





2021 Wildfire Impacts and Timber Salvage on DNR-Managed Uplands

A Presentation to the Board of Natural Resources

October 5, 2021

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Agenda

Wildfire in Washington State and DNR

Wildfire Impact and response on State Uplands

- Non-forested lands
- Forested lands

Case Study

Summary



Photo: "Road Closed Due To Extreme Fire Behavior" Whitmore fire, Colville Confederated Tribes – Jeff Pricher credit

Wildfire in Washington State and DNR's Wildfire Division

DNR is the state's largest on-call fire department

~1,300

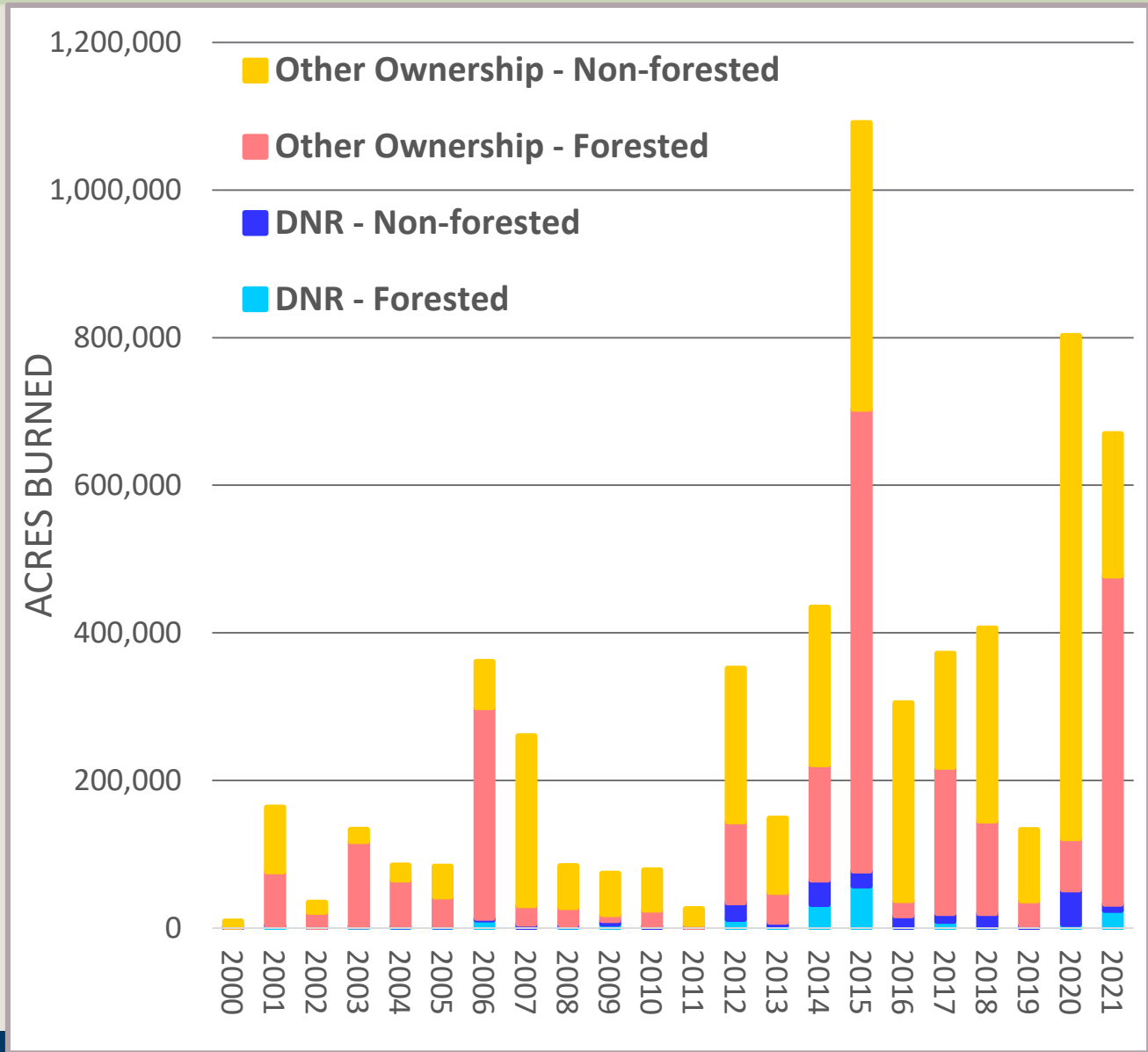
permanent and temporary employees help fight fires on more than 13 million acres of private and state-owned forestland



