TUCANNON FLOODPLAIN MANAGEMENT PLAN

PUBLIC MEETING

April 2016

Overview

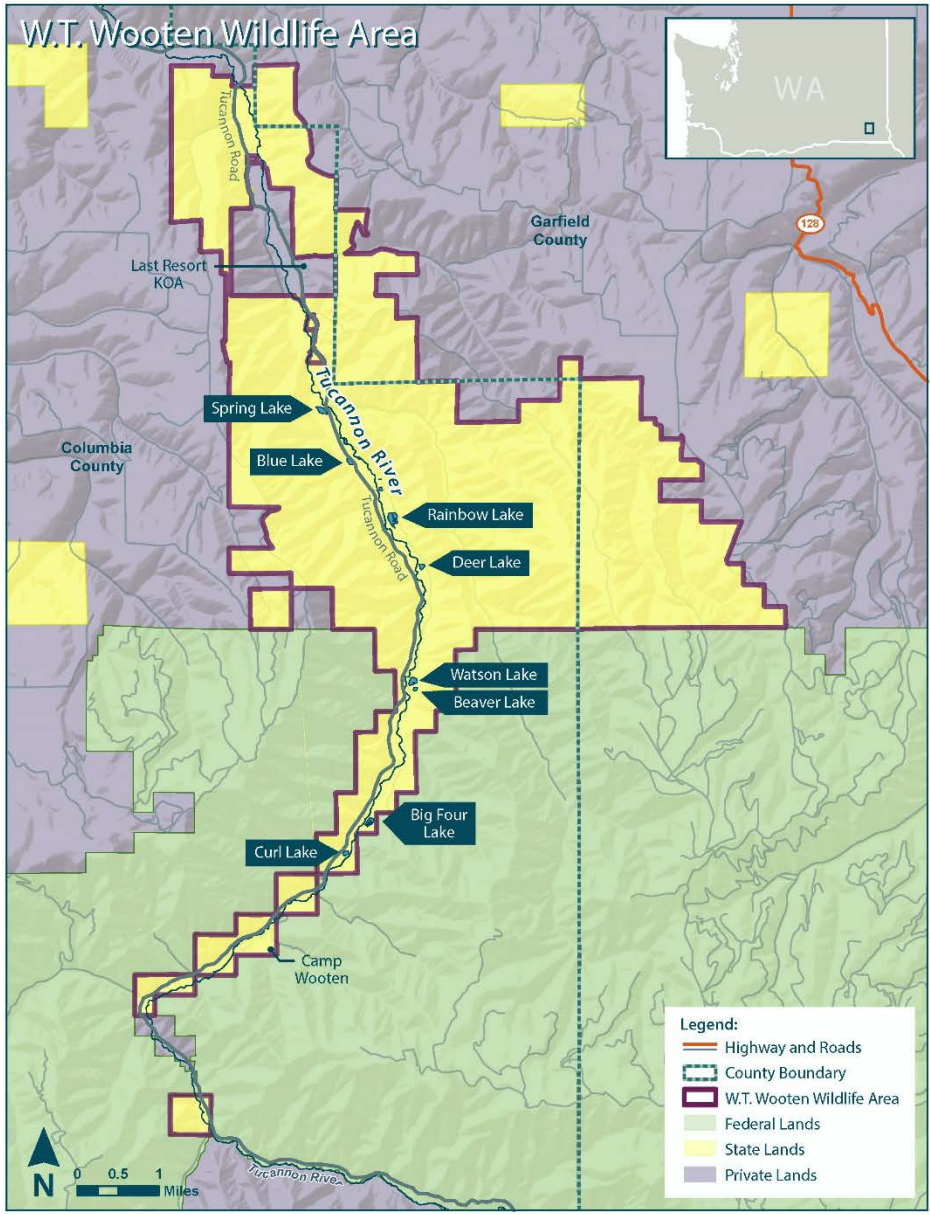
- W.T. Wooten Wildlife Area Overview
- Floodplain Management Plan Goals
- Recent Activities
- Rainbow Lake Reconfiguration Updates
- Other Project Updates
  - Other Tucannon Lakes
  - River Restoration
- Permitting Strategy
- Public Involvement
- Questions

W.T. Wooten Wildlife Area

Overview

W.T. Wooten Wildlife Area

- Eight man-made lakes
- Trout fishing in the Tucannon River
- 11 WDFW campgrounds
- Wildlife viewing/ bird watching
- Hunting
- Hiking



W.T. Wooten Wildlife Area

Floodplain Management Plan Goals

Floodplain Management Plan (FMP)

Projects identified in the FMP focus on

- Tucannon Lakes – Enhance and improve the Tucannon Lakes
- Habitat Enhancements – Enhance habitat in the floodplain (including large wood (LW) projects)
- Powerline – Bury the powerline between the Tucannon Fish Hatchery and Camp Wooten
- Campgrounds – Relocate campgrounds out of the floodplain
- Outreach – Maintain and build public support for management of the wildlife areas

Tucannon Lakes and Floodplain Reconfiguration

Enhance Tucannon Lakes for improved fishing experience, floodplain function, and public safety

- Constructed between 1953 and 1955
- Popular fishing lakes
- All but two of the lakes constrict floodplain
- Six of the eight lakes are in violation of State Dam Safety Regulations
- Lakes retain sediment and are losing carrying capacity for trout fishery

Increasing Large Wood

- LW is a critical component of streams, fish habitat, and stream function
- Lack of LW is a limiting factor for creation and maintenance of pools and providing fish cover and stream function, and is critical for salmon recovery

