

Oregon State Parks and Recreation Commission

Wednesday, November 20, 2024

Agenda Item:	5d	Information
Public Comment Allowed:	Yes	
Topic:	Elijah Bristow Restoration Planning	
Presented by:	Ryan Sparks, Valley Region Resource Manager	

Background:

Elijah Bristow State Park is a nature lover's park. Hiking, bicycling, horseback riding, fishing, and birdwatching are all popular recreational activities there because of the ability to immerse oneself in the riparian forests and meadows. So, why the need for restoration? To many visitors the park looks pristine, yet it has been greatly affected by human actions over the last 75 years.

Historically, the Middle Fork Willamette and Lost Creek fanned out across the floodplain, creating diverse habitats for fish and wildlife. However, with the building of Lookout Point and Dexter Dams, the river was tamed. Levees were constructed and the river was confined to a narrow channel that cut deep into the historic floodplain. This channelization has altered the natural stream processes and reduced the quality and diversity of the habitat in the park. The levees and dams controlled flooding in Eugene and Springfield. However, along with floodwaters, gravel and woody debris were trapped by the dams upstream of the park. The missing gravel normally provides space for macroinvertebrates to live and places for salmon to spawn. The woody debris creates cover for the fish to hide, logs for the turtles to bask on, and pools for freshwater mussels to grow.

The goal for restoration at Elijah Bristow State Park is to let the river meander, spread out, and create new paths. By filling in the incised channels and lowering artificial high ground created from gravel mining, the river will be reconnected to its floodplain. Logs, branches, and small gravel will be added to replace what has been trapped above the dams. Native vegetation will be planted to shade and cool the water. With Lost Creek and the Middle Fork Willamette flowing naturally through the park again, the revived floodplain forest will be more resilient to climate change and will provide for nature lovers for years to come.

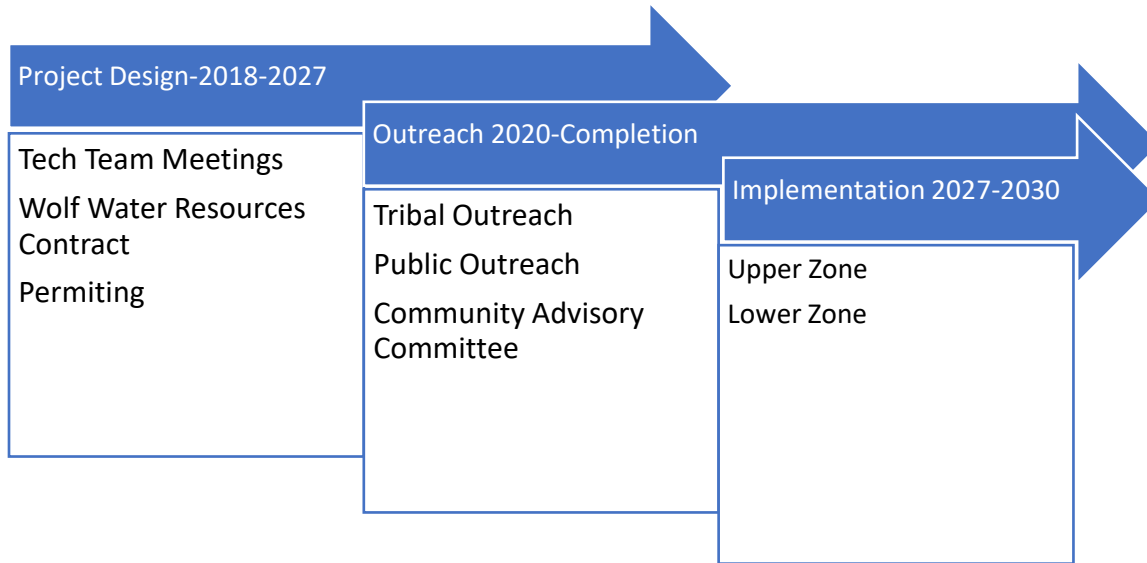
Project Manager: Sean Stewart, Natural Resource Specialist

Project Number: 35252

Project Budget: \$1.8 million currently

- Funding for this project-Please see attachment B

Schedule:



