Oregon
Kate Brown, Governor

Department of Forestry
State Forests Division
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www.oregon.gov/ODF

"STEWARDSHIP IN FORESTRY"

To: Joe Justice, Oregon Board of Forestry
Brenda McComb, Oregon Board of Forestry

Cc: Cal Mukumoto, Oregon State Forester
Kyle Abraham, Deputy State Forester
Ron Zilli, State Forests Planning & Coordination Deputy
Sarah Dyrdahl, Acting State Forests Policy Deputy

From: Michael Wilson, State Forests Division Chief

Date: May 20, 2022

Subject: Carbon Trends on Oregon State Forests

Background: Carbon sequestration and storage in Oregon's forests contributes to climate change mitigation. On November 3, 2021 the State Forests Division (Division) presented draft metrics to the Board of Forestry (BOF) that included long-term trends in aboveground carbon stored in live trees in the Coast Range. This metric was summarized by ownership and Oregon Department of Forestry (ODF) district for 1987-2017 from modeled estimates of biomass derived from satellite imagery and the US Forest Service's (USFS) Forest Inventory and Analysis (FIA) plots (lemma.forestry.oregonstate.edu/data).

In these models, ODF-managed lands on average stored approximately 50% more carbon than privately-owned forests and Federal lands stored approximately 43% more carbon than ODF-managed lands. The larger North Coast districts (Astoria, Forest Grove, and Tillamook) plateaued or trended downward in recent years after increasing carbon storage through the 1990s-2000s. Live tree aboveground carbon is only one pool of carbon within the forestland or harvested wood products. Nonetheless, it is more easily measured and more closely related to inventory estimates of harvestable volume than any other carbon pool. Thus, live tree aboveground carbon appears to be the most salient pool to monitor for a performance metric.

Some stakeholders were surprised at declining carbon trends given their expectation of increasing volume on ODF-managed lands. Harvestable volume and aboveground carbon (and biomass) should trend similarly, so the modeled carbon trends should match inventory trends. However, trends may vary with the method, such as a design-based estimate from a sample of ground plots or a model-based estimate from remote-sensing imagery (see Data Sources below). The Division's legacy inventory was not designed to track long-term trends in volume. The Division is in the

process of transitioning to an enhanced forest inventory (EFI) that will enable more robust estimates of both volume and carbon.

Goal: The core concern is increasing the accuracy of the Division's inventory and acknowledging its uncertainty appropriately in forecasting models that inform planning, operations, and performance metrics. Backcasted carbon trends are of secondary interest because they can inform an inventory model's past performance and provide independent assessments of carbon storage. It is expected that the BOF will set a carbon storage performance measure and a target or range of expected outcomes to gauge Forest Management Plan (FMP) carbon outcomes, along with other aspects of Greatest Permanent Value.

Approach: Division staff have analyzed multiple monitoring data sources and engaged outside experts to improve our understanding of inventory status and trends for both future harvest planning and carbon storage metrics. In January-March 2022, Division staff characterized carbon estimates and trends from several internal and external datasets (see Preliminary Results below). Division staff are now engaging with experts for follow-up analyses for inventory improvements.

Action timeline: For the September 2022 BOF meeting, the Division will assess the current inventory with estimates of uncertainty, propose methods for addressing uncertainty in planning models, and describe the EFI rollout timeline. Additional analysis of carbon trends will aim to harmonize differences between datasets and inform inventory improvements.

EFI timeline: Current FIA and lidar data will be used to make incremental improvements in the legacy inventory used to model Implementation Plan (IP) revisions in 2022. Additional ground monitoring will be conducted this summer for EFI improvement and validation, with results analyzed in winter 2022 for extensive use of the EFI in spring 2023 for development of the initial IPs for the new FMP.

Preliminary Results: Data sources are described below, followed by an overview of their trend estimates and the next steps for analysis.

Data sources

- *Stand Level Inventory (SLI)*: the Division's legacy inventory was designed to inform operations, not long-term volume trends. Stand estimates for inventory may be from cruises, imputed from similar stands, or projected from previous measurements using growth and yield models. New measurements stopped in 2018 as the Division began shifting to an EFI.
- *Forest Inventory and Analysis (FIA)*: USFS's national forest inventory includes 124 permanent plots measured on a 10-year rotation since 2001 on ODF-managed lands. Volume can be measured as a 10-year stock (average of all plots sampled once) or as an increment (average change in volume on plots remeasured 10 years apart). These data allow for estimates over large areas with a systematic sample. However, the 10-year sampling rotation makes it slow to detect changes in trends.
- *Remote-sensing products,* such as those produced by the LEMMA team, use Gradient Nearest Neighbor models associating FIA data with satellite images and environmental data to predict forest metrics every year across any area of interest in the Pacific Northwest. We compared three different published models for aboveground biomass. These comparisons used a 30x30-meter resolution and provided backcasted estimates of up to three decades prior to 2017.

- *Enhanced forest inventory (EFI)*: For its new approach to inventory, the Division paired densified FIA plots (306 measured in 2020) with aerial lidar surveys over much of the North Coast to make a "wall-to-wall" volume model based on lidar point cloud metrics calibrated with ground measurements. For the area with lidar surveys, the EFI provides the most accurate snapshot of inventory across scales. Additional ground monitoring and new lidar surveys are planned for 2022 for model improvement, validation, and expansion to new areas of ODF-managed lands.

Trend estimates

- SLI volume in recent years has been flat, with the largest change coming in 2016 when an update to the Division's growth and yield model assumptions lowered estimates.
- Both 10-year stocks and remeasurements from FIA data suggest growth in volume on ODF-managed lands, counter to trends presented at the BOF meeting. LEMMA models are trained on FIA data, so this mismatch has been a focus of the Division's inquiry.
- Of two other remote-sensing products, one corresponded with the trajectory of LEMMA trends and one generally showed increasing trends. However, the LEMMA estimates fall within the range of uncertainty of the FIA estimates.
- The Division determined that the scale of inference is critical in dataset-to-dataset agreement. At finer resolutions, such as plot- or stand-scales, datasets diverge in estimates for 2020, but at coarser scales, such as ODF district-scale, they generally align.

Next steps

Facilitated by ICF, the Division's analysis was reviewed by Robert Kennedy (Principal Investigator of the eMapR lab at Oregon State University, developer of remote-sensing products detecting biomass change), David Bell (Research forester at PNW Research Station-USFS, developer of biomass models with the LEMMA team), and Greg Latta (Associate Research Professor at the University of Idaho with expertise in forest modeling and climate change). With their guidance, Division staff will test whether the mismatch between FIA and remote-sensing trends may result from (1) FIA underrepresenting volume loss due to its limited sampling or (2) remote-sensing products underestimating biomass in stands with closed canopies that "saturate" in the satellite images. Using new tools to estimate biomass uncertainty in smaller areas, confidence intervals on remote-sensing trends will be calculated for the trends from the November 3, 2021 presentation. The updated assessment of carbon trends will be presented at the September 2022 BOF meeting.

BIGHORN LOGGING CORP.

January 25, 2021

Oregon Board of Forestry
boardofforestry@odf.oregon.gov

RE: Habitat Conservation Plan

Dear Board Members,

Hello, my name is Mark Standley Jr and I am currently the Vice President of Bighorn Logging, Corp. I recently gave oral testimony at the June 8th Board Meeting and I am writing today to submit my written comments.

I would like to comment about the Habitat Conservation Plan and its effects on the Timber Industry. If this plan is implemented, it will cripple the timber industry. To start off, our company alone employs 70 workers. With an average family of 4 per household, that is around 280 people our company directly effects. Last year, our payroll was 3.5 million and our employees directly depend on that to support their families. With wage increases and added personnel, this year's payroll is going to be even higher. This is money going into the community, not counting the money spent on other companies to provide support services to run a logging company.

I truly believe the State of Oregon has some of the best Forest Practices in the Western US. With the new Private Forest Accord, the rules will be even stronger.

I hear the goal of the HCP is phasing out a percentage of logging on ODF lands and turning a large part of it into recreational use. With today's society our state forest is a dangerous area at times. Right now, it is challenging to even find a safe place to spend time with family.

There is garbage getting dumped and theft is happening all over the state forest in northwest Oregon as we speak. My fear is that with the new HCP this behavior would substantially increase. Our company has had to call the forest deputy multiple times due to theft and vandalism in the past year. We call the deputy hoping to get results, but we never recover anything that has been taken. If logging revenue is gone and recreation goes up, have there been any numbers ran on the increased cost for fire protection, security and trash clean up that would come along with that? And where is that money going to come from? Kids' schools, road repair funds, what do you cut? The general fund can only do so much. ODF

13820 NW MAIN STREET BANKS OR 97106 503-324-2422 FAX: 503-324-6103

already needs more money for firefighting, not less. I have fought on multiple fires due to public negligence and it is frustrating to watch a resource we work so hard to protect go up in smoke. Real numbers do not lie - please think about this when making your decision.

The Timber industry employs highly talented people who take pride in the work they do environmentally harvesting timber. Our guys are proud to work in a job that produces the only renewable building material out there. Loggers are well paid, hard workers and are not going to be retrained to work at Intel. Nor are they going to be able to support their families when they take a 60 % pay cut to work in tourism as some have suggested. There are mistakes in the economic analysis in the current plan that need fixed and we need to slow the process down.

We are just one company of many in our state, and a small portion of the millions of people that depend on this resource.

Mark Standley, Jr

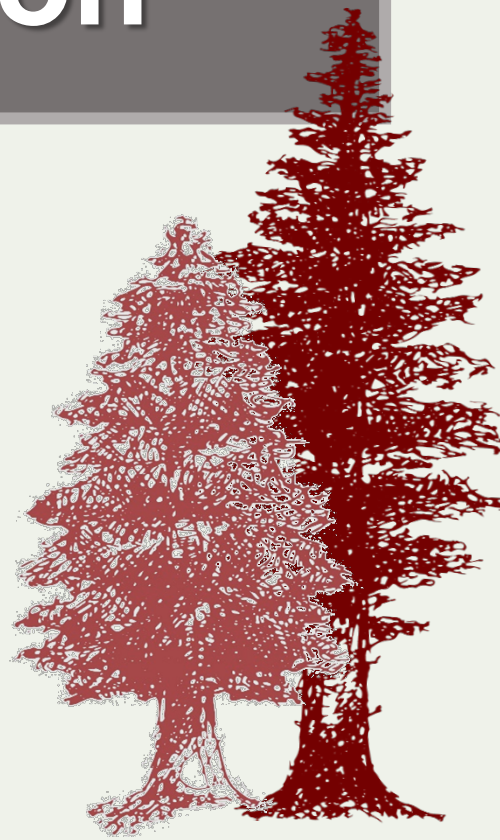
Bighorn Logging, Corp
Vice President

13820 NW MAIN STREET BANKS OR 97106 503-324-2422 FAX: 503-324-6103

2022 Fire Season

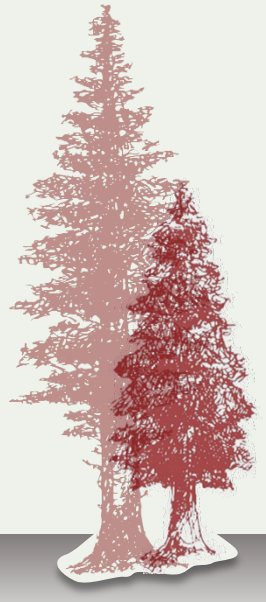
June 8, 2022

Mike Shaw
Fire Protection Division Chief
Oregon Department of Forestry



Fire Season Overview

- Weather update
- Readiness update
- Current fire activity

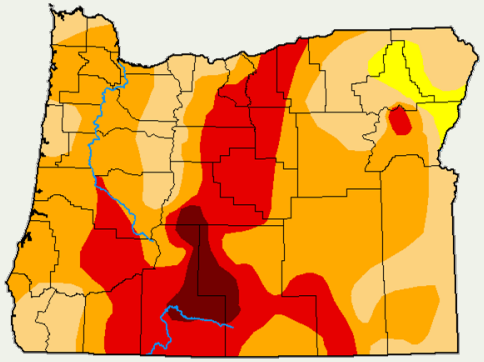


Spring Weather Impacts

- Snowpack levels
- Spring rain
- Continued drought across much of the state

Oregon Drought

June 2021



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	97.08	72.03	27.36	3.57
Last Week 05-25-2021	0.00	100.00	97.08	72.03	27.36	3.57
3 Months Ago 03-02-2021	19.33	80.67	57.28	47.14	12.53	0.00
Start of Calendar Year 12-29-2020	8.57	91.43	83.53	68.71	27.74	0.00
Start of Water Year 09-29-2020	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago 06-02-2020	4.84	95.16	81.69	37.35	4.88	0.00

Intensity:

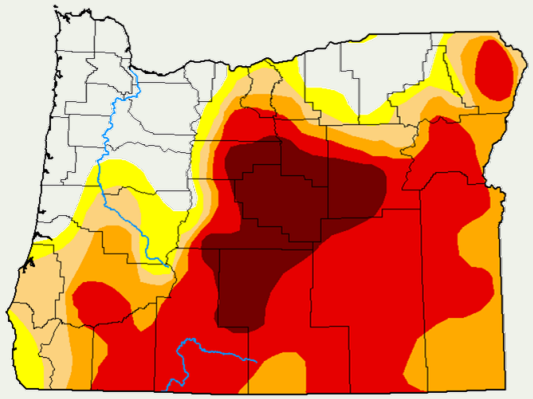
- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:
Brian Fuchs
National Drought Mitigation Center

droughtmonitor.unl.edu

June 2022



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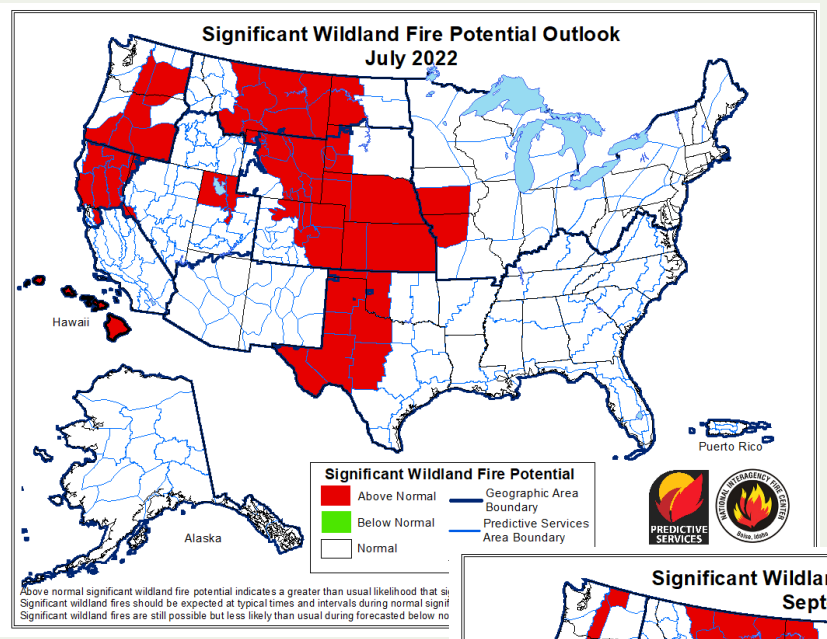
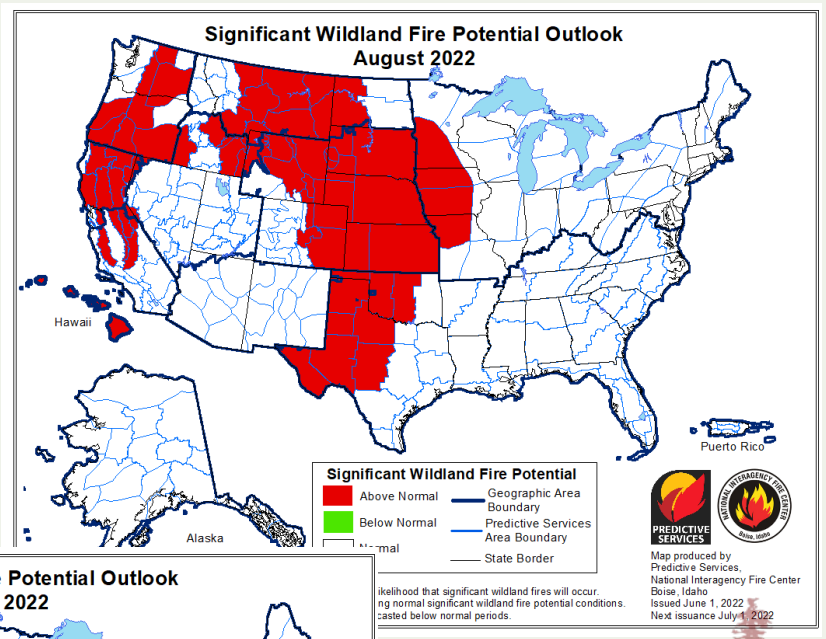
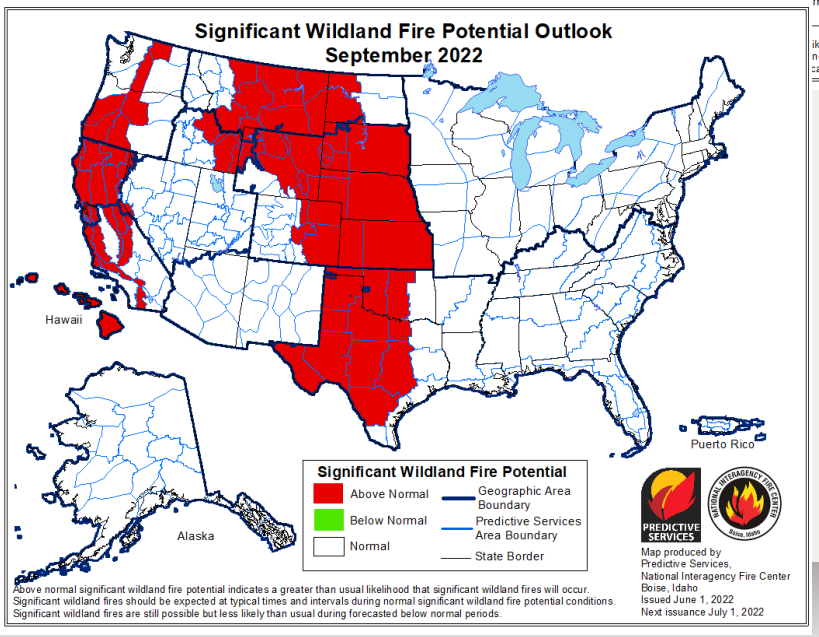
Author:
Curtis Riganti
National Drought Mitigation Center

droughtmonitor.unl.edu

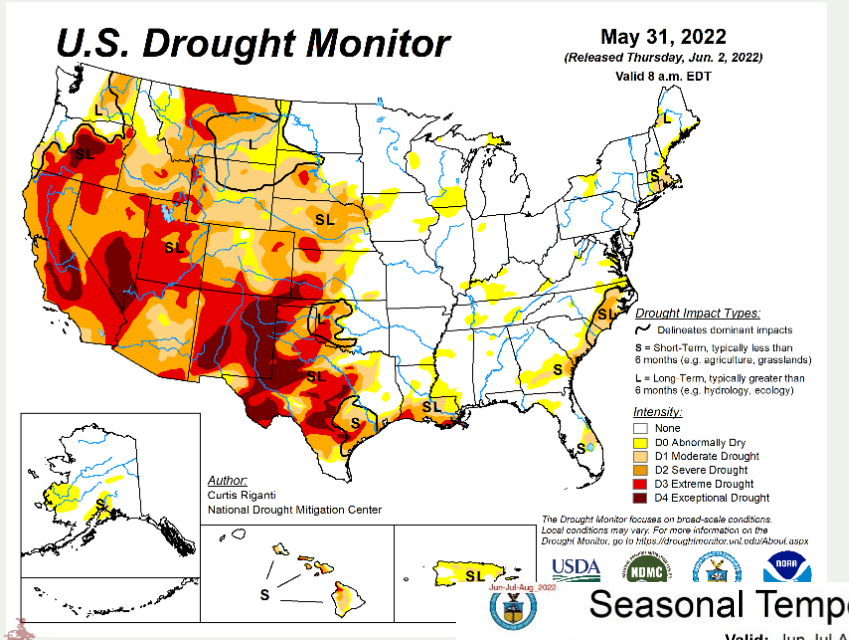
Significant Wildland Fire Potential Outlook

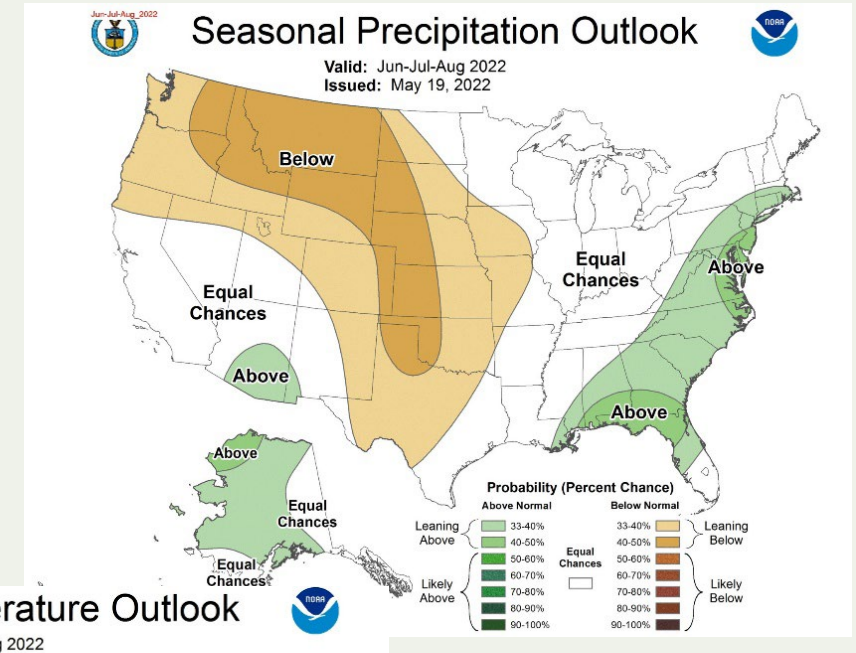


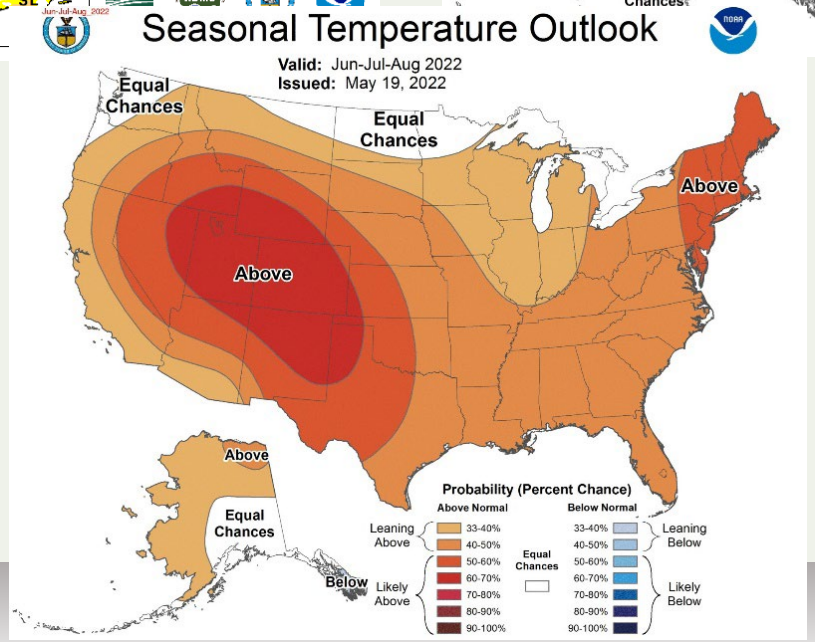




National Fire Season Outlook





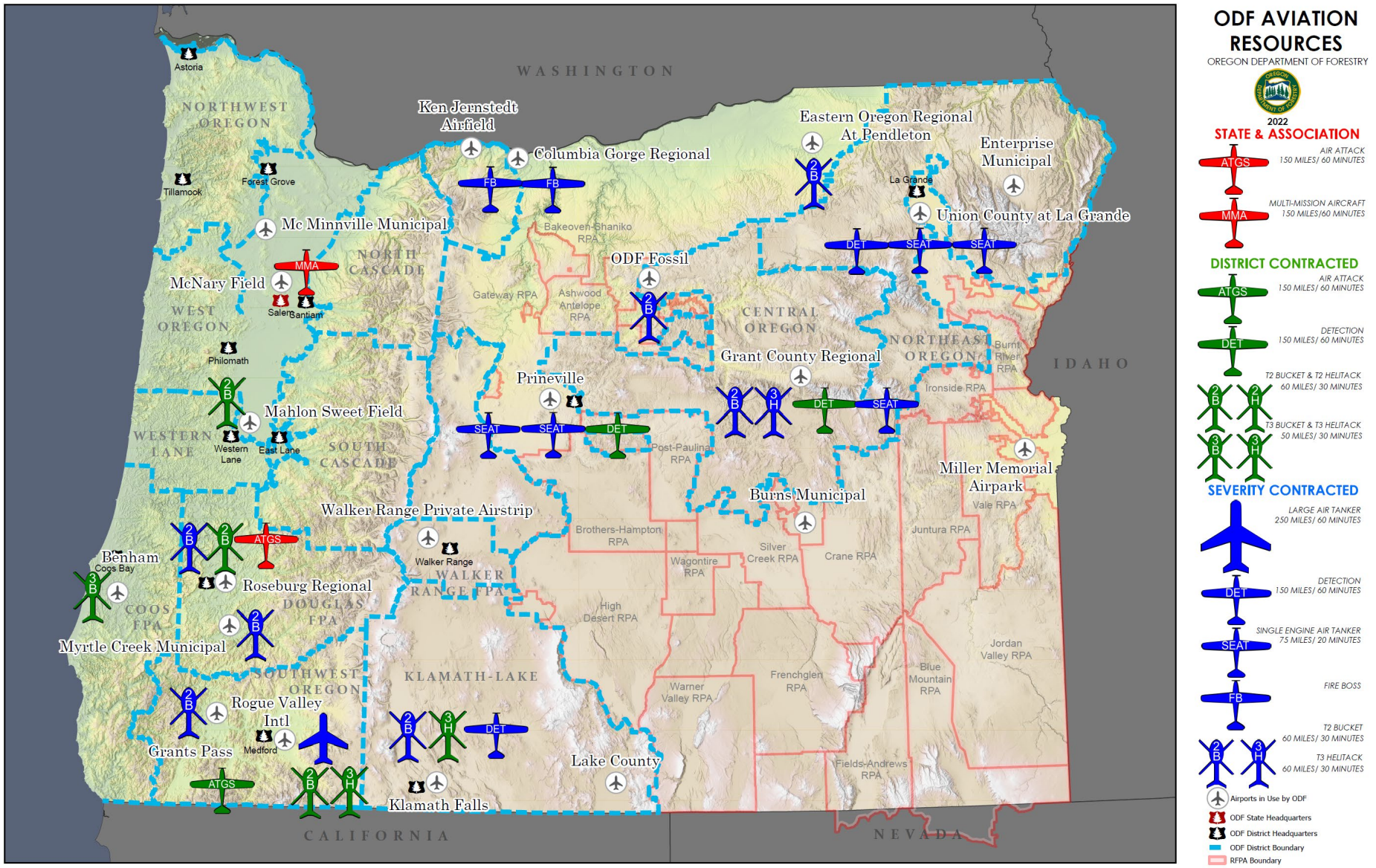


Fire Season Readiness

Complete and coordinated system

- Staffing
  - Base-level protection
  - Incident Management Teams
- Landowners/cooperators
- Detection and aviation

Aviation Resources (Severity Program)



ODF AVIATION RESOURCES

OREGON DEPARTMENT OF FORESTRY

2022

STATE & ASSOCIATION

- ATGS — AIR ATTACK — 150 MILES/ 60 MINUTES
- MMA — MULTI-MISSION AIRCRAFT — 150 MILES/60 MINUTES

DISTRICT CONTRACTED

- ATGS — AIR ATTACK — 150 MILES/ 60 MINUTES
- DET — DETECTION — 150 MILES/ 60 MINUTES
- 2B / 3H — T2 BUCKET & T2 HELITACK — 60 MILES/ 30 MINUTES
- 3B / 3H — T3 BUCKET & T3 HELITACK — 50 MILES/ 30 MINUTES

SEVERITY CONTRACTED

- LARGE AIR TANKER — 250 MILES/ 60 MINUTES
- DET — DETECTION — 150 MILES/ 60 MINUTES
- SEAT — SINGLE ENGINE AIR TANKER — 75 MILES/ 20 MINUTES
- FB — FIRE BOSS
- 2B — T2 BUCKET — 60 MILES/ 30 MINUTES
- 3H — T3 HELITACK — 60 MILES/ 30 MINUTES

Airports in Use by ODF

ODF State Headquarters

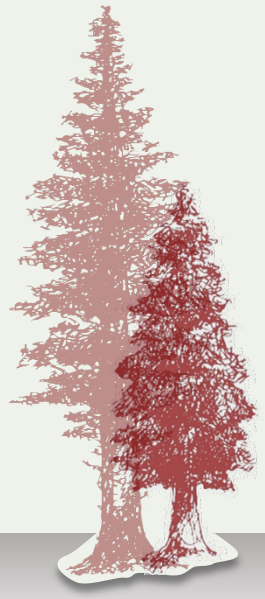
ODF District Headquarters

ODF District Boundary

RFPA Boundary

Current Fire Season Declarations

- Southwest Oregon District – June 1
- Klamath-Lake District – June 6
- Walker Range FPA – June 6



Fire Statistics To-Date

May 31, 2022

2022 Year To Date		
	Fires	**Acres**
Lightning	2	0
Human (and UI)	63	92
Total	**65**	**92**
10-Year Average (2012-2021 Year To Date)		
Lightning	14	8
Human	131	676
Total	145	684

97%

Fires stopped at 10 acres or less to date in 2022

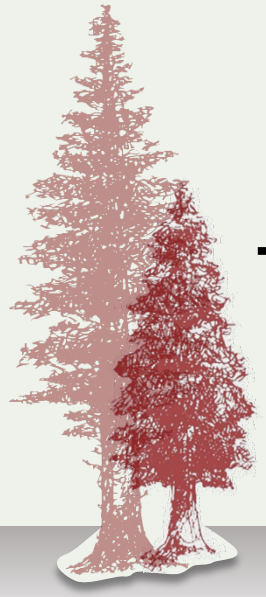
2022 vs. 10 Year Average

- *Approximately **half** of the human-caused fires*
- *Approximately **7x less** acres burned*

Out of State Assignments

- Texas – 49
- New Mexico – 78
- Arizona – 5
- Pennsylvania – 1
- Minnesota – 1
- Alaska - 10

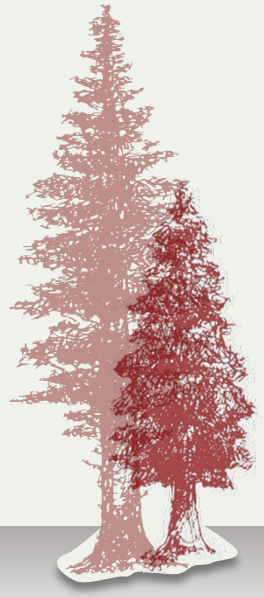
TOTAL – 13 pieces of equipment and 121 overhead



Closing Thoughts

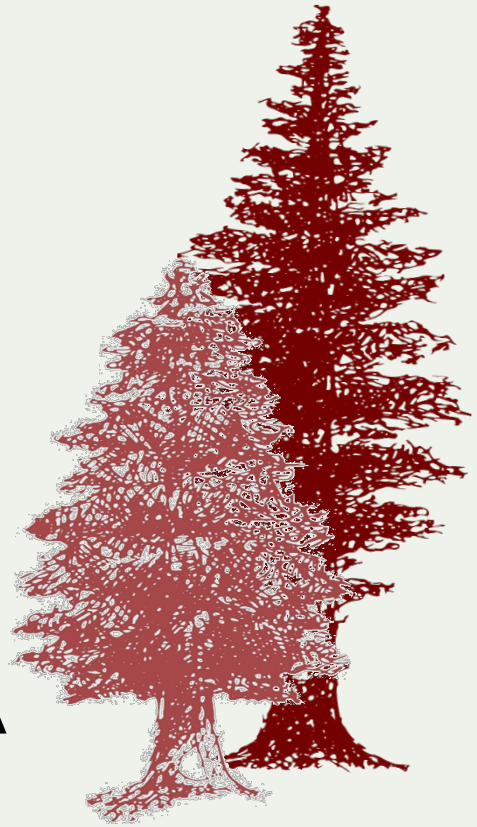
- All indications that 2022 will be a challenging fire season.
- Mother Nature has been very successful in delaying the onset of fire season.
- Continuing need for prevention messaging to alleviate potential complacency.
- Delayed fire season onset has provided very valuable opportunities for ODF/Association firefighters and supports the complete and coordinated system.

QUESTIONS?



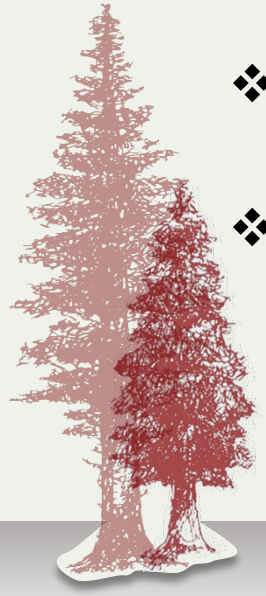
2022 Fiscal Fire Protection Budgets

- The Base Level:
  The "Local Fire Department"
- Statewide Severity:
  Additional resources above the base funded by General Fund and OFLPF
- Large Fire Cost:
  Blend of General Fund, Oregon Forestland Protection Fund, insurance policy, and FEMA



Budget Development Process

- Begins with Headquarter Services Committee meeting (HQSC) in January
- Districts develop fiscal budget
- Review and approved by Associations and their Boards
- Approved by Board of Forestry



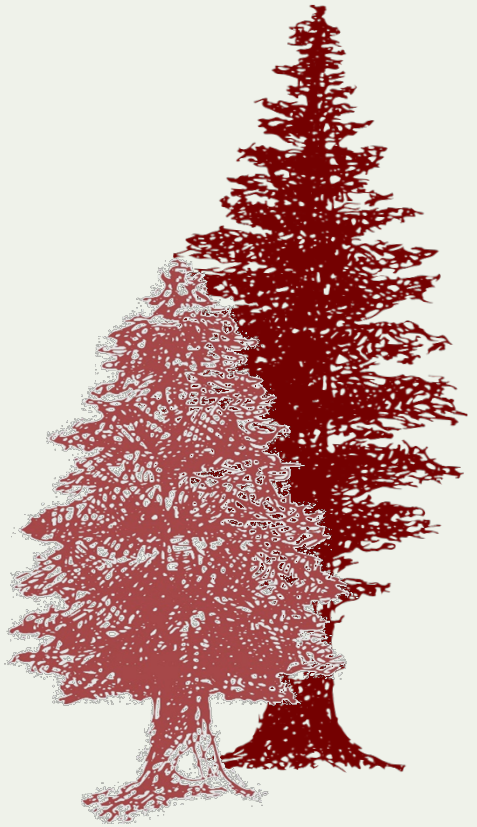
- *Establishes level of protection and associated costs (per-acre assessments)*
- *Legislative policy determines ratio of landowner/general fund (ORS 477.230)*

Base Level

- 16.2M acres (50% of Oregon's forestland)
- 12 fire protection districts (FPA)
  - Mostly initial attack funds; minimal extended attack funds
- Initial and extended attack capacity
  - Engines
  - District contract helicopters
  - IA dozers
  - Frontline seasonal firefighters

2022 Spring FPA Meetings

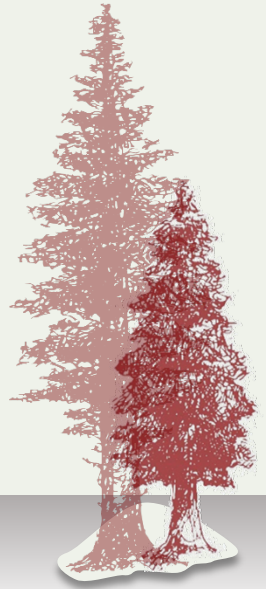
- All Associations recommended approval of fiscal budgets
- Continued concern on rising cost of fire protection
- Additional concern about federal lands Wildfire Policy and Management



Recommendation

The Department recommends the Board approval all Fiscal Year 2023 district and association protection budgets as presented in Agenda Item #3, Attachment 1

QUESTIONS?



Oregon's Complete & Coordinated Fire Protection System

Associated Oregon Loggers, Inc.

PO Box 12339 • Salem, Oregon 97309-0339 • (503) 364-1330
Fax: (503) 364-0836 • aol@oregonloggers.org

Date: June 8, 2022
To: Board of Forestry
From: Amanda Sullivan-Astor, Forest Policy Manager
Associated Oregon Loggers

Topic: Agenda Item #3 – Forestry Protective Association Budgets

Good morning Chair Kelly, State Forester Mukumoto and members of the Board,

Associated Oregon Loggers serves nearly 1000 individual small businesses, many of which engage in Oregon's complete and coordinated system during incidents, but also in the time prior to fires doing mitigation work and after disasters in the recovery efforts. We represent the workforce that is ready to steward our forests every day with a smile on their face (although sometimes it is hidden behind a beard).