Recent Activities

Completed

Activities Completed

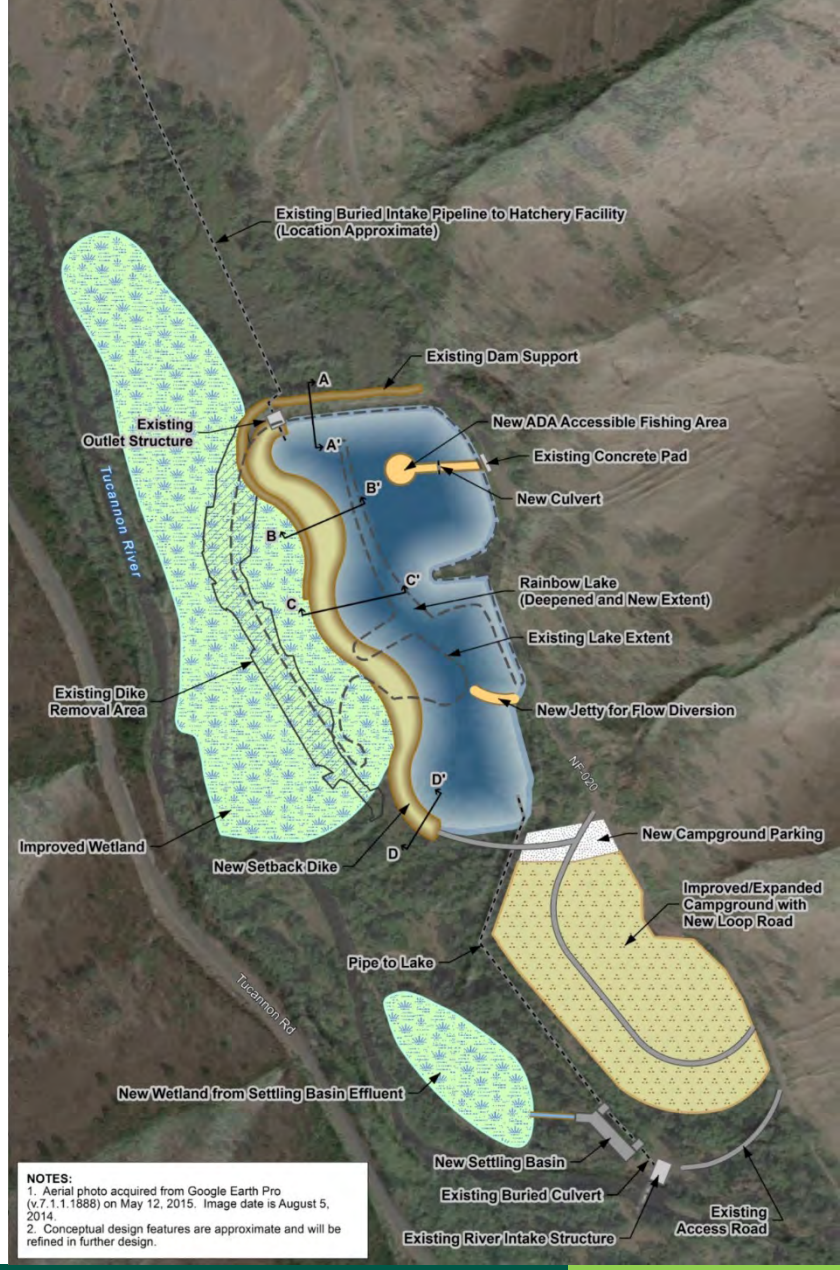
- June 2015 – Rainbow Lake Draft Pre-Design Report completed
- 2015 – Completed LW restoration projects
  - Tucannon River between Watson Lake and Deer Lake
  - Tucannon River/Russell Unit Large Wood Project
- 2014 – Campground relocations
  - Campground 6 relocated across road
  - Campground 9 split into two smaller campgrounds

