W.T. Wooten Wildlife Area Floodplain Management Plan

PROJECT ACTIVITY UPDATE
(MARCH 2016)

Purpose: To provide updates on implementation of the W.T. Wooten Floodplain Management Plan (FMP).

Plan Overview: The Wooten Wildlife Area FMP was developed as a cross-program effort to improve conditions within the Tucannon River floodplain. The goals in the FMP are consistent with the Washington Department of Fish and Wildlife's (WDFW's) mission and 2011 to 2017 Strategic Plan and will complement ongoing habitat restoration efforts to recover spring Chinook salmon and other Endangered Species Act-listed fish species within the Tucannon River Basin. The projects on which the FMP focuses are improving the Tucannon lakes, restoring and enhancing habitat in the floodplain (including large wood projects), burying the powerline between the Tucannon Fish Hatchery and Camp Wooten, and relocating campgrounds out of the floodplain (the last of which has already been completed). Public outreach is also an important component of implementing the FMP.

PROGRAM UPDATES AND ANNOUNCEMENTS

Semi-annual Public Meetings: WDFW will host public meetings at least twice per year to provide progress updates on implementation actions. Our first 2016 meetings are scheduled from 4:30 to 6:30 p.m. on April 20 in Richland and April 21 in Dayton. Additional meetings will be held in the fall.

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TUCANNON LAKES

Rainbow Lake Enhancement and Rehabilitation Project

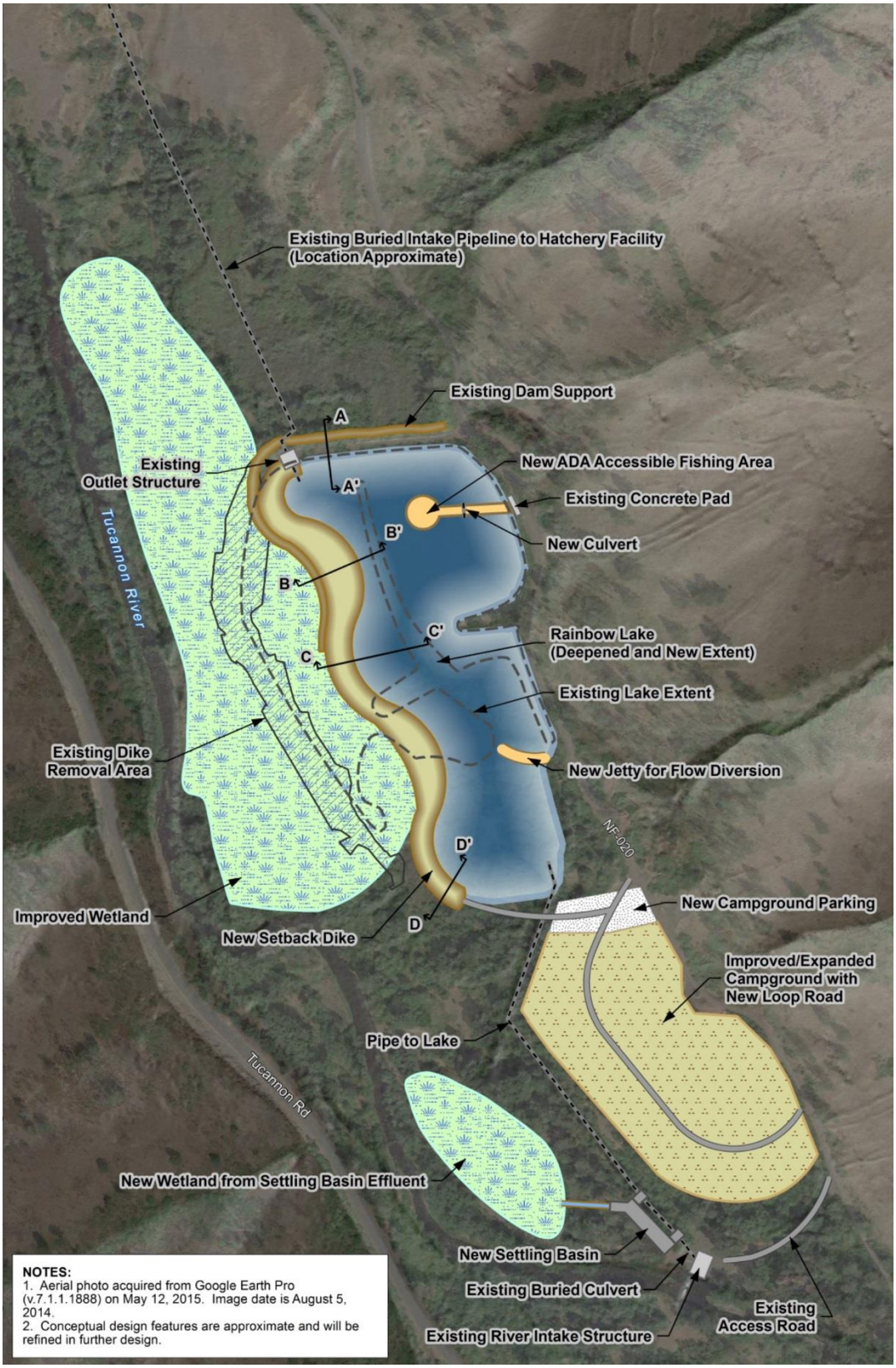
In June 2015, WDFW completed a draft Pre-Design Report for the reconfiguration of Rainbow Lake. The Pre-Design Report provided refined design alternatives and built on the conceptual-level designs included in the FMP. The lake improvements are proposed to improve fish and wildlife habitat, water quality, storage capacity, and access for anglers. The proposed improvements will also improve dam safety and reduce seepage.