Although AOL does not directly represent the landowners that pay assessments to help fund forest protective associations, these landowners and the decisions they make provide the work that AOL's members rely on to sustain their businesses. Anything that jeopardizes the sustainability of this work is something that AOL directly cares about.

With that said, AOL is concerned about where costs for landowners are heading regarding the landowner rate to pay for the public service that forest protection associations provide for the greater public good. We are worried that void of this body advocating with the Department for rate relief or a new funding source that landowners, especially those in eastern and southern Oregon, may decide that maintaining their property as a healthy forest is too burdensome. This would result in less work for AOL's members in regions of the state that already have contract capacity shortages and could end in the workforce shrinking.

As I said before, contractors are a key link in the complete and coordinated system in Oregon and as their work is jeopardized, so is our ability to mitigate, fight and clean up disasters like wildfires.

AOL would like to see the proposed forest protective association budgets approved, but we want you all to keep in mind the necessity to continue a conversation around landowner rate relief and general costs that could lead to perverse incentives to do something different with forest lands in the state moving forward.

Thank you for your time and I am available for any questions.

Sincerely,

Amanda Sullivan-Astor
Forest Policy Manager
Associated Oregon Loggers

Associated Oregon Loggers, Inc.

PO Box 12339 • Salem, Oregon 97309-0339 • (503) 364-1330
Fax: (503) 364-0836 • aol@oregonloggers.org

Senate Bill 762

Wildfire Risk Mapping & Wildland-Urban Interface Identification

Mike Shaw
Chief – Fire Protection
503-945-7204
Michael.h.shaw@odf.oregon.gov

Tim Holschbach
Deputy Chief – Policy & Planning
503-945-7434
tim.j.holschbach@odf.oregon.gov

Actions to date

- July 20, 2021 - Public information session
- July 21, 2021 – Board of Forestry presentation regarding overview of SB762.
- October 20, 2021 – Board adopted WUI definition
- March 9, 2022 – Board approved draft rules to conduct public hearings
- April 2022 – Department conducted public hearings
- June 8, 2022 – Board presentation of proposed final rules

Agenda

- SB762 Requirement overview
- Overview of public comment process
- Summary of comments received
- Modifications to draft rules presented in March
- Map implementation
- Other agency actions

Wildland-Urban Interface

SB762, Section 33

- Significantly amends Oregon Revised Statutes (ORS) 477.015 to 477.064.

- Directed the Board of Forestry to establish a definition of Wildland-Urban Interface (WUI) within 100 days.
  - Completed October 20, 2021

- Additionally, the rules must establish criteria to identify and classify the WUI.

Statewide map of Wildfire Risk

SB762, Section 7

- Requires the Oregon Department of Forestry (ODF) to oversee the development and maintenance of a comprehensive statewide map of wildfire risk that includes wildland-urban interface boundaries and wildfire risk classes by June 30, 2022.
  - Designates Oregon Wildfire Risk Explorer as the official map.
- Requires the final map to inform policy actions and programs as detailed in Senate Bill 762.

Overview of Public Comment Process

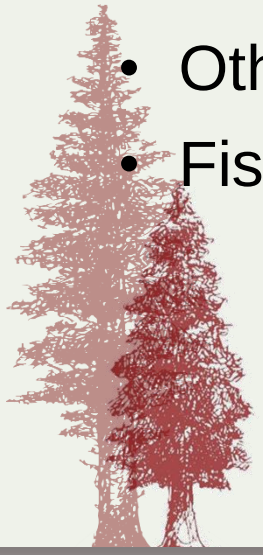
- 3 virtual public hearing conducted:
  - April 19 – 43 attendees
  - April 20 – 51 attendees
  - April 21 – 23 attendees

- Additional information session held April 29.

- Extended public comment period to noon, May 9.

Summary of Comments Received

- 104 comments received
  - 84 written, 24 at public hearings
- General comments
  - 24 generally supportive
  - 42 generally opposed
    - Primarily opposed to definition of “structure” and WUI formulation.
- Other Agency Actions – 26 comments
- Fiscal Impact – 7 comments



Rule Section Review

OAR 629-044-1005, OAR 629-044-1011

- Text moved from 629-044-1011, Wildland-Urban Interface Identification Criteria, to 629-044-1005, Definitions
  - "intermingles with wildland or vegetative fuels"
  - "meets with wildland or vegetative fuels"
  - "occluded geographic area"

- 629-044-1011 adjusted for readability ease.

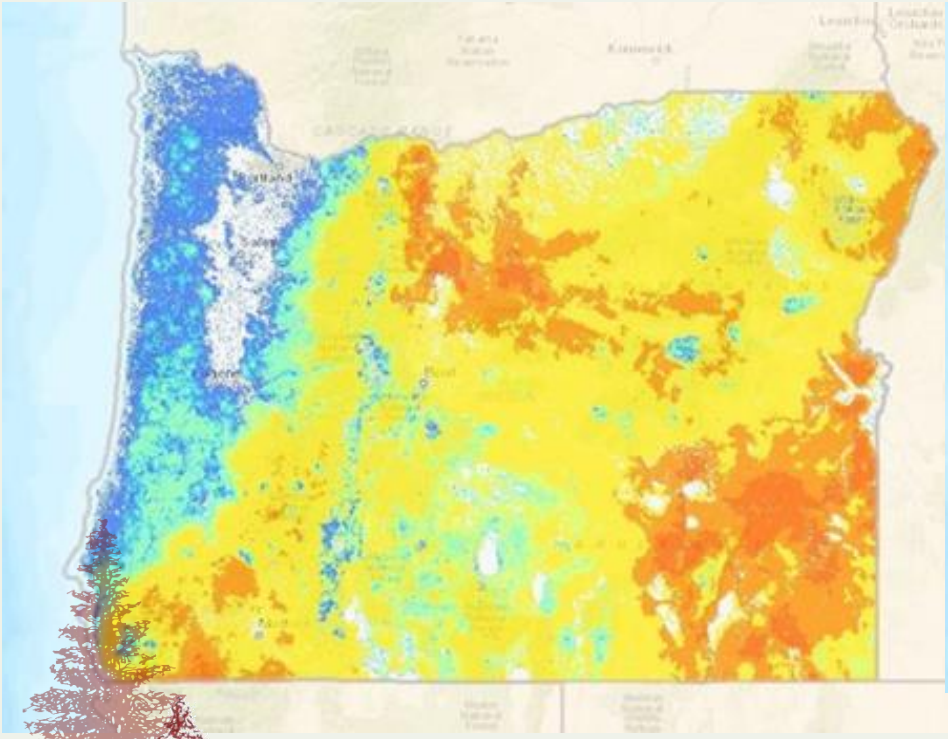
Rule Section Review

OAR 629-044-1021

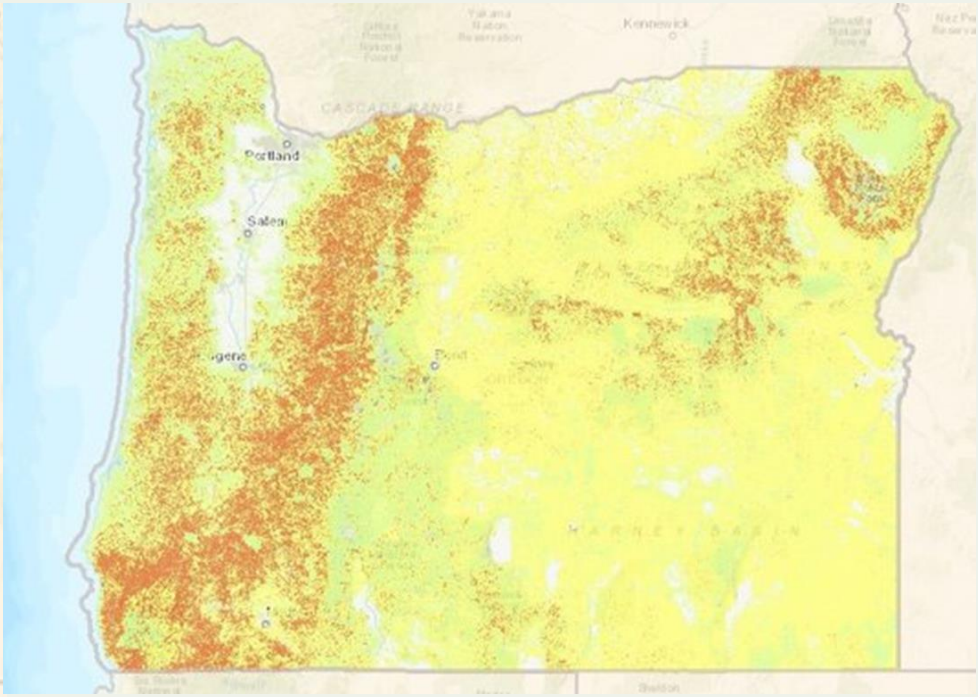
- Wildfire Risk Classification and Wildfire Hazard Rating
  - Establishes the five wildfire risk classes
  - Based on factors of weather, climate, topography, and vegetation
  - Values represent 2022 fuel modeling conditions.

- Class breaks determined utilizing a statistically objective methodology.

Burn probability



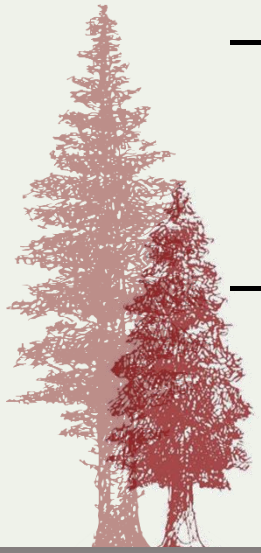
Wildfire intensity



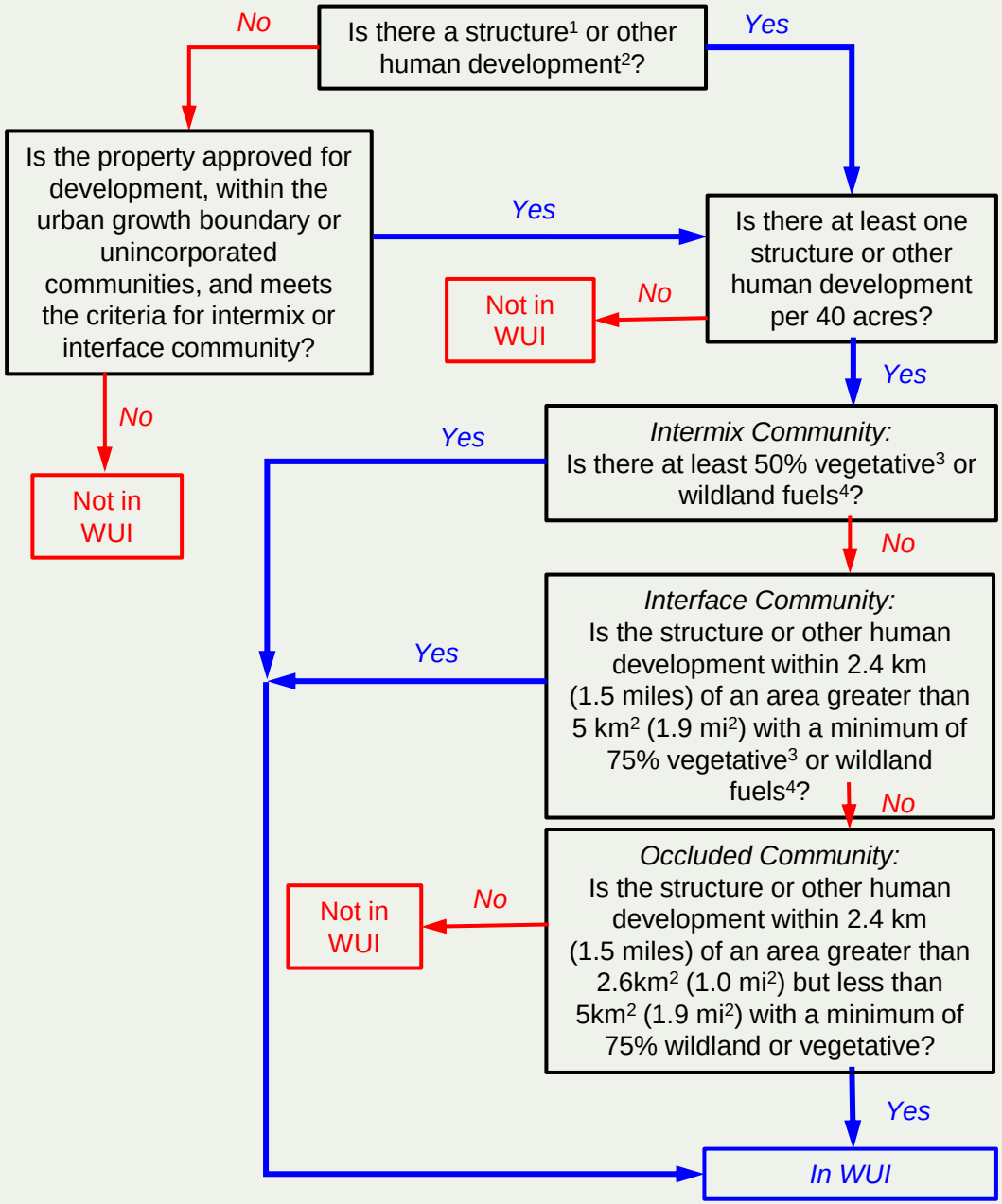
Rule Section Review

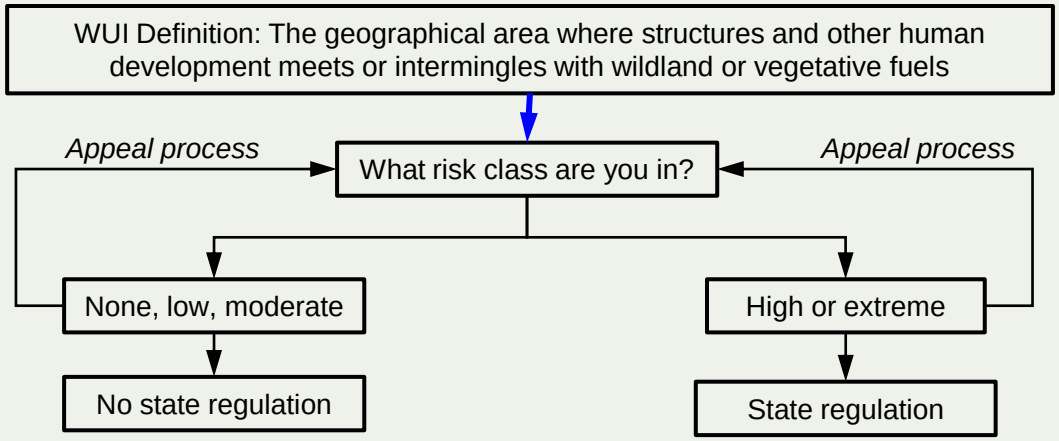
OAR 629-044-1031, OAR 629-044-1036

- Notifications
  - Clarified source of property owner's mailing information
- Locally Developed Wildfire plans
  - Provide for a connection between local jurisdiction wildfire plans, property owners, and the wildfire risk map.
  - Locally developed plans do not supersede the statewide wildfire risk map.



Oregon State University



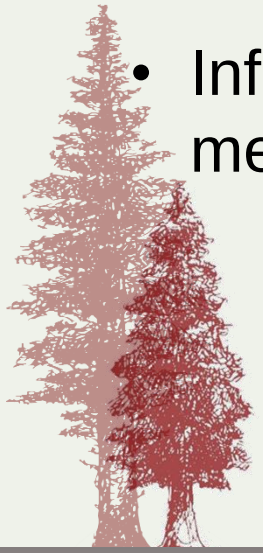

WUI Definition: The geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels
Appeal process
What risk class are you in?
Appeal process
None, low, moderate
High or extreme
No state regulation
State regulation

Map Implementation

- Oregon Explorer updates
  - Homeowner's report

- Issuance of written notice to properties owners in high and extreme wildfire risk classes.

- Information sessions regarding the map and what it means.



WUI Timeline

JULY 2021–FEB 2022
WUI and risk map rules developed

APRIL 2022
Public comment for rulemaking

JUNE 2022
Board of Forestry decision on rule adoption

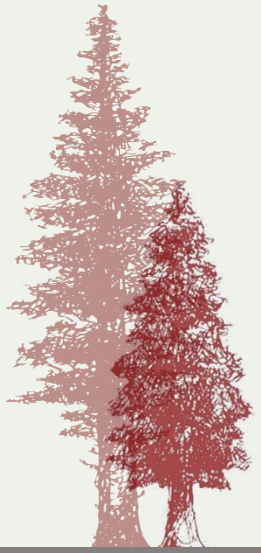
JUNE 2022
OSU completes wildfire risk map

OCT 2022
BCD updates Oregon Residential Specialty Code

DEC 2022
OSFM finalizes defensible space requirements

Office of the State Fire Marshal

- Defensible Space Code
  - 4 meetings to date
  - On schedule for adoption by December 31, 2022.



Department of Consumer and Business Services

- The Building Codes Division is in the process of adopting fire hardening building code standards. The division is putting together information for the fire hardening section of the website.

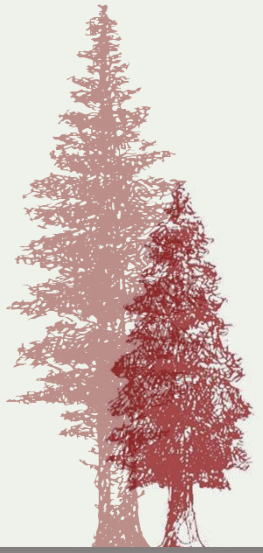
- Public Input: The BCD Rulemaking Advisory Committee is holding a rulemaking meeting on June 9, starting at 1:30 p.m., and will be presenting draft rules and code amendments to the Residential and Manufactured Structures Board on July 13.

Department of Land Use and Conservation

DLCD's recommendations must be submitted to the Wildfire Programs Advisory Council and Oregon Legislature by October 1, 2022. DLCD is currently conducting a community engagement process that will run through September 2022.

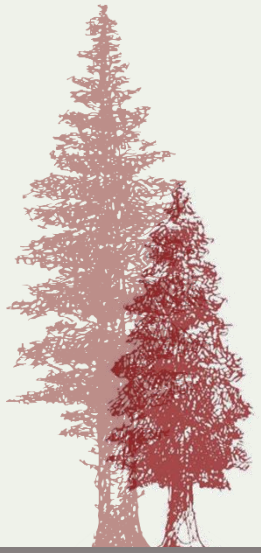
Public Input: Upcoming presentations to LCDC:

- July 21-22, 2022
- September 22-23, 2022



Staff Recommendation

- The Board approves adoption of OAR 629-044 and OAR 629-045-1025 as proposed.



Questions?

Mike Shaw
Chief – Fire Protection
503-945-7204
Michael.h.shaw@odf.oregon.gov

Tim Holschbach
Deputy Chief – Policy & Planning
503-945-7434
tim.j.holschbach@odf.oregon.gov

DIVISION 44

Wildland-Urban Interface and Statewide Wildfire Risk Mapping

629-044-1000

Purpose

(1) The purpose of OAR 629-044-1000 to 629-044-1040 is to implement the provisions of ORS 477.027 and ORS 477.490.

(2) The purpose of OAR 629-044-1010 to 629-044-1015 is to establish criteria by which the wildland-urban interface shall be identified and classified pursuant to ORS 477.027

(3) The purpose of OAR 629-044-1020 to 629-044-1025 is to set forth the criteria by which a statewide wildfire risk map must be developed and maintained pursuant to ORS 477.027.

(4) The purpose of OAR 629-044-1030 is to set forth the process for notification to property owners pursuant to ORS 477.027.

(5) The purpose of OAR 629-044-1035 is to set forth the process of integrating public input into the statewide wildfire risk map pursuant to ORS 477.027.

(6) The purpose of OAR 629-044-1040 is to set forth the process of how a property owner or local government may appeal the assignment of wildfire risk pursuant to ORS 477.027.

629-044-1005

Definitions

(1) The definitions set forth in ORS 477.001, shall apply.

(2) The following words and phrases, when used in OAR 629-044-1000 to 629-044-1040, shall mean the following:

(a) “Geographical area” means an area of land with similar characteristics that can be considered as a "unit" for the purposes of classification of the wildland-urban interface.

(b) "Hazard rating" is a numerical value describing the likelihood and intensity of a fire, based on specific factors or conditions including weather, climate, topography, and vegetation.

(c) “Intermingles with wildland or vegetative fuels” means a minimum of 50% coverage of wildland or vegetative fuels.

(d) “Meets with wildland or vegetative fuels” means located within a 1.5-mile buffer from the edge of an area greater than 2 square mile with a minimum of 75% cover of wildland or vegetative fuels.

(e) “Occluded geographical area” means an area with a minimum of one structure or other human development per 40-acres within 1.5 miles of an area greater than 1 square mile but less than 2 square miles with a minimum of 75% cover of wildland or vegetative fuels

(f) “Other human development” means essential facilities, special occupancy structures, or hazardous facilities as defined in ORS 455.447 that support community functions, public communication, energy, or transportation.

(g) "Structure" means any building that is at least 400 square feet.

(h) “Unincorporated community” has the meaning provided in OAR Chapter 660, Division 22.

(i) “Urban growth boundary” has the meaning provided in OAR Chapter 660, Division 15.

(j) “Vegetative fuels” means plants that constitute a wildfire hazard.

(k) “Wildland fuels” means natural vegetation that occurs in an area where development is essentially non-existent, including grasslands, brushlands, rangelands, woodlands, timberlands, or wilderness. Wildland fuels are a type of vegetative fuels.

(l) “Wildfire Risk” means the wildfire impacts to values based on scientifically modeled wildfire frequency and wildfire intensity.

(m) “Wildland-Urban Interface” means a geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

629-044-1011

Wildland-Urban Interface Identification Criteria

(1) The Wildland-Urban Interface is a geographic area comprised of tax lots, or portions of tax lots that includes:

(a) an average density of one structure or other human development per 40 acres and either:

(A) meets with wildland or vegetative fuels; or

(B) intermingles with wildland or vegetative fuels; or

(C) is an occluded geographical area.

(2) The Wildland-Urban Interface also includes:

(a) lands identified within an urban growth boundary or unincorporated community boundary by local comprehensive plans that meet the criteria in (1)(a); or

(b) a planned development, within the urban growth boundary or unincorporated communities, that is not identified in 1(a) but that is approved for development that meets the criteria in 1(a).

(3) If multiple structures or other human developments are located on a single tax lot, then the totality will be considered a single structure or other human development.

(4) Each tax lot in the State of Oregon shall be assigned a wildfire risk classification in accordance with 629-044-1020.

629-044-1016

Periodic Wildland-Urban Interface Lands Identification and Classification

Tax lots identified as Wildland-Urban Interface shall be reviewed in conjunction with updates to the statewide wildfire risk map in accordance with OAR 629-044-1025.

629-044-1021

Wildfire Risk Classification and Wildfire Hazard Rating

1. Wildfire risk classifications are established by a range of wildfire hazard factors that determine a net value change that illustrate likely wildfire consequences. Each net value change range is identified as a wildfire risk class as follows:
    a. No Wildfire Risk. A net value change of zero. Typically characterized as non-burnable areas.

b. Low Wildfire Risk. A net value change from greater than 0.00 to 0.001911. Typically characterized as having the capacity to generate a wildfire which produces a flame length of less than 4 feet, a wildfire that exhibits little to no spotting, torching, or crowning
c. Moderate Wildfire Risk. A net value change of greater than 0.001911 to 0.137872. Typically characterized as having the capacity to generate a wildfire which produces a flame length of 4 to 6 feet, and that occasionally exhibits spotting, torching, or crowning.
d. High Wildfire Risk. A net value change of greater than 0.137872 to 0.522288. Typically characterized as having the capacity to generate a wildfire which produces a flame length of 6 to 8 feet, and frequently exhibits spotting, torching, or crowning.
e. Extreme Wildfire Risk. A net value change greater than 0.522288. Typically characterized as having the capacity to generate a wildfire which produces a flame length of over 8 feet, and exhibits frequent spotting, torching, or crowning.

2. It is recognized that natural vegetation is highly variable and that the fuel models used in subsection (1) of this rule may not always accurately reflect expected wildfire behavior, due to variations in local species and vegetation conditions. Therefore, consistent with peer reviewed methods, modifications may be made to the hazard rating, net value change, and risk classification as necessary to ensure accuracy.
3. Each wildfire risk class assignment shall be based on the average wildfire hazard rating of each tax lot.
4. Each wildfire risk class shall consist of a net value change range. The net value change ranges that correlate to a given wildfire risk class shall be determined using a statistically objective methodology.

629-045-1025

Statewide Wildfire Risk Map

1. Oregon State University shall develop and maintain the Statewide Wildfire Risk Map in a publicly accessible format. The map shall be developed:
    a. Using current, peer reviewed data sets when calculating wildfire risk;
    b. calculating wildfire risk as a combined hazard rating value incorporating how often wildfires occur and wildfire burn intensity;
    c. utilize fuel loading measured at the time of year when large wildfires generally occur; and
    d. shall include a layer that geospatially displays the locations of socially and economically vulnerable communities.
2. The map and other publicly available web-based tools shall be updated in consultation with Oregon State University, within 12 months after updates to the most current wildfire risk assessment are available.

629-044-1031

Notification

1. The State Forester shall provide written notice of properties classified as high or extreme wildfire risk.
2. The written notice shall be sent to the property owner address included in the county assessor records.
3. The written notice shall include:

a. the wildfire risk class assignment;
b. where a map of the property can be found in the publicly accessible mapping portal, including the average wildfire hazard value of the property;
c. resources available to address wildfire risk;
d. information regarding what the wildfire risk assignment means for the property owner; and
e. information about how a property owner may appeal the assignment of wildfire risk class, including the specific elements that may be appealed.

4. Prior to the effective date of updates to the Statewide Wildfire Risk Map, the Department shall hold regional public meetings.
5. The Department shall provide a notice of the times and places of all statewide and regional meetings, and the other ways by which comments may be submitted, using a variety of notice methods designed to reach diverse audiences, both statewide and within each region.
6. The Department, in consultation with Oregon State University, shall present anticipated changes to the Wildland-Urban Interface boundary and Wildfire Risk Classification assignments at a county scale.
7. The meeting shall allocate time to receive input from any interested persons relating to the proposed wildfire risk class assignments.
8. The Department shall establish and publicize a place where electronic and written comment may be received.
9. Following the public meeting the Department, in consultation with Oregon State University, may make changes in the proposed wildfire risk classification assignments, hold additional meetings, and thereafter shall make final wildfire risk class assignments.

629-044-1036

Locally Developed Wildfire Plans

1. The following types of locally developed wildfire plans may be integrated into the wildfire risk mapping portal if the local jurisdiction chooses.
    a. Community Wildfire Protection Plans developed under the Healthy Forests Restoration Act;
    b. Natural Hazard Mitigation Plans developed under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; or
    c. Firewise USA Action Plans developed under the Firewise USA Program administered by the National Fire Protection Association.
2. Information in the types of locally developed wildfire plans identified in subsections (1)(a) thru (c) above, may complement, but does not supplant or supersede the Statewide Wildfire Risk Map.

629-044-1041

Appeal of Wildfire Risk Assignment

1. An affected property owner or local government may appeal the assignment of properties by submitting an appeal in writing within 60 days of:
    a. The date that the wildfire risk map or update is posted on Oregon Explorer Map Viewer website; or
    b. The date that a correctly addressed notice is deposited with the postal service for mailing to the affected property owner.
2. In the written appeal in section (1) of this rule, the property owner must specifically state:
    a. the objections to the wildfire risk class assignment;

b. the change in wildfire risk assignment sought; and
c. any pertinent facts that may justify a change in the wildfire risk class assignment, in accordance with ORS 477.490.

3. Upon receipt of a written appeal of wildfire risk assignment, the State Forester:
    a. shall review the appeal to determine whether the appellant has standing and whether the appeal addresses the issues in subsection (2)(c).
    b. may contact the property owner or local government to clarify any pertinent facts identified in subsection (2)(c); and
    c. Prepare a report describing the issue and reach a final decision of the matter by:

        (A) reviewing whether the wildfire risk assignment and map were developed and maintained according to these rules and the most current wildfire assessment.

        (B) reviewing for any error in the data that was used to determine the wildfire risk class assignment;

        (C) reviewing any pertinent facts that may justify a change in the assignment; and

        (D) providing the report to the appellant.

    d. the Department shall provide information to the public describing changes to the map based on approved appeals. The information shall be posted on the Department's public website.

4. A final decision of the matter issued under section (3) of this rule shall be a final order, and subject to appeal as prescribed by ORS 183.484.

DIVISION 44

Wildland-Urban Interface and Statewide Wildfire Risk Mapping

629-044-1000

Purpose

(1) The purpose of OAR 629-044-1000 to 629-044-1040 is to implement the provisions of ORS 477.027 and ORS 477.490.

(2) The purpose of OAR 629-044-1010 to 629-044-1015 is to establish criteria by which the wildland-urban interface shall be identified and classified pursuant to ORS 477.027

(3) The purpose of OAR 629-044-1020 to 629-044-1025 is to set forth the criteria by which a statewide wildfire risk map must be developed and maintained pursuant to ORS 477.027.

(4) The purpose of OAR 629-044-1030 is to set forth the process for notification to property owners pursuant to ORS 477.027.

(5) The purpose of OAR 629-044-1035 is to set forth the process of integrating public input into the statewide wildfire risk map pursuant to ORS 477.027.

(6) The purpose of OAR 629-044-1040 is to set forth the process of how a property owner or local government may appeal the assignment of wildfire risk pursuant to ORS 477.027.

629-044-1005

Definitions

(1) The definitions set forth in ORS 477.001, shall apply.

(2) The following words and phrases, when used in OAR 629-044-1000 to 629-044-1040, shall mean the following:

(a) “Geographical area” means an area of land with similar characteristics that can be considered as a "unit" for the purposes of classification of the wildland-urban interface.

(b) "Hazard rating" is a numerical value describing the likelihood and intensity of a fire, based on specific factors or conditions including weather, climate, topography, and vegetation.

(c) “Intermingles with wildland or vegetative fuels” means a minimum of 50% coverage of wildland or vegetative fuels.

(d) “Meets with wildland or vegetative fuels” means located within a 1.5-mile buffer from the edge of an area greater than 2 square mile with a minimum of 75% cover of wildland or vegetative fuels.

(e) “Occluded geographical area” means an area with a minimum of one structure or other human development per 40-acres within 1.5 miles of an area greater than 1 square mile but less than 2 square miles with a minimum of 75% cover of wildland or vegetative fuels

(f) “Other human development” means essential facilities, special occupancy structures, or hazardous facilities as defined in ORS 455.447 that support community functions, public communication, energy, or transportation.

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(l) “Wildfire Risk” means the wildfire impacts to values based on scientifically modeled wildfire frequency and wildfire intensity.

(m) “Wildland-Urban Interface” means a geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

629-044-1011

Wildland-Urban Interface Identification Criteria

(1) The Wildland-Urban Interface is a geographic area comprised of tax lots, or portions of tax lots that includes:

(a) an average density of one structure or other human development per 40 acres and either:

(A) meets with wildland or vegetative fuels; or

(B) intermingles with wildland or vegetative fuels; or

(C) is an occluded geographical area.

(2) The Wildland-Urban Interface also includes:

(a) lands identified within an urban growth boundary or unincorporated community boundary by local comprehensive plans that meet the criteria in (1)(a); or

(b) a planned development, within the urban growth boundary or unincorporated communities, that is not identified in 1(a) but that is approved for development that meets the criteria in 1(a).

(3) If multiple structures or other human developments are located on a single tax lot, then the totality will be considered a single structure or other human development.

(4) Each tax lot in the State of Oregon shall be assigned a wildfire risk classification in accordance with 629-044-1020.

629-044-1016

Periodic Wildland-Urban Interface Lands Identification and Classification

Tax lots identified as Wildland-Urban Interface shall be reviewed in conjunction with updates to the statewide wildfire risk map in accordance with OAR 629-044-1025.

629-044-1021

Wildfire Risk Classification and Wildfire Hazard Rating

1. Wildfire risk classifications are established by a range of wildfire hazard factors that determine a net value change that illustrate likely wildfire consequences. Each net value change range is identified as a wildfire risk class as follows:
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629-045-1025

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    c. utilize fuel loading measured at the time of year when large wildfires generally occur; and
    d. shall include a layer that geospatially displays the locations of socially and economically vulnerable communities.
2. The map and other publicly available web-based tools shall be updated in consultation with Oregon State University, within 12 months after updates to the most current wildfire risk assessment are available.

629-044-1031

Notification

1. The State Forester shall provide written notice of properties classified as high or extreme wildfire risk.
2. The written notice shall be sent to the property owner address included in the county assessor records.
3. The written notice shall include:

a. the wildfire risk class assignment;
b. where a map of the property can be found in the publicly accessible mapping portal, including the average wildfire hazard value of the property;
c. resources available to address wildfire risk;
d. information regarding what the wildfire risk assignment means for the property owner; and
e. information about how a property owner may appeal the assignment of wildfire risk class, including the specific elements that may be appealed.

4. Prior to the effective date of updates to the Statewide Wildfire Risk Map, the Department shall hold regional public meetings.
5. The Department shall provide a notice of the times and places of all statewide and regional meetings, and the other ways by which comments may be submitted, using a variety of notice methods designed to reach diverse audiences, both statewide and within each region.
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8. The Department shall establish and publicize a place where electronic and written comment may be received.
9. Following the public meeting the Department, in consultation with Oregon State University, may make changes in the proposed wildfire risk classification assignments, hold additional meetings, and thereafter shall make final wildfire risk class assignments.

629-044-1036

Locally Developed Wildfire Plans

1. The following types of locally developed wildfire plans may be integrated into the wildfire risk mapping portal if the local jurisdiction chooses.
    a. Community Wildfire Protection Plans developed under the Healthy Forests Restoration Act;
    b. Natural Hazard Mitigation Plans developed under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; or
    c. Firewise USA Action Plans developed under the Firewise USA Program administered by the National Fire Protection Association.
2. Information in the types of locally developed wildfire plans identified in subsections (1)(a) thru (c) above, may complement, but does not supplant or supersede the Statewide Wildfire Risk Map.

629-044-1041

Appeal of Wildfire Risk Assignment

1. An affected property owner or local government may appeal the assignment of properties by submitting an appeal in writing within 60 days of:
    a. The date that the wildfire risk map or update is posted on Oregon Explorer Map Viewer website; or
    b. The date that a correctly addressed notice is deposited with the postal service for mailing to the affected property owner.
2. In the written appeal in section (1) of this rule, the property owner must specifically state:
    a. the objections to the wildfire risk class assignment;

b. the change in wildfire risk assignment sought; and
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        (A) reviewing whether the wildfire risk assignment and map were developed and maintained according to these rules and the most current wildfire assessment.

        (B) reviewing for any error in the data that was used to determine the wildfire risk class assignment;

        (C) reviewing any pertinent facts that may justify a change in the assignment; and

        (D) providing the report to the appellant.

    d. the Department shall provide information to the public describing changes to the map based on approved appeals. The information shall be posted on the Department's public website.

4. A final decision of the matter issued under section (3) of this rule shall be a final order, and subject to appeal as prescribed by ORS 183.484.