Rainbow Lake Reconfiguration Updates

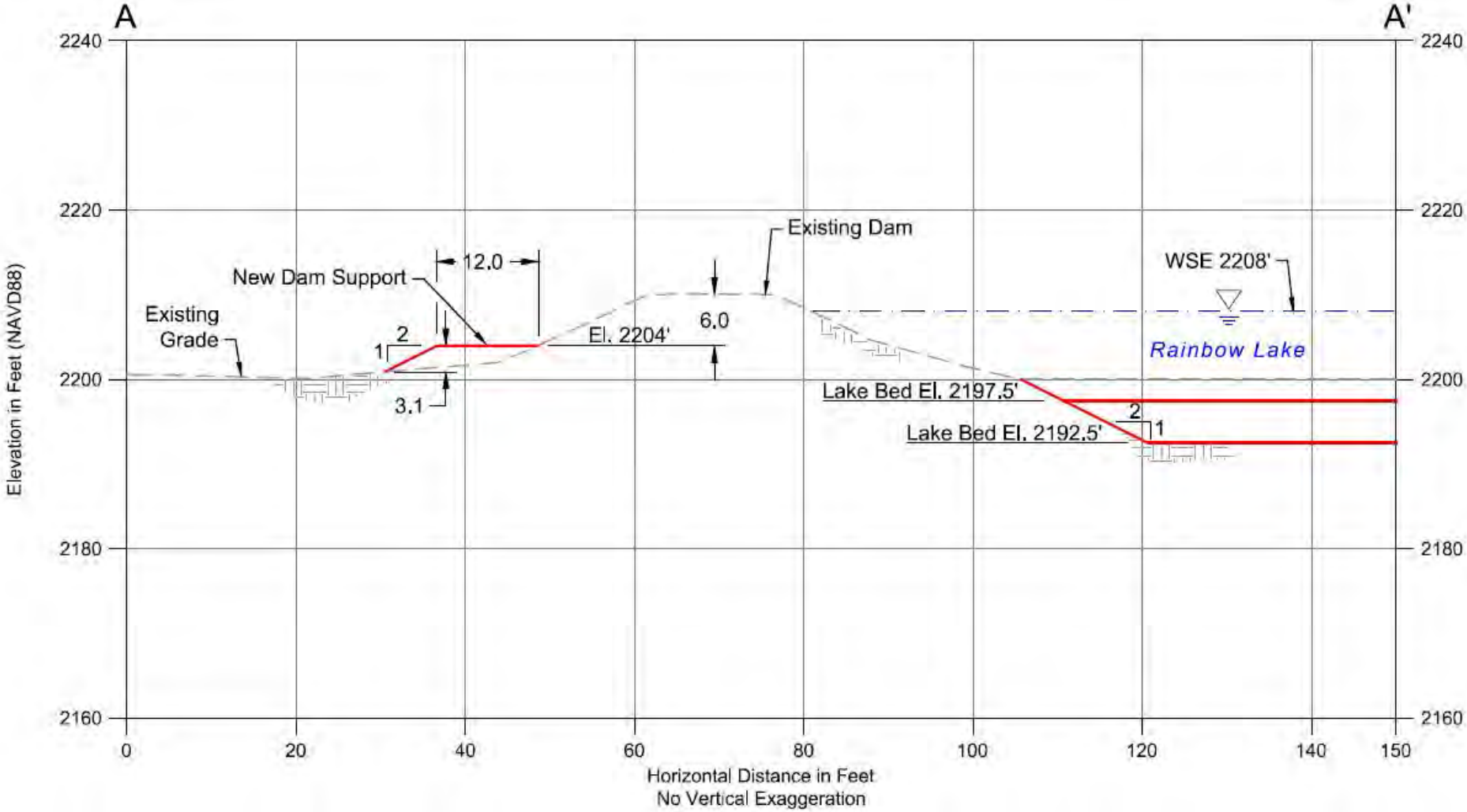
Rainbow Lake

Conceptual Plan

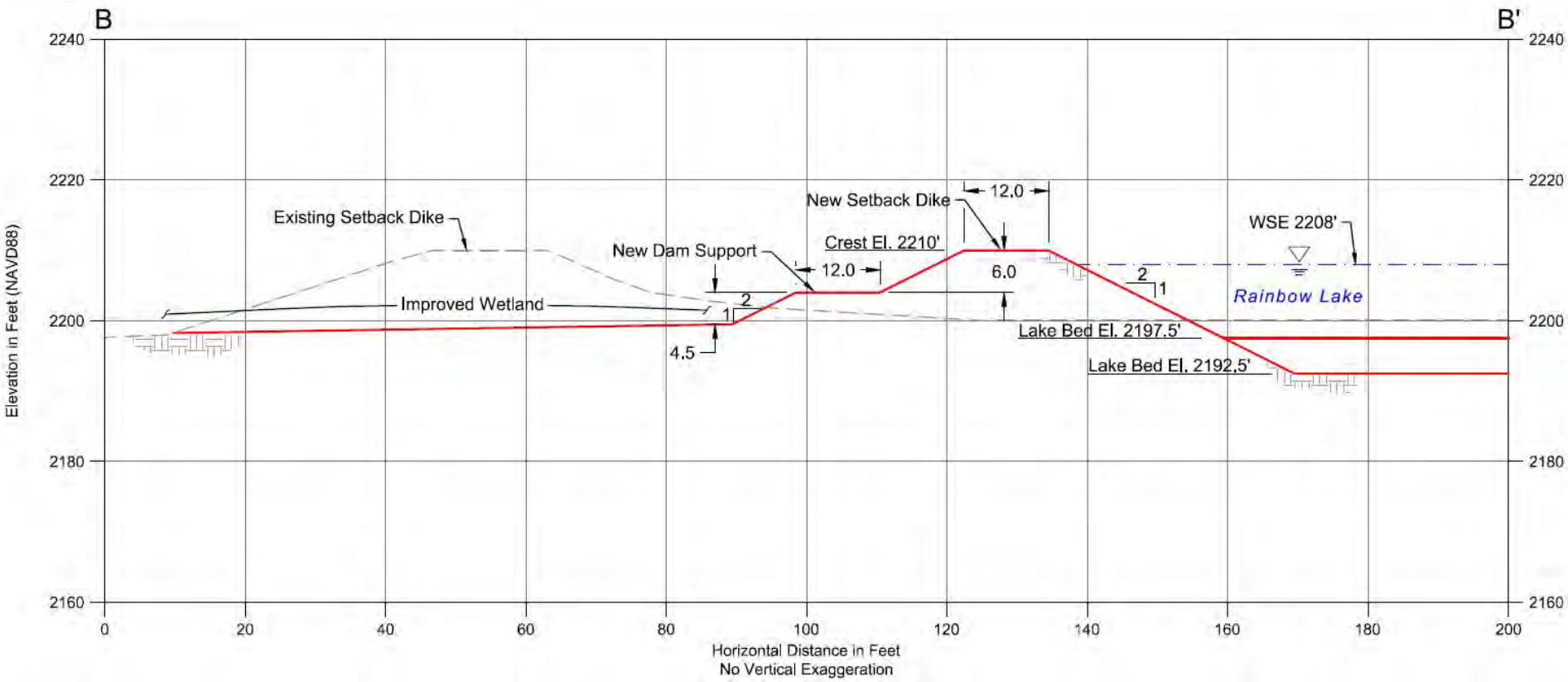
- Dredge and remove sediment
- Increase lake depth and volume
- Reduce water temperatures and improve water quality
- Increase stocking capacity and angler access
- Improve and expand day-use and campsite facilities
- Expand to the south (upstream of inflow)



