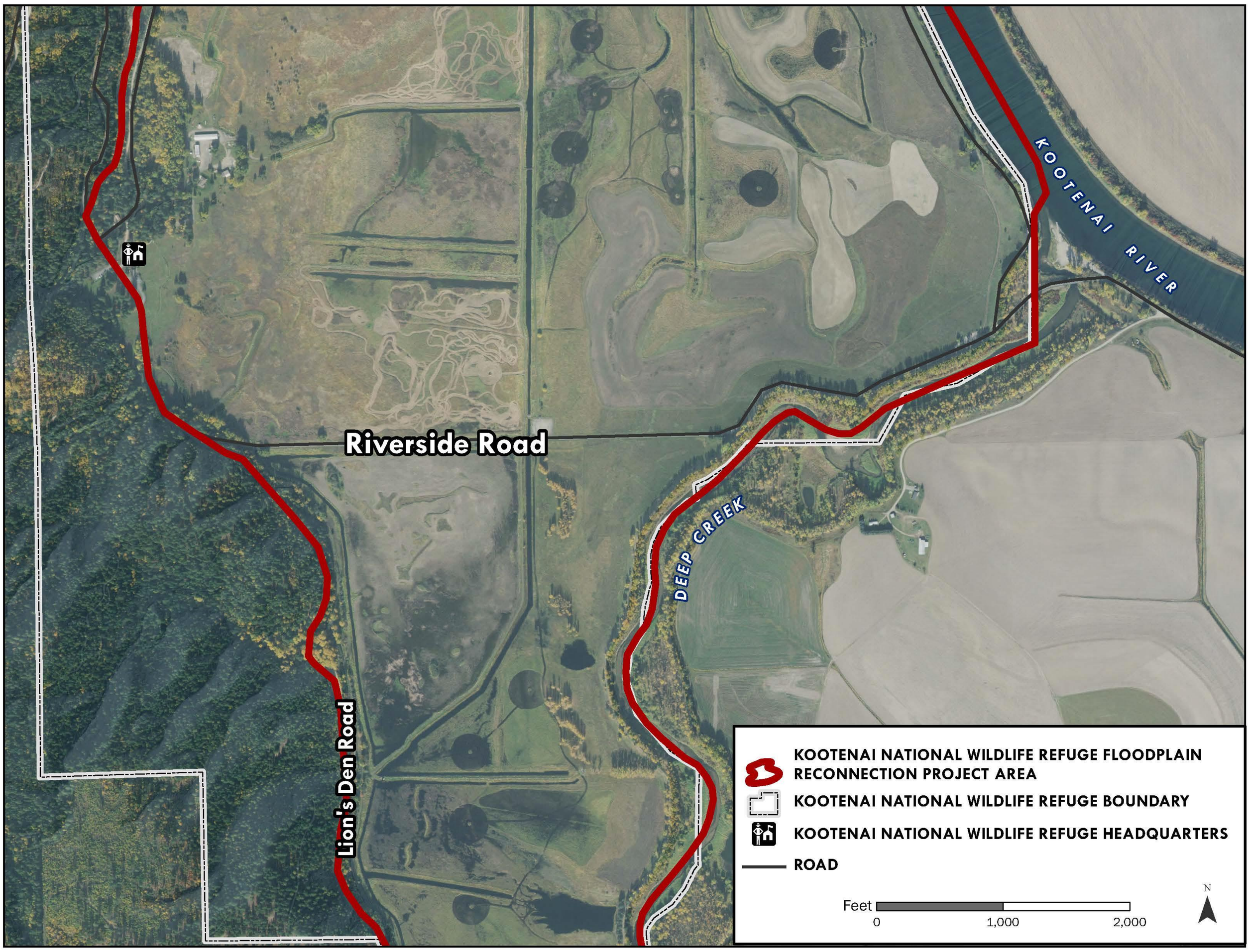
BONNEVILLE POWER ADMINISTRATION

Riverside road



Riverside Road Phase 1b

Project Area

Elevate and widen the roadway

Environmental Review

What is an EA?

- BPA anticipates preparing an Environmental Assessment (EA) to analyze the potential environmental and social impacts for this project to determine whether they are significant.

- Preparing an EA supports BPA's decision making on whether to proceed with a proposed action.

- BPA plans to conduct this level of environmental review to ensure that it fulfills National Environmental Policy Act (NEPA) requirements and to assure its compliance with other federal environmental laws such as the Endangered Species Act.

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Environmental review schedule

Public comment period ends	May 18, 2024
Consider public comments	Spring 2024
Release Draft EA* for comment	Summer 2024
Address comments in the Draft EA*	Summer 2024
Release Final EA* and issue decision	Fall 2024
If decision to build, construction start	Summer 2025

*proposed environmental review schedule if BPA prepares an EA.

BONNEVILLE POWER ADMINISTRATION

How to comment

Call: 800-622-4519

Email: communications@bpa.gov

Write: Bonneville Power Administration
Communications- DKS-7
P.O. Box 14428
Portland, OR 97293-4428

Online: *www.bpa.gov/comment*

Please reference “KNWR Floodplain Reconnection Project” with all communications.

Scoping Comment Period Ends: May 18, 2024

Project contacts:

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shannon_ehlers@fws.gov, (208) 593-7496