2023-2025 Agency Budget Development Policy Option Packages

Board of Forestry – Decision for Approval

June 8, 2022

Timeline to ARB Submittal

- ~~April 27 – BOF overview of agency POPs~~
- **June 8 – BOF provides final approval of agency POPs**
- July 20 – BOF reviews and approves the ARB
- Aug 31– Agency submits ARB to Chief Financial Office of DAS

Categories of Policy Option Packages

- Continuing Business
- Program Development
- Capital Investments

Continuing Business (7 POPs)

- Federally-funded Field Capacity
- Private Forest Accord Program Development
- SB 762 – Continuing Investments
- Federal Forest Restoration (FFR) Program Infrastructure Investment
- Facility Management Capacity
- ODF Severity
- Landowner Rate Offset Continuation

Program Development (5 POPs)

- Community Engagement & Climate Change
- Recreation, Education, & Interpretation
- Emergency Response & Life Safety
- Document Management System Preparation
- Planning Branch Capacity

Capital Investments (5 POPs)

- SB 1067 Deferred Maintenance Investments
- Facility - Toledo
- Facility - Klamath
- Facility - Santiam
- State Foresters Office Renovation

POP 100 - Community Engagement & Climate Change

GF	OF	FF	Total	Positions	FTE
$2,530,556	$0	$374,872	$2,905,428	7	7.00

- Natural Resource Specialist 4 - Silvicultural Specialist
- Natural Resource Specialist 2 - Urban Forestry Forester
- Natural Resource Specialist 2 - Landowner Assistance Forester (2)
- Natural Resource Specialist 3 - Reforestation Program Coordinator
- Operations & Policy Analyst 3 - Outreach & Engagement Coordinator
- Natural Resource Specialist 4 - Climate and Fire Ecologist

POP 104 - Planning Branch Capacity

GF	OF	FF	Total	Positions	FTE
$1,417,610	$1,604,611	-$98,311	$2,923,910	7	7.00

- PEM E - Deputy Program Manager
- PEM D - Resources Planning Unit Manager
- Operations & Policy Analyst 3 - BOF Administrator
- Operations & Policy Analyst 3 - Agency Planning & Rules Coordinator
- Operations & Policy Analyst 3 - Workforce Development Coordinator
- Program Analyst 3 - Change Management Specialist
- Natural Resource Specialist 3 - Data Coordinator

POP 105 - Federally-funded Field Capacity

GF	OF	FF	Total	Positions	FTE
$557,500	$330,000	$2,640,108	$3,527,608	13	13.00

- Accountant 1 - Federal Funds Specialist
- Natural Resource Specialist 2 - Community Wildfire Planner (3)
- Natural Resource Specialist 2 - Landowner Assistance Forester (8)
- Natural Resource Specialist 2 - SOD Forester

POP 106 - Private Forest Accord Program Development

GF	OF	FF	Total	Positions	FTE
$17,314,273	$0	$0	$17,314,273	0	0.00

POP 107 - SB 762 – Continuing Investments

GF	OF	FF	Total	Positions	FTE
$3,918,711	-$150,982	$0	$3,767,729	2	2.00

- Natural Resource Specialist 3 - Field Implementation Support
- Admin Specialist 2 - Landscape Resiliency Program Support

POP 108 - Federal Forest Restoration (FFR) Program Infrastructure Investment

GF	OF	FF	Total	Positions	FTE
$217,652	$6,632,711	$1,685,219	$8,535,582	23	19.76

- Fiscal Analyst 2 - FFR Fiscal Analyst
- Forest Management Technician - FFR Technician (4)
- Forest Management Technician - FFR Technician (6)
- Forest Manager 1 - FFR Coordinator
- Natural Resource Specialist 1 - FFR Forester
- Natural Resource Specialist 2 - FFR Forester (8)
- Natural Resource Specialist 3 - FFR NEPA Specialist
- Natural Resource Specialist 3 - FFR Roads Specialist

POP 101 - Recreation, Education, & Interpretation

GF	OF	FF	Total	Positions	FTE
$2,344,104	-$1,193,222	$0	$1,150,882	3	3.00

- Natural Resource Specialist 3 - Mobile Interpretive Education Coordinator
- Natural Resource Specialist 2 - Mobile Interpretation Specialist
- Public Analyst 1 - Volunteer Program Coordinator

POP 102 - Emergency Response & Life Safety

GF	OF	FF	Total	Positions	FTE
$4,340,970	$0	$0	$4,340,970	2	2.00

- Information Technology Manager 1 - Radio Unit Manager
- Information Systems Specialist 6 - Detection Camera Installation

POP 110 - ODF Severity

GF	OF	FF	Total	Positions	FTE
$14,000,000	$0	$0	$14,000,000	0	0.00

POP 111 - Landowner Rate Offset Continuation

GF	OF	FF	Total	Positions	FTE
$14,000,000	$0	$0	$14,000,000	0	0.00

POP 103 - Document Management System Preparation

GF	OF	FF	Total	Positions	FTE
$267,626	$0	$0	$267,626	1	1.00

- Operations & Policy Analyst 3 - Department Records Analyst

POP 109 - Facility Management Capacity

GF	OF	FF	Total	Positions	FTE
$436,025	$814,618	$0	$1,250,643	3	3.00

- Operations & Policy Analyst 3 - Strategic Planning Analyst
- Construction Project Manager 2 - Construction Project Manager (2)

POP 112 - SB 1067 Deferred Maintenance Investments

GF	OF	FF	Total	Positions	FTE
$596,037	$5,295,000	$0	$5,891,037	0	0.00

POP 113 - Facility - Toledo

GF	OF	FF	Total	Positions	FTE
$54,465	$1,396,029	$0	$1,450,494	0	0.00

POP 114 - Facility - Klamath

GF	OF	FF	Total	Positions	FTE
$0	$1,500,000	$0	$1,500,000	0	0.00

POP 115 - Facility - Santiam

GF	OF	FF	Total	Positions	FTE
$0	$2,500,000	$0	$2,500,000	0	0.00

POP 116 - State Foresters Office Renovation

GF	OF	FF	Total	Positions	FTE
$730,827	$18,520,198	$0	$19,251,025	1	1.00

- Construction Project Manager 3 - Project Manager (Limited Duration)

Categories of Policy Option Packages

- Program Development
  - **General Fund: $10,900,866**
  - **Positions: 20**
- Continuing Business
  - **General Fund: $50,444,161**
  - **Positions: 41**
- Capital Investments
  - **General Fund: $1,381,329**
  - **Positions: 1**

- **Total Investments: $105,077,207**
  - **General Fund: $62,726,356**
  - **Other Fund: $37,248,963**
  - **Federal Fund: $4,601,888**
- **Positions: 62**
- **FTE: 58.76**

Recommendation

The Department recommends the Board approve the policy option packages proposed for inclusion in the 2023 – 2025 Agency Request Budget that will be presented for Board consideration at the July 20, 2022, Board meeting.

Associated Oregon Loggers, Inc.

PO Box 12339 • Salem, Oregon 97309-0339 • (503) 364-1330
Fax: (503) 364-0836 • aol@oregonloggers.org

Date: June 8, 2022
To: Board of Forestry
From: Amanda Sullivan-Astor, Forest Policy Manager
Associated Oregon Loggers

Topic: Agenda Item #5 – 2023-2025 Agency Budget Development

Good afternoon Chair Kelly, State Forester Mukumoto and members of the Board,

First, please recognize this testimony is based on information that was made available in the Board Packet and not the additional information provided today.

For the record, my name is Amanda Sullivan-Astor and I am the forest policy manager at Associated Oregon Loggers (AOL). AOL has been more active than many years in the past with the development of Policy Option Packages (POPs) for the Department. As you have heard us speak to before, the inclusion of a workforce development specialist on staff at ODF is critical so challenges around getting work accomplished on the ground can be collaboratively addressed by the Department with outside partners. AOL has been excited to work with ODF on this new position and has made ourselves available at every step of the budget development process to ensure collaboration on this position and work start from the onset.

Unfortunately, internal deadlines and capacity has made the process much more opaque than AOL would have liked and it is unclear where the position AOL has been advocating for will end up in the organization, what their core duties will actually be and how effective the new staff person would be because of the lack of engagement as finalization of the Agency's Recommended Budget draws near.

We understand the large quantity of tasks and topics on the Department's plate at the moment, but this lack of collaboration or ability to meet has been troubling.

We do however continue to advocate for the position in whichever form it ends up taking and do not want this concern to overshadow this FTE's necessity.

We have also been working with ODF on their SB 762 Continuing Investments and Federal Forests Restoration Infrastructure POPs as well as having interest in the Federal Partnerships Support POP.

AOL is supportive of new positions that make sense for ODF to achieve work we helped obtain through efforts in shared stewardship and landscape resiliency, however, AOL is concerned that new positions are being added to the organization that are unnecessary or are risky. There are many limited duration positions in the Federal Partnerships Support POP that will now be permanent. It is likely they will be wrapped up into the Current Service Level budget which is already ballooning significantly due to other new programs at an unsustainable rate.

Regarding the SB 762 POP, AOL believes the Department may not need the two additional FTEs that are being asked for. It is unclear weather both are limited duration positions becoming permanent or if they are new positions to the organization all together. Either way, we are concerned that a more comprehensive assessment of needs has not been completed and partners engaged in the work have not been coordinated on the development of this POP to better understand the perspective of those who would be working with these new FTEs.

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Lastly, AOL would like to provide support for the FFR POP and wants to acknowledge to increased emphasis on the program's staff to produce revenue generating timber sales that leverage funds to do additional work without putting the general fund at risk. This concept is one AOL has advocated for in the past with this program and we are happy to see it being pursued.

Thank you for your time today and I am available for any questions.

Sincerely,

Amanda Sullivan-Astor
Forest Policy Manager
Associated Oregon Loggers

To: Jim Kelly, Chair of the Oregon Board of Forestry
Members of the Board of Forestry
Cc: Cal Mukumoto, Oregon State Forester
Kyle Abraham, Deputy State Forester
Ron Zilli, State Forests Planning & Coordination Deputy
Sarah Dyrdahl, Acting State Forests Policy Deputy
Danny Norlander
Date: June 22, 2022
Re: Board of Forestry Hearing Line Item 5: 2023-2025 Agency Budget Development Policy Option Packages

---

Dear Chair Kelly and Members of the Board of Forestry,

We appreciate the Oregon Department of Forestry's (ODF) and the Board's desire to expand the 2023-2025 Agency Budget, especially in light of the climate crisis that Oregon and the planet are facing. Adding capacity to ODF to pursue science-based, climate-smart forest practices[1] is essential to the State's public forest management. Creating and funding these new positions will help ODF become a national leader in climate-smart forestry and demonstrate the agency's willingness to support progressive policy changes and practices.

The organizations and individuals signed on to this letter are members of the Forest Policy Table of the Oregon Climate Equity Network (formerly, Oregon Climate Action Plan Coalition). The Forest Policy Table works to ensure the strongest possible outcomes for our forests, climate, wildlife, water, and communities. We believe ODF can and should continue to support climate-smart forest strategies and integrate lasting mechanisms within the agency to continue

[1] Climate-smart forest management integrates the challenges and opportunities of climate change mitigation and adaptation into forest policy, planning, and practices, aiming to optimize carbon storage and sequestration in a manner that accounts for the worsening impacts of climate change. *See, e.g.*, Charisse Sydoriak, *Adapting to Climate Change: An Introduction to the Climate-Smart Conservation Approach*, SOCAN, https://socan.eco/climate-smart/; *see also* Stein, B.A., P. Glick, N. Edelson, and A. Staudt (eds.), *Climate-Smart Conservation: Putting Adaptation Principles into Practice* (2014), Nat'l Wildlife Fed., https://www.nwf.org/~/media/PDFs/Global-Warming/Climate-Smart-Conservation/NWF-Climate-Smart-Conservation_5-08-14.pdf; David D. Diaz, Sara Loreno, Gregory J. Ettl and Brent Davies, *Tradeoffs in Timber, Carbon, and Cash Flow under Alternative Management Systems for Douglas-Fir in the Pacific Northwest*, 9(8) Forests 447 (2018), https://www.mdpi.com/1999-4907/9/8/447; *OGWC 2018 Forest Carbon Accounting Project Report 2018. Keep Oregon Cool*, Oregon Global Warming Commission, https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5c2e415d0ebbe8aa6284fdef/1546535266189/2018-OGWC-Biennial-Report.pdf.

this work. ODF should be a model for other states to follow on how to best use our forests as a critical, natural climate solution by supporting carbon storage and sequestration, biodiversity, and clean water. Approving the 2023-2025 agency request budget to expand scientific capacity and increase equitable public processes is critical in achieving this goal. We hope the Board uses this as an opportunity to look ahead and address the multitude of climate-centric issues Oregon faces rather than rely on backward-looking policies.

We agree with the Department's recommendation to approve the policy option packages (POPs) proposed for inclusion in the 2023-2025 Agency Request Budget. Specifically, we request the prioritization and approval of POP 100, which would add new positions expanding ODF's scientific capacity. These positions would also provide new opportunities for engaging with and prioritizing vulnerable communities. Additionally, we request the prioritization of POP 106, which will provide necessary funding to support the recent Private Forest Accord. The below recommendations highlight further opportunities for strengthening POP 100.

POP 100 - Community Engagement & Climate Change

The jobs proposed in this POP[2] will not only help bolster the agency's implementation of the Climate Change and Carbon Plan (CCCP) but also add vital and permanent scientific support. These new positions will also be an opportunity for the agency to prioritize equity and environmental justice principles. It is important, as the agency develops these positions further, to have each position integrate the inclusion of systematically marginalized communities. For example:

- Natural Resource Specialist 4 - Climate-Smart Silviculturist[3]
    - Emissions reduction and carbon storage and sequestration should be at the forefront of this position. Ensuring that this position works closely with those impacted by wildfire, vulnerable communities, and those systematically marginalized is vital to promoting equity principles and putting the Department's equity promises into action.
- Natural Resource Specialist 2 - Urban Forestry Forester
    - This position should prioritize climate-smart forestry practices in line with the CCCP. This position should also prioritize working closely with vulnerable communities and systemically marginalized communities. There should also be a focus on outreach to new stakeholders that do not have access to the decision-making process (i.e., vulnerable communities).

[2] Please note that the job titles in this testimony are based upon the newly available ODF Cloud PDF copies of the draft POP narratives. Any discrepancies between the materials in the Board's June 8, 2022 meeting agenda materials and the titles listed herein will be indicated via footnote.
[3] Formerly called the "Silvicultural Specialist."

- Natural Resource Specialist 2- Landowner Assistance Forrester (2 positions)
    - These positions should prioritize climate-smart forestry practices in line with the CCCP. These positions should also prioritize working closely with vulnerable communities and systemically marginalized communities. There should also be a focus on outreach to new stakeholders that do not have access to the decision-making process (i.e., vulnerable communities).
- Natural Resource Specialist 3 - Reforestation Program Coordinator
    - This position should prioritize climate-smart forestry practices in line with the CCCP. Emissions reduction and carbon storage and sequestration should be at the forefront of this position. Additionally, the person in this position should be well versed in biodiverse forest habitats (i.e., mixed tree species and mixed-age forests). This will decrease the presence of monocultural "tree plantations," which pose huge risks to forest health, biodiversity, riparian areas, water quality, ecological wildfire defense, and carbon sequestration.
- Operation & Policy Analyst - Outreach & Engagement Coordinator
    - It would be helpful to ensure that this job description requires engagement, outreach, and new relationship building with vulnerable communities across the state. There should also be a focus on outreach to new stakeholders that do not have access to the decision-making process (i.e., vulnerable communities). Creating opportunities to increase diversity, inclusion, and equity for all future outreach and engagement opportunities is vital.
- Natural Resource Specialist 4 - Climate and Fire Ecologist
    - Emissions reduction and carbon storage and sequestration should be at the forefront of this position. One of the duties of this position should be focusing on sharing research and information with communities across the state—particularly with vulnerable communities and those systematically marginalized. This information sharing could take the form of public education and outreach. This position should also collect up-to-date feedback and information on which Oregon communities most need to address the threat of fire. Ecological fire management and restoring natural fire regimes should be prioritized in this position alongside community protection and confronting climate change.
- Natural Resource Specialist 4 - Forest Modeling and Data Scientist[4]
    - This position should prioritize emissions reduction and carbon storage and sequestration. Additionally, the person in this position should also be well versed in biodiverse forest habitats and water quality so that the data collection and subsequent forest growth and forest management policies are holistic and protect all aspects of Oregon's complex forest ecosystems and the values they provide, including carbon, drinking water, and wildlife habitat. The ultimate goal of

[4] This is a newly added position that was not mentioned in the June 8, 2022 Board of Forestry meeting agenda materials.

decreasing the harmful, monoculture tree plantations should be at the forefront of this position.

In addition to the proposed positions, we suggest that the Board add another position specifically addressing water quality and riparian area health. This position would include increasing data collection on both water quality and water quantity in Oregon's forests, going beyond collecting data on only Total Maximum Daily Loads (TMDLs). Ideally, the person in this position would work in coordination with other state water management agencies, like the Oregon Department of Environmental Quality (DEQ). This water quality and riparian specialist would also ensure adequate buffer zones and mitigate all dangers around pesticide use in forests—especially concerning riparian areas and water bodies. Adding a water quality specialist that focuses on Oregon's forest riparian areas is essential to holistic, climate-forward forest management. In the alternative, we suggest adding these requirements to an already existing position in this POP.

The entire requested amount is necessary to fund these vital positions and expand ODF's scientific capacity. Therefore, the Board should prioritize and approve POP 100.

POP 106 - Private Forest Accord Development

We also request that the Board prioritize POP 106, which will provide necessary funds to support programs stemming from Private Forest Accord, SB 1501. We are committed to the success of this recently-passed Accord and request prioritizing funds supporting the Small Forestland Owner Investment in Stream Habitat (SFISH) Program, an Adaptive Management Program, and the Services and Supplies (S&S) related to SB 1501.

Thank you for the opportunity to provide this testimony.

Sincerely,

Teryn Yazdani
Staff Attorney & Climate Policy Manager
Beyond Toxics

Lauren Anderson
Forest Climate Policy Coordinator
Oregon Wild

Alan Journet Ph.D.
Cofacilitator, Southern Oregon Climate Action Now
Jacksonville, OR 97530

Rand Schenck
Forestry Lead
Metro Climate Action Team

Pacific Coast Forest Carbon: Estimating Regional Carbon Stocks and Flux

Glenn Christensen, Andy Gray, and Olaf Kuegler, Forest Inventory and Analysis Program, PNW Research Station

Andrew Yost, ODF

Nadia Tase, CAL FIRE

Caren Dymond, Government of British Columbia

Werner Kurze, Canadian Forest Service

USDA U.S. FOREST SERVICE
Caring for the land and serving people
United States Department of Agriculture

Pacific Northwest Research Station

Overview

- Review of FIA's state carbon reporting at PNW Station
- Current work with the Pacific Coast Forest Carbon Partnership
- Updated Oregon forest carbon estimates

Forest Inventory & Analysis (FIA) at PNW

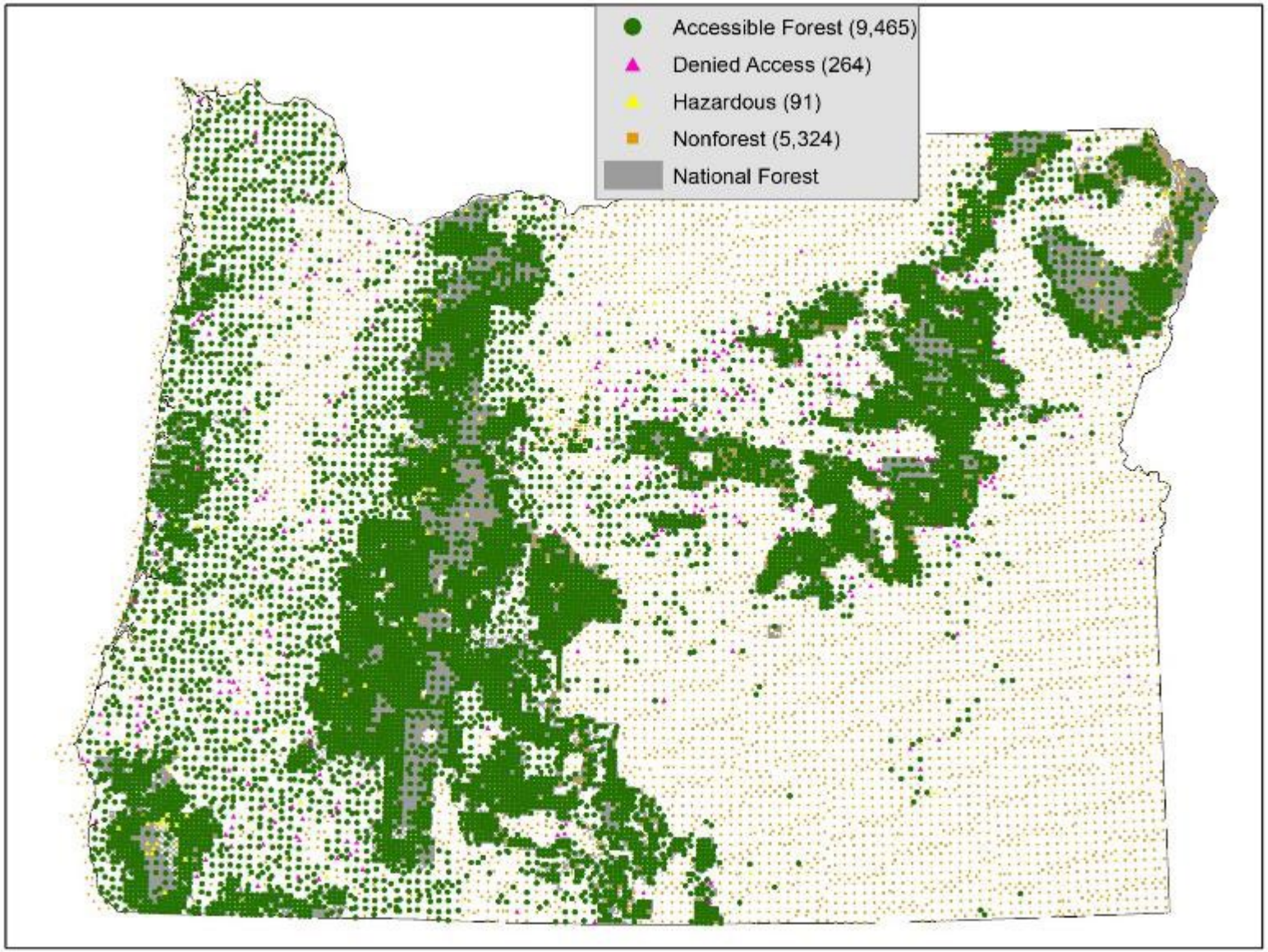
- Multi-year measurement cycle, PNW-FIA annually funded to complete a 10-year plot measurement cycle
- 2001: Annualized inventory began in California and Oregon
  - Washington: 2002
  - Coastal Alaska: 2004
  - Hawaii and U.S. affiliated Pacific Islands implemented later
- 2020: CA and OR complete first full plot remeasurment (in progress)

Forest Carbon Reporting at PNW-FIA

- California –
  - 2008: PNW-FIA completed initial baseline carbon estimates supporting AB32 (CA Global Warming Solutions Act of 2006)
  - 2014+ CAL FIRE funded statewide carbon reports and data updates
  - 2018-2019: Statewide carbon report included carbon in harvested wood products (HWP)
- Oregon –
  - 2019 ODF funded: Oregon Forest Ecosystem Carbon Inventory: 2001-2016. Carbon in harvested wood products report completed 2020.
- Washington –
  - 2020 WA-DNR funded: Washington Forest Ecosystem Carbon Inventory: 2002-2016. Carbon in harvested wood products report completed 2020.

Use of State-Level Forest Carbon Reporting

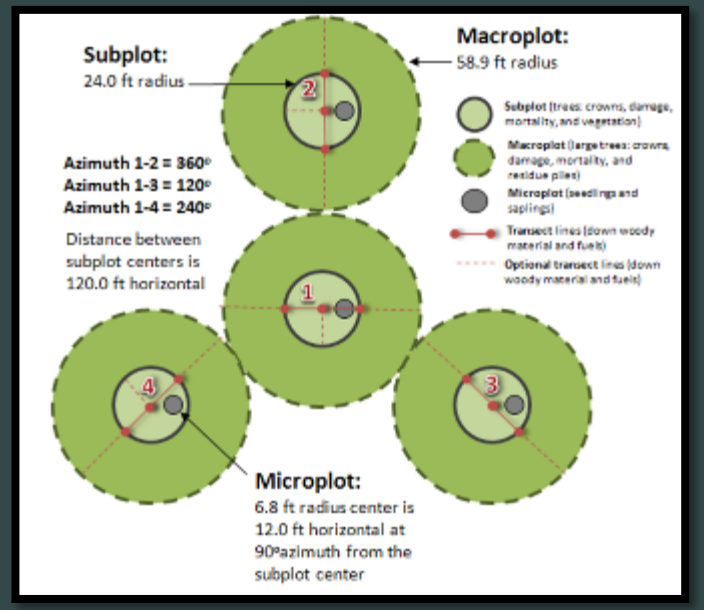
- Informing state climate goals/policy, and forest carbon sequestration targets
- Supporting inventory intensification
  - California: 2020 implemented 2x temporal intensification (5-year measurement cycle)
  - Oregon: 2020 implemented 2x spatial intensification on ODF managed forests



FIA in Oregon

Annual field measurements began 2001

- 9,465 field plots
- Includes 4,350 R6 Intensified plots
- 29.6 million ac of forest land
- 10.3 billion trees ≥ 1-inch DBH



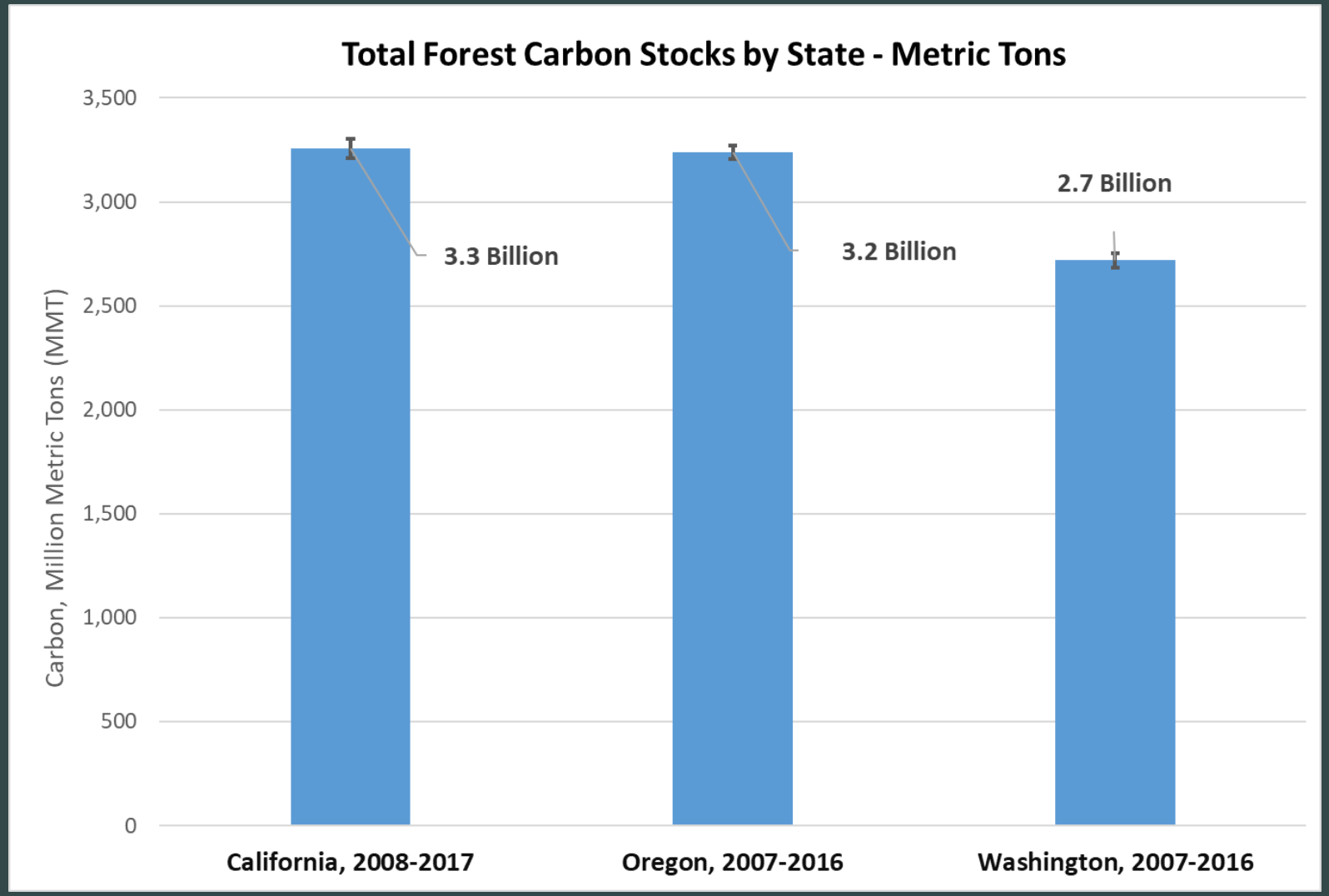
Forest Carbon Stocks: Initial Reporting

Forest land area by Ownership

California: 31.7 million ac.
- 61% Public
- 39% Private

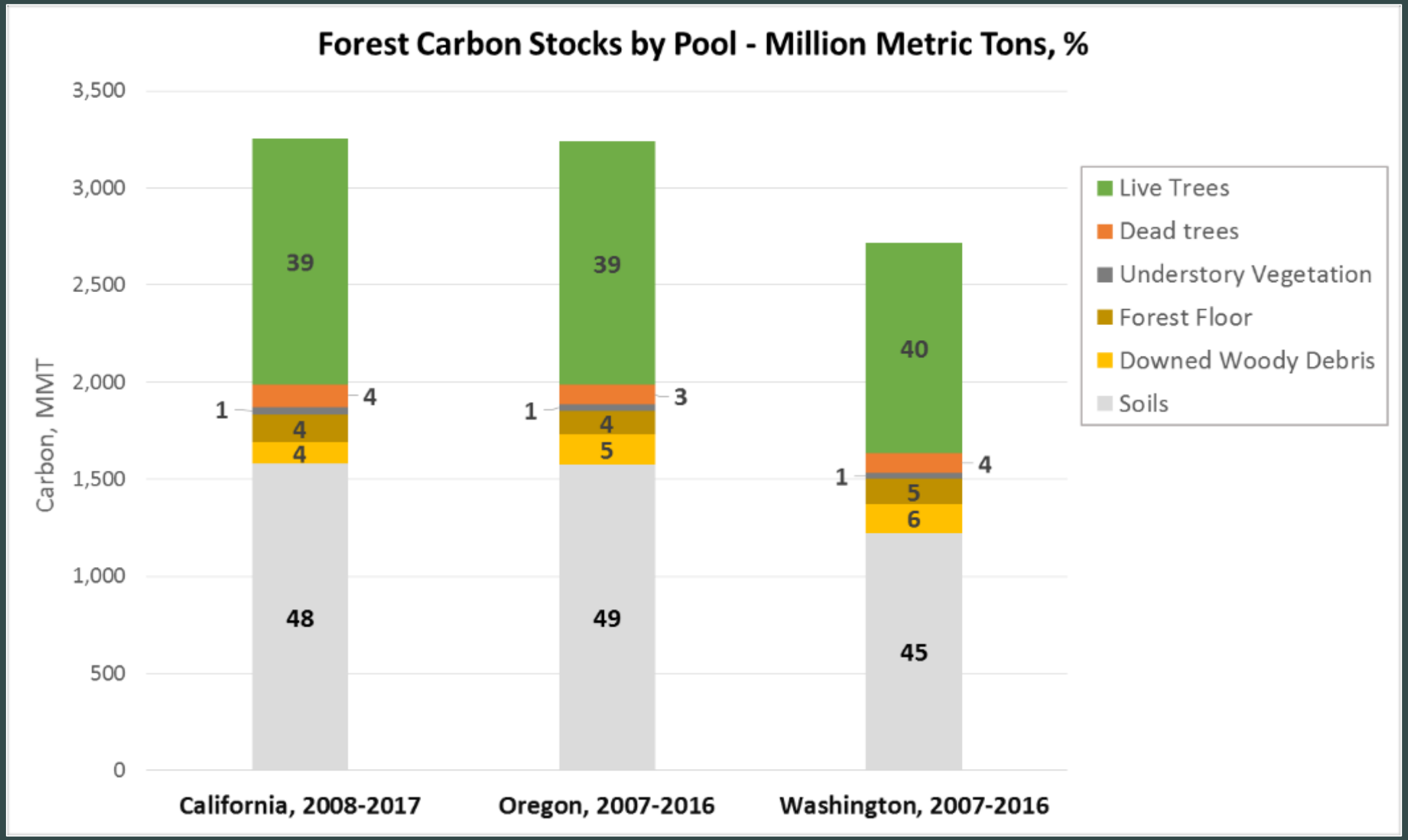
Oregon: 29.6 million ac.
- 64% Public
- 36% Private

Washington: 22.1 million ac.
- 57% Public
- 43% Private



Forest Carbon Pools

- Forest carbon pools include:
  - Live trees
    - Foliage
    - Roots
  - Standing dead trees
    - Roots
  - Downed woody debris
  - Understory vegetation
    - Roots
  - Forest floor – duff and litter
  - Soil carbon


Forest Carbon Stocks by Pool - Million Metric Tons, %
Carbon, MMT
3,500
3,000
2,500
2,000
1,500
1,000
500
0
39
1
4
4
48
39
1
3
4
5
49
40
1
4
5
6
45
California, 2008-2017
Oregon, 2007-2016
Washington, 2007-2016
Live Trees
Dead trees
Understory Vegetation
Forest Floor
Downed Woody Debris
Soils

Forest Carbon Flux: Initial Reporting

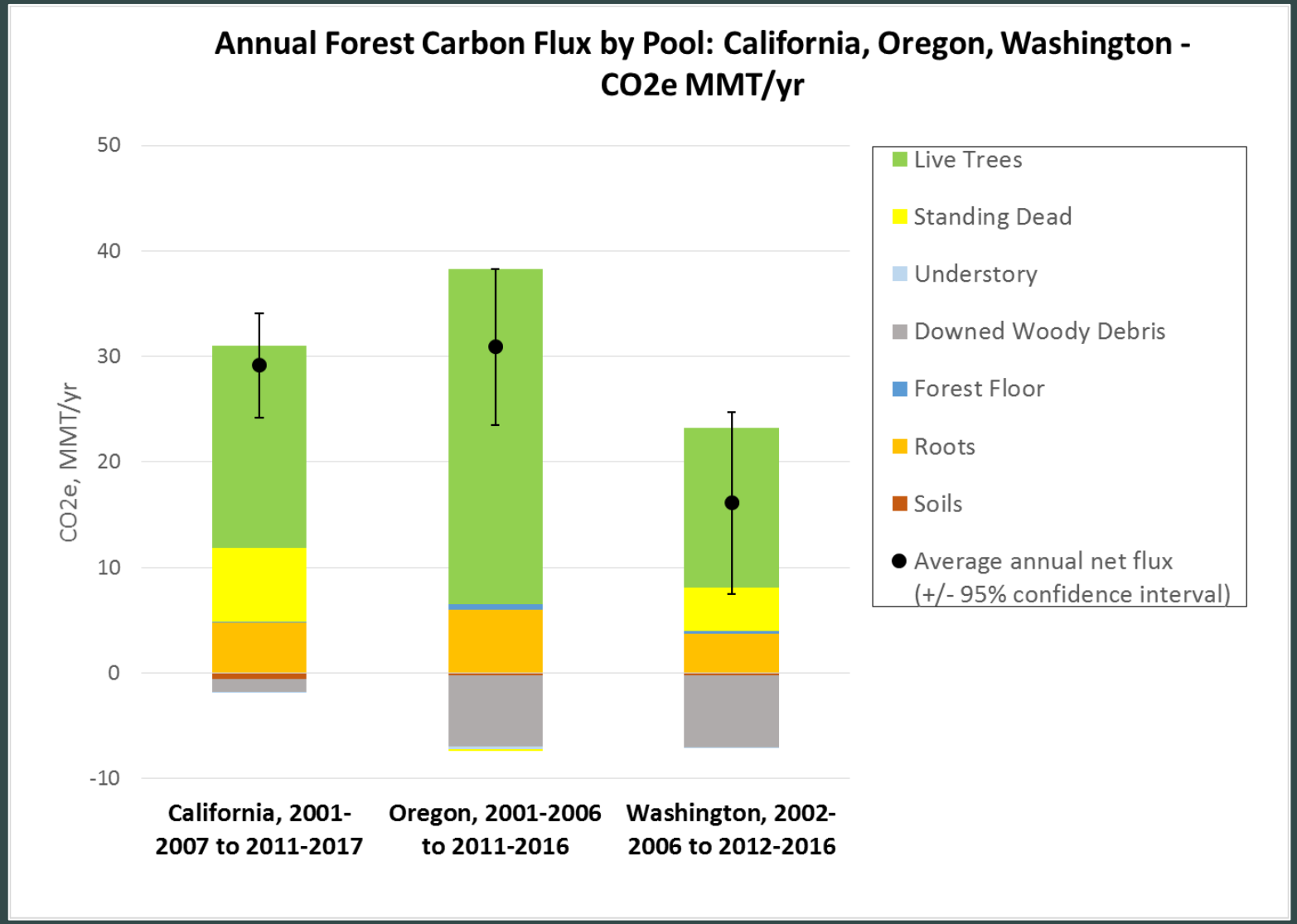
Forest Carbon Flux: Estimates of Change

- Every pool of forest carbon has a rate of carbon input and rate of carbon output.
- Flux represents the amount of carbon going into a pool minus the amount going out. By carbon pool:
  - Net increase = carbon sink
  - Net loss = transfer out of pool *or* carbon emission as CO_2 (source)
- Flux is reported in units of CO_2 equivalents.
- Annual forest carbon flux is estimated from actual measurements of growth, removals, mortality of live trees, changes in standing dead trees and changes in dead wood.

Downed Woody Debris (DWD) compilation

- The field protocol and compilation for DWD has changed over time.
  - DWD *inclination* measurement started in 2013 (PNW).
  - *Large and small diameter* as well as *length* were dropped starting 2011 (now only collected on NFS) (PNW).
- DWD estimates are based on intersect diameter, which was consistently measured over time.
- DWD estimates were recompiled to obtain valid change estimates.