Rainbow Lake: Conceptual Dam Improvement



Rainbow Lake: Conceptual Dam Relocation



Rainbow Lake: Technical Investigations

Technical site investigation plans are currently under development

- Site Survey Plan
  - **Action:** Capture current lake elevations
  - **Purpose:** To provide the basis for design development and evaluation of potential dredge volumes, and establish coordinate system
- Geotechnical Investigation Plan
  - **Action:** Conduct soil borings and test pits
  - **Purpose:** To assess current berm and subsurface conditions within the new lake footprint
- Hydrological Investigation Plan
  - **Action:** Analyze watershed contributing surface water to Rainbow Lake
  - **Purpose:** Evaluate the potential runoff flow rates for spillway design

Rainbow Lake

Geotechnical Investigation Plan

- Two borings on existing dam
- Two borings on south end
- Four test pits on south end
- Cleared access paths to test locations

Rainbow Lake: Watershed Delineation

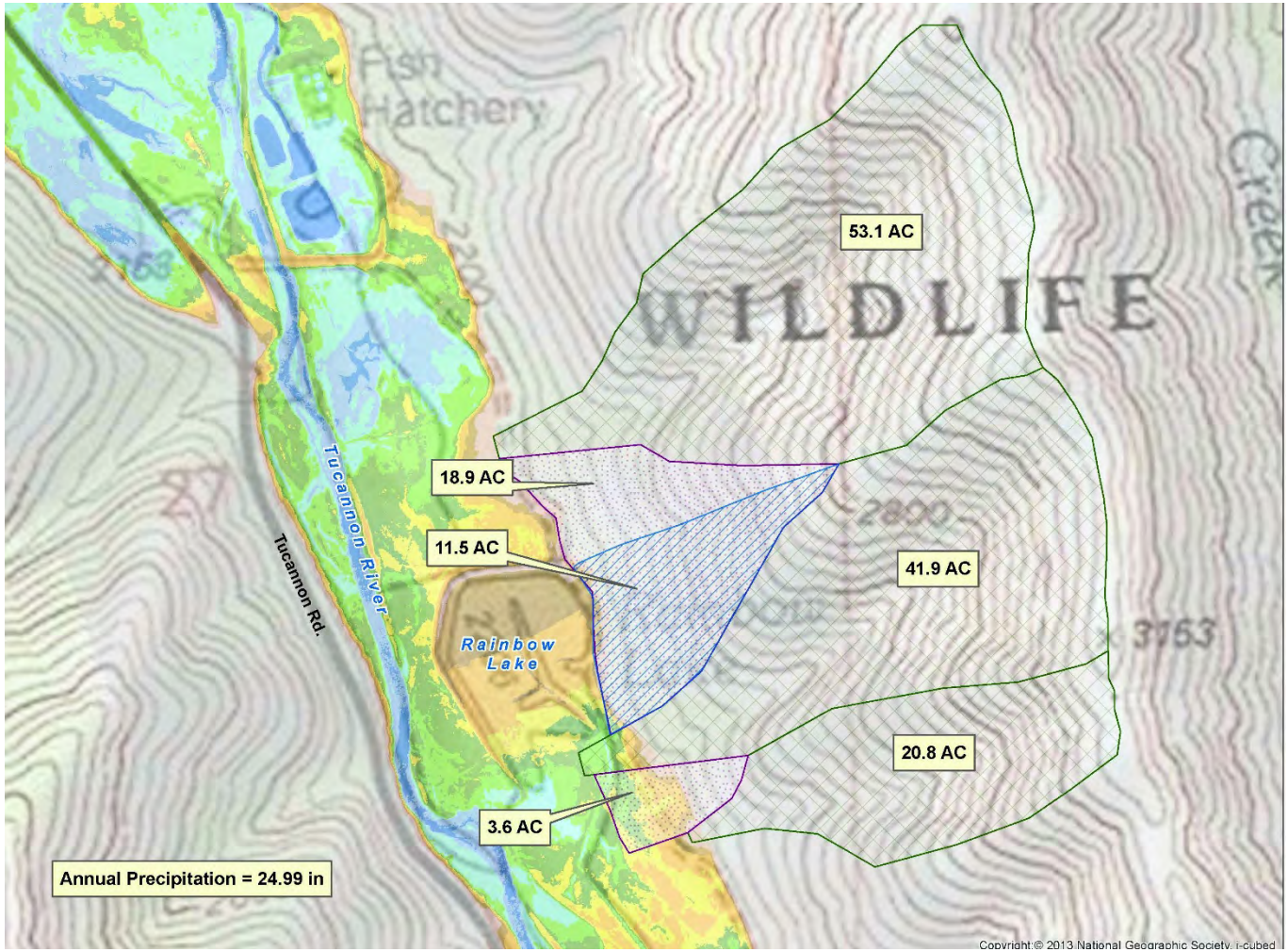
LEGEND

- Area Tributary To Existing Rainbow Lake
- Unconcentrated Flow Area Tributary to Modified Lake
- Concentrated Flow Area for Potential Water Supply to Modified Lake

Elevation in Feet Relative to Tucannon River

- <0
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 - 15
- 15 - 20
- 20 - 30
- >30

NOTES:
USGS Topographic basemap obtained from Esri streaming service. Precipitation obtained from PRISM Climate Group, OSU.