Site investigation options are currently under development. These investigations include survey data collection and geotechnical and hydrologic investigations.

Survey Data Collection: A site survey will capture current lake elevations and provide the basis for design development and evaluation of potential dredge volumes.

Geotechnical Investigation: Conceptual designs discussed to date involve expansion of the lake upstream of the inflow; therefore, the proposed exploration locations are focused to the south. Two borings are proposed through the existing Rainbow Lake dam to assess the current condition of the berm and subsurface conditions within the lake, as part of the evaluation to determine potential for lake deepening. If the lake is deepened and the configuration modified, it can improve water storage capacity, water quality, and fishing conditions. Four test pits and two additional borings are proposed south of the lake to investigate subsurface conditions where the majority of the construction will be required for lake modifications.

Hydrological Investigation: Although the existing diversion and supply from the Tucannon River to Rainbow Lake will be maintained, the changes to the lake will also allow additional runoff to be captured by the lake from drainage areas to the north and east of the lake. Field data collection efforts will focus on verifying the potential water supply that can be captured from adjacent drainage basins. Field data collection will include surface flow and groundwater monitoring.



Conceptual drawing for Rainbow Lake and improved campground area.

Spring Lake Enhancement and Rehabilitation Project

The improvement concept for Spring Lake calls for dredging and removal of sediment to increase the depth and volume of the lake to improve habitat for fish and wildlife and access for anglers. The proposed improvements also include dam repairs or replacement to enhance dam safety and reduce seepage. Additional improvements proposed will also enhance access and recreational opportunities at the lake.

Survey Data Collection: A site survey will capture current lake elevations and provide the basis for design development and evaluation of potential dredge volumes.

Geotechnical Investigation: The investigation will consist of three soil borings performed along the existing Spring Lake dam. The performance of test pits is not feasible because the size of the pit generated during investigation may compromise the integrity of the dam, and locations below the dam and upstream of the lake inflow are wetlands.

Hydrological Investigation: No improvements are recommended that will impact the water supply to the lake. Because no changes will be made to the supply system, no detailed field investigations or data collection are recommended at Spring Lake to verify the quantity of water that can potentially be captured by the lake.

Beaver and Watson Lakes

Beaver and Watson lakes suffer from a variety of problems, including sedimentation, overgrowth of weeds and vegetation, leakage through the Beaver and Watson impounding dams, debris collection at the dams, limited flow into the lakes, and almost no flow out of the lakes during the summer.

The improvement concept for the lakes calls for combining the two to create a larger, elongated lake on the eastern fringe of the Tucannon River floodplain. The new lake would be deeper and provide enhanced access and fishing opportunities to the public. Proposed improvements also include elimination of the surface water diversion on the Tucannon River. The proposal would extend the lake into wet areas to capture seepage and shallow groundwater to maintain lake levels.

Survey Data Collection: A site survey will capture current lake elevations and provide the basis for design development and evaluation of potential dredge volumes.

Geotechnical Investigation: A total of two borings and five test pits are proposed, with one test pit proposed north of the Watson Lake Dam and the remaining explorations proposed from the Watson Lake Dam to the south.

Hydrological Investigation: Field data collection efforts will be focused on verifying the potential water supply that can be captured from adjacent drainage basins and shallow groundwater. Field data collection will include surface flow and groundwater monitoring.

HABITAT ENHANCEMENT

Tucannon River Large Wood Restoration Projects

WDFW continued pursuing large wood restoration projects in 2015 by treating the section of river between Watson Lake and Deer Lake, as well as completing the large wood project on the Russell Unit that was started in 2014. Several large wood structures were placed in the river in both areas to increase fish habitat, slow down high flows, and reconnect the floodplain during high-flow events.

Designs are currently underway for large wood projects that will be constructed in 2017 on the Hartsock Unit and from the bridge into Camp Wooten to Big 4 Lake. The Hartsock Project will use a combination of helicopter- and ground-based heavy equipment, and the Camp Wooten to Big 4 Lake project will use helicopter-based heavy equipment.

CAMPGROUNDS

Campground 6 Relocation – Complete (2014)

Campground 6 was relocated across the road from its original location.

Campground 9 Relocation – Complete (2014)

Campground 9 was split into two smaller campgrounds (Campground 9 and a new Campground 10). Campground 10 was renamed Campground 11.

Campground 9

Campground 10

CAMP WOOTEN

The FMP identifies reconfiguration of Camp Wooten to be considered during the feasibility portion of the floodplain management. Some portions of the current location of Camp Wooten are within the Tucannon River floodplain. Any reconfiguration will be done with the camp at its present, historical location. Reconfiguration of Camp Wooten could involve the following improvements:

- Removing, replacing, and relocating the current bridge, and relocating the access road farther outside the floodplain
- Moving some infrastructure, such as cabins, away from the river
- Removing portions of current levees that constrict the river and constructing setback levees to allow the river some access to the floodplain
- Re-establishing a pre-existing side channel for off-channel rearing