Annual Net flux (CO_2eMMT/yr)
California: 29.16
Oregon: 30.91
Washington: 16.14



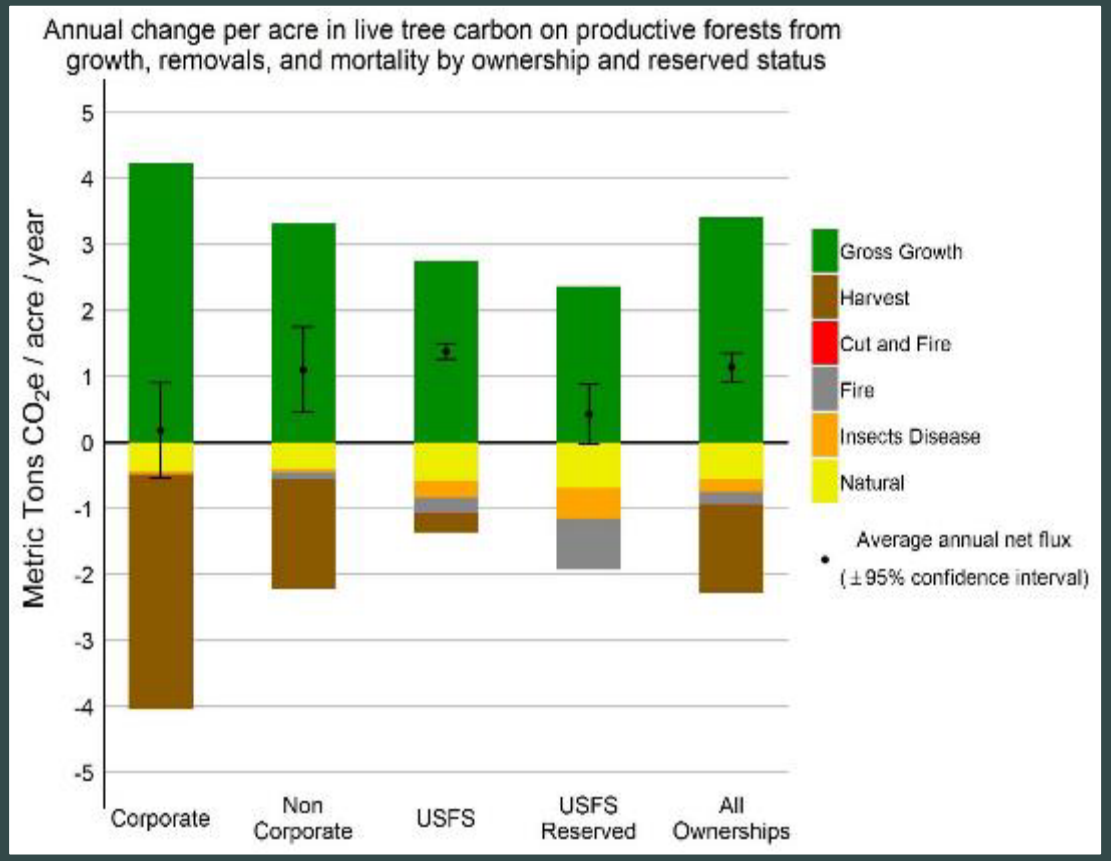
Note: Values greater than zero represent an annual increase in CO2e for a pool, values below zero represent an annual reduction in CO2e for a pool.

Disturbance Classification

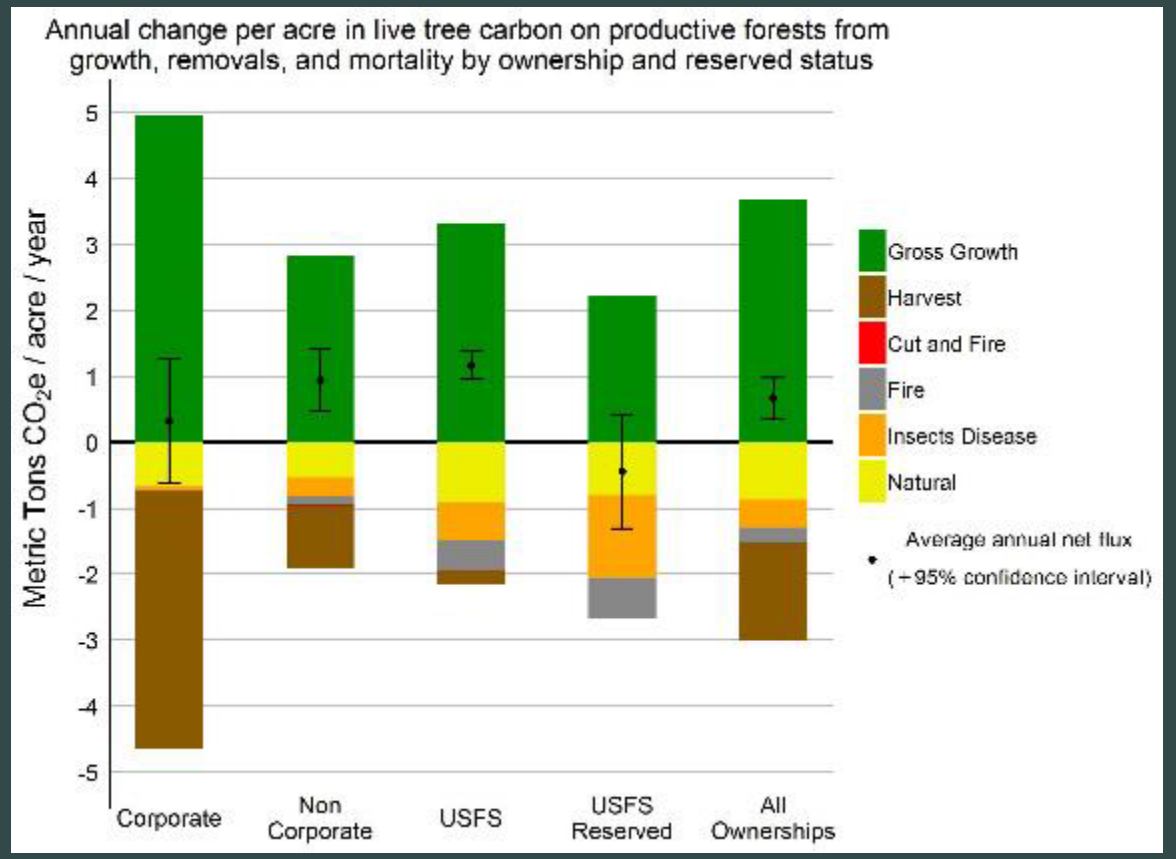
- We used treatment and disturbance codes to classify conditions as disturbed.
- Distinguished
  - Harvest
  - Cut and Fire (tree mortality has occurred due to both harvest and fire)
  - Fire
  - Insects and Disease
  - No disturbance (natural/other)

Oregon and Washington: Live Tree Carbon Flux (CO_2e) by Ownership

Oregon: 2001-2006 to 2011-2016



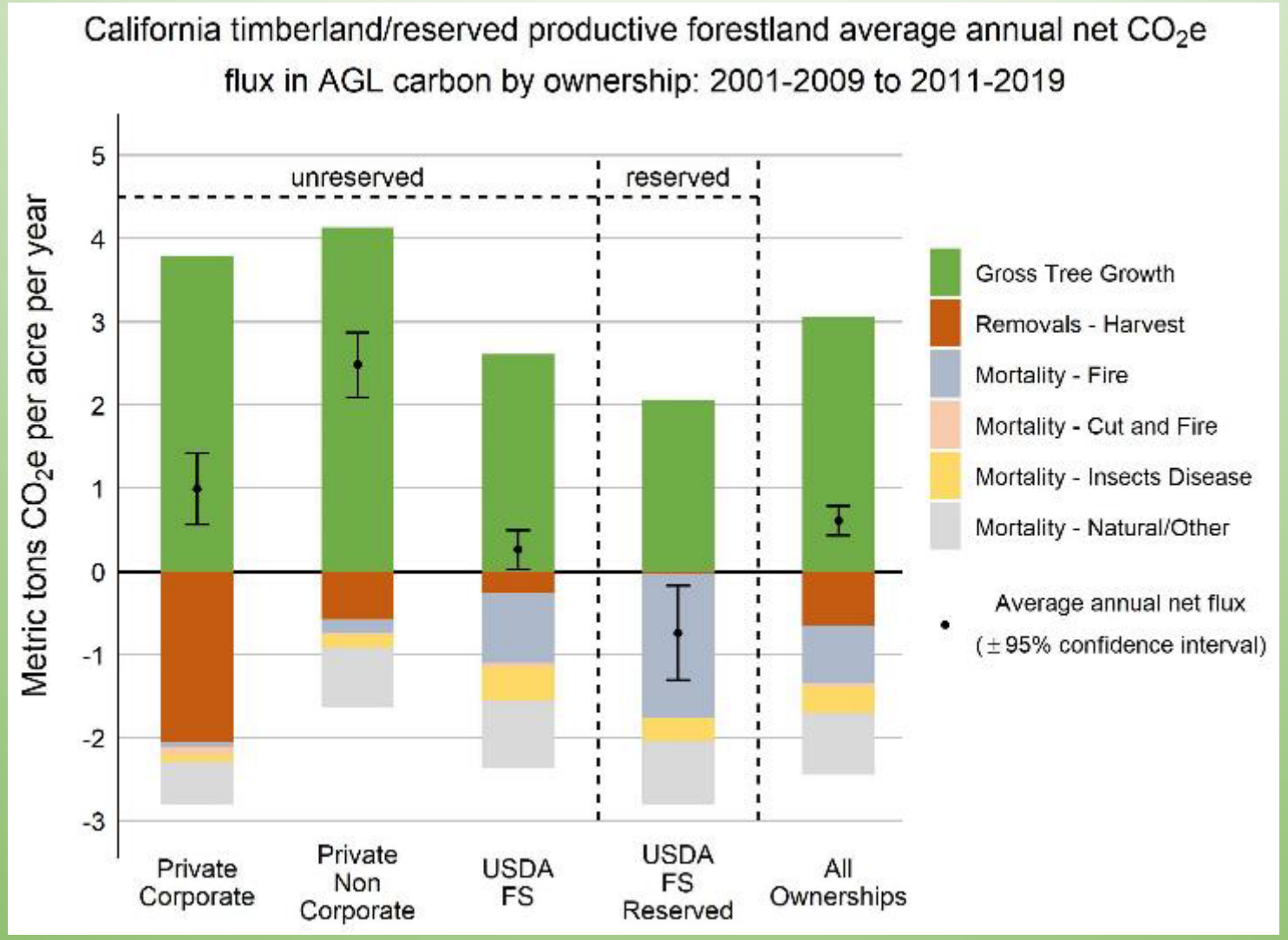
Washington: 2002-2006 to 2012-2016



2019 California BOF: Forest Ecosystem & HWP Carbon Inventory

Nadia Tase
Senior Environmental Scientist
Climate Change and Forest Inventory
Fire and Resource Assessment Program
CA Dep't of Forestry and Fire Protection
nadia.tase@fire.ca.gov

California Forest Carbon Live Tree Carbon Flux by Ownership: 2019



California Forest Carbon Sequestration: 2019 Reporting Period

Forest land remaining forest land

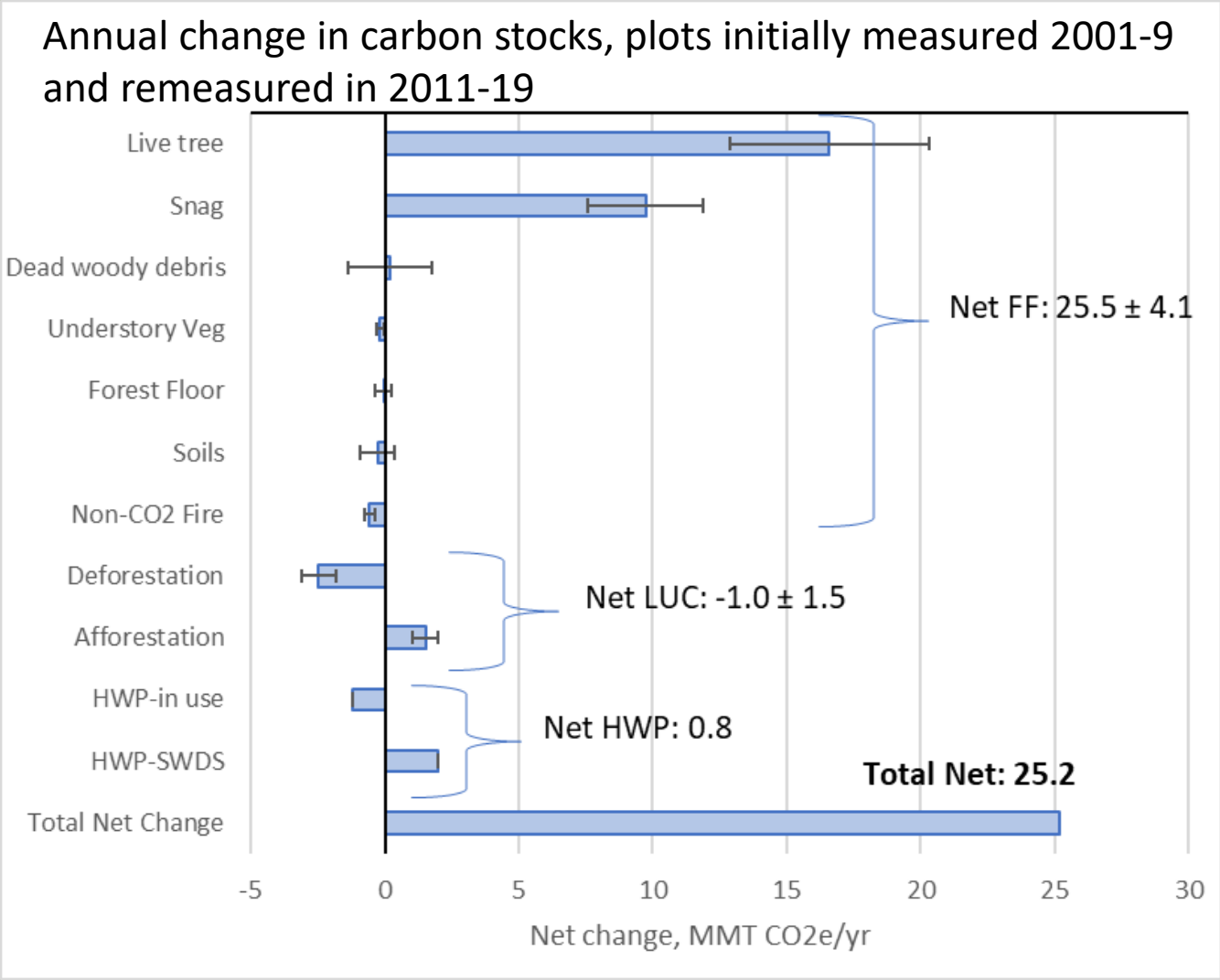
Report table 7.1

CARBON POOL	Net Change MMT CO_2 equivalent	
Forest land remaining forest land (FF)		
Forest ecosystem	**2019**	**2018***
Aboveground live[1]	13.6	16.5
FOREST ECOSYSTEM NET FLUX	26.0	27.5
Harvested Wood		
Products in use	-1.2	-1.3
Products at SWDS	2.0	2.0
HWP NET FLUX	0.8	0.7
TOTAL NET FLUX	26.8	28.2

[1]includes live trees, foliage, and understory veg

***re-calculated with new post-stratification**

CA Forest Carbon Sequestration: Forest sector component



- C stores increasing in live trees and snags
- CA greenhouse gas emissions, all other sectors:

  425.3 MMT CO2e/yr (CA ARB - 2018)

  25.2 ÷ 425.3 = 5.9% offset

  - Note: Oregon GHG emissions approx. 60 MMT CO2e/yr

Adapted from report table 7.2

CA Forest Carbon Sequestration: Ecoregions

Report figure 4.6b

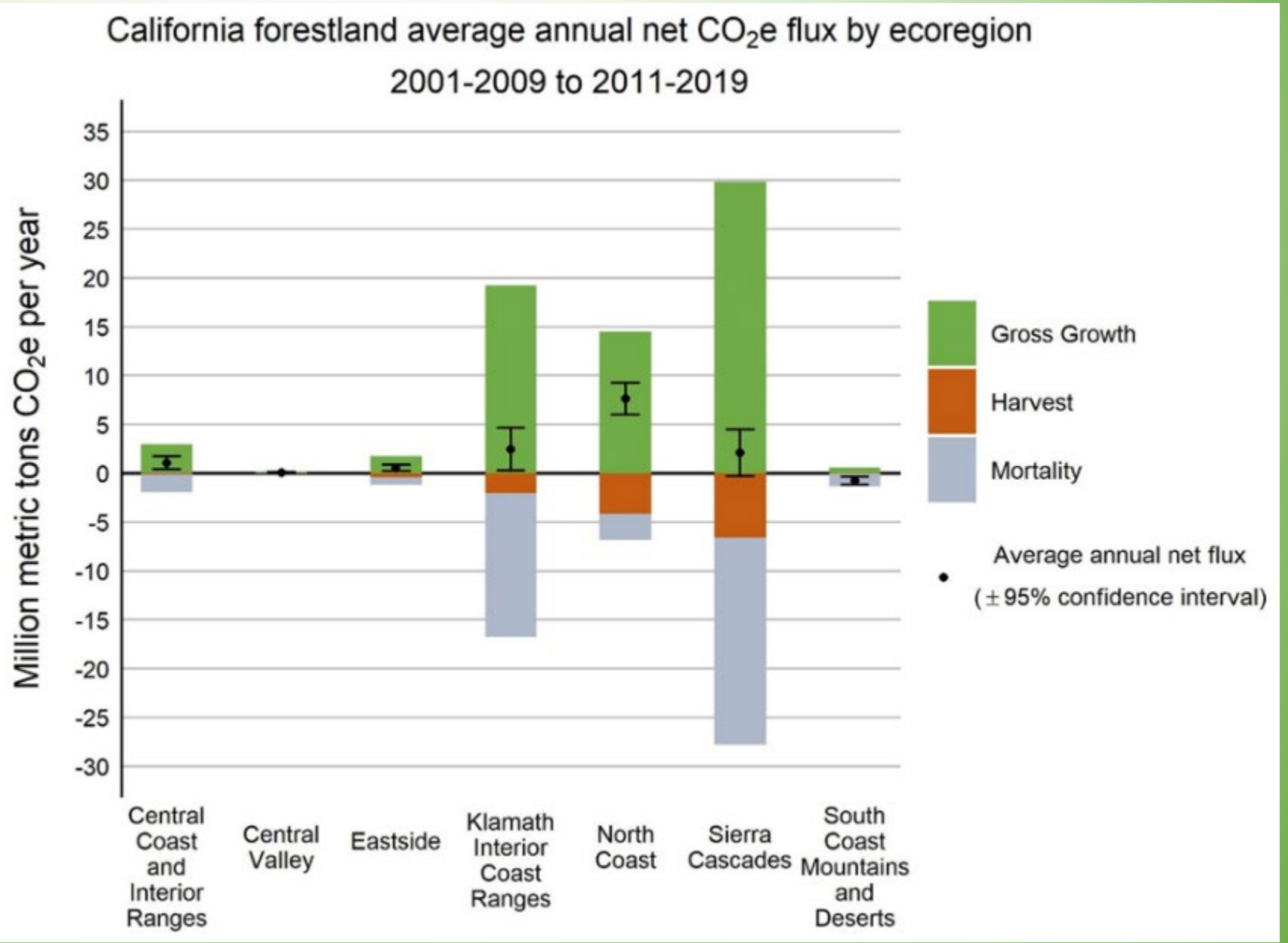
Tree mortality rate (MMT CO2e)

	Sierra	Klamath
2016	-17.8	-12.6
2017	-19.6	-13.4
2018*	-21.2	-13.7
2019*	-21.0	-14.8

Gross growth rate (MMT CO2e)

	Sierra	Klamath
2016	32.3	20.8
2017	31.9	20.1
2018*	30.1	19.7
2019*	29.9	19.3

*new post-stratification



Pacific Coast Temperate Forest Carbon Partnership

2019 Pacific Coast Temperate Forest Carbon MOU

- Shared understanding of the important role Pacific Coast temperate forests and wood products can play in mitigating the effects of a changing climate as a terrestrial carbon sink, by storing carbon in durable wood products and by providing a share of renewable products.

2019 USFS Pacific Northwest Research Station Carbon Initiative

- Common state inventory needs
- Explore climate mitigation in the forest and wood products sector
- Mutual learning with partners in Canada and western states

PNW PACIFIC NORTHWEST RESEARCH STATION

FOREST SERVICE US DEPARTMENT OF AGRICULTURE

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION CAL FIRE SINCE 1885

OREGON DEPARTMENT OF FORESTRY

WASHINGTON DEPARTMENT OF NATURAL RESOURCES

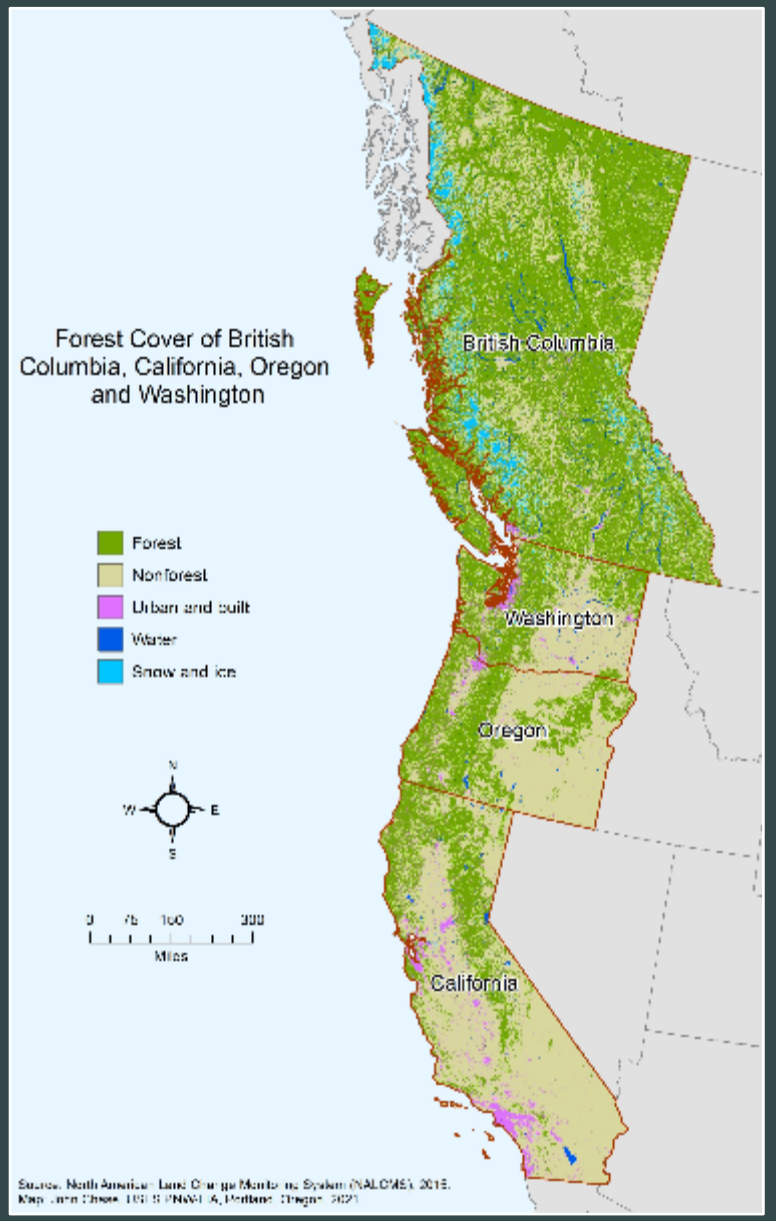
BRITISH COLUMBIA Ministry of Forests, Lands, Natural Resource Operations and Rural Development

Government of Canada Gouvernement du Canada

Study area: **Pacific Coast Region (PCR) — British Columbia, California, Oregon, and Washington**

Goals:

- Describe current forest and harvested wood product carbon stocks, sequestration, drivers of change, and wood product flows
- Provide a consistent baseline for monitoring
- Inform carbon accounting assumptions and methods
- Inform climate mitigation policy
- Shared learning between the US and Canada



Forest Carbon Methodology

- British Columbia
  - Used Carbon Budget Model of Canadian Forest Sector (CBM-CFS3).
  - Started with an initial inventory.
  - Changes were modeled using growth models from yield tables,
  - biomass turnover and litter transfer models (includes foliage),
  - disturbance information from remote sensing,
  - and harvest volume statistics.

- US Pacific States use FIA data
  - Added foliage and soils estimates.

FIA compilation changes from National protocol: Oregon, Washington, and California

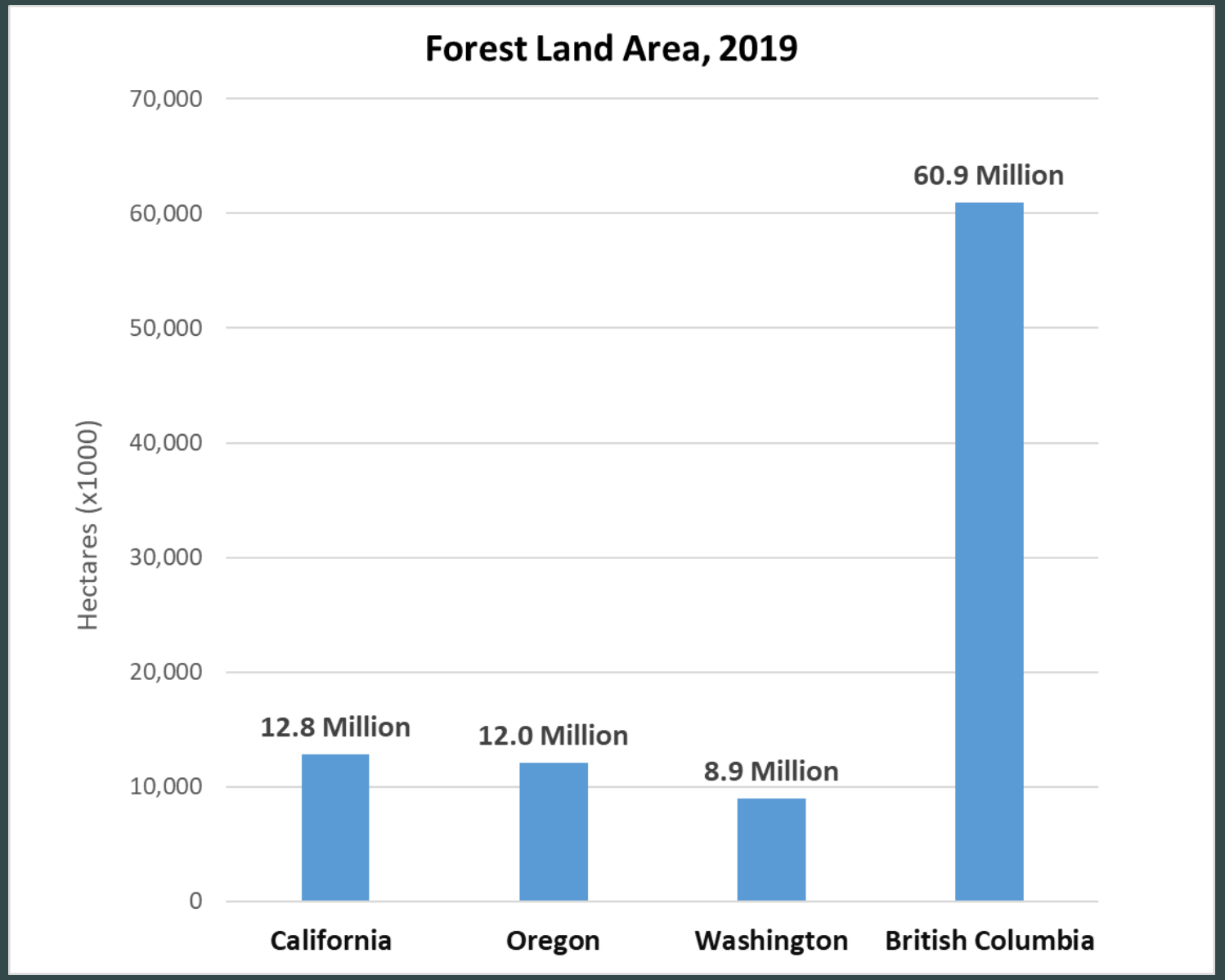
- Separated out harvested carbon
  - Estimated wood moved off site
    - All tree bole carbon up to 4’’ top, trees ≥ 5’’ DBH
  - Wood left on site
    - All tops/branches, foliage, trees < 5’’ DBH, killed during harvest but still standing
- Grouped public timberland, public reserved and private land to compare to British Columbia

Harvested Wood Products (HWP) Methodology

- British Columbia follows IPCC Simple Decay Approach (focuses on annual harvest and emissions).
- BC data from National Forest Carbon Monitoring, Accounting and Reporting System (NFCMARS-HWP).

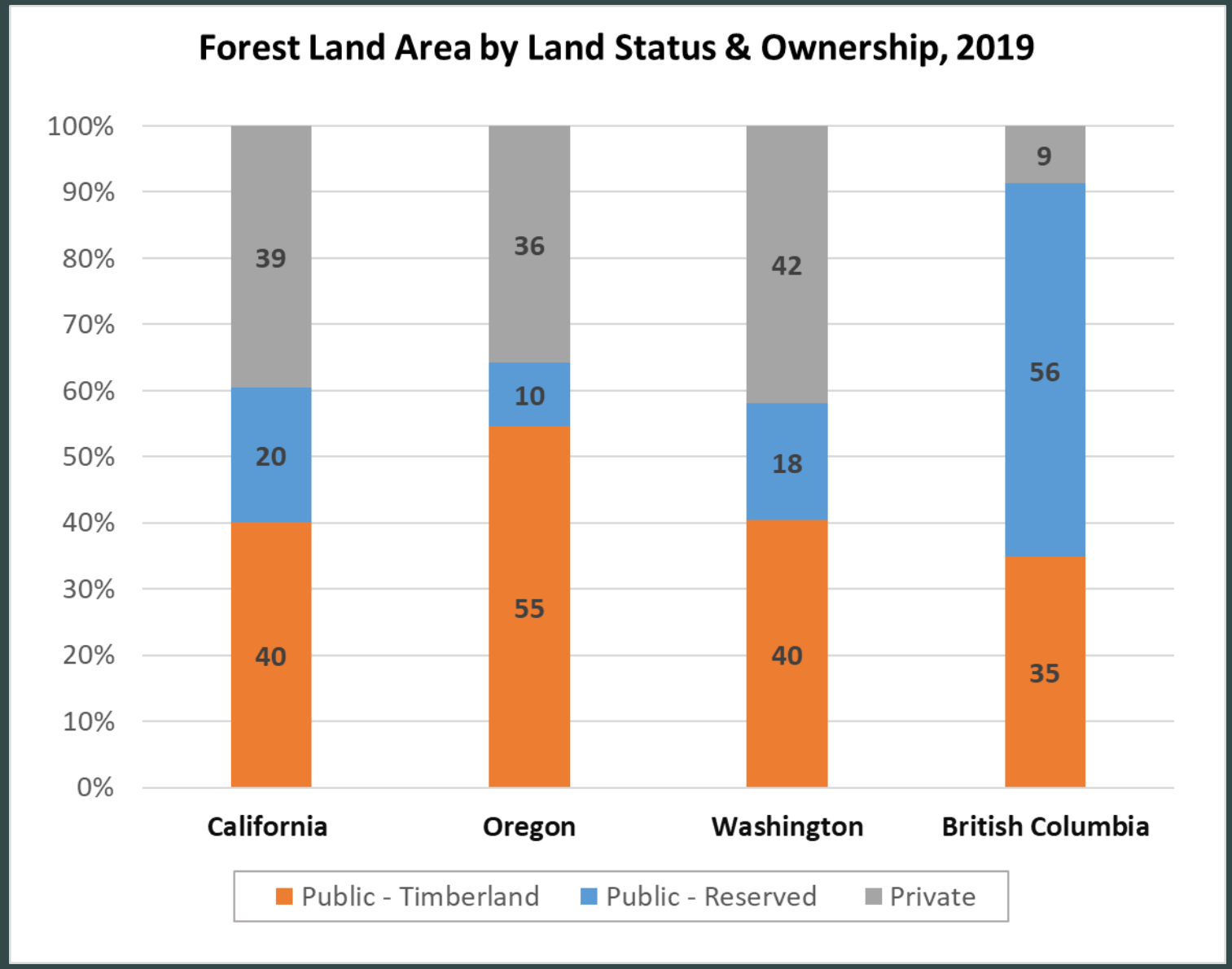
- U.S. follows IPCC Production Approach (focuses on annual stock changes in HWP storage pools).
- U.S. data from variants of a tool originally developed by the USDA FS for their regional HWP carbon reports.

Forest Area


Forest Land Area, 2019
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Hectares (x1000)
12.8 Million
12.0 Million
8.9 Million
60.9 Million
California
Oregon
Washington
British Columbia

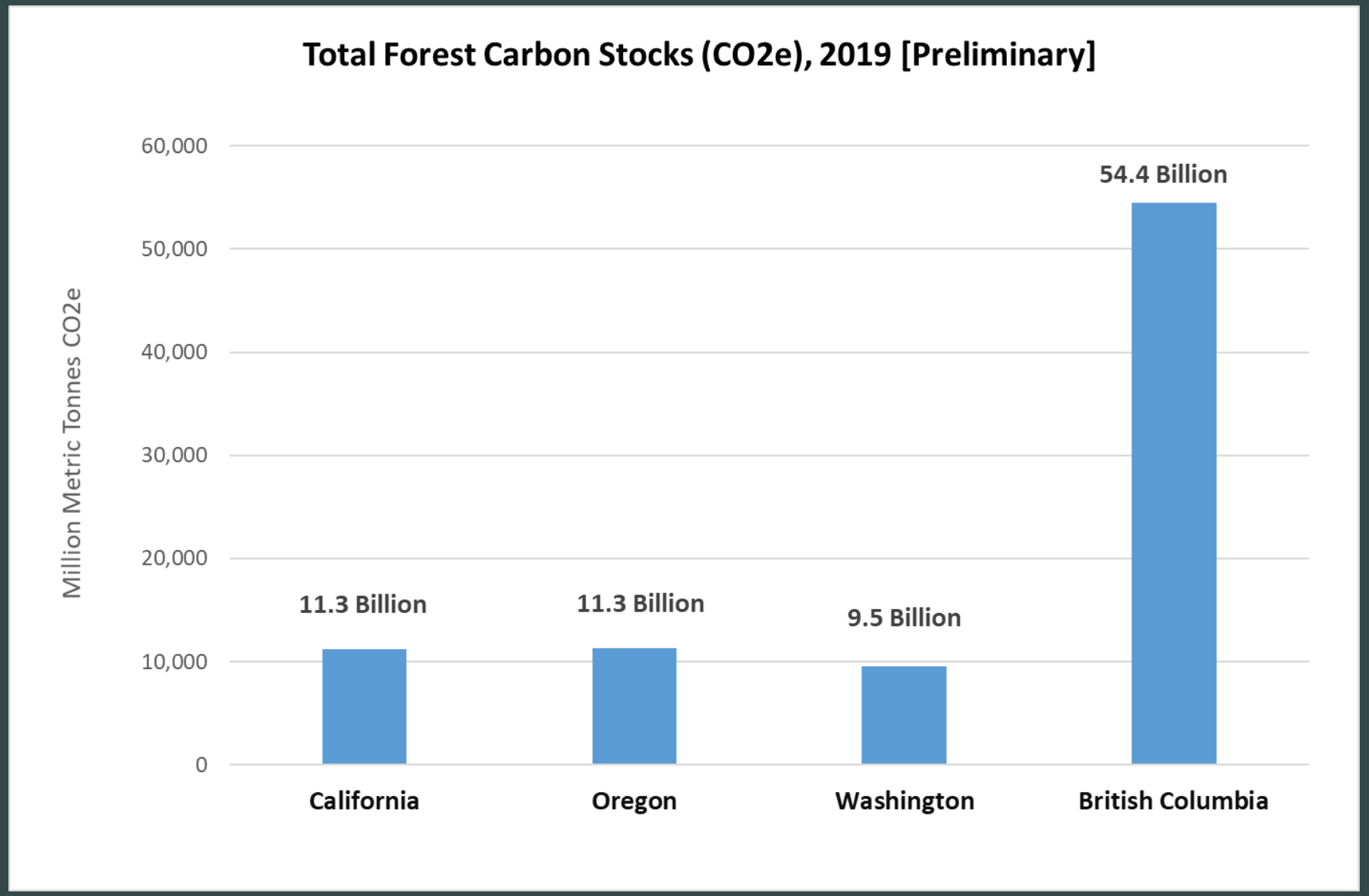

British Columbia
Washington
Oregon
California

Forest Area

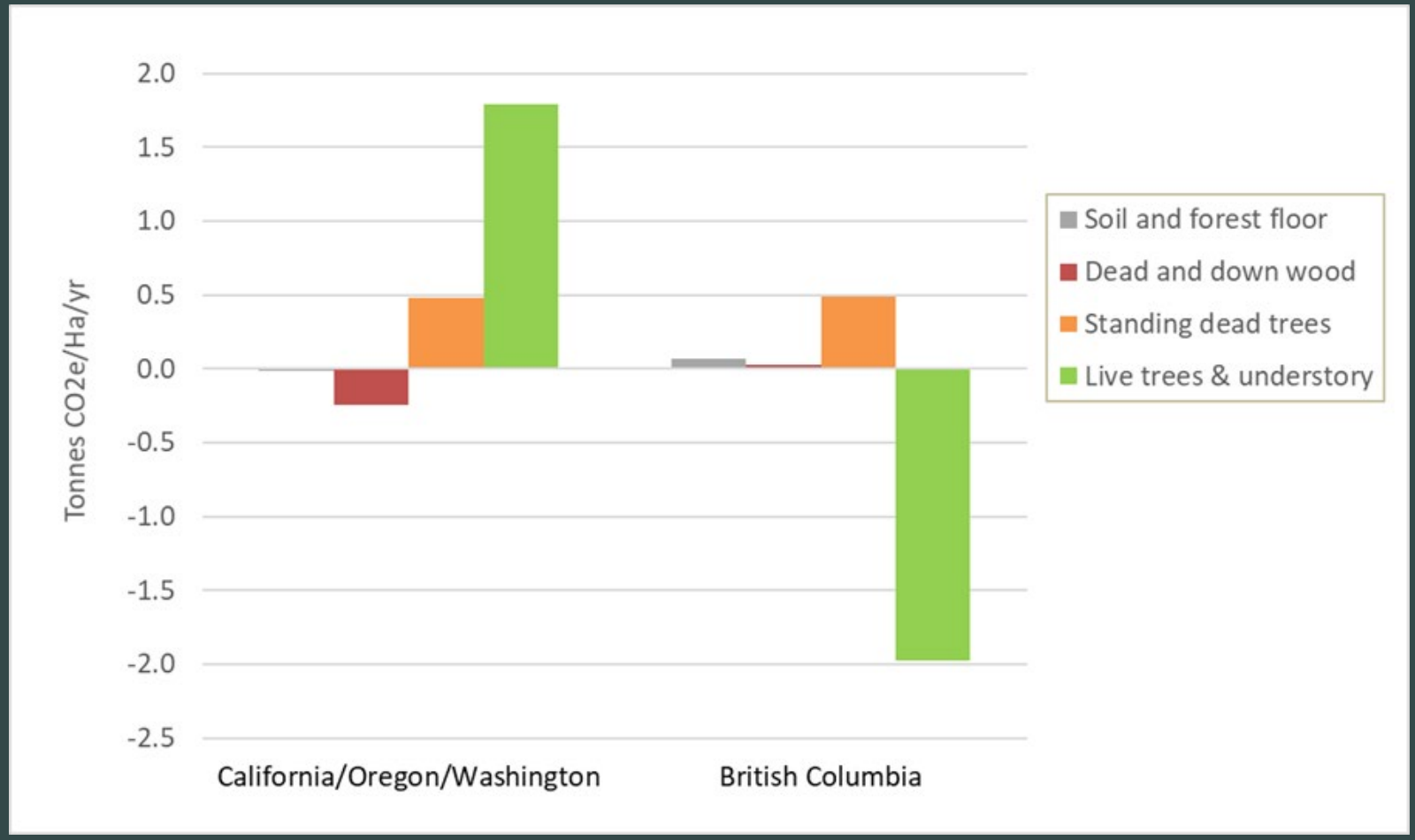

Forest Land Area by Land Status & Ownership, 2019
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
39
20
40
36
10
55
42
18
40
9
56
35
California
Oregon
Washington
British Columbia
Public - Timberland
Public - Reserved
Private