Rainbow Lake: Schedule

- April 2016
  - Site surveys
  - Geotechnical investigations
  - Hydraulics and geomorphic analysis
- May 2016 – Wetland field delineations
- April to June 2016 – Site Analysis and Design
- June 2016 to Jan 2017 – Final Site designs
- Spring 2017 – Bid documents and contractor selection
- Early 2017 – Submit Dam Safety Reports for Ecology approval
- May 2017 – Construction of Initial Actions

Other Tucannon Lakes Updates

Spring Lake

Geotechnical Investigation Plan

- Three borings on existing dam
- No test pits proposed

Spring Lake: Watershed Delineation

LEGEND

Area Tributary To Existing Spring Lake

Elevation in Feet Relative to Tucannon River

- <0
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 - 15
- 15 - 20
- 20 - 30
- >30

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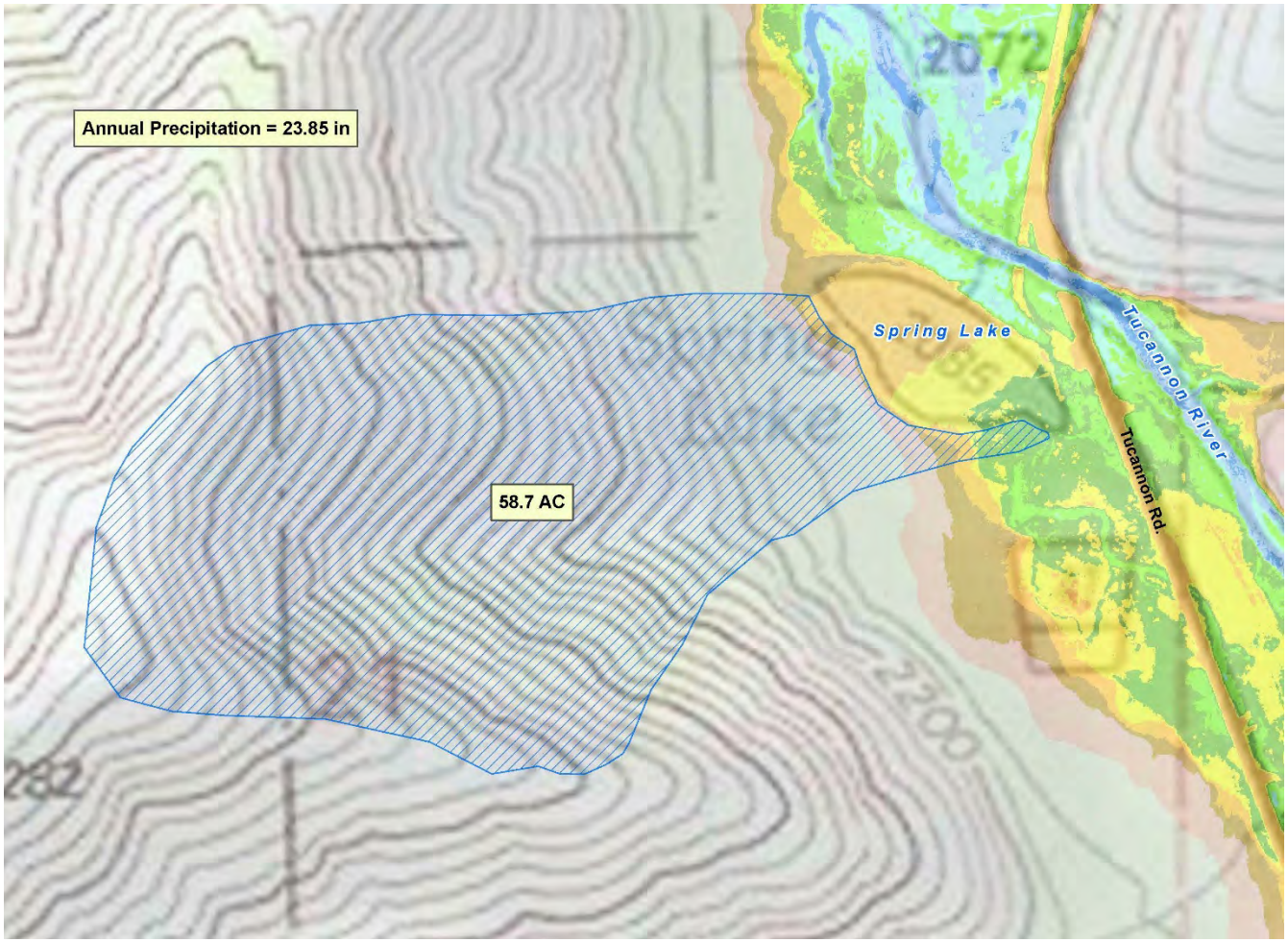

Beaver and Watson Lakes

Geotechnical Investigation Plan

- Two borings on existing dams
- Five test pits

Beaver and Watson Lakes: Watershed Delineation

LEGEND

- Area Tributary To Existing Watson and Beaver Lakes
- Unconcentrated Flow Area Tributary to Modified Lake
- Concentrated Flow Area for Potential Water Supply to Modified Lake
- Install Temporary Flume and Level Transducer
- Perform Wet Weather and Dry Weather Pump Test in Shallow Monitoring Well
- Install Shallow Temporary Monitoring Well with Level Transducer