Public Outreach

- Technical Team
 - USFS, USGS, USACE, USFWS, ODFW, Confederated Tribes of Grand Ronde, Xerces Society, Bonneville Power Association, Wolf Water Resources
- Community Advisory Committee
 - Neighbors and recreators with a strong interest in Elijah Bristow State Park
 - Meetings and a field trip to a Stage 0 project in the Willamette National Forest
- Town Halls at Lowell SRS and Elijah Bristow SP
- Ranger led tours
- Virtual Ranger led tour
 - <https://storymaps.arcgis.com/stories/8ff212d96fa84d4baf1e302e8f761a06>
- Website
 - <https://www.middleforkwillamette.org/restore/rivers-and-streams/elijah-bristow-state-park/>
- Talks
 - <https://www.youtube.com/playlist?list=PL9slNKlgKnN7WfjBQD6EdfxedRBG38FtB>

Prior Action by Commission: None

Action Requested: None

Attachments: 5d-Attachment A: Photographs and Descriptions of Example Log Structures
5d-Attachment B: Funding Sources
5d-Attachment C: Park Map
5d-Attachment D: Upper Zone Project Map

Prepared by: Sean Stewart, Natural Resource Specialist

Elijah Bristow State Park Floodplain Restoration – Upper Zone Middle Fork Willamette, Oregon



Floodplain Roughness Logs – Floodplain logs will be located throughout grading areas, channel fill areas, and areas targeted for reconnection. These logs will be placed in a messy and randomized manner with logs overlapping and partially embedded in the floodplain and channel fill areas. They will provide immediate roughness that creates local habitat for fish and increases channel complexity by distributing and splitting flows. These logs will also reduce stream power while vegetation recolonizes the treatment areas.



Channel Spanning Structures – These structures increase channel complexity by accumulating sediment behind the large log members and creating localized scour holes. They also act as a “catcher’s mitt” in downstream project areas to catch wood and slow down flow. These structures are porous and are not buried grade control structures. Water can go through and around them, providing flow paths for fish passage.



Apex Jams – These structures support mid-channel bar and island growth to accumulate salmon spawning gravels and increase local floodplain inundation.



Margin Wood – Wood on the stream bank improves habitat diversity by simulating natural jams accumulated against fallen logs from the bank.



As the river interacts with the structures and wood, diverse habitat is created. This habitat is not static! The site will continue to change as the river moves wood and gravel, and as new plants take hold.