British Columbia
Washington
Oregon
California

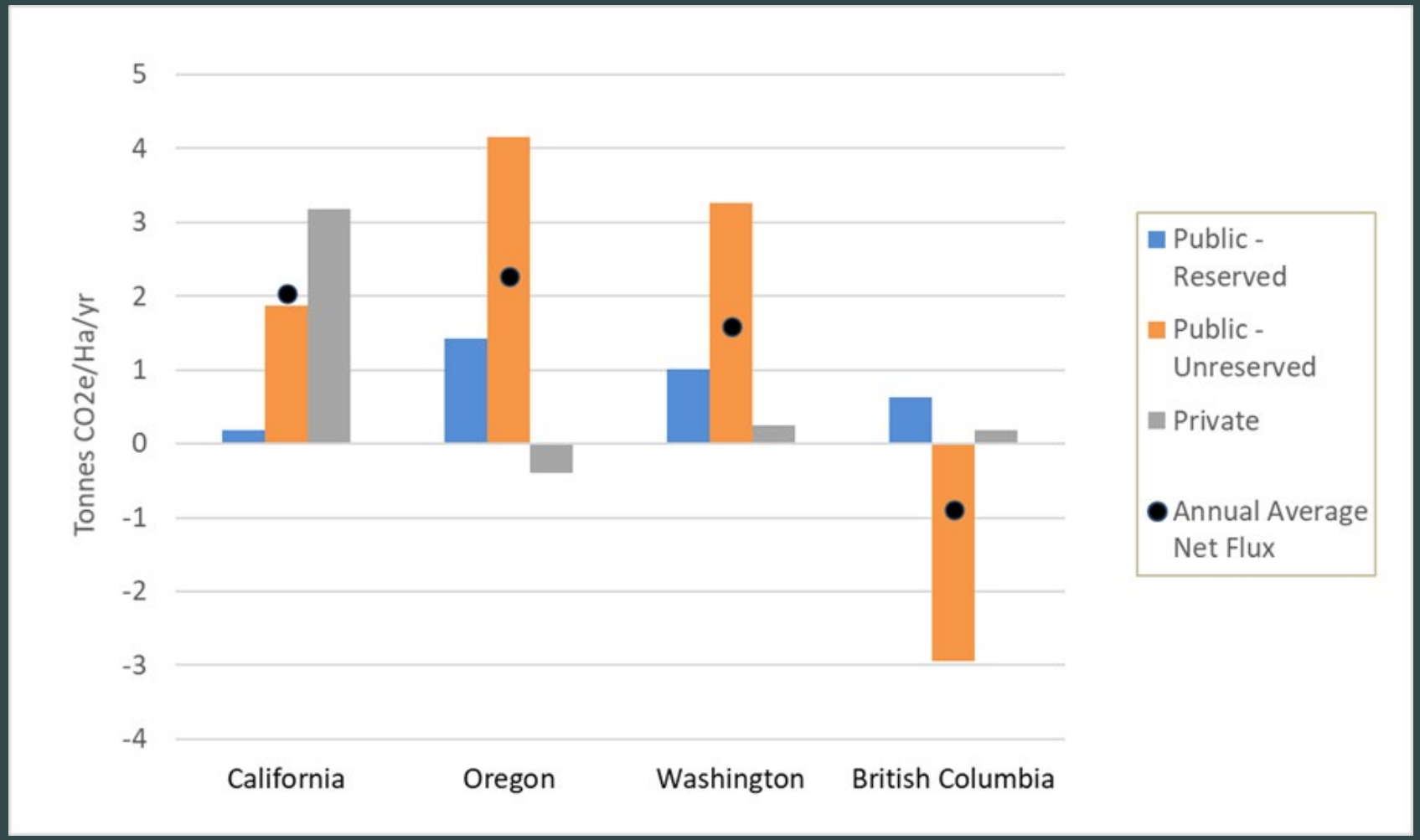
Forest Carbon Stocks



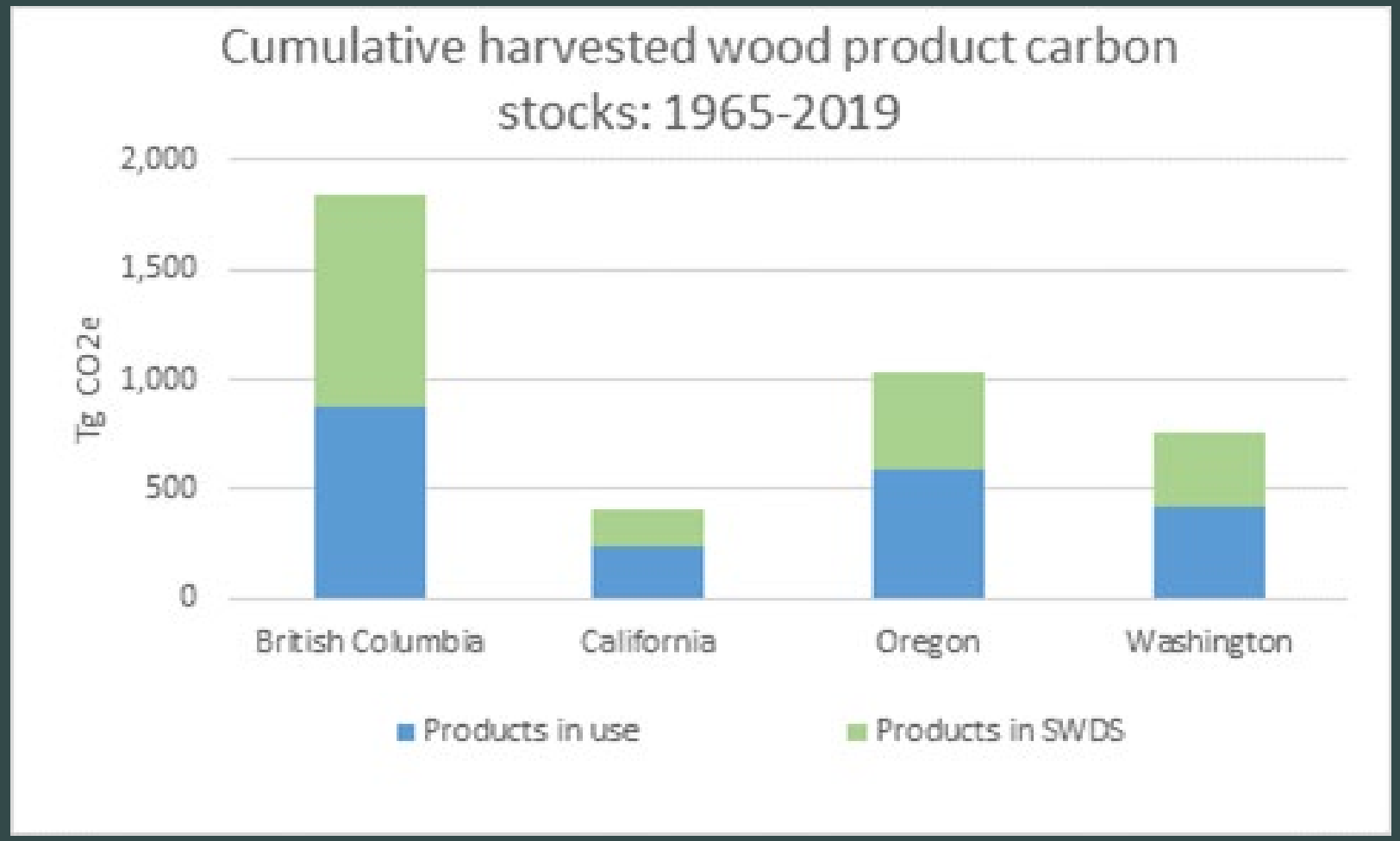
Pacific Coast Region: Average annual flux per hectare by carbon pool, 2019 (Draft)



Pacific Coast Region: Average annual flux per hectare by land status and ownership, 2019 (Draft)



Harvest Wood Products



Oregon and Washington forest carbon stocks by ownership *(million metric tons C)*

	Inventory years	Public	Private	Total
Oregon	2007-2016[1]	2,259	981	3,240 (3.2 billion)
(29.6 million ac)	2010-2019	2,178	917	3,094 (3.1 billion)

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon stocks by ownership *(million metric tons C)*

	Inventory years	Public	Private	Total
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(29.6 million ac)	2010-2019	2,178	917	3,094 (3.1 billion)
Washington	2002-2016[2]	1752	966	2,718 (2.7 billion)
(22.1 million ac)	2010-2019	1709	889	2,598 (2.6 billion)

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon stocks by ownership *(metric tons C per acre)*

	FIA Inventory years	Public	Private	Total
Oregon	2007-2016[1]	119	92	109
	2010-2019	114	86	104

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon stocks by ownership *(metric tons C per acre)*

	FIA Inventory years	Public	Private	Total
Oregon	2007-2016[1]	119	92	109
	2010-2019	114	86	104
Washington	2002-2016[2]	138	102	123
	2010-2019	133	96	118

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon net flux by ownership *(million metric tons CO_2e/year)*

	Basis of change est. (years)	Remeasured plots completed (%)	Public	Private	Total
Oregon	2001-2006 to 2011-2016[1]	60	29.7	1.2	30.9
	2001-2009 to 2010-2019	90	28.9	-1.7	27.2

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon net flux by ownership *(million metric tons CO_2e/year)*

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Oregon	2001-2006 to 2011-2016[1]	60	29.7	1.2	30.9
	2001-2009 to 2010-2019	90	28.9	-1.7	27.2
Washington	2002-2006 to 2012-2016[2]	50	12.9	3.2	16.1
	2002-2009 to 2012-2019	80	13.3	0.9	14.2

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon net flux by ownership *(million metric tons CO_2e/acre/year)*

	Basis of change est. (years)	Remeasured plots completed (%)	Public	Private	Total
Oregon	2001-2006 to 2011-2016[1]	60	1.6	0.1	1.0
	2001-2009 to 2010-2019[2]	90	1.5	-0.2	0.9

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016

[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Oregon and Washington forest carbon net flux by ownership *(million metric tons CO_2e/acre/year)*

	Basis of change est. (years)	Remeasured plots completed (%)	Public	Private	Total
Oregon	2001-2006 to 2011-2016[1]	60	1.6	0.1	1.0
	2001-2009 to 2010-2019[2]	90	1.5	-0.2	0.9
Washington	2002-2006 to 2012-2016[2]	50	1.0	0.3	0.7
	2002-2009 to 2012-2019	80	1.0	0.1	0.6

[1]From: Christensen et al. 2019. Oregon Forest Ecosystem Carbon Inventory: 2001-2016
[2]From: Christensen et al. 2020. Washington Forest Ecosystem Carbon Inventory: 2002-2016

Work in Progress

- Complete regional report
  - Compare aboveground carbon changes by disturbance and harvest
  - Estimating BC gross growth using FIA methods
- Oregon:
  - Complete 2020 inventory and full plot remeasurements this summer
  - Ready to publish updated status and trend estimates summer 2023
  - Provided cost estimates for intensification on private forestland
  - Additional analytical capacity at ODF

Thank you

Contact: glenn.christensen@usda.gov

Photos credit: FIA Field Staff

USDA
U.S. FOREST SERVICE
Caring for the land and serving people
United States Department of Agriculture

Pacific Northwest Research Station

Links to State Reports

- California:

https://bof.fire.ca.gov/projects-and-programs/ab-1504/

- Oregon:

https://www.oregon.gov/odf/ForestBenefits/Pages/ForestCarbonStudy.aspx

- Washington:

https://www.dnr.wa.gov/carbon

Memorandum of Understanding
Pacific Coast Temperate Forests

1. **WHEREAS** global forests are the largest terrestrial carbon sink and are an essential component in the fight against climate change;

2. **WHEREAS** Pacific Coast temperate forests include those with the capacity to sequester more carbon per acre than any other globally;

3. **WHEREAS** these forest ecosystems capture, clean, and store essential water supplies for communities, agriculture and hydropower and they provide rich biodiversity and diverse habitats;

4. **WHEREAS** these forests also offer some of the most productive timber-growing conditions in the country and support vital forest-related communities and economies;

5. **WHEREAS** the health and resilience of these forests are tightly linked with the health and resilience of rural and natural resource-dependent communities;

6. **WHEREAS** some regions of the Pacific temperate forest are increasingly susceptible to insects, disease and high-severity wildfire;

7. **WHEREAS** climate change and human activities have increased vulnerability to fire and forest mortality and threatens forest health and resilience, stored carbon, biodiversity, water supplies, public health and safety, recreational opportunities, and rural economies;

8. **WHEREAS c**limate change is threatening the ability of some areas to continue supporting a reliable forest industry.

9. **WHEREAS** resilient forests and a sustainable forest industry will provide jobs, improve hydrologic function, support myriad native species, and support a broad range of public benefits;

10. **WHEREAS** we can benefit from working together to better understand forest carbon dynamics and how forests are responding to climatic changes in the respective jurisdictions of the parties of this MOU through scientific study, adaptive practice, improved data and modeling, and indigenous traditional knowledge;

11. **WHEREAS** innovation of forest products, building materials, building codes, and techniques can diversify the markets for forest materials, increasing commercial opportunities derived from forest management and supporting ongoing forest restoration activities.

THEREFORE, THE PARTNERS PLEDGE THEIR INTENTION TO:

1. Share and explore innovations in fuel management methods, including prescribed and managed fire, pre-fire management, post-fire restoration, post-treatment monitoring and evaluation, tools and equipment, best practices, and technology to mitigate and lessen the negative effects of increased wildfires and tree mortality.

2. Share and explore innovations in climate-informed reforestation, including strategies for climate-adapted species, genotypes, planting techniques, and ongoing management needs.

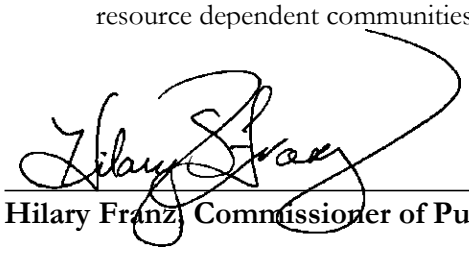
3. Share and explore approaches to evaluate and account for changes in forest carbon over time.

4. Share and explore advances in forest-related science and data collection to better understand how forests are responding to changes in climatic conditions.

5. Share and explore innovations in low-carbon emitting, or carbon sequestering, utilization of harvested wood products removed from the forest through forest management or restoration activities.

6. Share and explore incentive mechanisms to reduce conversion of forestland to non-forest uses, establish afforestation projects, increase carbon sequestration and storage in urban forests, and promote carbon-rich, climate resilient forests.

7. Share and explore opportunities for investments in natural and working lands that increase carbon sequestration, enhance forest resilience, encourage multi-benefit forest uses, and support natural resource dependent communities.



Date 12/18/18

Hilary Franz, Commissioner of Public Lands

Washington State Department of Natural Resources
The State of Washington

Date 12/18/18

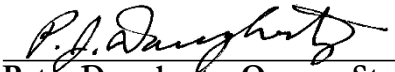
John Laird, Secretary

California Natural Resources
The State of California

Date 12/18/18

Doug Donaldson, Minister

British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development
The Province of British Columbia



Date 11/05/19

Peter Daugherty, Oregon State Forester

Oregon Department of Forestry
The State of Oregon

DLCD

Overview:

Oregon's Land Use Planning Program

June 8, 2022
Board of Forestry

History of Planning & Zoning in Oregon

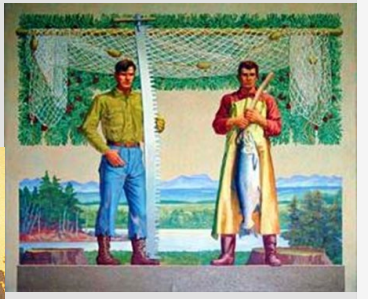
- **1919 - City Zoning Legislation**
- **1921 - County Zoning Legislation**
- **1963 - Farm Tax Deferral**
- **1969 - SB 10**
- **1973 - SB 100**

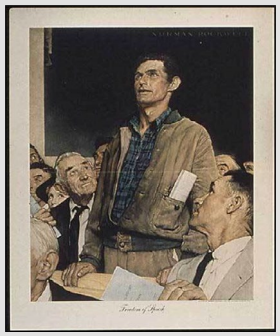
Oregon Statewide Planning Program Primary Objectives

- **Maintain Working Landscapes.**
- **Encourage and Support Vibrant Communities.**
- **Protect People and Special Places.**

Nineteen Statewide Planning Goals

1. Citizen Involvement
2. Land Use Planning
3. Agricultural Lands
4. Forest Lands
5. Natural Resources
6. Air, Water, and Land Quality
7. Natural Hazards
8. Recreational Needs
9. Economic Development
10. Housing
11. Public Facilities
12. Transportation
13. Energy Conservation
14. Urbanization
15. Willamette River Greenway
16. Estuarine Resources
17. Coastal Shorelands
18. Beaches and Dunes
19. Ocean Resources





Statewide Planning Goal 4 – Forest Lands

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

OAR Chapter 660, Division 6

660-006-0000

Purpose

(1) The purpose of this division is to conserve forest lands as defined by Goal 4 and to define standards for compliance with implementing statutes at ORS 215.700 through 215.799.

OAR Chapter 660, Division 6

660-006-0025

Uses Authorized in Forest Zones

660-006-0026

New Land Division Requirements in Forest Zones

660-006-0027

Dwellings in Forest Zones

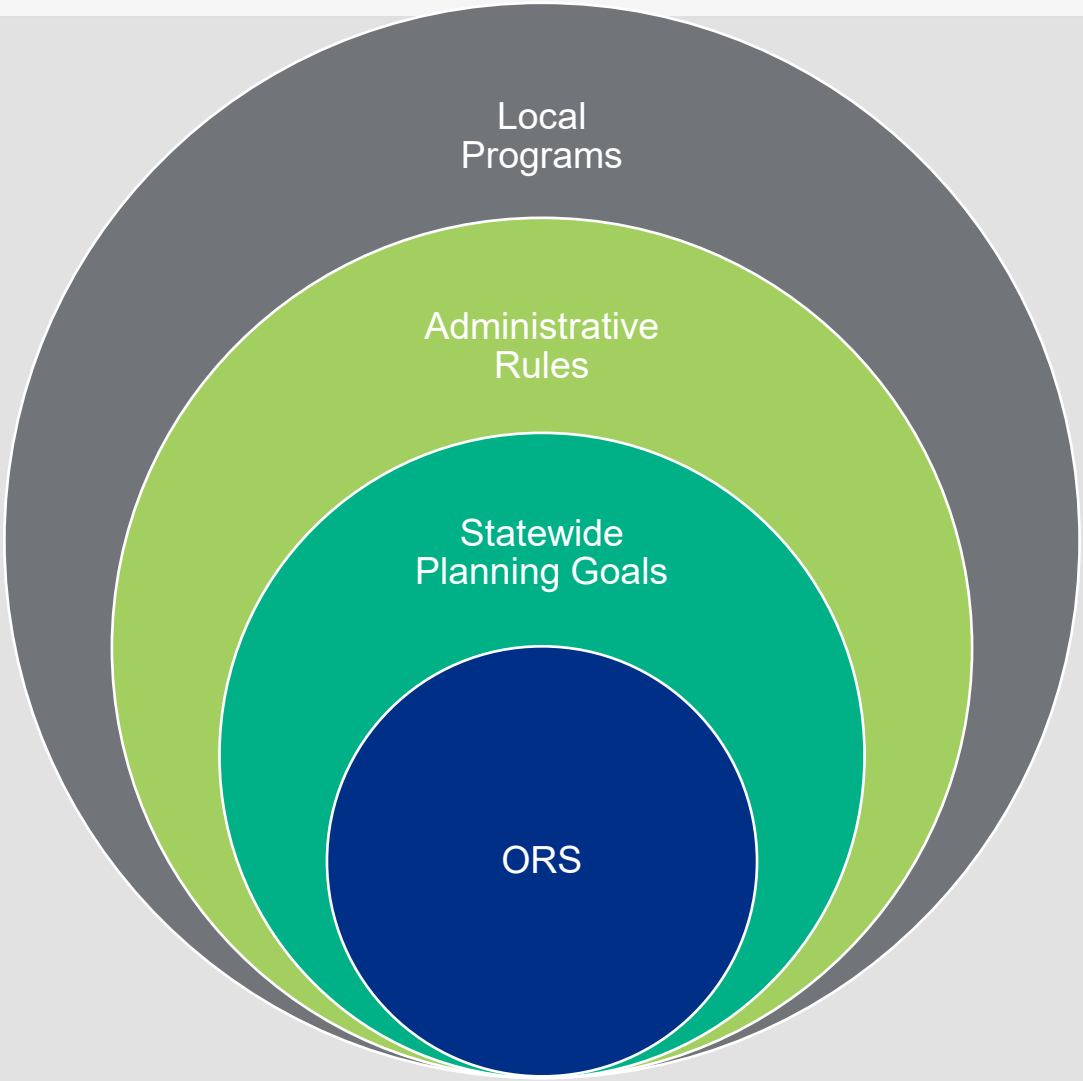
660-006-0029

Siting Standards for Dwellings and Structures in Forest Zones

660-006-0035

Fire-Siting Standards for Dwellings and Structures

Program Components



Conclusions

Oregon has an abundance of Forest Resources that make significant contributions to our economy and culture.

Issues faced by Oregon's land use laws designed to protect the Forest Land Base include:

- Proliferation of non-forest uses.
- Conversion of forestland to other zoning categories.
- Changing ownership of industrial forestland.
- Wildfire.

State Agency Coordination remains critical for maintaining well informed statewide land use planning policy.

DLCD

Department of
Land Conservation
& Development

Questions?

DLCD

Photograph: Twitter @canadianbyluck/Reuters

Climate Change Resilience Assessment

June 8, 2022

Christine Shirley
Climate Change Resilience Coordinator

Genesis

One of 5 actions recommended in the Climate Change Adaptation Framework

- Addresses a knowledge gap – the social impacts of climate change
- Supplements state agency work to identify and respond to impacts of climate change
- Intended to be used by state agencies and local actors
- Integrated into Oregon Natural Hazard Mitigation Plan

Project Description

Review approach and techniques to doing the climate change resilience assessment

- Project Team
- Climate Change Resilience Assessment Advisory Group (CCRAAG)
- Interviews
- Tribal Coordination and Consultation
- Regional Workshops
- Information Coding and Reporting
- Discussion

Climate Change Resilience Assessment Project Team

Private and University Partners

- JLA Public Involvement: Work group facilitation
- Oregon Climate Change Research Institute: Scientific support
- U of O Institute for Policy Research and Engagement: Regional Workshops
- Portland State University: Participatory Modeling Support

Purpose

- Bring expertise to the project
- Leverage work universities are already doing for us
- Introduce DLCD to new engagement techniques

Climate Change Resilience Assessment Advisory Group (CCRAAG)

Next meeting June 16, 4 – 6 pm on Zoom

12 members represent a diverse range of interests

- BIPOC
- Historically Marginalized
- Youth
- Business
- Agriculture
- Environmental
- Tribal
- Local Government
- CIAC

Purpose

- Help to identify local leaders to interview and workshop venues
- Review workshop approaches and materials
- Advise on course corrections
- Review draft reports and models

Telephone and On-screen Interviews

Local leaders

- Community-based organizations
- Elected officials
- Land Use Planners
- Emergency Managers
- Prominent individuals

Purpose

- Learn about regional concerns and priorities prior to workshops
- Identify individuals and groups to invite to workshops
- Discover appropriate days, times, and venues for workshops
- Build relationships

Tribal Coordination and Consultation

Invitations to Coordinate of Consult sent

- Two tribes responded – one with information and another offering to participate on workgroup
- Follow-up interviews with all Tribes

Purpose

- Ensure Tribal concerns and viewpoints are reflected in the assessment
- Learn more about traditional knowledge and management approaches
- Build relationships

Regional Workshops

12+ workshops

8 regions

- Office of Emergency Management Natural Hazards Planning Regions
- Two meetings to focus on small cities
- One meeting in a large metro area
- One in a very rural area
- Possible Tribal workshop(s)

Purpose & Process

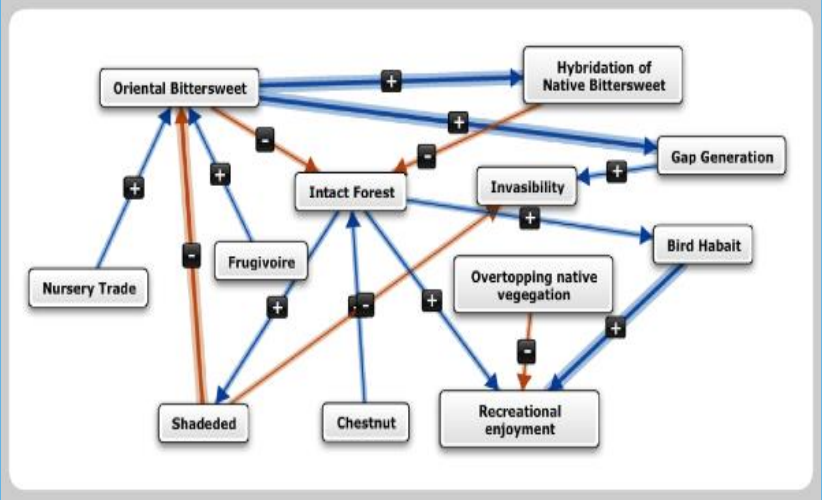
- Share information about local climate change effects
- Facilitate small group activities to elicit qualitative information.
- Learn from participants how climate change might affect their wellbeing, livelihoods and cultural identity.

Challenge: How to transform what we hear into useful information

"After that my little paper from my little committee disappeared in a stack of other little papers, a stack about 5 inches thick. Then I was thinking, 'How are they going to consider my little paper when they have so many other stacks of paper from all the other communities?' "

Louie Dick, former vice chairman of the Confederated Tribes of the Umatilla Indian Reservation, as told to T. Katharine Scheldahl-Thomason in 1990 and reprinted in 2022 in *Oregon Humanities.*

Participatory Modeling



Fuzzy Cognitive Mapping

- Stakeholders contribute data as experts in their own lives
- Facilitators trained to listen for and record concepts and links between them into Fuzzy Cognitive Maps (FCMs)
- Graphic representation of interconnected concepts
- FCMs can be refined on the fly during workshops

Resulting FCMs can be used by state and local decisionmakers

- Refine and validate field-developed FCMs into models that can be queried
- Identify leverage points within each region and statewide
- Test climate adaptation scenarios
- Model and users' guide available online

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DLCD

Department of
Land Conservation
& Development

Christine Shirley
Climate Change Resilience Coordinator
christine.shirley@dlcd.oregon.gov
971-239-9457

Oregon Renewable Energy Siting Assessment (ORESA)

June 2, 2022

ORESA: PROJECT TEAM & COORDINATION

- The ORESA project is funded through a $1.1 million grant through U.S. Department of Defense Office of Local Defense Community Cooperation (DOD-OLDCC).
- The grant team includes **Oregon Department of Energy**, working with the **Department of Land Conservation & Development** and **Oregon State University's Institute for Natural Resources**. Closes June 30, 2022.
- The project incorporated the expertise of **state, local, and tribal governments** through interagency agreements, along with input from **industry and technical advisors**, and **cross-sectoral stakeholder and community engagement**.

ORESA: GOALS AND OBJECTIVES

DOD Goals

Support **military compatibility through coordination** with local, regional, and state agencies and raise awareness about the military.

Project Goals

Create **relevant educational tools** for stakeholders, agencies, local governments, and policy makers about renewable energy development, military training and operational areas, economic/community benefits, land use considerations, natural, cultural, and environmental resources, and other regulatory requirements. Users can explore these resources to inform discussions related to renewable energy in a way that **minimizes conflict and supports development opportunities.**

Project Objectives

Baseline data, information, and perspectives to create **a transparent, consistent collection of trusted, accurate information** in Oregon, without recommendations or endorsements, and note where information may be imprecise or uncertain.

1 Renewable Energy Market & Industry Assessment *(ODOE / E3)*

- Model future opportunities for renewables
- Perspectives of challenges and opportunities RE development community
- **COMPLETED**

2 Military Needs & Interests Assessment *(ODOE / DLCD / ESS)*

- Assess interaction of current and future military activity and RE development
- **COMPLETED**

3 Natural Resources, Environment, & Development: Opportunities & Constraints Assessment *(DLCD / CBI)*

- Gather information on natural, cultural, & env. resources
- Identify opportunities and constraints for RE development
- **COMPLETED**

4 Siting Procedures Review *(ODOE / DLCD)*

- Review and analysis of siting regulations, permitting, and project review processes
- **COMPLETED**

5 Mapping & Reporting Tool *(INR leading)*

- Develop Mapping and Reporting tool
- Engage with stakeholders to inform and test functionality and reporting features
- Convene Focus and Cross-sector User Groups, conduct Beta testing

COMPLETED

6 Outreach & Engagement *(ORESA Project Team)*

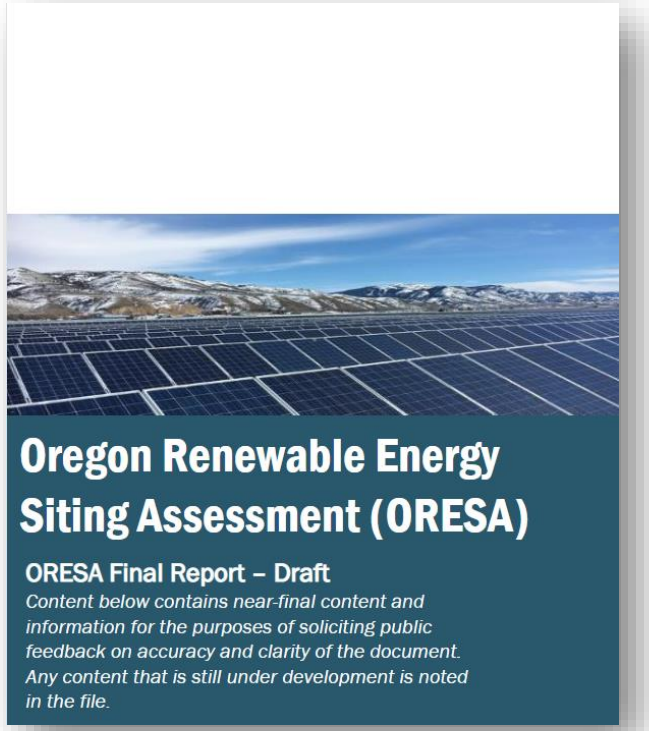
- Release near-final deliverables for review and corrections
- Publish final draft of ORESA Report and Tool
- Provide presentations, Tool demos, and discussions
- **APRIL – JUNE 2022**

Project Deliverables

ORESA Report
&
ORESA Mapping & Reporting Tool

ORESA REPORT

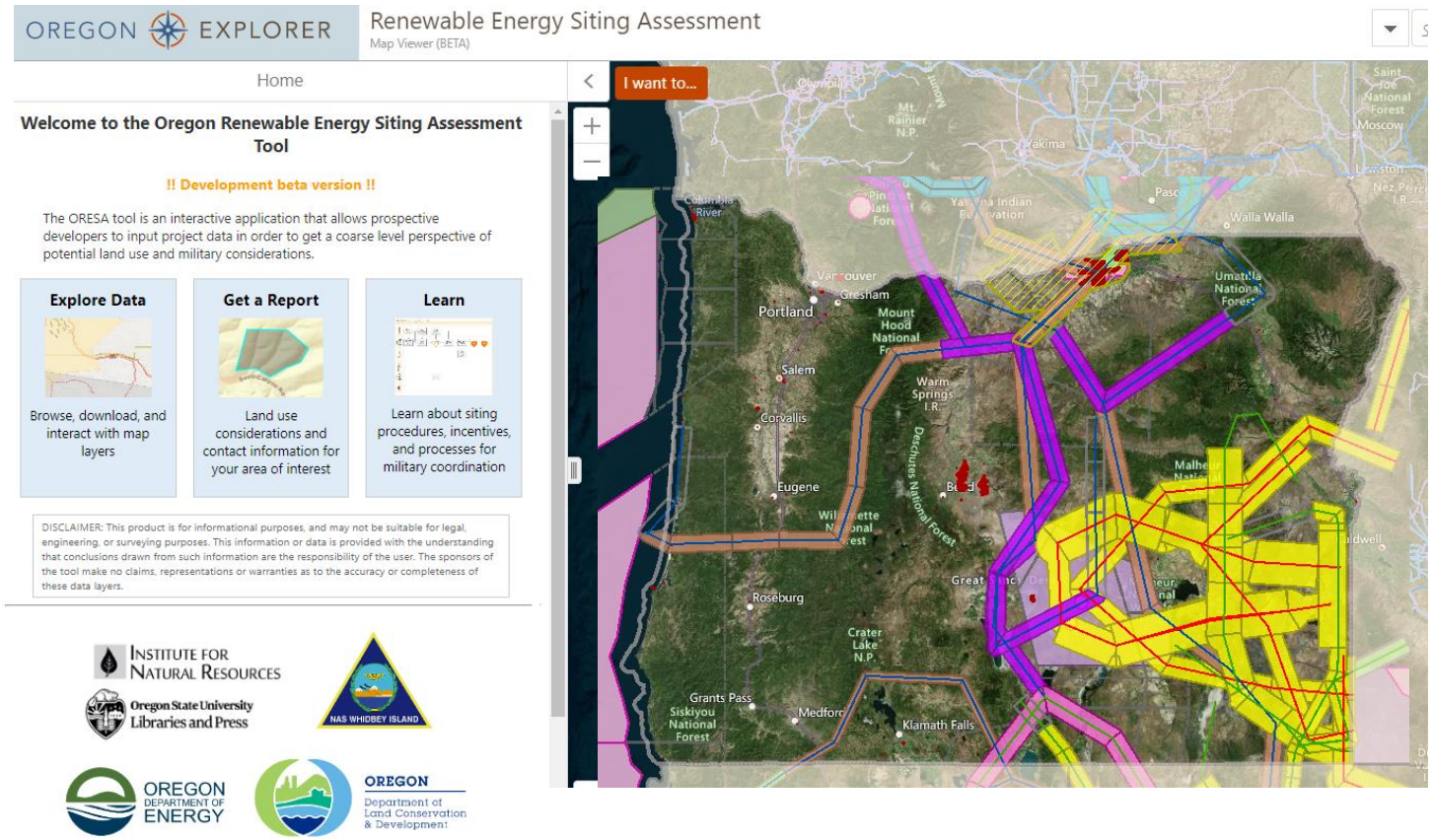
- **Section 1**: Explore – Summary of core activities and research methodologies from the ORESA assessments, procedures review, and Mapping and Reporting Tool. Includes findings and best practices for data collection and organization.
- **Section 2**: Report – Key findings from the assessments on what information is critical for discussions and planning of renewable energy development in Oregon. Includes context on the Reporting function and data in the Tool.
- **Section 3**: Learn – Lessons learned from the project, including important conversations, perspectives, and issues from stakeholders and project participants. Summarizes the Learn section of the Tool.