Elevation in Feet Relative to Tucannon River

- <0
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 - 15
- 15 - 20
- 20 - 30
- >30

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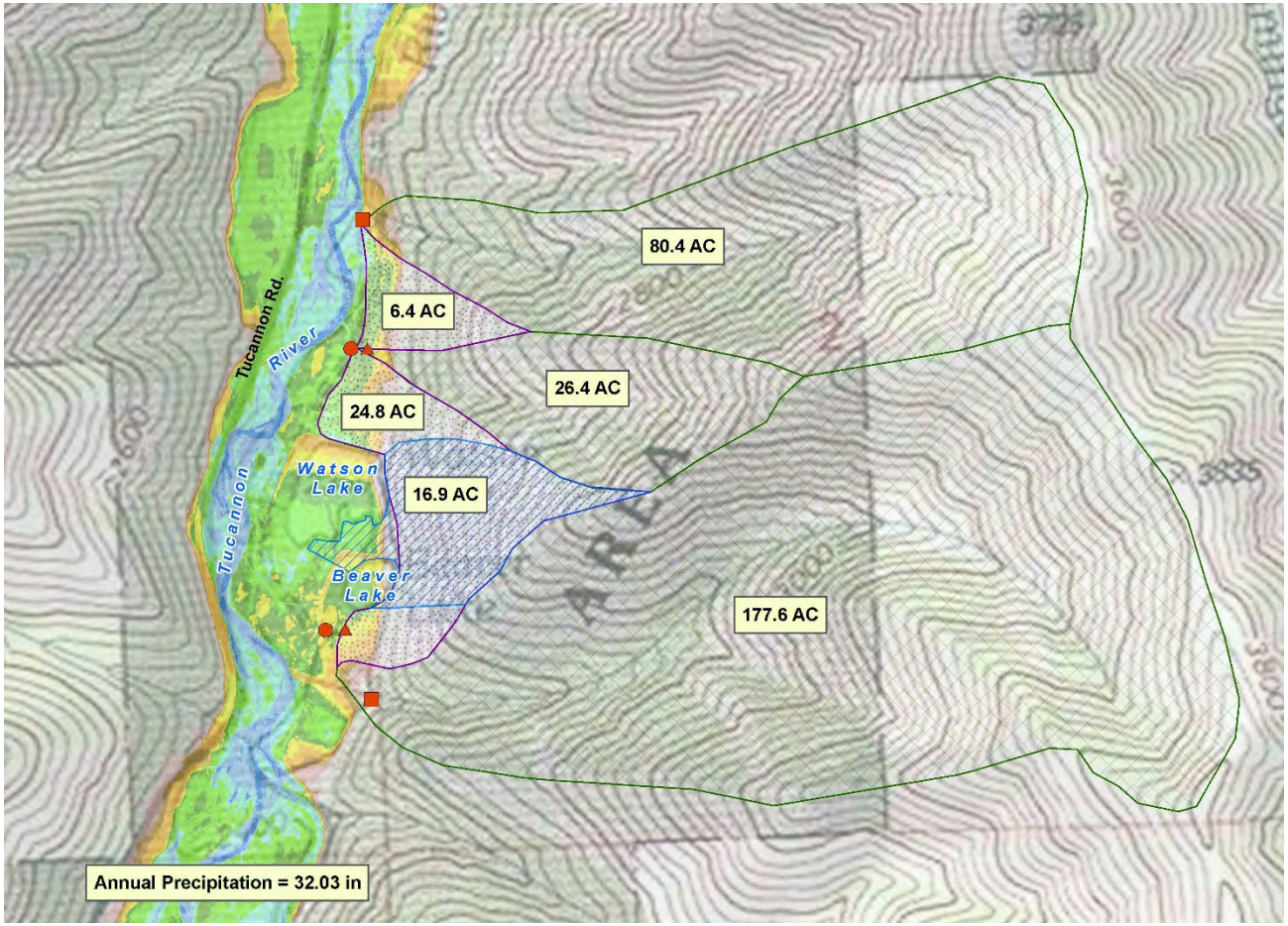

Deer Lake

Geotechnical Investigation Plan

- Two borings on existing dam and within lake footprint
- Five test pits

Deer Lake: Watershed Delineation

LEGEND

- Area Tributary To Existing Deer Lake
- Unconcentrated Flow Area Tributary to Modified Lake
- Concentrated Flow Area for Potential Water Supply to Modified Lake
- Install Temporary Flume and Level Transducer
- Perform Wet Weather and Dry Weather Pump Test in Shallow Monitoring Well
- Install Shallow Temporary Monitoring Well with Level Transducer