Total EBSP Funding as of 8/23/2024

Secured

2018 - 2020 OWEB TA - \$75,000

2020 - 2021 OWEB SE - \$96,971

2020 - 2021 USFS SA - \$60,000

2021 Collins Foundation - \$22,000

2022 - 2023 USFS Title II - \$61,530

2023 - 2025 OWEB TA Phase 1 - \$75,000

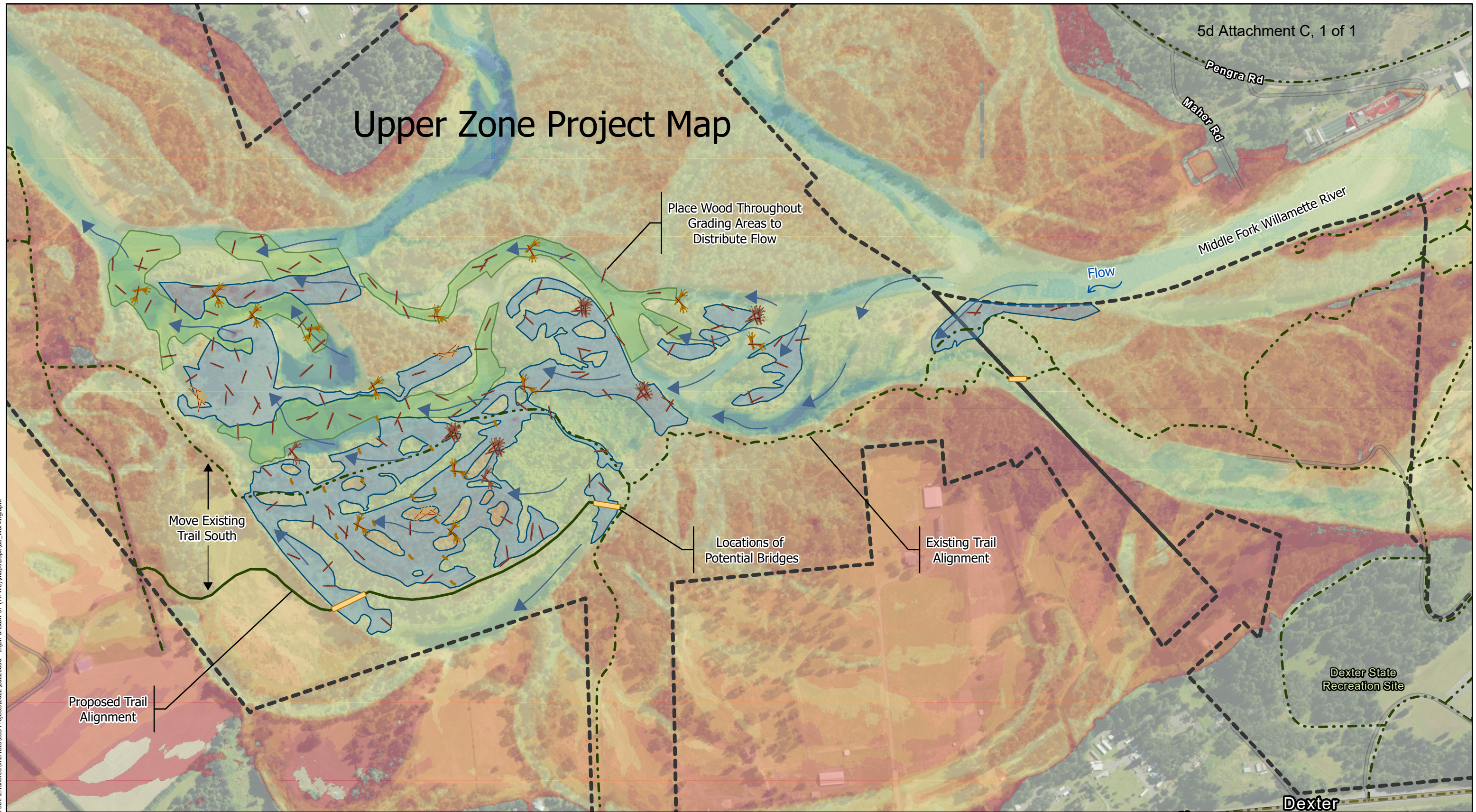
2023 - 2025 OWEB TA Phase 2 - \$75,000

2024 - 2026 BPA - \$242,000

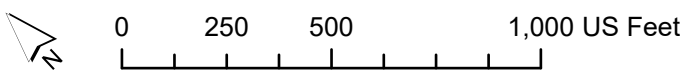
2024 - 2027 NOAA - \$1,100,000

Total Secured: \$1,807,501

Upper Zone Project Map



Path: Z:\Shared\W21\GIS\Projects\2022_20220036 - Elijah Bristow SP (MFWC)\maps\aspx\BS_Working.aprx



Cut and fill areas are delineated to reactivate the floodplain and provide the greatest habitat uplift.

- Legend**
- Fill Areas
 - Cut Areas
 - Bridge
 - State Park Boundary
 - Existing Trail
 - Flow Arrows
 - Proposed Trail
 - BDA
 - Apex Jam
 - Channel Spanning Jam
 - Margin Jam
 - Floodplain Log

Elijah Bristow State Park Floodplain Restoration Site Map - 30% Design



Elijah Bristow State Park Trails

Parking can be found at each trailhead. ADA-accessible parking is available at the Beaver Pond Trailhead, the park entrance, the equestrian staging area, and the group picnicking area.

At certain times of the year, some trails may become impassable due to flooding. Please note that the Heron Trail fords Lost Creek to join up with the Elk Trail.

TRAILS

All distances are approximate

- Angler's Trails (2 miles)
- Elk Trail (2 miles)
- Heron Trail (3 miles)
- River Trail (5 miles)
- Turtle Trail (1 mile)
- Oak Trail (1 mile)