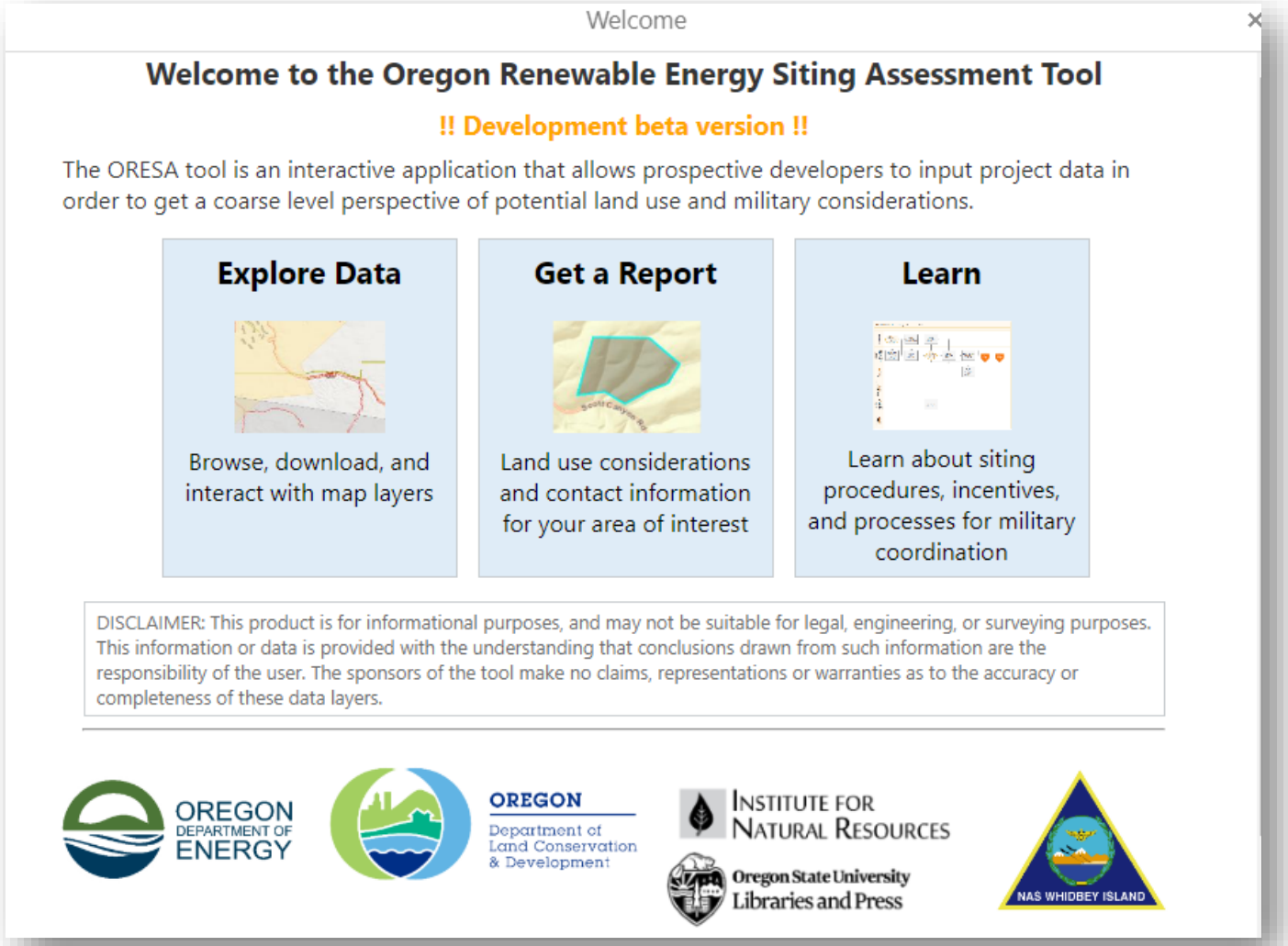
- **Section 4**: Conclusion – Additional items not addressed in the project including data gaps, Tool function and features, and resources that were of interest or highlighted by stakeholders and project participants.
- **Appendices**: Index and links to supporting materials including the assessment reports, procedures report, summary outreach documents and military brochure.

MAPPING AND REPORTING TOOL

- Housed on Oregon Explorer with data related to renewable energy; military; economic development; land use; natural resources; and other regulatory or process considerations.
- Development involved stakeholders to help define use cases, data exploration needs and reporting functionality.
- Tool supports a more comprehensive understanding of renewable energy and supports early notification & coordination in the state.



Tool Review



https://tools.oregonexplorer.info/OE_HtmlViewer/Index.html?viewer=renewable#

OREGON EXPLORER

Renewable Energy Siting Assessment

Mapping and Reporting Tool (Beta)

Search...

Layers

Add Layers | Upload | Re-Order | Toggle Legend

All Available Layers

Filter Layers... | Filter

- Military Training Areas
  - Military Training Routes
    - Military Training Route Centerline
    - Military Training Route Corridor Floor Elevation (AGL)
    - Military Special Use Airspace Floor Elevation (AGL)
      - Military Special Use Airspace Floor Elevation (AGL)
      - Boardman Geographic Area of Concern
      - Installations, Ranges, and Training Areas
  - Other Military Operational Areas
- Energy
- Natural Resource Considerations
- Community Considerations
- National Register of Historic Places
- Administrative Boundaries and Planning

I want to...

Tools

Aerial Wi...

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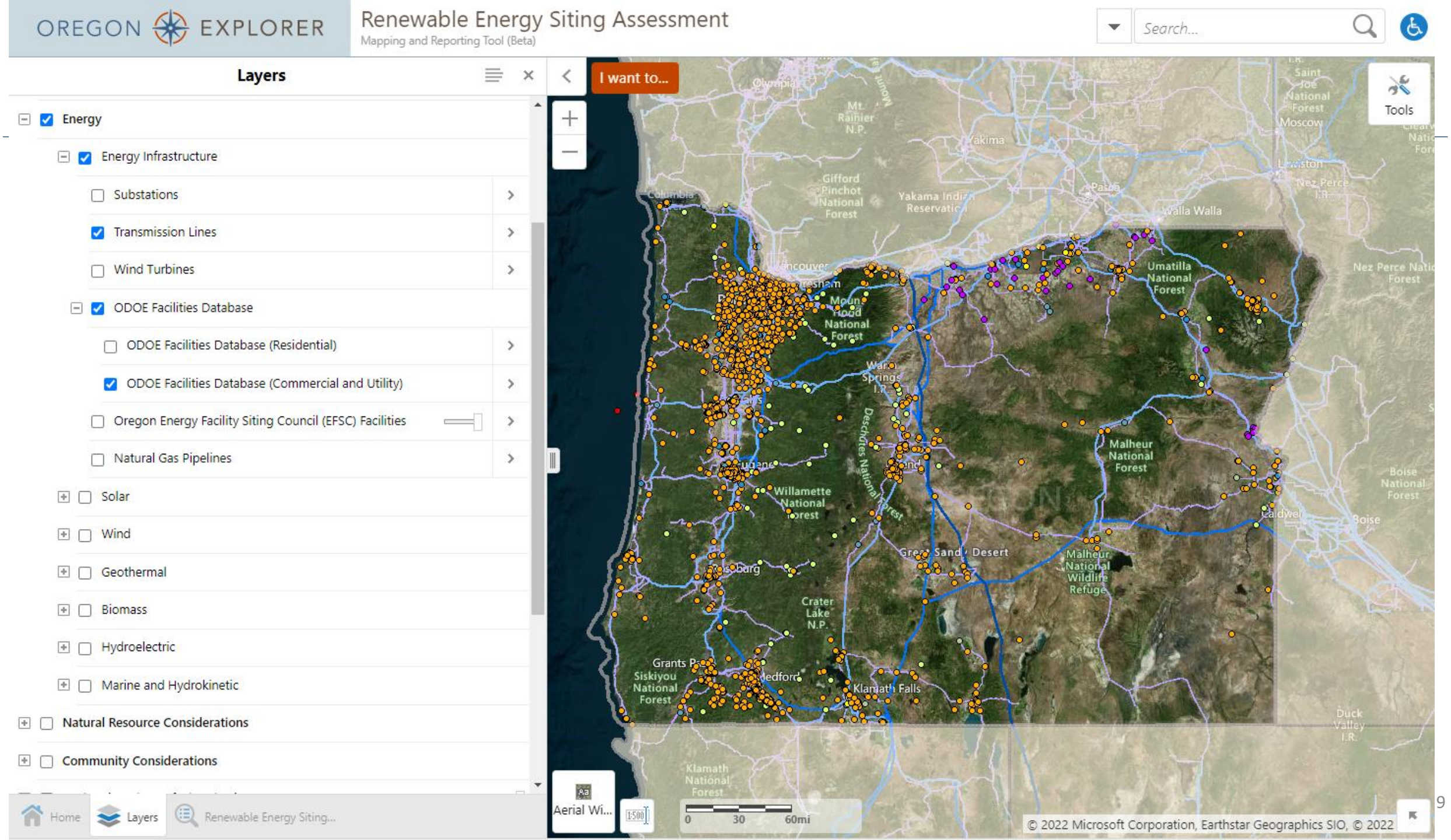
Home | Layers | Renewable Energy Siting...


OREGON EXPLORER
Renewable Energy Siting Assessment
Mapping and Reporting Tool (Beta)
Search...
Layers
I want to...
Tools
Energy
Energy Infrastructure
Substations
Transmission Lines
Wind Turbines
ODOE Facilities Database
ODOE Facilities Database (Residential)
ODOE Facilities Database (Commercial and Utility)
Oregon Energy Facility Siting Council (EFSC) Facilities
Natural Gas Pipelines
Solar
Wind
Geothermal
Biomass
Hydroelectric
Marine and Hydrokinetic
Natural Resource Considerations
Community Considerations
Mt. Rainier N.P.
Gifford Pinchot National Forest
Yakima
Walla Walla
Umatilla National Forest
Mount Hood National Forest
Willamette National Forest
Deschutes National Forest
Malheur National Forest
Malheur National Wildlife Refuge
Crater Lake N.P.
Siskiyou National Forest
Klamath Falls
Klamath National Forest
Boise National Forest
Boise
Duck Valley I.R.
Aerial Wi...
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© 2022 Microsoft Corporation, Earthstar Geographics SIO, © 2022
Home
Layers
Renewable Energy Siting...

Layers

- [x] Natural Resource Considerations
  - [x] Protected Areas
  - [ ] Wetlands
  - [x] Species and Habitats
  - [x] Farmland
  - [ ] Water Rights by Use
  - [ ] Hazards
  - [ ] Slope
  - [ ] Air Quality Maintenance and Nonattainment Areas
  - [ ] Hydrography and Watersheds
    - [ ] Bathymetric Contours
    - [ ] Rocky Shore Managed Areas
    - [ ] Special Area Viewsheds
    - [ ] Special Area Viewpoints
  - [ ] Oregon Scenic Byways
    - [ ] Oregon State Scenic Waterway Classification Areas
    - [ ] Oregon State Scenic Waterway Water Courses
  - [ ] BLM-Administered Land Wind Energy Development Exclusions and Resource Sensitivities

I want to...

Tools

Aerial Wi...

0 30 60mi

Layers

- Community Considerations
  - Economic Development Zones
    - Enterprise Zones
    - Opportunity Zones
    - RRED Zones
  - Energy Use Intensity In Residential Housing
  - Affordable Housing Assessment
  - Race and Ethnicity
  - Frontier and Remote (FAR) Zip Code Areas
  - EPA RE-Powering Mapper Layers
- National Register of Historic Places
- Administrative Boundaries and Planning
- Land Cover and Ownership
- Transportation
- Unmanned Aircraft Systems (UAS) Flight Restrictions
- Subsea Cables
- Weather Radar Stations
- Basemaps

Home | Layers

I want to...

Tools

Aerial Wi...

0 30 60mi

OREGON EXPLORER

Renewable Energy Siting Assessment

Mapping and Reporting Tool (Beta)

Search...

Home

Welcome to the Oregon Renewable Energy Siting Assessment Tool

!! Development beta version !!

The ORESA tool is an interactive application that allows prospective developers to input project data in order to get a coarse level perspective of potential land use and military considerations.

Explore Data

Browse, download, and interact with map layers

Get a Report

Land use considerations and contact information for your area of interest

Learn

Learn about siting procedures, incentives, and processes for military coordination

Institute for Natural Resources

Oregon State University Libraries and Press

NAS Whidbey Island

Oregon Department of Energy

Oregon Department of Land Conservation & Development

Home | Layers

I want to...

Tools

Still loading Energy Infrastructure map data...

Aerial Wi...

0 30 60mi

Renewable Energy Siting Assessment Project Information

*Information generated by this report will **only be available to you** and not shared unless you choose to initiate contact to coordinate further exploration and development.*

Site Name

Test

Select Development Type(s)

Select if your project is planned to be onshore or offshore

- (•) Onshore development
- ( ) Offshore development

On-shore development options

- [x] Wind (onshore)
- [x] Solar Photovoltaic
- [ ] Geothermal
- [ ] Other/hybrid (onshore)

Maximum Height (ft)

Anticipated max height of tallest structure in feet.

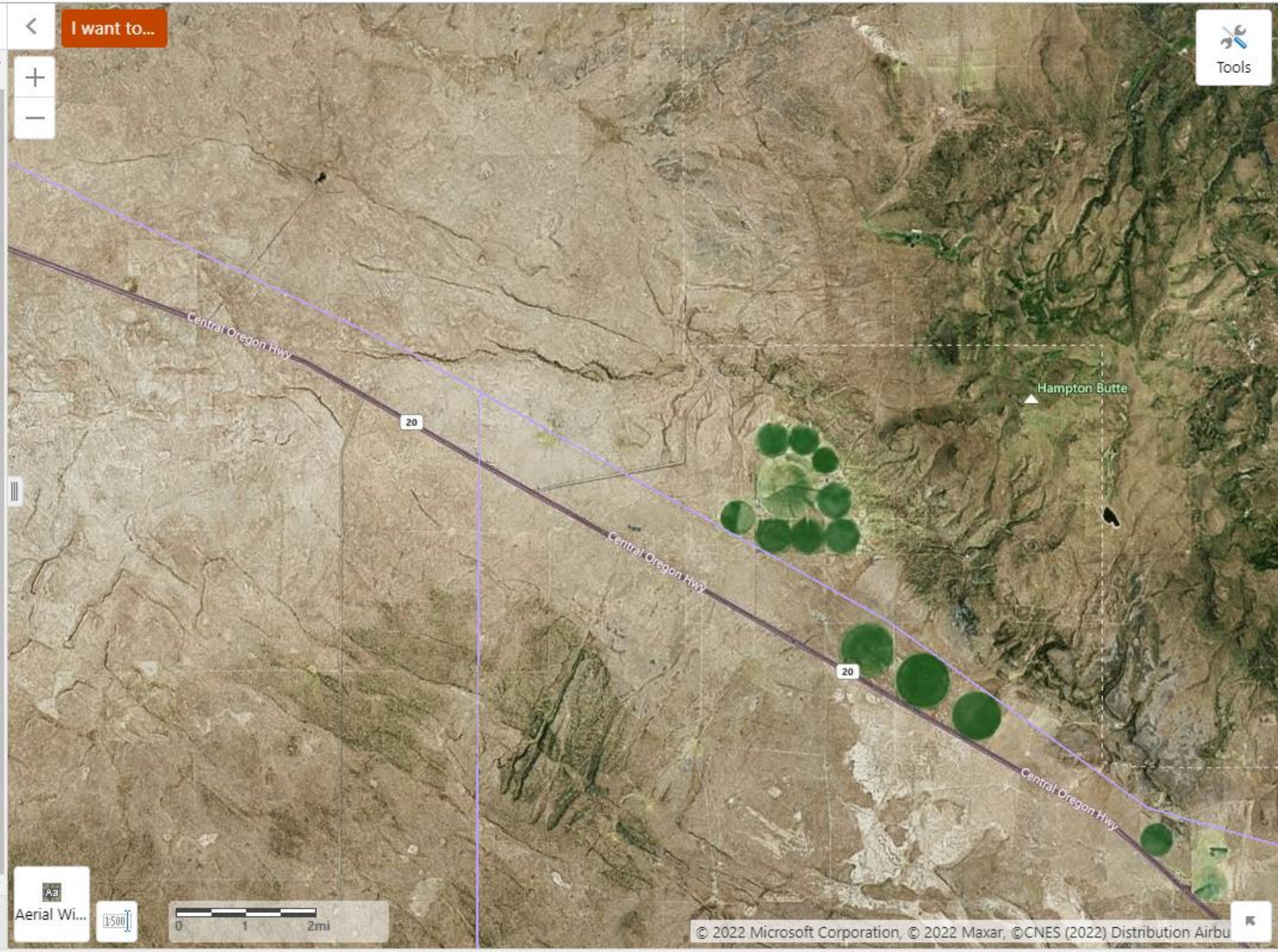
400

MegaWatts

Anticipated production of energy in MegaWatts.

200

Cancel | Next >



Report Options

Default Report Sections

- Site Information
- Military Training Areas
- Contacts

Optional Report Sections

Check which sections to include in your report.

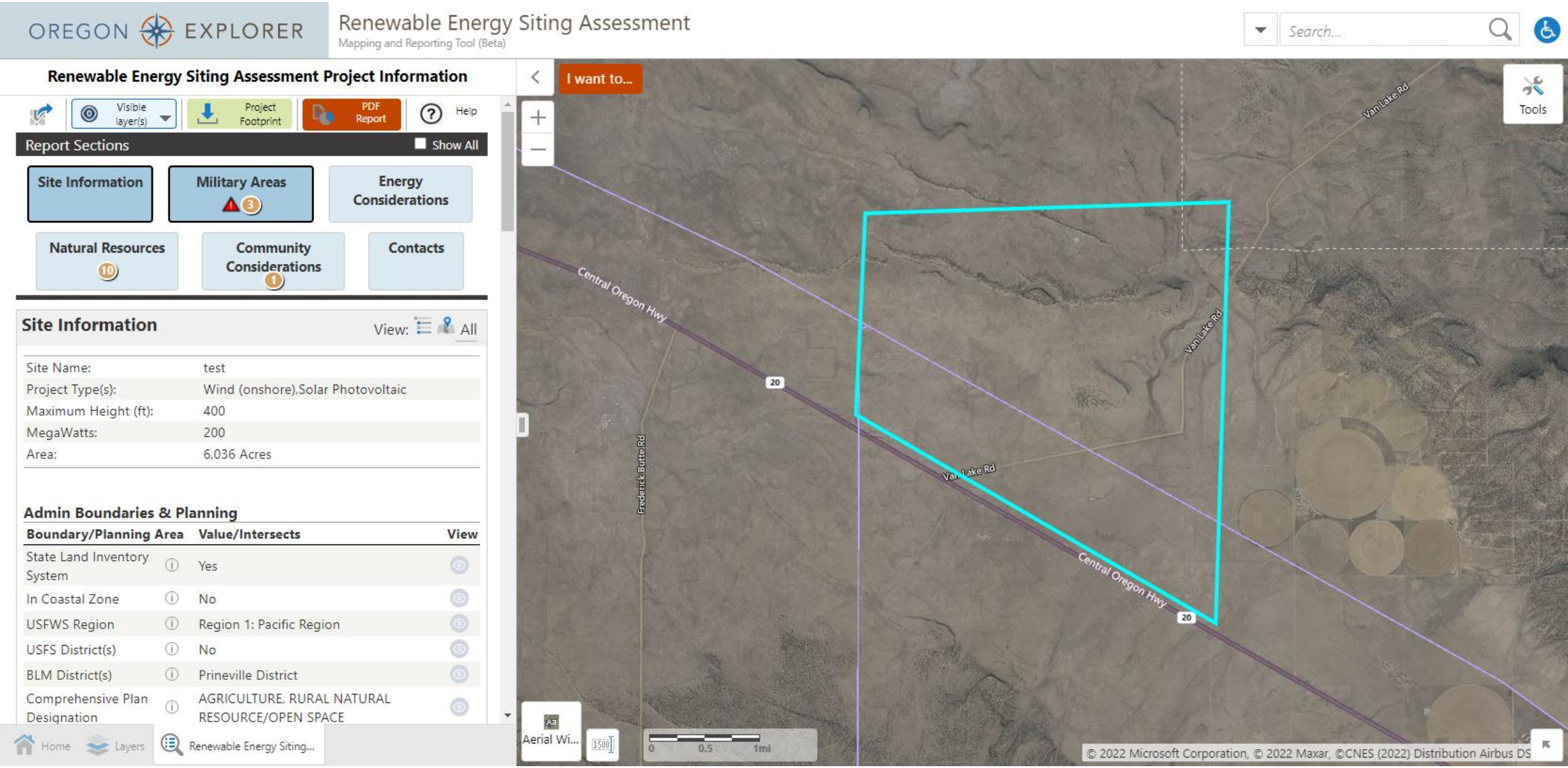
All | None

- [x] **Energy Considerations**
- [x] **Natural Resource Considerations**
- [x] **Community Considerations**

Results

- (•) All queries/results
- ( ) Include only intersected/relevant results

<- Back | Next ->


OREGON EXPLORER
Renewable Energy Siting Assessment
Mapping and Reporting Tool (Beta)
Search...
Renewable Energy Siting Assessment Project Information
Visible layer(s)
Project Footprint
PDF Report
Help
Report Sections
Show All
Site Information
Military Areas
3
Energy Considerations
Natural Resources
10
Community Considerations
1
Contacts
Site Information
View:
All
Site Name: test
Project Type(s): Wind (onshore),Solar Photovoltaic
Maximum Height (ft): 400
MegaWatts: 200
Area: 6,036 Acres
Admin Boundaries & Planning
Boundary/Planning Area
Value/Intersects
View
State Land Inventory System
Yes
In Coastal Zone
No
USFWS Region
Region 1: Pacific Region
USFS District(s)
No
BLM District(s)
Prineville District
Comprehensive Plan Designation
AGRICULTURE, RURAL NATURAL RESOURCE/OPEN SPACE
Home
Layers
Renewable Energy Siting...
I want to...
Tools
Central Oregon Hwy
20
Van Lake Rd
Frederick Butte Rd
Aerial Wi...
0
0.5
1mi
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Renewable Energy Siting Assessment Project Information

Admin Boundaries & Planning

Boundary/Planning Area	Value/Intersects	View
State Land Inventory System	Yes	
In Coastal Zone	No	
USFWS Region	Region 1: Pacific Region	
USFS District(s)	No	
BLM District(s)	Prineville District	
Comprehensive Plan Designation	AGRICULTURE, RURAL NATURAL RESOURCE/OPEN SPACE	
Zoning	Exclusive Farm Use 160+, Mineral and Aggregate, Open Space/Conservation	
County	Crook, Deschutes	

Land Management/Ownership

Land Manager/Owner	Area (acres)	Percent Area	Pin
State Government	5,529.50	91.6%	
Federal (BLM)	422.90	7.0%	
Private	75.80	1.3%	
Federal (Other)	10.20	0.2%	

Toggle feature on map.

Cultural Resources

- Oregon State Historic Preservation Office Laws & Rules
- Oregon State Historic Preservation Office Project Review & Compliance
- Legislative Commission on Indian Services
- Legislative Commission on Indian Services Key Contact Information

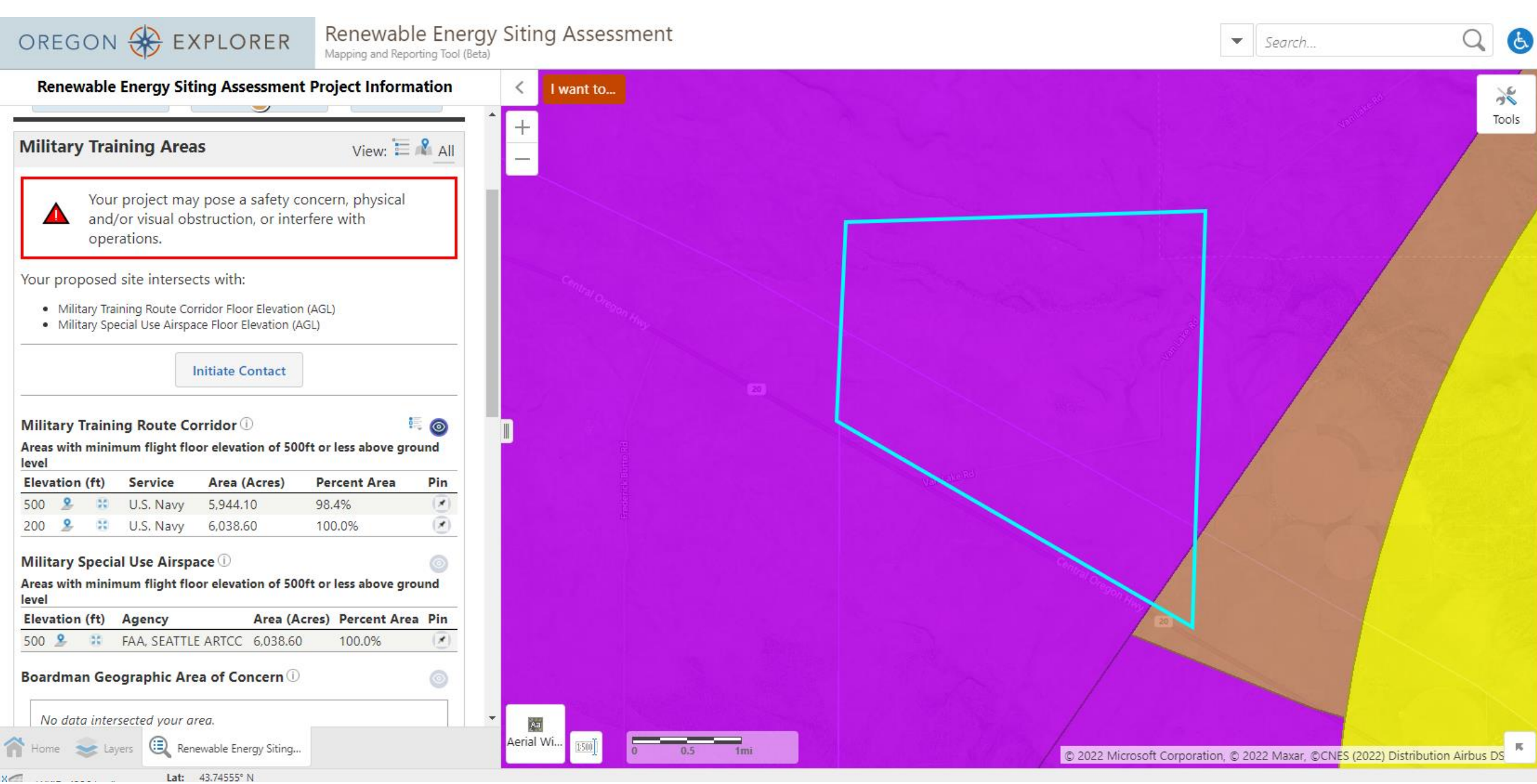
Installation and operation of renewable energy facilities have the potential to impact cultural resources, which are protected by Federal and State law. Cultural

I want to...

Tools

Aerial Wi...

0 0.5 1mi


OREGON EXPLORER
Renewable Energy Siting Assessment
Mapping and Reporting Tool (Beta)
Search...
Renewable Energy Siting Assessment Project Information
I want to...
Tools
Military Training Areas
View: All
Your project may pose a safety concern, physical and/or visual obstruction, or interfere with operations.
Your proposed site intersects with:
Military Training Route Corridor Floor Elevation (AGL)
Military Special Use Airspace Floor Elevation (AGL)
Initiate Contact
Military Training Route Corridor
Areas with minimum flight floor elevation of 500ft or less above ground level
Elevation (ft) Service Area (Acres) Percent Area Pin
500 U.S. Navy 5,944.10 98.4%
200 U.S. Navy 6,038.60 100.0%
Military Special Use Airspace
Areas with minimum flight floor elevation of 500ft or less above ground level
Elevation (ft) Agency Area (Acres) Percent Area Pin
500 FAA, SEATTLE ARTCC 6,038.60 100.0%
Boardman Geographic Area of Concern
No data intersected your area.
Home
Layers
Renewable Energy Siting...
Aerial Wi...
0 0.5 1mi
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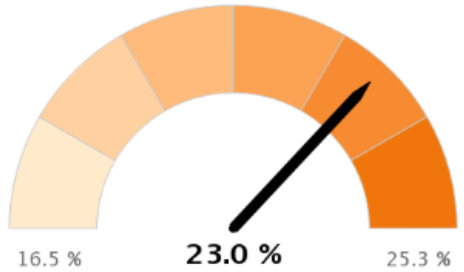
Lat: 43.74555° N

Renewable Energy Siting Assessment Project Information

Estimated Utility-Scale Solar

Capacity Factor



Estimated Utility-Scale Solar ⓘ Map

Electric Substations ⓘ

Substation Name	Distance	Pin
HAMPTON	0.0 Miles	
CHRISTMAS VALLEY	0.0 Miles	
TAP203395	0.0 Miles	
TAP203396	0.0 Miles	
SAND SPRINGS	29.1 Miles	

Transmission Lines ⓘ

Owner	Voltage	Distance	Pin
BONNEVILLE POWER ADMINISTRATION	115	0.0 Miles	
BONNEVILLE POWER ADMINISTRATION	115	0.0 Miles	

Home Layers Renewable Energy Siting...

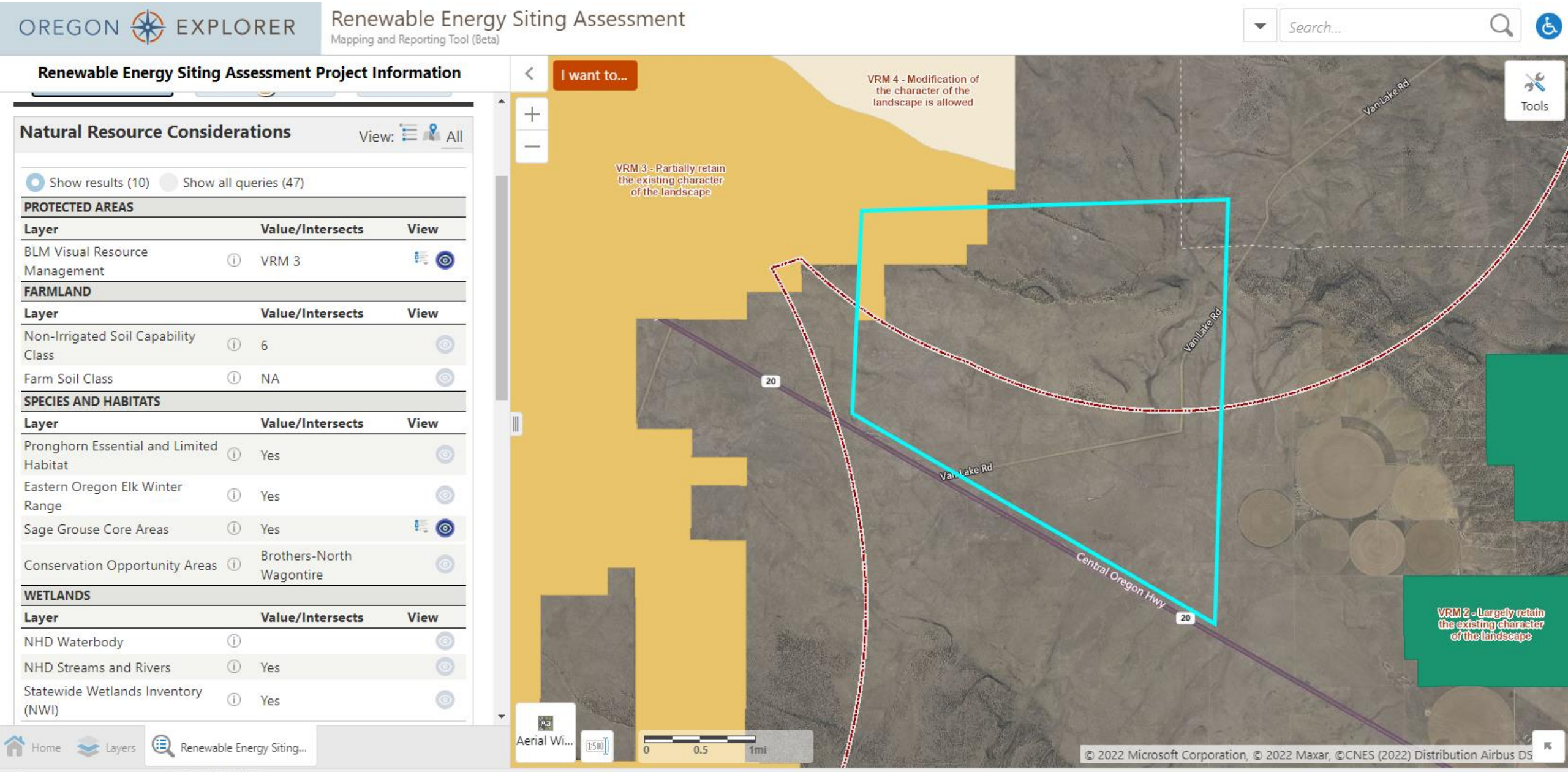
I want to...

Tools

Aerial Wi...

1:500

0 0.5 1mi


OREGON EXPLORER
Renewable Energy Siting Assessment
Mapping and Reporting Tool (Beta)
Search...
Renewable Energy Siting Assessment Project Information
Natural Resource Considerations
View: All
Show results (10)
Show all queries (47)
PROTECTED AREAS
Layer
Value/Intersects
View
BLM Visual Resource Management
VRM 3
FARMLAND
Layer
Value/Intersects
View
Non-Irrigated Soil Capability Class
6
Farm Soil Class
NA
SPECIES AND HABITATS
Layer
Value/Intersects
View
Pronghorn Essential and Limited Habitat
Yes
Eastern Oregon Elk Winter Range
Yes
Sage Grouse Core Areas
Yes
Conservation Opportunity Areas
Brothers-North Wagontire
WETLANDS
Layer
Value/Intersects
View
NHD Waterbody
NHD Streams and Rivers
Yes
Statewide Wetlands Inventory (NWI)
Yes
Home
Layers
Renewable Energy Siting...
I want to...
VRM 4 - Modification of the character of the landscape is allowed
VRM 3 - Partially retain the existing character of the landscape
VRM 2 - Largely retain the existing character of the landscape
Van Lake Rd
Central Oregon Hwy
20
Tools
Aerial Wi...
0
0.5
1mi
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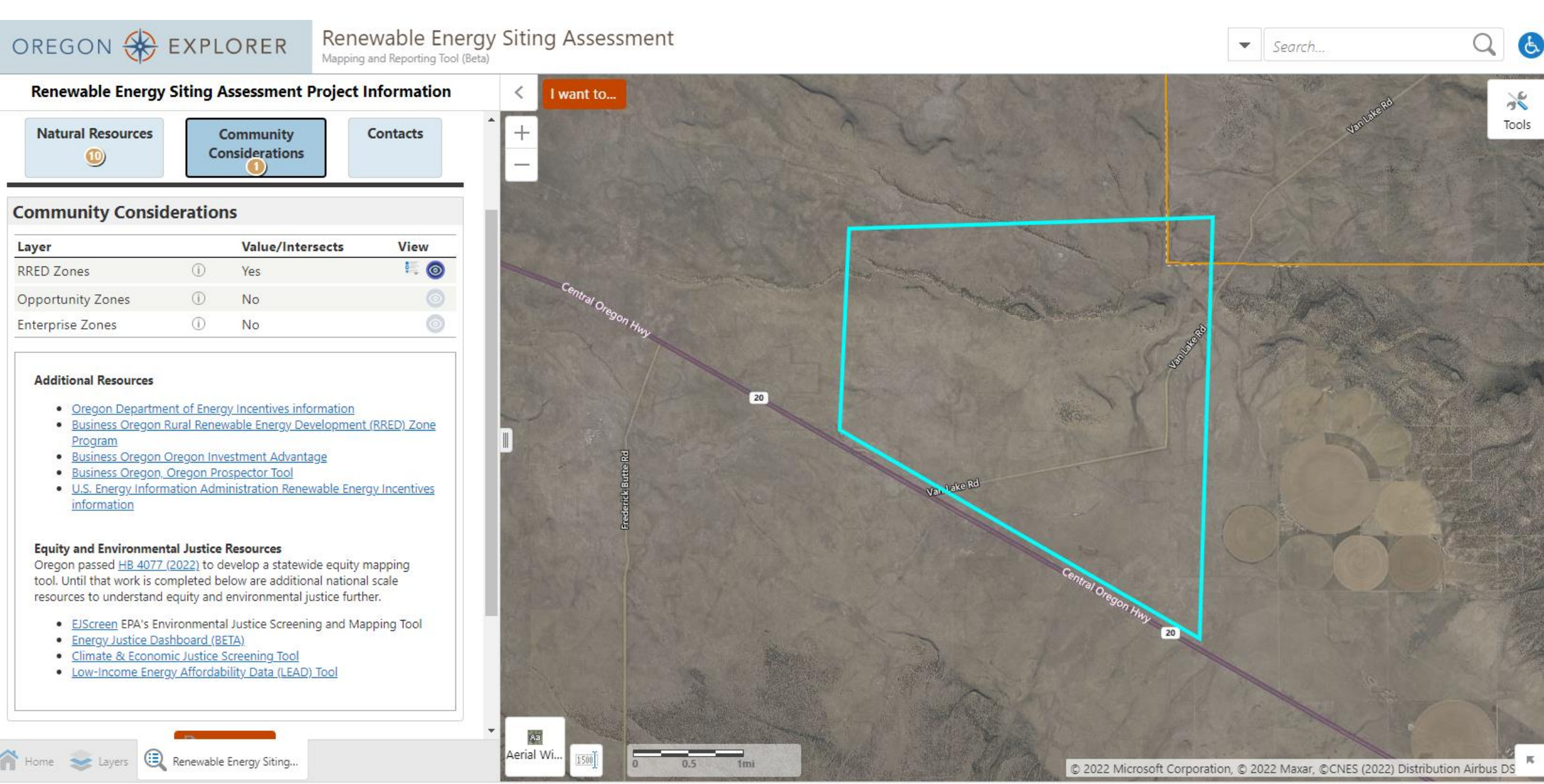
OREGON EXPLORER
Renewable Energy Siting Assessment
Mapping and Reporting Tool (Beta)
Search...
Renewable Energy Siting Assessment Project Information
Natural Resources 10
Community Considerations 1
Contacts
Community Considerations
Layer
Value/Intersects
View
RRED Zones
Yes
Opportunity Zones
No
Enterprise Zones
No
Additional Resources
Oregon Department of Energy Incentives information
Business Oregon Rural Renewable Energy Development (RRED) Zone Program
Business Oregon Oregon Investment Advantage
Business Oregon, Oregon Prospector Tool
U.S. Energy Information Administration Renewable Energy Incentives information
Equity and Environmental Justice Resources
Oregon passed HB 4077 (2022) to develop a statewide equity mapping tool. Until that work is completed below are additional national scale resources to understand equity and environmental justice further.
EJScreen EPA's Environmental Justice Screening and Mapping Tool
Energy Justice Dashboard (BETA)
Climate & Economic Justice Screening Tool
Low-Income Energy Affordability Data (LEAD) Tool
I want to...
Tools
Van Lake Rd
Central Oregon Hwy
20
Frederick Butte Rd
Aerial Wi...
0
0.5
1mi
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Renewable Energy Siting Assessment Project Information

Custom Area

Area: : 6,036 Acres

Introduction

The Oregon Renewable Energy Siting Assessment (ORESA) project was funded through a $1.1 million U.S. Department of Defense Office of Local Defense Community Cooperation grant awarded to the Oregon Department of Energy, working with the Department of Land Conservation & Development and Oregon State University's Institute for Natural Resources.