Elevation in Feet Relative to Tucannon River

- <0
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
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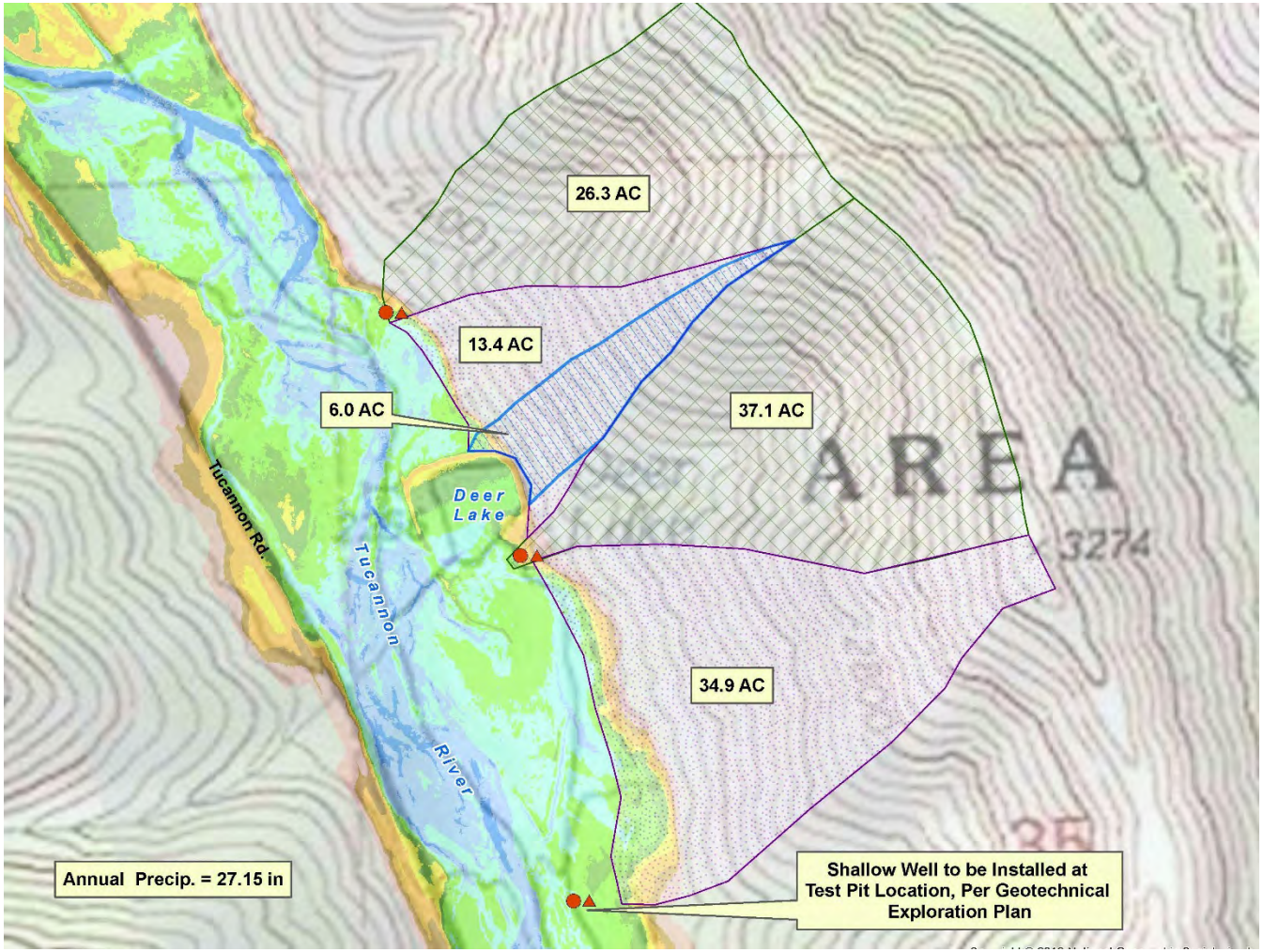


River Restoration Updates

River Restoration and Habitat Enhancements

LW restoration projects planned for 2017

- Tucannon River at Hartsock Unit
  - Helicopter- and ground-based equipment to place LW structures
- Tucannon River from Camp Wooten (bridge) to Big 4 Lake
  - Helicopter-based heavy equipment to place LW structures