ADA-accessible Trails

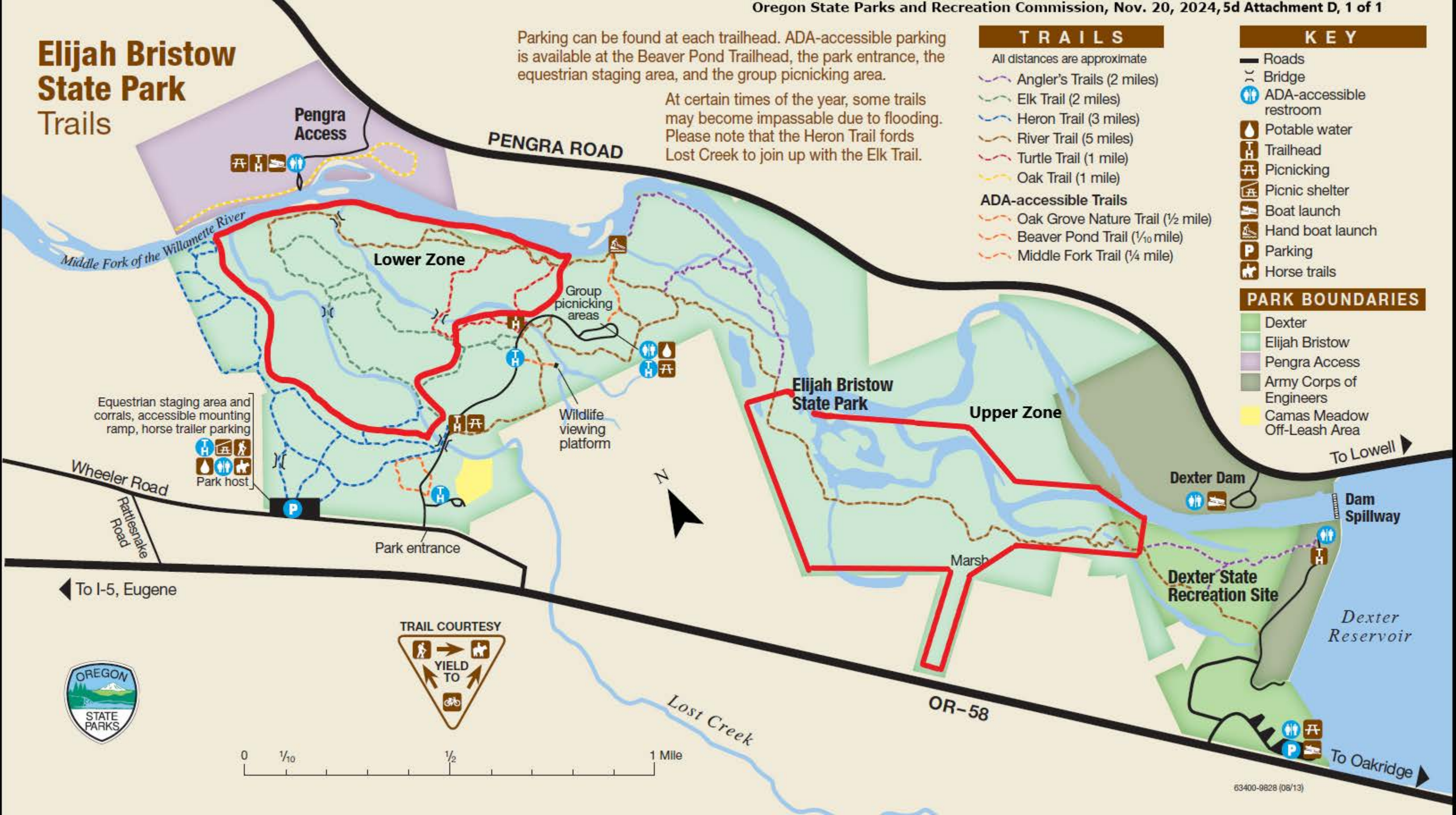
- Oak Grove Nature Trail (1/2 mile)
- Beaver Pond Trail (1/10 mile)
- Middle Fork Trail (1/4 mile)

KEY

- Roads
- Bridge
- ADA-accessible restroom
- Potable water
- Trailhead
- Picnicking
- Picnic shelter
- Boat launch
- Hand boat launch
- Parking
- Horse trails

PARK BOUNDARIES

- Dexter
- Elijah Bristow
- Pengra Access
- Army Corps of Engineers
- Camas Meadow Off-Leash Area



Equestrian staging area and corrals, accessible mounting ramp, horse trailer parking

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Park host

Group picnicking areas

Wildlife viewing platform

Lower Zone

Upper Zone

Elijah Bristow State Park

Dexter Dam

To Lowell

Dam Spillway

Dexter State Recreation Site

Dexter Reservoir

Marsh

Lost Creek

OR-58

To Oakridge

To I-5, Eugene

TRAIL COURTESY