The project sought to support military compatibility through coordination with local, regional, and state agencies, and raise awareness about the military through the ORESA project. The objective for the Oregon Renewable Energy Siting Assessment Map Viewer and Reporting Tool was to assemble baseline data to create a transparent, consistent collection of trusted, accurate information, without recommendations or endorsements

This tool is for illustrative and administrative purposes only. The map viewer and reports generated by it are not meant to replace the formal permitting process in the state of Oregon. The tool provides the approximate physical, environmental, management, and jurisdictional conditions of a selected area within Oregon. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user. The sponsors of the tool make no claims, representations or warranties as to the accuracy or completeness of these data layers.

Military Coordination

Since your specified area of interest for a possible development is near or intersects a military training area, installation, special use airspace, or geographic area of concern, it is important to coordinate AS EARLY AS POSSIBLE DURING the exploration of any projects with the military to ADDRESS possible issues in the future.

U.S. Navy
Kimberly Peacher
Email: kimberly.n.peacher.civ@us.navy.mil

Initiate Contact

NW DoD Regional Coordination Team Representitives
Kimberly Peacher
Email: kimberly.n.peacher.civ@us.navy.mil

Initiate Contact

Table of Contents

Renewable Energy Siting Assessment Project Information

Custom Area

Area: : 6,036 Acres

BLM District(s)

Prineville District
3050 N.E. 3rd Street Prineville, OR 97754
541-416-6700
BLM_OR_PR_Mail@blm.gov
https://www.blm.gov/office/prineville-district-office

US Fish & Wildlife

U.S. Fish and Wildlife Service (Pacific Region, Oregon Office)
911 NE 11th Ave. Portland, Oregon 97232
(503) 231-6120
null
https://www.fws.gov/pacific/

State Contacts

Oregon Department of Energy
550 Capitol St. NE, 1st Floor Salem, OR 97301
(503) 378-4040
https://www.oregon.gov/energy/Pages/index.aspx

Oregon Department of Land Conservation and Development
635 Capitol Street NE, Suite 150, Salem, OR 97301
(503) 373-0050
dlcd.info@state.or.us
https://www.oregon.gov/LCD/pages/index.aspx

Oregon Military Department
1776 Militia Way SE, Salem, OR 97309-5047
(503) 584-3980
https://www.oregon.gov/OMD/Pages/Home.aspx

Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE Salem, OR 97302
(503) 947-6000
odfw.info@state.or.us
https://www.dfw.state.or.us/

Oregon Parks and Recreation Department State Historic Preservation Office
725 Summer Street NE, Suite C Salem, OR 97301
(503) 986-0707
oregon.heritage@oregon.gov
https://www.oregon.gov/oprd/OH/Pages/default.aspx

Legislative Commission on Indian Services
900 Court St. NE, Room 167, Salem, OR 97301
(503) 986-1067
LCIS@oregonlegislature.gov
https://www.oregonlegislature.gov/cis

Oregon Department of State Lands
775 Summer St. NE, Suite 100 Salem, OR 97301-1279
(503) 986-5200
https://www.oregon.gov/dsl/Pages/index.aspx

Oregon Department of Aviation
3040 25th Street SE, Salem, OR 97302
(503) 378-4880
aviation.mail@aviation.state.or.us
https://www.oregon.gov/aviation/Pages/index.aspx

Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600 Portland, OR 97232-4100
503-229-5696
https://www.oregon.gov/DEQ/Pages/index.aspx

Oregon Water Resources Department
725 Summer Street NE, Suite A Salem, OR 97301
503-986-0900
https://www.oregon.gov/owrd/Pages/index.aspx

Oregon Department of Forestry
2600 State Street, Salem, Oregon 97310
503-945-7200
forestryinformation@oregon.gov
https://www.oregon.gov/odf/Pages/index.aspx

Public Utility Commission of Oregon
201 High Street SE, Suite 100, Salem, OR 97301-3398
503-373-7394
https://www.oregon.gov/PUC/Pages/default.aspx

RESOURCES

Project website: Oregon Renewable Energy Siting Assessment (ORESA)

Key Deliverables

- Beta ORESA Mapping and Reporting tool.
  - ORESA Mapping & Reporting Tool Summary
  - ORESA Mapping & Reporting Tool Demonstration Video
- Near-final ORESA Report

Supporting Materials

- Renewable Energy Market and Industry Assessment Report
- Military Needs and Interests Assessment Report
- Natural Resources, Environment, And Development - Opportunities and Constraints Assessment Report
- ORESA Procedures Report
- Brochure: Oregon and Our Nation's Military

STAY IN TOUCH!

Learn more about the ORESA project:
https://www.oregon.gov/energy/energy-oregon/Pages/ORESA.aspx

Send comments and questions:
https://odoe.powerappsportals.us/en-US/ORESA/

Sign up for email updates:
http://web.energy.oregon.gov/cn/a6n53/subscribe

OREGON DEPARTMENT OF ENERGY

INSTITUTE FOR NATURAL RESOURCES

NAS WHIDBEY ISLAND

OREGON Department of Land Conservation & Development

June 8, 2022, Board of Forestry Testimony

Chair Kelly, members of the Board of Forestry, State Forester Mukumoto. These written comments are provided to you as part of FTLAC's statutory responsibility to advise the BOF and the State Forester on matters which affect management of the State Forest Trust Lands (ORS 526.156). FTLAC is concerned about the proposed HCP. In this letter we provide the testimony provided at the BOF meeting by FLTAC Chair and Tillamook County Commissioner David Yamamoto as well as additional comments, and a series of question we believe should be answered prior to deciding to approve or reject the proposed HCP. FTLAC sees these questions as the beginning of a discussion about the HCP, not necessarily the only questions that need to be answered.

FTLAC BOF Meeting Testimony

June 8, 2022, Board of Forestry Testimony

Chair Kelly, members of the Board of Forestry, State Forester Mukumoto, Staff: I am John Sweet, Coos County Commissioner and Vice Chair of the Forest Trust Land Advisory Committee (FTLAC). I am here today representing FTLAC in order to fulfill our statutory responsibility to advise the BOF and the State Forester on matters which affect management of the State Forest Trust Lands (ORS 526.156).

I am here again today to express my concerns about the HCP. I have submitted extended written comments and a copy of our NEPA comment letter we sent to NOAA. Included in these written comments are questions FTLAC believes you need answers to before deciding on the HCP. I see these questions as the beginning of a discussion about the HCP, not necessarily the only questions that need to be answered.

Today, I will cover three topics:

1) The role of the NEPA timeline driving decision making,
2) The quality of the draft EIS, and
3) The exclusion of FTLAC from the HCP development process

FLTAC has heard repeatedly that the NEPA process is driving the HCP decision timeline. We have heard that the NEPA process must be completed by March 8, 2023, and that NOAA Fisheries does not issue extensions. This is very concerning to me. Federal administrative rules should not force the state to make a decision. The environmental impacts statement is intended to analyze impacts of government actions. Based on the information provided in the environmental impacts statement, changes to the proposal can be made to lessen impacts. What is the purpose of analyzing the HCP if no changes can be made once the impacts are known? By not allowing changes to the HCP due to the NEPA timeline, the Services are indicating that they will ignore any comments we, or public, provide. This is not a model of good decision making.

What is most disappointed about this is we have just started the conversation about how the HCP could be improved. At the last FTLAC meeting, which I hope you all watched, Chair Kelly noted that there might be opportunity for management in stands affected by Swiss needle cast. I agree. The HCP allows

for treatment of less than one-third of the stands affected by Swiss needle cast, the most pressing forest health issue on the State Forest Lands. The need to treat the Swiss needle cast-affected stands, as well as stands of ageing alder, as long been discussed by ODF. The management rules within the proposed HCP do not adequately allow ODF to respond to these forest health issues or future issues that may arise. The more we understand about the proposed HCP the more we can consider strategies that improve management on State Forest Lands. The current NEPA timeline stifles the discussion. If NOAA Fisheries in unable to grant an extension to give ODF the time to further develop the HCP given the impacts we are now coming to understand, ODF should retract the HCP application and refile when ready.

An extension will give ODF time to complete the analyses that must be completed for deciding on the HCP. As I have said before, the draft EIS is inadequate because of the misrepresentation of management under the current forest management plan. As I read more, I must question the value of the other alternatives in the draft EIS. ODF submitted the HCP application prior to the release of draft EIS. ODF did not develop a range of possible options for meeting Endangered Species Act and state legal requirements. The alternatives in the draft EIS were developed by NOAA, not ODF, and appear meant to provide the appearance of a range of options when, in fact, there are none. Instead of providing good faith options for meeting legal requirements, the draft EIS provides analysis of the HCP and three nearly identical alternatives seemingly arbitrarily developed to meet administrative requirements, not spur robust discussion.

In addition to these issues, the draft EIS uninformative. Critically, the draft EIS lacks assessment of the magnitude of impacts. The magnitude of the impacts is very information you need in order to understand the effects of the HCP. A typical statement in the Environmental Consequences sections of the draft EIS is as follows:

> "Effects on covered salmonids under Alternative 5 compared to the no action alternative would be similar as described for the proposed action except that adverse effects related to harvest would increase with increased acreage of harvest and overall decrease in acres of HCAs."

The statement provides no assessment of the extent to which the identified effects would impact covered salmonids. We do not know the extent to which the population of covered salmonids might be affected, the extent to which salmonid habitat might be affected, or the extent to which the adverse effects are mitigated. The reader is left uniformed by this analysis even as the very purpose of an EIS is to inform decision makers and the public of impacts of government actions.

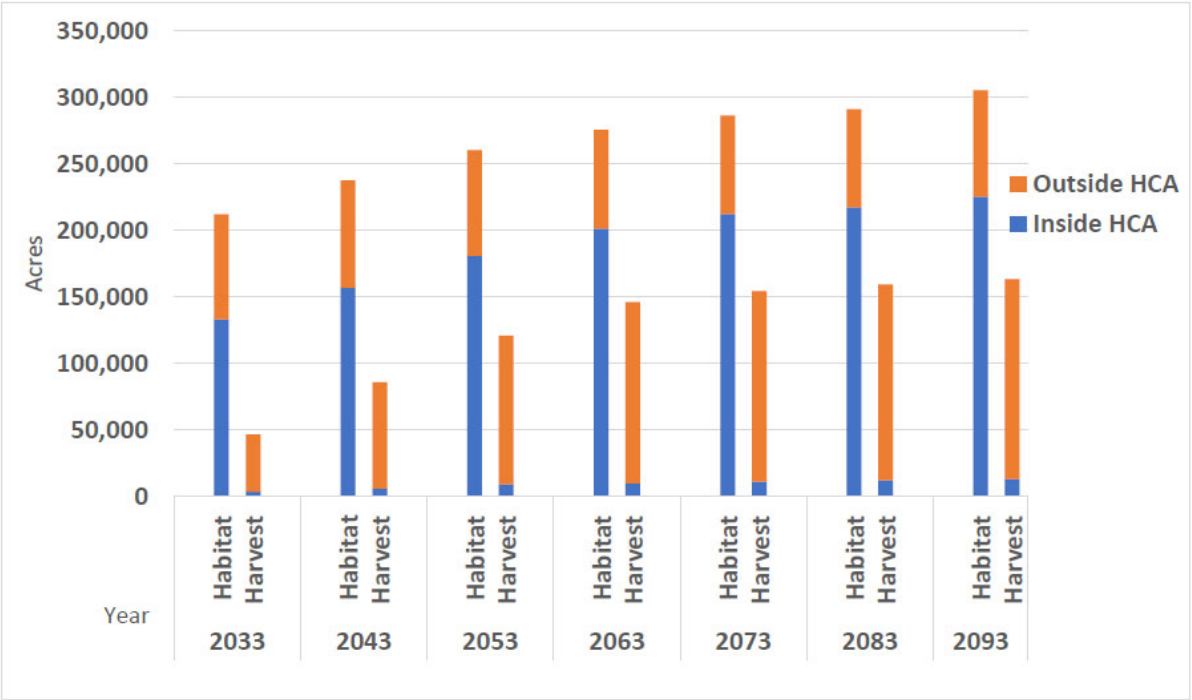
Finally, I want to touch on the FTLAC's role in the HCP process. As I said at the beginning of my testimony, FTLAC has a statutory obligation to advise the BOF and State Forester on management of State Forest Lands. The counties have long asked for a seat at the table in developing the HCP to allow us to fulfill this statutory obligation. At the last FTLAC meeting we heard that one of factors that extends the timeline for modifying the HCP is the time it takes for ODF to collaborate the Federal Services, ODFW and DEQ. I see the interest in working with the Federal Services as they will issue the incidental take permit, though note that the process has long been described as "applicant driven" not Services

driven. What I do not understand is the role of ODFW or DEQ in issuing an incidental take permit under Federal law, nor do I see a statutory role for ODFW or DEQ in the management of State Forest Lands. As members of the steering committee these agencies have been involved in the development of the HCP though their missions are unbound by state laws regarding Greatest Permanent Value and the management of State Forest Lands. Likewise, they are not impacted by changes in management as our County communities are. How do these agencies with no statutory role in State Forest Land management drive decision making? And why were they given priority over the FTLAC, which has a statutory role, in guiding the management of the State Forest Lands?

Comments

Timing and quality of mitigation

FTLAC has asked ODF about the quantity of mitigation. We understand from ODF that in addition to the quantity of mitigation, the timing at each mitigation occurs is important. ODF has explained that the scale of the Habitat Conservation Areas in the proposed HCP in part is to ensure mitigation develops prior to any harvest of habitat through "stay ahead" provisions. Looking at graph 5-7, 5-11, and 5-18 from the proposed HCP (reproduced below), the area of habitat grows sustainably over the life of the HCP for northern spotted owl, marbled murrelet, and red tree vole. No similar graph is provided for coastal marten. The area of habitat expands even has harvest occurs. In addition, what these graphs do not show is the improvement in habitat quality. Both the expanded area of habitat and increased quality of habitat contribute towards mitigating of the impacts of take. Based on these graphs, FTLAC believes the HCP has far larger Habitat Conservation Areas than necessary to minimize and mitigate the impact of the expected take under the plan. We have repeatedly asked for an analysis of take and mitigation from ODF but have been told that is not ODF's responsibility make this assessment. What we see here is ODF attempting to avoid discussion of what is clear from these graphs, the HCP unnecessary commits lands to habitat conservation areas at the expense of rural communities' essential services and jobs.



[1] Projected habitat levels show habitat and cumulative harvest starting at the year indicated (e.g., 2033 = first decade). Harvest is shown as cumulative over the permit term (i.e., a running total accumulating over the permit duration). Habitat projections presented in this chapter are not HCP commitments, but rather are modeled projections ODF is using to estimate the level of take and to determine appropriate avoidance, minimization, and mitigation measures needed to offset that projected level of take. As described in Chapter 4, commitments to conserve, maintain, and enhance acres of covered species habitat were estimated based the assumption that, within the permit term, 50% of nesting and roosting habitat and 80% of foraging habitat, projected to grow in over 70 years by habitat models, could be achieved in HCAs.

Figure 5-7. Northern Spotted Owl Habitat Harvested and Estimated Habitat In Growth, by Decade[1]

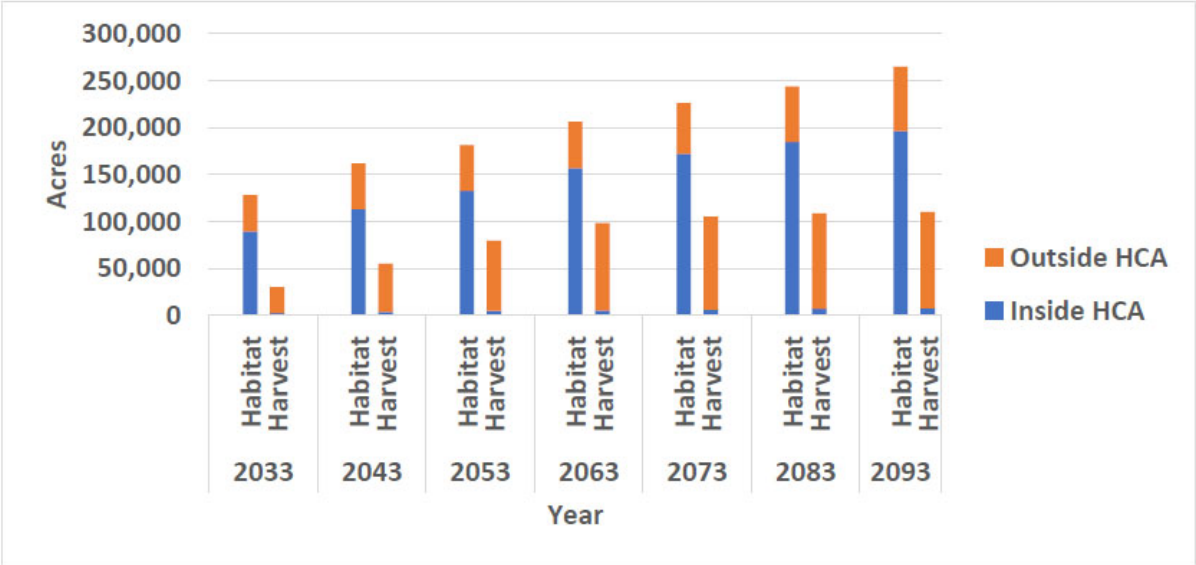
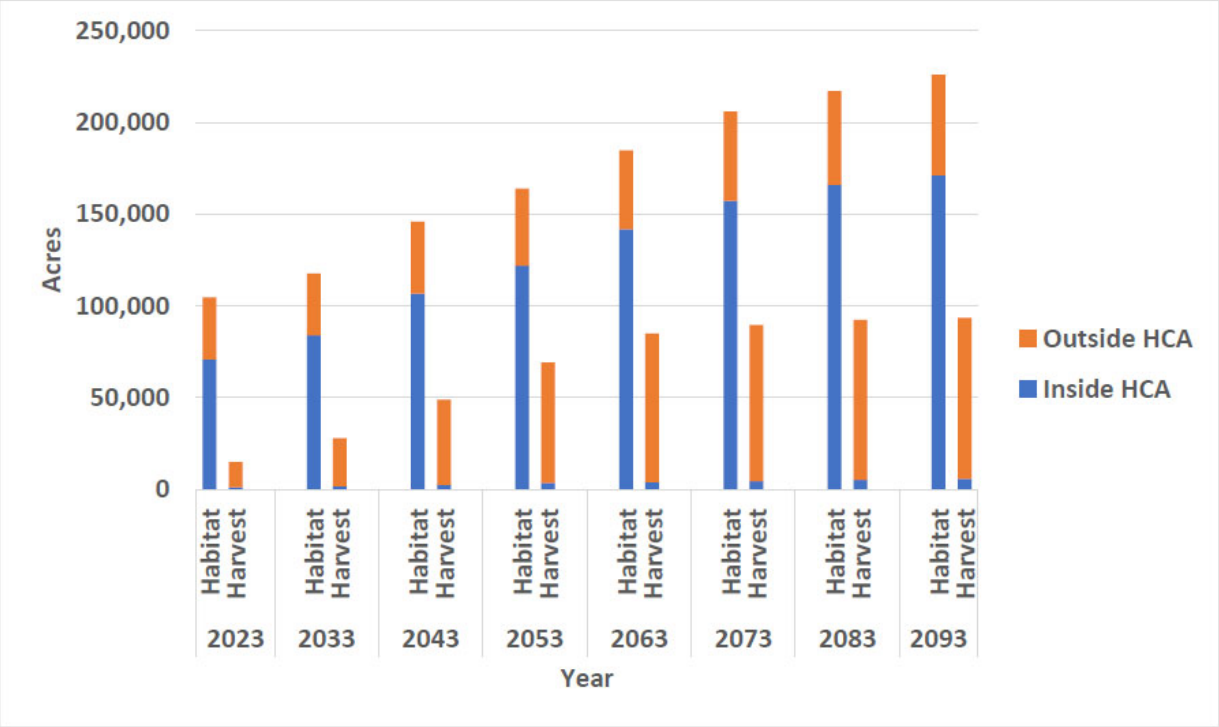


Figure 5-11. Marbled Murrelet Habitat Harvested and Estimated Habitat In Growth Over the Permit Duration, by Decade



Shows projected habitat and cumulative harvest at each decade, Projected habitat levels presented in this chapter are not HCP commitments, but rather are projections ODF is using to estimate the level of take and to determine appropriate avoidance, minimization, and mitigation measures needed to offset that projected level of take.

Figure 5-18. Red Tree Vole Habitat Harvested and Estimated Habitat In Growth, by Decade

Need for the HCP

FTLCA is also concerned that reasonable alternatives are not being considered by ODF. At the last FTLAC meeting, Chair Kelly expressed the need for the proposed HCP to avoid another "coho lawsuit," which could result in a federal judge directly government activities. FTLAC notes that the proposed HCP is not needed to avoid such a lawsuit. ODF could join the PFA, which includes significant projections for salmon, to avoid such a lawsuit.

The PFA is currently garnering wide acclaimed for its strong scientific foundations and balanced policy provisions. On May 22, *The Oregonian* published a column by Governor Kate Brown, Oregon Forest and Industrial Council president Chris Edwards, and Wild Salmon Center policy director Bob Van Dyk heralding the PFA as science-based forest management policy that strikes "a balance between protecting the health of our forests and creating jobs and economic growth in rural communities." [1] They call it a "win-win for Oregon" and "invite all Oregonians to join us in celebration and embrace our shared future of collaborative forestry in Oregon." Why not add ODF to the list of 65,000 land mangers covered by the PFA?

[1] https://www.oregonlive.com/opinion/2022/05/opinion-bipartisan-legislation-marks-new-era-for-oregon-forestry.html

Questions

FLTAC has asked many questions in meetings with the BOF and ODF staff. Here we have complied our key questions for the BOF. FTLAC hopes that State Forester Mukumoto and the ODF staff can review these questions and provide the BOF, and us, with answers. As mentioned previously, these questions will help start the conversation about the HCP. FTLAC is likely to have follow up questions and comments. If fact, the questions below include follow up questions and comments to some of our previous questions.

The overarching question is why is the proposed HCP is appropriate given the requirements of Oregon law, the Endangered Species Act, and the need to maintain management flexibility?

At the April 29th BOF meeting, FTLAC asked for key questions:

1) How would threatened and endangered species populations change under the HCP?
2) What is the biological potential for timber production of the State Forest Lands?
3) How much take of covered species is expected under the HCP and how much mitigation will be provided?
4) Why have the assumptions in the business case analysis proven inaccurate?

We were provided responses to these questions, which we appreciate. However, the responses did not satisfy what we think is the Board's need for information.

We follow up on responses to each question:

1) How would threatened and endangered species populations change under the HCP?
    a. ODF response:

- As the applicant, we are not required to model species populations.
- This is a question is addressed in the Biological Opinions, which will quantify the level of incidental take, considers effects to populations, opinion as well as a population assessment (how populations are expected to respond).
- The Services conduct 5-year status reviews track the populations and efficacy of strategies for ESA-listed species over time. Status reviews are at the ESU (addresses listing factors)
- Assuming we were successful in achieving the BGOs and barred owl removal is effective, and assuming no external factors cause steeper declines (e.g., fires, at-sea conditions), we would anticipate that covered species populations would stabilize and increase in the permit area over the term.
- In most study areas, habitat effects on expected Northern Spotted Owl territorial occupancy are greater than the effects of competition from Barred Owls.
- State Forests in NW Oregon Coast Range are critical because of lack of federal lands in the area. This is stated explicitly in the NSO and MAMU recovery plans and in the designation of critical habitat on state forests.

FTLAC follow-up:

FTLAC is not questioning the requirements of an HCP application. Our question is about the information required by ODF and the BOF to develop and approve the HCP or any plan that affects forest management. The BOF and ODF must analyze the tradeoffs of the proposed plan. ODF assumes that successful implementation of the HCP will increase the population of covered species, but it unable to show to what extent the populations will increase. The northern spotted owl population has declined precipitously in Oregon. ODF says in a 2020 report[2] that "It appears that barred owl competition is driving NSO into marginal sites where habitat is low quality or still developing. ODF has not observed evidence of NSO breeding on the Tillamook or Clatsop State Forests in 15-20 years." The question of population modeling gets right at the core of what the HCP will deliver. For example, does ODF expect northern spotted owl breeding to resume in the Tillamook or Clatsop State Forests? How often? We do not know.

The response ODF states that if the "BGOs," which we believe are the biological goals and objectives, and barred owl removal are effective, covered species populations will stabilize and increase. This appears to be an assumption. Population modeling, which we propose, would help support that assumption. Further the draft environmental impact statement has made projections about revenue and jobs under the alternatives. We believe population modeling is necessary to put these values in context.

2) How much take of covered species is expected under the HCP and how much mitigation will be provided?
    a. ODF response:

- This is one of two primary functions of the Biological Opinions. The other is the Section 7 jeopardy determination.
- Take permit numbers are based on available data/habitat.
- The definition of take includes "harm", which includes impairment of essential life behaviors, including loss of habitat. Thus, take of habitat is one calculation of effects on covered species.
- The HCP provides modeled estimates of the amount of habitat harvested and gained over time. Under the "stay-ahead" provision, habitat gains much exceed loss to harvest over the permit term

FTLAC follow-up:

The issue of the quantity of take and mitigation within the HCP gets right to the core of the issue of meeting the legal requirements for State Forest Lands and the Endangered Species Act. Waiting for the Federal Services to release the Biological Opinion to determine if the proposed HCP is the correct plan State Forest Lands is too late as the opinion comes at the end of the process. In fact, ODF will ask the

[2] ODF 2020. Western Oregon State Forests Management Plan, Draft Plan. https://www.oregon.gov/odf/board/Documents/fmp-hcp/Western-Oregon-State-Forest-Management-Plan-Final-Draft.pdf

BOF September to provide direction on the HCP without seeing the Biological Opinion or even the final environmental impact statement.

We believe the assessment of take and mitigation is fundamental to your ability to decide whether the proposed HCP is appropriate for meeting the legal requirements the Board and State Forester must meet when managing state forest lands.[3]

3) Why have the assumptions in the business case analysis proven inaccurate?
    a. ODF response:

- The business case analysis was a cursory assessment of the potential economic outcomes anticipated with an HCP compared to the current approach for ESA compliance. Because it was developed prior to HCP development, it was not a spatial modeling exercise. Assumptions about potential future species listings and occupancy were estimated using the best available information.
- The modeling for the Comparative Analysis and DEIS includes a more robust spatial analysis. It demonstrates the true potential for habitat to develop more accurately, thereby providing more realistic estimates of habitat growth and potential encumbrances.
- The evolution and intention of the business case analysis and the comparative analysis was to provide the Board with decision-making tools using the best available data and information available to us. Their decision to move the HCP forward through the NEPA process also considered the quality of the HCP, the robust public engagement process, our alignment with state and federal wildlife agencies, and the certainty for conservation and harvest outcomes that an HCP will provide.
- The Board of Forestry is aware of the evolution of the business case analysis and the comparative analysis. They considered these analyses as well as the quality of the HCP and the robust engagement process to support their decisions to direct ODF to develop the HCP and complete the NEPA process.

FTLAC follow-up

FTLAC questions the value of the Business Case Analysis since it presents a far different results of management under the HCP and under the current Forest Management Plan than the draft environmental impact statement.

4) Why is the SF HCP different that the Private Forest Accord?
    a. ODF response:

- Each HCP considers landowner objectives, size of the permit area, and capacity for contributions to conservation. State Forests manages for GPV, which is beyond what is required of private forest owners.
- The State Forests HCP also covers quite a few more listed and potentially listed species.

[3] e.g.: The Greatest Permanent Value rule (629-035-0020) and the Forest Management Planning rule (629-035-0030)

FTLAC follow-up:

An HCP is an agreement with the Federal Services to comply with Endangered Species Act requirements. Private lands and ODF have the same requirements under the Endangered Species Act. Oregon state law is clear: the State Forester is responsible for managing lands to secure Greatest Permanent Value and does so by developing and implementing Forest Management Plans. While ODF is currently developing a forest management plan in parallel with the HCP, the HCP is not a forest management plan. These are different plans with different objectives and different development processes.

Suggesting the HCP is a method to meet Greatest Permanent Value is of great concern. The HCP will limit the ability of future State Foresters and future Boards of Forestry to change management on State Forest Lands and respond to climate change and to changes in forest conditions. ODF must manage for Greatest Permanent Value through a Forest Management Plan, as required by Oregon State law, not through the HCP.

Additional questions FTLAC believe must be answered are as follows.

Scale of conservation areas

1) How was the scale of conservation in the proposed HCP determined?

FTLAC has heard that ODF neither conducted population modeling, nor calculated take and mitigation. Without these metrics there is no way to determine whether the proposed HCP meets requirements of the Endangered Species Act and ODF's obligations under that law to provide revenue to the Counties. The BOF should understand how ODF arrived at the area of conservation proposed by the HCP.

2) How will the large HCAs on State Forest Lands do what Federal reserves have not, recover threatened and endangered species?

We have heard that ODF expects barred owl removal to help support northern spotted owl populations. However, we note that the draft environmental impacts statement states that barred owl removal did not result in significant repose in all treatment areas and that reliance on barred owl removal would not adequately the need for suitable habitat. Nonetheless, ODF appears to be relying on barred owl removal to support spotted owl. At the same time, the HCP provides vast new conservation areas without identifying how these areas will support the spotted owl population or whether or not these areas will be occupied by spotted owl.

3) How did ODF arrive at the 70-year term of the HCP?

FTLAC has heard that the 70-year term is necessary to provide time for the benefits of the HCP to be realized. Can ODF explain this? FTLAC has also been told that "stay ahead" provisions require habitat gains must exceed losses over the permit term. If that is that case, if ODF will meet "stay ahead" provisions, why are 70 years required to realized benefits of the HCP?

4) How did the lack of Federal land on the North Coast affect the development of the HCP? How much additional conservation is provided in this area due to the lack of Federal lands? How much additional mitigation in excess of that required to mitigate the impact of ODF's take under the plan is provided?

5) Assumptions about future species populations under the no action alternative are unsupported by population modeling and appear optimistic given current population trends of threatened and endangered species. Can ODF provide further analysis showing harvest levels and conservation acres under the current FMP based on a range of population assumptions, including at least the continuation of current population trends?

6) Red tree voles are currently unlisted, and the US Fish and Wildlife Service declined to list red tree vole as threatened or endangered in its last review. The Services are currently developing a new finding to determine if listing is warranted. Why include the red tree vole in the HCP? Why not wait until that determination before proceeding?

7) The HCP limits ODF's management flexibility and ability to response to forest health issues, disturbance, and climate change. How can the HCP provide more flexibility to allow ODF professionals to do what is best for managing the lands consistent with Oregon law?

Adequacy of DEIS

1) Will ODF provide further analysis of what the future of State Forest Lands could be under the current or proposed draft FMP as the no action alternative in the draft environmental impact statement provides only one view of what continued management under the current FMP could be?

2) The State Forest Lands have long been managed for multiple values, not just timber production. In the debate about the HCP, little attention has been given to the amount of volume the lands can produce biologically. Will ODF provide a projection of the biological potential of the lands?

Meeting legal obligations

1) How is ODF ensuring that State Forest Lands can provide for long-term revenue generation as required by law?

2) Do you see the revenue and harvest level projections in the draft environmental impact statement as likely to be realized if the HCP is accepted or will there be further erosion of the capability of the lands to generate revenue?

Long rotation forestry

1) Model of the proposed HCP in the draft environmental impact statement anticipates 100-year rotations outside of HCAs. This is not a requirement of the HCP. Why is this included in the draft environmental impact statement analysis?

2) Does ODF intend to implement 100-year rotations without policy direction from the BOF?

3) To what extent has ODF discussed this change with the timber purchaser community? Our understanding is that larger log sizes that can come from 100-year-old trees are less desirable than smaller logs, which will impact revenue to ODF and the Counties.

Council of Forest Trust Land Counties

1212 Court Street NE
Salem, OR 97301

To: National Oceanic and Atmospheric Administration

From: Council of Forest Trust Land Counties

Date: May 26, 2022

Comments on the Draft Environmental Impact Statement for the Western Oregon State Forest Habitat Conservation Plan, Docket NOAA-NMFS-2021-0019-0046

The Council of Forest Trust Land Counties (CFTLC) represents the Oregon Counties that benefit from State Forest Lands managed on our behalf by the Oregon Department of Forestry (ODF). Revenue from the State Forest Lands directly funds County programs and is critical to providing essential public services to County residents. The lands provide a substantial portion of the annual budget for several Counties.

Active management also contributes to the long-term health and vitality of surrounding communities by providing jobs, including full time family-wage, fully benefited jobs. The timber industry serves as an important manufacturing base in our Counties' economies and in rural Oregon as a whole.

Quality of life in our communities is directly affected by forest management on State Forest Lands. With this in mind, we provide the following high-level comments on the Draft Environmental Impact Statement (DEIS) for the Western Oregon State Forests Habitat Conservation Plan (HCP):

1) The range of alternatives is inadequate.
2) The analysis of the impacts of the no action alternative is flawed.
3) The DEIS ignores the best available science to reject a valid proposed alternative.
4) The analysis of economic impacts is inadequate due to the invalid assumptions used in the forest management model.
5) The HCP harvest model includes a constraint on the age class structure outside of Habitat Conservation Areas, described in Appendix 3.1-B, page 6, that is not required by the HCP or current policy.
6) The DEIS fails to consider impacts associated with ODF's stated inability to fund implementation of the HCP.
7) The DEIS socioeconomic analysis underreports the impacts to jobs.
8) The DEIS lacks adequate analysis of the impacts of the alternatives on the populations of covered species.
9) The DEIS lacks adequate analysis of the level of take and mitigation provided to covered species.

10) The DEIS list of reasonably foreseeable trends and planned activities is inadequate.
11) The DEIS fails to state the magnitude of impacts, and whether the impacts are significant.
12) The DEIS assumes that additional forest carbon storage results in reduced carbon emissions without justification.
13) The DEIS overestimates the rate of fire within the plan area.
14) The DEIS states without support that "the no action alternative would reduce wood available for in-stream recruitment."
15) The DEIS lacks tables clearly showing land allocations.

For each high-level comment we have provided additional details below.

1) The range of alternatives is inadequate. The action alternatives are nearly identical and do not represent a full and reasonable range of alternatives that could comply with requirements of the Endangered Species Act.

The action alternatives differ little from each other. The Alternative 5 has 15,500 more acres of lands available for revenue generation outside of HCA and RCAs, while Alternative 3 reduces the revenue generation potential on 9,500 acres. Other action alternatives fall within this 25,000-acre range. This range is less than 4% of the 639,489-acre permit area.

Alternatives 3, 4, and 5 appear arbitrarily designed. The DEIS does not state how these alternatives were developed, how they meet legal requirements under the Endangered Species Act (ESA) or ODF's requirements under state law, or whether they encompass a full and reasonable range of alternatives that could comply with requirements of the ESA.

The no action alterative, as presented in the DEIS, extends the range as it assumes substantially more conservation by the end of the analysis period than the action alternatives. However, as described below, the DEIS mischaracterizes the no action alternative by overestimating the area it conserved, therefore the range in the alternatives is much narrower than reported in the DEIS.

2) The analysis of the impacts of the no action alternative is flawed. The DEIS assumes recovery of listed species as habitat develops, and listing of currently unlisted species, without justification.

The no action alternative assumes that as habitat develops listed species will fully occupy that habitat making it unmanageable under a take avoidance approach to ESA compliance. Under the take avoidance approach, prior to harvesting timber, ODF must survey for threatened and endangered species presence. If the species are not present, a timber harvest can occur.

Modeling for the no action alternative assumes additional lands will need to be conserved to avoid take. For the northern spotted owl (NSO), the DEIS states that future habitat is "identified using the based on [sic] stand projections with a habitat suitability index of 0.6 or greater at year 40. No-harvest management prescriptions were applied to these sites in the model after year 10." This assumption results in exclusion of harvest from 123,061 acres. Similar assumptions are used for the marbled

murrelet (excluding 76,432 acres from harvest) and red tree vole (excluding 115,408 acres from harvest).