Permitting Strategy

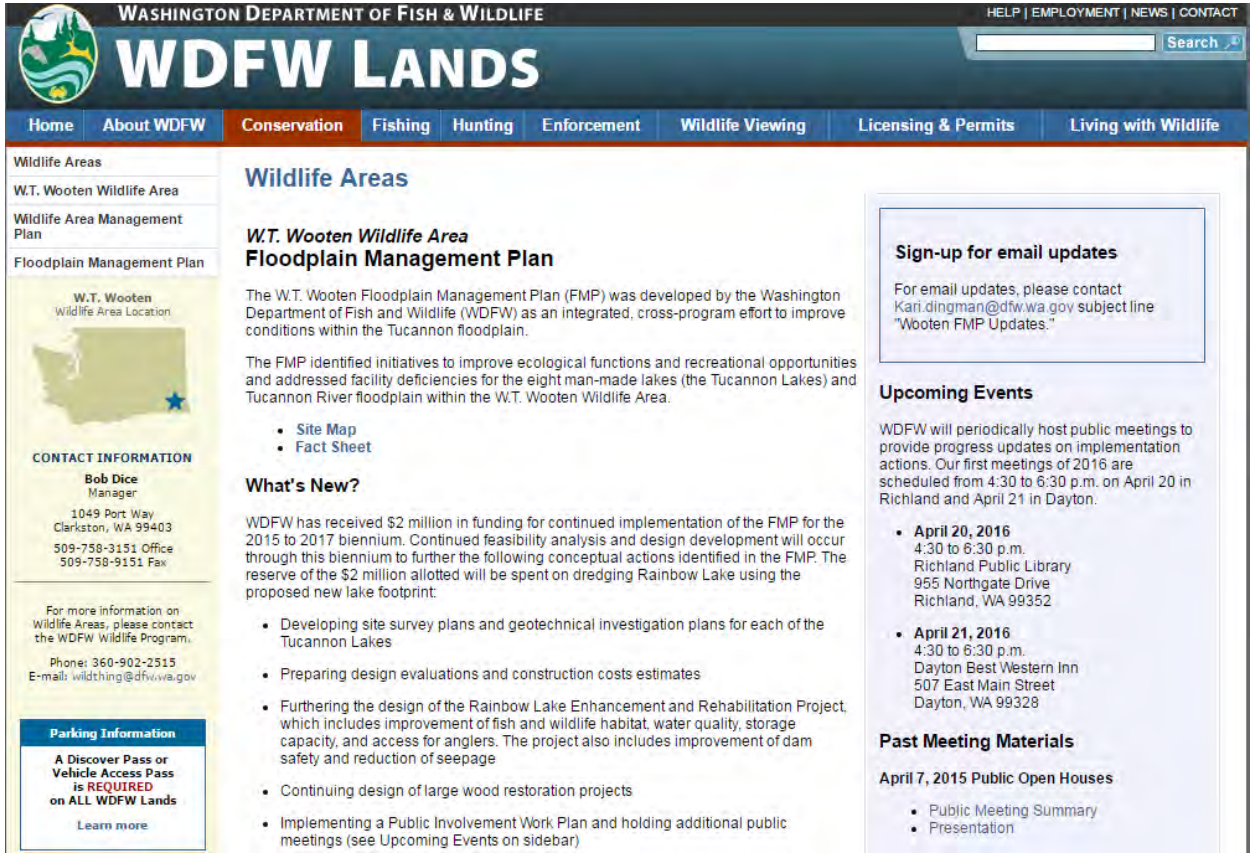
Permitting

- Developing a comprehensive permitting strategy for improvements at all the lakes
- Programmatic State Environmental Policy Act (SEPA) review with opportunity for public input
- Preliminary permitting schedule
  - Fall 2016: Prepare permitting documentation for Rainbow Lake improvements, and conduct programmatic SEPA review
  - December 2016: Submittal to local, state, and federal permitting agencies
  - Spring 2017: Permits for Rainbow Lake improvements received in time for 2017 construction schedule

Public Involvement

Visit the Project Website

- Website and Contact Information
  - Email: http://wdfw.wa.gov/lands/wildlife_areas/wt_wooten/floodplain_management.php
  - Phone: 509-843-1530



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Wildlife Areas
W.T. Wooten Wildlife Area
Wildlife Area Management Plan
Floodplain Management Plan

W.T. Wooten
Wildlife Area Location

CONTACT INFORMATION
Bob Dice
Manager
1049 Port Way
Clarkston, WA 99403
509-758-3151 Office
509-758-9151 Fax

For more information on Wildlife Areas, please contact the WDFW Wildlife Program.
Phone: 360-902-2515
E-mail: wildthing@dfw.wa.gov

Parking Information
A Discover Pass or Vehicle Access Pass is REQUIRED on ALL WDFW Lands
Learn more

Wildlife Areas

W.T. Wooten Wildlife Area
Floodplain Management Plan

The W.T. Wooten Floodplain Management Plan (FMP) was developed by the Washington Department of Fish and Wildlife (WDFW) as an integrated, cross-program effort to improve conditions within the Tucannon floodplain.

The FMP identified initiatives to improve ecological functions and recreational opportunities and addressed facility deficiencies for the eight man-made lakes (the Tucannon Lakes) and Tucannon River floodplain within the W.T. Wooten Wildlife Area.

- Site Map
- Fact Sheet

What's New?

WDFW has received $2 million in funding for continued implementation of the FMP for the 2015 to 2017 biennium. Continued feasibility analysis and design development will occur through this biennium to further the following conceptual actions identified in the FMP. The reserve of the $2 million allotted will be spent on dredging Rainbow Lake using the proposed new lake footprint:

- Developing site survey plans and geotechnical investigation plans for each of the Tucannon Lakes
- Preparing design evaluations and construction costs estimates
- Furthering the design of the Rainbow Lake Enhancement and Rehabilitation Project, which includes improvement of fish and wildlife habitat, water quality, storage capacity, and access for anglers. The project also includes improvement of dam safety and reduction of seepage
- Continuing design of large wood restoration projects
- Implementing a Public Involvement Work Plan and holding additional public meetings (see Upcoming Events on sidebar)

Sign-up for email updates

For email updates, please contact Kari.dingman@dfw.wa.gov subject line "Wooten FMP Updates."

Upcoming Events

WDFW will periodically host public meetings to provide progress updates on implementation actions. Our first meetings of 2016 are scheduled from 4:30 to 6:30 p.m. on April 20 in Richland and April 21 in Dayton.

- **April 20, 2016**
  4:30 to 6:30 p.m.
  Richland Public Library
  955 Northgate Drive
  Richland, WA 99352
- **April 21, 2016**
  4:30 to 6:30 p.m.
  Dayton Best Western Inn
  507 East Main Street
  Dayton, WA 99328

Past Meeting Materials

April 7, 2015 Public Open Houses

- Public Meeting Summary
- Presentation

How to Keep Informed

- Sign up for email updates
  - Email: Kari.dingman@dfw.wa.gov
  - Subject line: "Wooten FMP Updates"
- Receive information update newsletters
- **Attend the next meeting! (dates TBD)**

Fall/early winter 2016
Richland, WA

Fall/early winter 2016
Dayton, WA

Questions?