Based on this description, the assumption is that if lands support moderate quality habitat (suitability index 0.6) in 2062, conservation will be applied starting in 2033. This assumption is not representative of a take avoidance approach. Under a take avoidance approach, the species of concern must be present. If the species is not present, management can occur.

The DEIS assumption that any future habitat developed will become occupied is speculative and not reasonably foreseeable as required by federal regulations.[1] It is unlikely that all habitat on ODF-managed lands will be occupied by northern spotted owl, marbled murrelet or red tree vole:

1) Northern Spotted Owl: In 1994 the Northwest Forest Plan reserved 20 million acres for northern spotted owl and other species. Since then, northern spotted owl populations have plummeted. In the Coast Range between 2002 and 2017 the owl population declined at a rate of 6.1% per year (Weins et al. 2020). In contrast, from 1994 to 2013 habitat has declined only 1.5% in total (Davis et al. 2016). Barred owl competition has been a leading cause of the decline (Franklin et al. 2021).

   ODF's own survey data have similarly shown declining northern spotted owl numbers even as ODF implements structure-based management to improve habitat conditions. In a 2020 report, ODF notes that evidence of NSO breeding has not been observed on the Tillamook or Clatsop State Forests in 15-20 years (ODF 2020). These data are not presented in the DEIS. By excluding these data, the DEIS fails to present to the public and decision makers the current condition of the northern spotted owl population on State Forest Lands.

2) Marbled murrelet: the marbled murrelet population in Oregon is currently slowly increasing from low numbers (McIver et al. 2021). A single murrelet occupied site may contain multiple nests and murrelets are more likely to nest in higher quality habitat (Conroy et al. 2002, Raphael et al. 2008). Growth of the murrelet population is hindered by other stressors including corvid predation and direct mortality from pollution, especially oil spills and entanglement in fishing gear, disturbance from vessel traffic and negative influences from anthropogenic global warming on marine ecosystems (Marzluff and Neatherlin 2006, Piatt and others 2007, USFWS 2009).

3) Red tree vole: The red tree vole is not currently listed under the endangered species act and ODF is not required to survey for the voles. USFWS completed the last review of the status of the red tree vole in 2019 and did not choose to list the species as threatened or

[1] 40 CFR §1508.1(g) states: *Effects or impacts* means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives, including those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or farther removed in distance from the proposed action or alternatives

endangered citing large blocks of habitat on federal lands. In addition, red tree voles have limited home ranges, which limits their ability to fill habitat as it becomes available (Dunk and Hawley 2009, Swingle and Forsman 2009).

The population trend of northern spotted owls, nesting biology of marbled murrelets, and current status and biology of red tree voles, make it unlikely that suitable habitat will be occupied at the rate projected in the DEIS. These species are unlikely to occupy suitable habitat at the rate assumed in the DEIS, and therefore the area conserved under the no action alternative will be smaller than projected in the DEIS and harvest levels will be higher.

3) The DEIS ignores the best available science to reject a valid proposed alternative.

CFTLC proposed an alternative in scoping comments that would have used predator and competitor control to protect the marbled murrelet and northern spotted owl. In the DEIS this alternative is most closely represented by "Alterative N: Modified Terrestrial Conservation Strategy – Reduced Habitat Conservation Areas and Increased Predator /Competitor Control." The DEIS rejected this alternative in the alternative screening process stating:

> "While barred owl control experiments have indicated positive response by northern spotted owls, not all treatment areas observed significant responses. An alternative further reliant on this form of management would not adequately address the covered terrestrial species' reliance on availability of suitable habitat." (Appendix 2-A; page 4)

This statement ignores the best available science.

In 1994, when the Northwest Forest Plan was adopted, application of large conservation reserves to conserve northern spotted owls was experimental. After 20 years, the results for northern spotted owl have been poor. The area of nesting/roosting habitat in the plan area fell by 1.5 in total though 2013, mainly driven by wildfire losses, while northern spotted owl population fell to 50% or more (Davis et al. 2016, Franklin et al. 2021). Population declines by landscape reported by Franklin et al. (2021) are shown in Figure 1.

The Northwest Forest Plan prescribed large conservation reserves for federal lands to protect northern spotted owls and other species associated with older forests. Since the implementation of the plan, northern spotted owl populations, and those of other species, have continued to decline (Davies et al. 2015, Spies et al. 2019, Franklin et al. 2021). However, the reserve strategy has proven inadequate as threats from climate change, wildfire, and barred owls are not addressed (Spies et al. 2019).

Franklin et al. (2021) described barred owl (BO) occupancy as "a dominant negative effect on colonization and positive effect on extinction of NSO territories." They found declining rates of northern spotted owl occupancy to be mirrored by increasing occupancy of barred owl (Figure 2).

Franklin et al. (2021) state, "based on our analyses here, it is highly unlikely that NSO populations will increase to their former levels if BOs continue to occupy the landscape at their current levels. Therefore, an expectation that NSO populations will return to levels above those currently reported is probably

untenable unless there is large-scale management of BO populations." And "without removal or reduction of BO populations, the more realistic scenario is probably that NSOs will become extirpated from portions of their range and possibly linger on as small populations in other areas until those populations are eliminated because of catastrophic events, resulting in the extinction of this subspecies."

Franklin et al. (2021) indicate that northern spotted owl habitat is needed for "re-colonization by NSO *should management actions allow for reduction of BO populations* and 2) it facilitates connectivity by dispersing NSO among occupied areas" (emphasis added). Additional, large conservation reserves proposed in the HCP will be of little value without barred owl removal but result in significant economic impacts. By ignoring the best available science, the DEIS fails to consider a reasonable alternative that has a better chance to recover the species while minimizing the economic impact

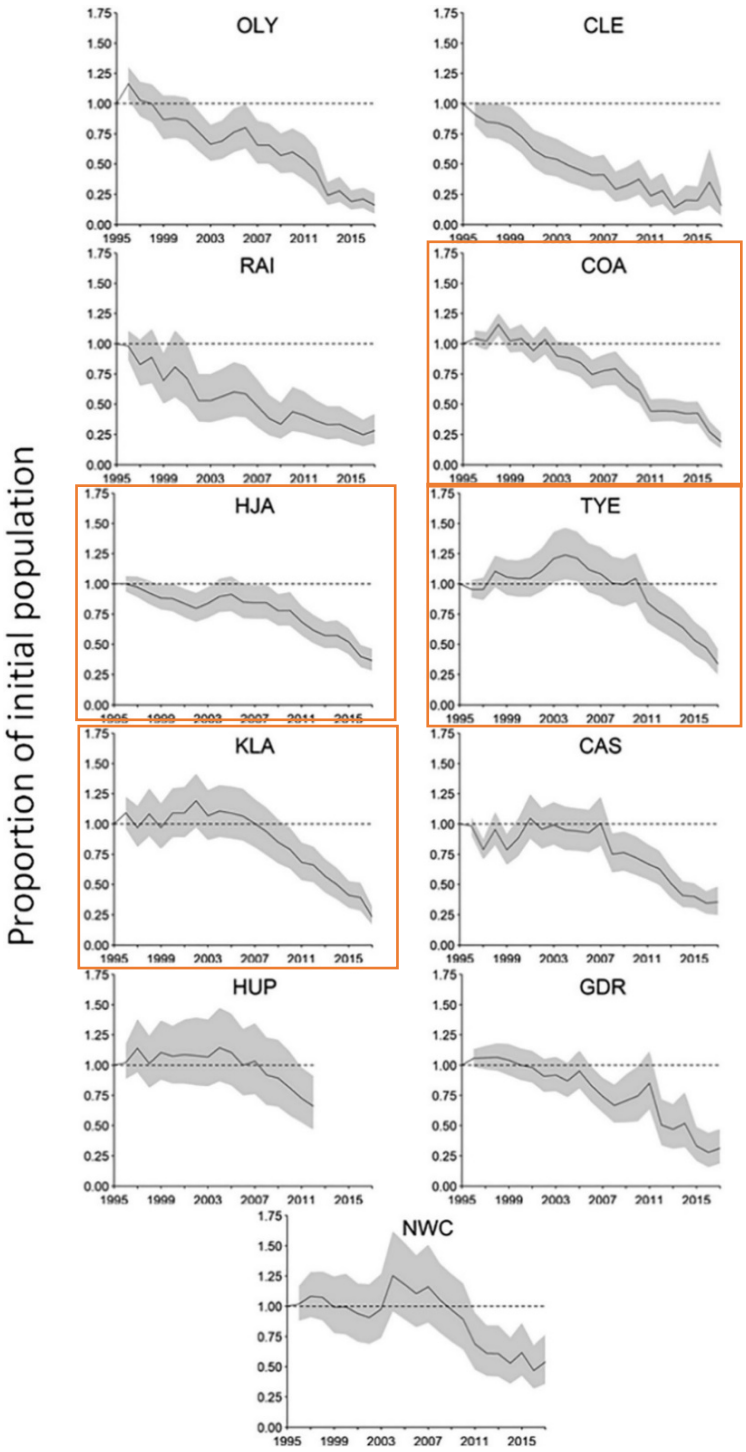


Figure 1. Spotted owl population trends. Lands in the plan area are near the study areas in orange boxes; COA – Coast Ranges, TYE - Tyee, HJA - HJ Andrews, KLA – Klamath. Figure reproduced from Franklin et al. (2021).

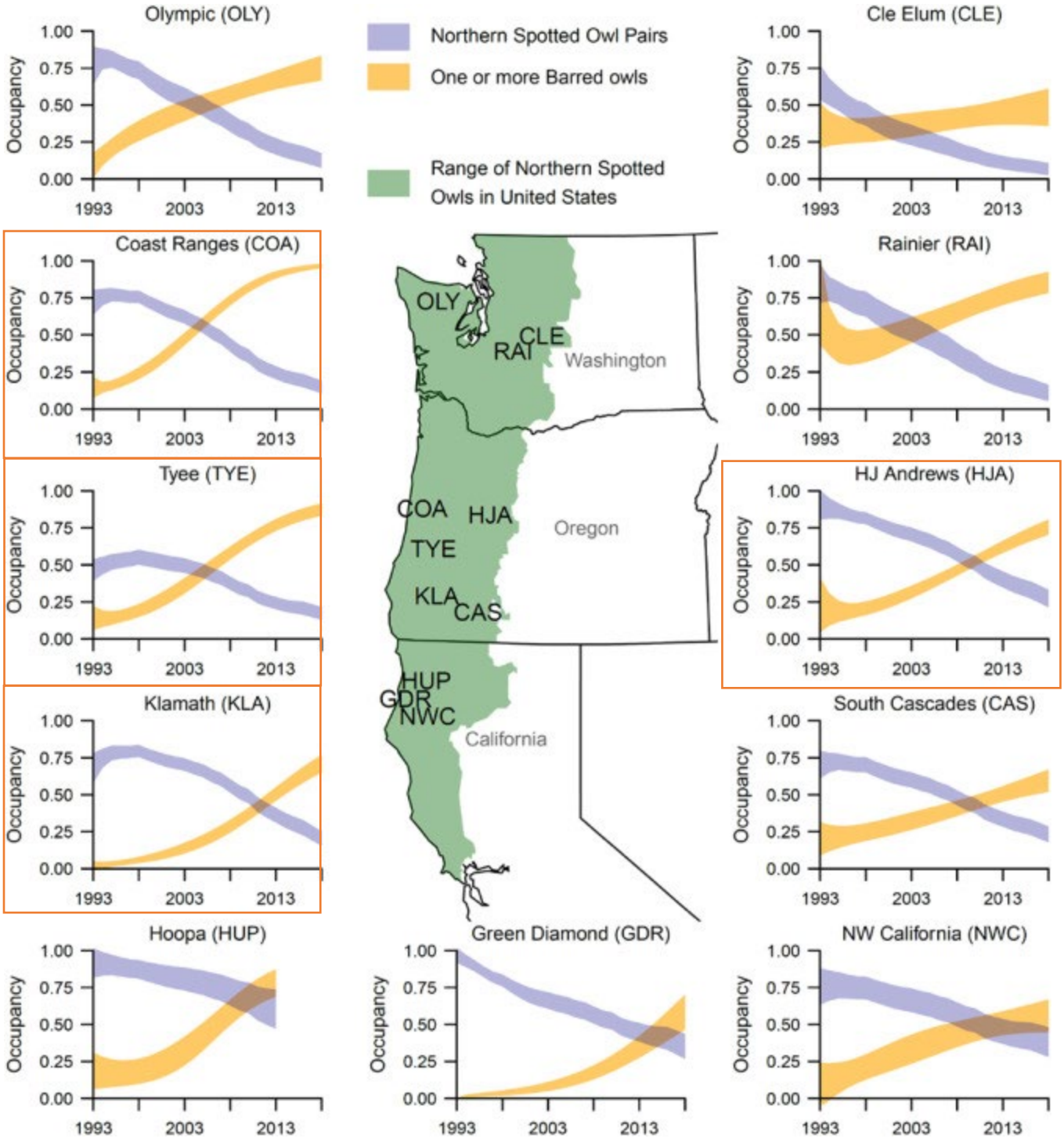


Figure 2. Trends in territory occupancy for northern spotted owl pairs and barred owls on 11 study areas in Washington, Oregon, and California based on two-species occupancy models from 1993–2018. Lands in the plan area are near the study areas in orange boxes Figure reproduced from Franklin et al. (2021).

4) **The analysis of economic impacts is inadequate due to the invalid assumptions used in the forest management model.**

The DEIS states, "For the purpose of analysis, the model results are post-processed to remove harvest units of less than 10 acres in size, due to operational constraints on harvesting small areas." Based on data provided to the Counties by ODF, removal of units less than 10 acres reduced harvest levels by about 9% each decade. These stands neither provide revenue nor develop into habitat, they are simply dropped from the analysis.

If ODF is unable to harvest stands less than 10 acres, or unable to aggregate 10-acre stands with neighboring stands, the impacts of not harvesting these areas must be analyzed in the DEIS.

5) **The HCP harvest model includes a constraint on the age class structure outside of Habitat Conservation Areas, described in Appendix 3.1-B, page 6, that is not required by the HCP or current policy. This constraint unduly alters the harvest level possible under the HCP scenarios and misrepresents activities that can occur under the HCP.**

The DEIS states:

> "The HCP scenario applies a constraint to target the following age class distributions to operable areas outside of HCAs by year 70: 30 percent age 0 to 30 years, 30 percent age 30 to 60 years, and the remaining 40 percent greater than 60 years. To allow flexibility in model solution, these target percentages are allowed to vary +/- 2 percent." (Appendix 3.1-B, page 6)

This constraint effectively imposes a 100-year rotation in forest stands outside of HCA. The requirement that 30% of the operable area be age 0 to 30 years and 30% be 30 to 60 years old, restricts the harvest area to 1% of the operable land base per year. At a 1% per year harvest rate, 100 years are required to harvest all operable lands.

This constraint not required by the HCP. Outside of HCAs, the HCP requires ODF "minimum 40% of the permit area outside HCAs in conditions that meet the definition of dispersal habitat for northern spotted owl." The age class structure constraint is different from the dispersal habitat requirement in both the forest attributes tracked and the area to when the constraint is applied:

1. The constraint limits harvest based on age. Dispersal habitat is not defined by age. Instead, dispersal habitat it defined by stand structural conditions. The HCP states:

   > "This HCP defines dispersal habitat the same as the criteria for dispersal habitat in the 2011 recovery plan (USFWS 2011): Stands of trees averaging 11 inches in diameter at breast height (DBH) or greater and at least 40% canopy closure (Appendix C)." (page 4-85)

2. The constraint applies only to operable areas outside of HCAs. The HCP requirement applies to all lands outside of HCAs. In describing the areas outside of HCAs, the HCP includes lands that are inoperable including "stands that are currently infeasible to harvest due to physical

constraints that prevent logging", "a few hundred acres of small, scattered habitat patches are either current old-growth or otherwise unavailable for harvest due to other existing constraints", and RCAs located outside of HCAs.

By including a constraint in the HCP model that does not exist in the HCP or current policy, the DEIS presents misleading results to the public and decision makers.

6) The DEIS fails to consider impacts associated with ODF's stated inability to fund implementation of the HCP.

The DEIS does not analyze the impacts of the alternatives on the distribution revenue to ODF. The DEIS provides only the average revenue distributed to ODF during the 2016-2020 period (Table 3.12-1). Prior analysis by ODF (ODF 2018) showed that under both No-HCP and HCP scenarios, ODF does not generate enough revenue to pay land management costs.

The HCP handbook states, "the issuance criterion to 'ensure adequate funding for the plan will be provided' means that the applicant must calculate what the costs of implementing the plan will be" (USFWS and NOAA 2016). And "the applicant first must clearly demonstrate how they will fund the costs of the elements of plan implementation."

By ignoring analysis showing ODF will not generate enough revenue to pay for land management costs, including the costs of implementing an HCP, the DEIS fails to assess a reasonably foreseeable outcome of the alternatives, and unreasonably assumes both timber harvest and implementation of the HCP could occur over the full term of the HCP.

7) The DEIS socioeconomic analysis underreports the impacts to jobs.

The DEIS considers only direct jobs in what it describes as industries that purchase harvests in the permit area. The DEIS considers only jobs within the following North American Industry Classification System (NAICS) codes:

1. 321113: Sawmills
2. 3221: Pulp, paper, and paperboard mills
3. 113: Forestry and logging

This list of NAICS codes ignores log purchasers such as veneer, plywood, and engineered wood product manufacturers under NAICS code 32121. It also ignores purchasers of mill by-products, and purchasers of timber re-sold by ODF timber purchasers.

Further, by ignoring both indirect and induced jobs the DEIS fails to consider how timber-based jobs fit into the economies where they are located. In small communities, where few other employment opportunities exist, mills can support a significant number of indirect and induced jobs compared to the total number of jobs in the community.

As a result of ignoring key NAICS codes, the DEIS underestimates timber-related jobs by a factor of between 2.5 and 4. In a 2019 EIS for an HCP amendment in Washington, federal agencies estimate 7.8 direct jobs per Mbf and considered indirect jobs (DNR and USFWS 2019). The Bureau of Land Management estimates there are 13 jobs per MMbf of harvest in Oregon (BLM 2022). This DEIS makes no attempt to justify the inconsistency between the scope of the jobs analysis as compared to the DEIS for the Washington HCP amendment or other Federal sources.

By underestimating jobs, the DEIS underestimates labor income, proprietor income, taxes, and other property income described in Appendix 3.12.

8) **The DEIS lacks adequate analysis of the impacts of the alternatives on the populations of covered species. The DEIS provides only an analysis of the area of change in potential habitat. Population impacts are required to determine to what extent potential habitat increases under the alternatives benefit the covered species.**

Population modeling is needed to show the response of covered species to the alternatives. This information is needed to fully understand the impacts of the alternatives on the covered species, and the likelihood of encountering covered species under the take avoidance strategy of the no-action alternative. Without this information, the public and decision makers are left to speculate about the relationship between habitat and species populations, and potential levels of management activity.

Federal agencies have completed population modeling as part of similar planning efforts. A 2019 EIS for an HCP amendment in Washington includes marbled murrelet population modeling (DNR and USFWS 2019), and the BLM modeled northern spotted owl numbers in the EIS for the Northwestern and Coastal Oregon Resource Management Plan (BLM 2016).

Population modeling would help differentiate the no action alternative from the action alternatives by showing the value, if any, of the conservated acres and the conservation actions have on the populations of covered species. The action alternatives differ from the no action by more than simply the acres of conservation. The conservation areas in the action alternatives encompass areas unprotected in the no action alternative and vice versa and have a different configuration than the no action alternative. The RCAs provide different levels of protection for streams in the action alternatives than the no action. Finally, the action alternatives include conservation actions that affect the management of ODF-managed lands in ways intended to benefit covered species without affecting the area available for management.

9) **The DEIS lacks adequate analysis of the level of take and mitigation provided to covered species.**

The DEIS inadequately analyses the impacts to covered species by not defining and calculating take of covered species or mitigation provided by the alternatives. Without analysis of take and mitigation, the DEIS fails to provide accounting of the extent to which each alternative mitigates take of covered species.

Without an analysis of take and mitigation the DEIS lacks answers to key questions that would inform the public and decision makers including:

1. How much take needs to be mitigated?
2. Do the alternatives provide sufficient or excessive mitigation?
3. Do all areas in habitat conservation areas provide mitigation or take avoidance?
4. Which areas are most valuable to conserve?
5. Which areas provide the least conservation value?

A 2019 EIS for an amendment to an HCP in Washington provides an example of the calculation of take and mitigation (DNR and USFWS 2019). A similar calculation must be made for the species covered in the ODF HCP.

10) The DEIS list of reasonably foreseeable trends and planned activities is inadequate.

The list of reasonably foreseeable trends lacks the impact of the Private Forest Accord (PFA) on stream conditions in the planning area. The PFA was announced while the DEIS was under development and should have been considered in the analysis.

The list includes "changes in revenue distribution policy", but no change in revenue distribution is planned, or proposed. While a change in revenue distribution is legally possible, it is highly speculative. Including it as a reasonably foreseeable trend is counter to federal regulations.[2]

11) The DEIS fails to state the magnitude of impacts, and whether the impacts are significant.

The DEIS fails to state the magnitude of impacts throughout the document. Failure to state the magnitude of impacts is exemplified by section 3.3.3.1 which states for Alternative 3:

> "Effects under Alternative 3 compared to the no action alternative would be the same as described for the proposed action, except that increased aquatic protections (Conservation Action 1) would increase potential for recruitment of large wood and coarse sediment to streams in the event of landslides and associated events, and additional requirements related to road vacating in HCAs and RCAs (Conservation Action 5) would further reduce adverse effects related to existing forest roads." (Page 3.3-8)

This assessment does not indicate to what extent risk to public resources and the environment is avoided by under this alternative. The DEIS provides the public and decision makers no indication of the magnitude of the increased "potential for recruitment of large wood and coarse sediment to streams in the event of landslides and associated events in potential frequency of landslide and associated events" nor what the impacts of this would be. Similar non-specific language is used to describe environmental consequents related to water resources, vegetation, fish and wildlife, and cultural resources.

[2] 40 CFR §1502.15 requires environmental impacts statements describe 'reasonably foreseeable' trends and planned actions.

The DEIS must describe the magnitude of impacts and effects of the impacts to understand the impacts expected under each alternative. EPA states that, "NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions."[3] By not assessing the magnitude of impacts, the DEIS fails to assess environmental impacts. Without estimating the magnitude of the impacts, the public and decision makers are left to speculate what "increase potential frequency" means.

12) The DEIS assumes that additional forest carbon storage results in reduced carbon emissions without justification.

The DEIS places a value on carbon based solely on the social value of carbon stored in the forest. The DEIS assumes that each additional ton of forest carbon is equal to one ton of avoided emissions. This assumption fails to consider carbon stored in harvested wood products, substitution, and leakage (Ganguly et al. 2020). Substitution is the use of wood products in place of other materials. When wood is substituted for cement or steel, substantial carbon emissions can be avoided (Lippke et al. 2019, Perez-Garcia et al. 2004). Leakage refers to a reduction in timber harvest in one area resulting in an increase in harvest elsewhere to meet timber demand. Research by Haya (2019) indicates leakage rates from forest carbon projects credited under California Air Resources Board protocols exceed 80%. This result indicates that for every ton of carbon stored in a forest carbon project, harvest results in over 0.8 tons lost from forests elsewhere. There is no evidence that harvest reductions due to regulatory changes would result in lower leakage rates. By not considering carbon in wood products, substitution, and leakage, the DEIS lacks a supportable estimate of carbon emissions avoided.

13) The DEIS overestimates the rate of fire within the plan area.

The DEIS states:

> "Major fires have burned a long-term average of about 0.5 percent of western Oregon per year since records have been kept. The actual burned acreage varies greatly from year to year, with severe fires occurring on average less than once per decade. Continuation of current conditions (0.5 percent burn probability per acre per year) would suggest 35 percent of the plan area is likely to burn over the analysis period. Given the increased severity of fires predicted with climate change, the actual extent is anticipated to be significantly larger. (pg 3.2-2)"

This description is for western Oregon as whole and based on a fire record extending from 1765 to 2020. While fires in the Coast Range naturally occur on long fire return intervals, forest conditions and fire management practices have changed dramatically in the Coast Range since 1765. Further, in Appendix 3.2 the DEIS further states that in the Coast Range in 1992-2020 period records show that less than 1% of the Coast Range has burned, a rate of less than 0.04%, an order of magnitude lower than the 0.5% rate stated above (Appendix 3.2, page 4). Data from 1992-2020 for the Coast Range better represent current fire management and forest conditions and current climate over most of the plan area

[3] https://www.epa.gov/laws-regulations/summary-national-environmental-policy-act

than data for western Oregon since 1765. These data are also consistent with published studies such as Davis et al. (2017) who found low large fire suitability in the Coast Range (Figure 3).

Ignoring the Coast Range fire data presented in Appendix 3.2, the DEIS speculates that the actual extent of fire will be "significantly larger" than 35% of the plan area over 70 years. However, Davis et al. (2017) shows that no change in fire rotation length in most of the North Coast (Figure 4).

The statements in the DEIS present a conflicting picture of past fire in the plan area, over generalize fire history across the plan area, and ignore the best available science, misinforming the public and decision-makers of possible impacts to the environment of the alternatives.

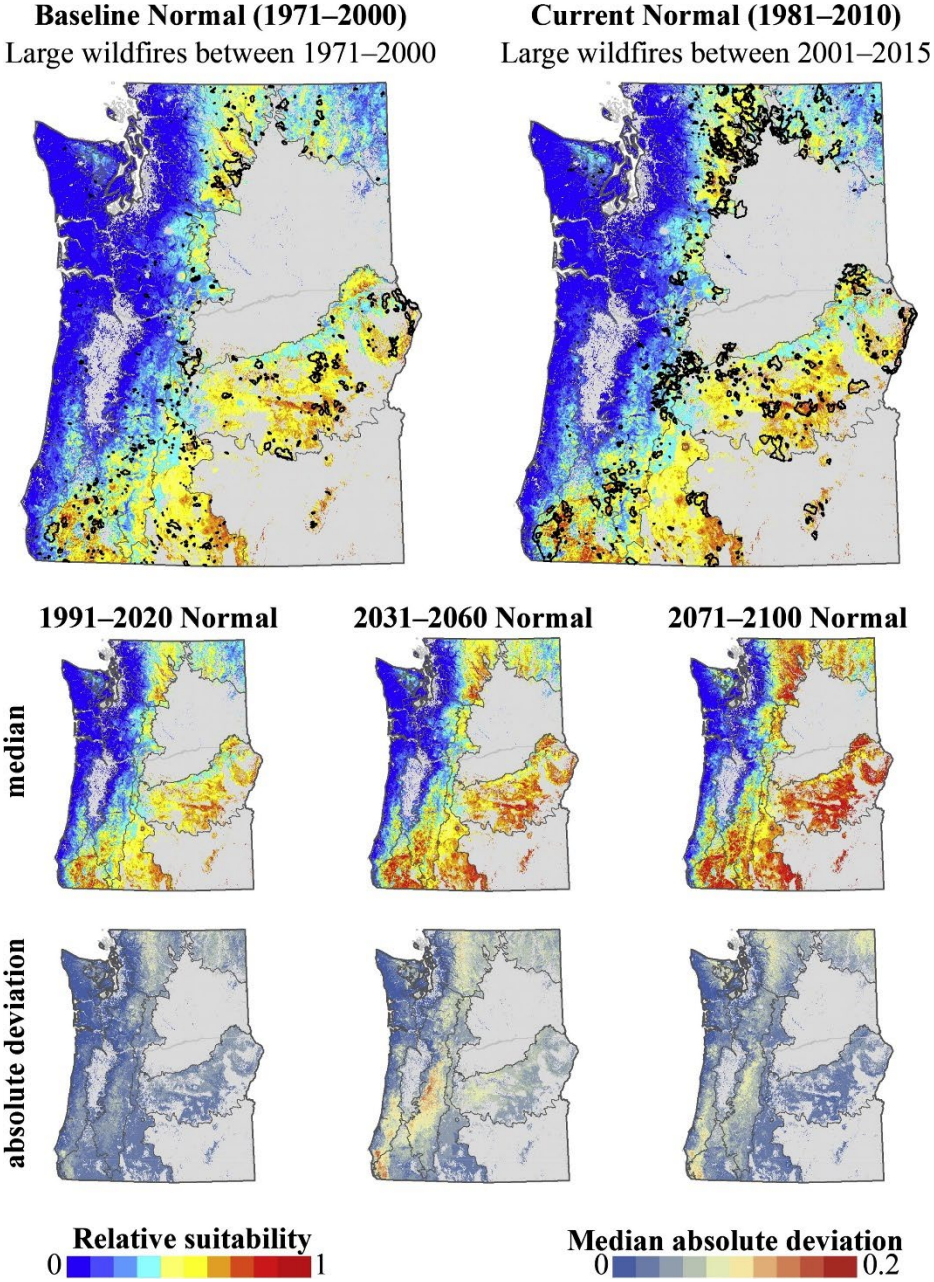


Figure 3. Fire environment maps derived from PRISM data showing large wildfires from the baseline normal period (1971–2000) and current normal period (1981–2010) (top maps). Future fire environment time series maps (1991–2020, 2031–2060, and 2071–2100) derived from NEX-DCP30 data show predicted change under RCP 8.5. Median absolute deviation maps for each of these time periods provide information on how much and where model predictions varied. (Reproduced from Davis et al. 2017).

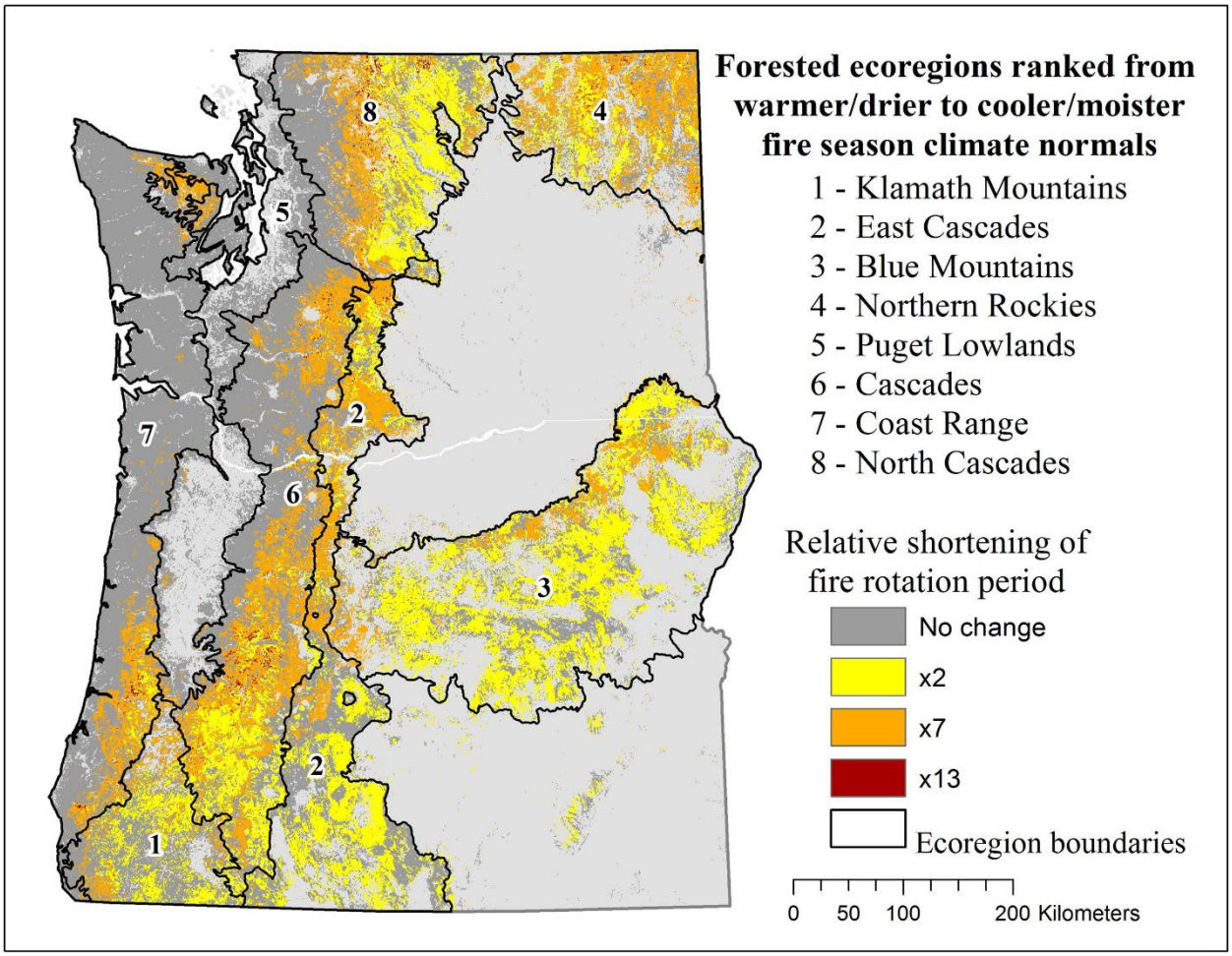


Figure 4. Estimated changes in fire rotation periods by the end of this century. Reproduced from Davis et al. (2017).

14) The DEIS states without support that "the no action alternative would reduce wood available for in-stream recruitment."

The DEIS states that the no action alternative will result in less woody debris recruitment in streams but provides no baseline for woody debris recruitment. Footnote 3 on page 3.6-11 provides a numerical estimate of the difference between the no action alternative and alternative 2. The footnote says, "based on the wood recruitment model, estimated average recruitment of wood to streams over the

permit term would be 96.7 percent compared to 96.3 percent under the no-action alternative." These values indicate nearly identical results.[4] Even so, the DEIS states that the RCAs in Alternative 2 will increase large woody debris recruitment compared to the no action alternative.

Furthermore, the DEIS does not state whether woody debris would decrease compared to unspecified current conditions under Alternative 2 as it reports for the no action alternative.

15) The DEIS lacks tables clearly showing land allocations.

The DEIS should provide for each alternative a table with the following data organized so that acres are not double counted:

1. Acres unavailable for harvest under all alternatives for operational reasons (e.g., non-forest lands, no legal access, recreational sites)
2. Acres unavailable for harvest due to Oregon forest practices rules
3. Acres of riparian conservation area for all alternatives
4. Acres of habitat conservation area for the action alternatives and lands encumbered by endangered species protections for the no action alternative. As the DEIS assumes the acres encumbered changes over time under the no action, the values should be reported for each decade of the DEIS analysis period.
5. Remaining acres available for a full range of harvest options.

Without a clear presentation of the differences in the land allocations of the different alternatives, the public and decision makers are left uninformed as to what changes the alternatives would institute.

Summary

The DEIS fails at the intended purpose of informing the public and decision makes of the impacts of the alternatives analyses. The DEIS:

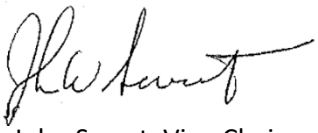
1. Includes an inadequate range of alternatives
2. Includes flawed analysis of impacts
3. Ignores the best available science
4. Uses flawed harvest model assumptions
5. Misrepresents environmental trends in the plan area

Because of these deficiencies within the DEIS, we believe a new DEIS should be prepared and that the new DEIS should include an amendment developed jointly by CFTLC and ODF.

[4] Model values are presented with no estimate of statistical error.

Respectfully submitted,

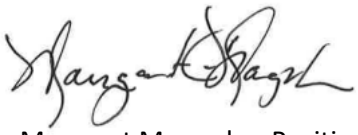
David Yamamoto, Chair
Tillamook County Commissioner



John Sweet, Vice-Chair
Coos County Commissioner

Erin Skaar, Position #1
Tillamook County Commissioner

Courtney Bangs, Position #2
Clatsop County Commissioner



Margaret Magruder, Position #3
Columbia County Commissioner

Will Tucker, Position #4
Linn County Commissioner

Bob Main, Position #5
Coos County Commissioner

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Council of Forest Trust Land Counties

1212 Court Street NE
Salem, OR 97301

To: National Oceanic and Atmospheric Administration

From: Council of Forest Trust Land Counties

Date: May 31, 2022

Comments on the Draft Environmental Impact Statement for the Western Oregon State Forest Habitat Conservation Plan, Docket NOAA-NMFS-2021-0019-0046

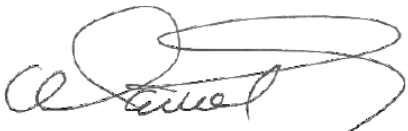
Addendum to # 11 in comment letter l3u-spff-cr6c submitted by the Council of Forest Trust Land Counties

In our comment letter, the Council of Forest Trust Land Counties (CFTLC) stated in comment #11:

> **The DEIS list of reasonably foreseeable trends and planned activities is inadequate.**
>
> The list of reasonably foreseeable trends lacks the impact of the Private Forest Accord (PFA) on stream conditions in the planning area. The PFA was announced while the DEIS was under development and should have been considered in the analysis.
>
> The list includes "changes in revenue distribution policy", but no change in revenue distribution is planned, or proposed. While a change in revenue distribution is legally possible, it is highly speculative. Including it as a reasonably foreseeable trend is counter to federal regulations.[1]

This addendum adds to comment #11 that **a change in the revenue distribution can only be made with the consent of the Counties and, therefore, should not be included in reasonably foreseeable trends.**

Respectfully submitted,



David Yamamoto, Chair
Tillamook County Commissioner

[1] 40 CFR §1502.15 requires environmental impacts statements describe 'reasonably foreseeable' trends and planned actions.