Photo: NRDC

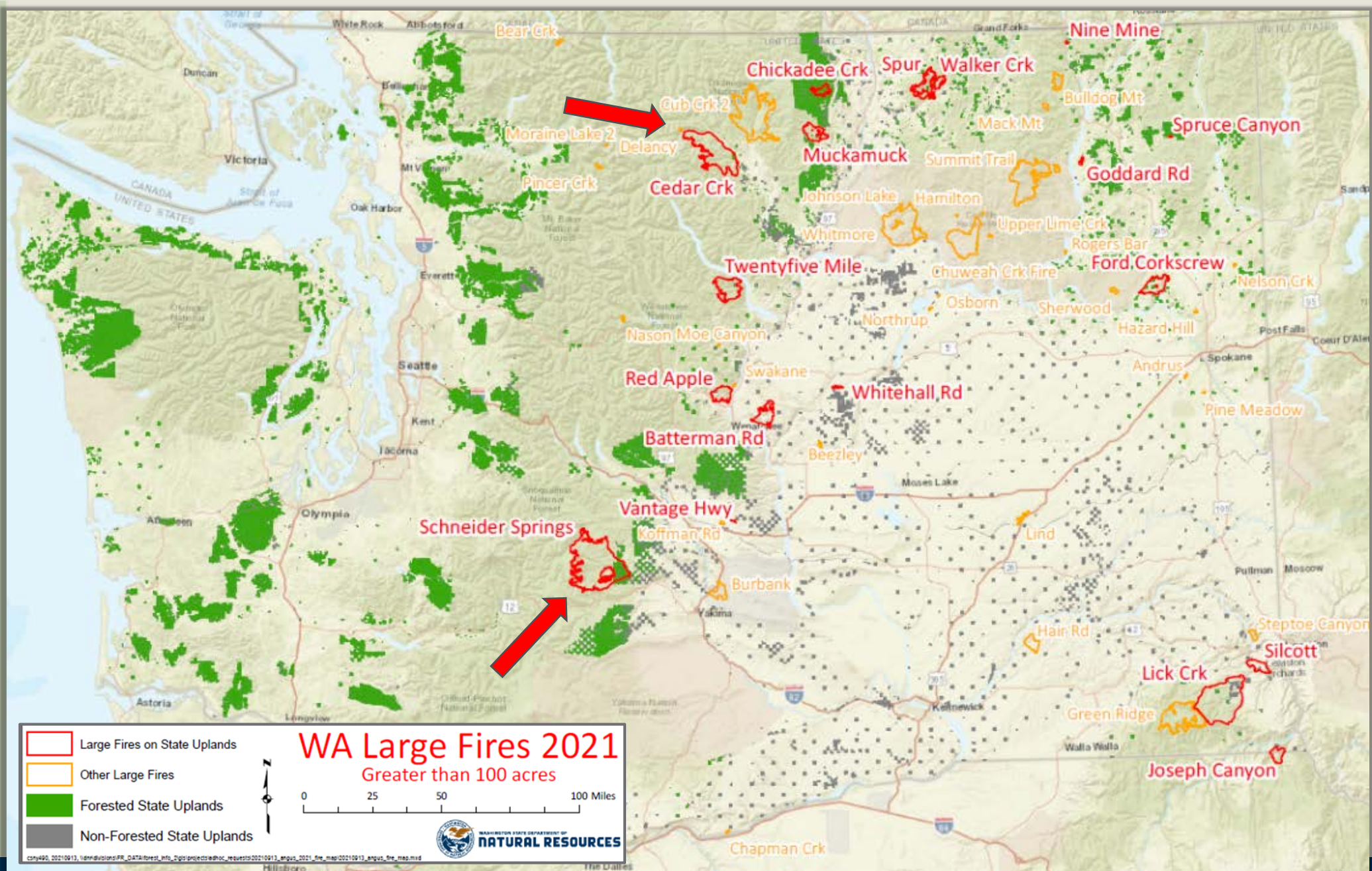
Wildfires in Washington: 2000 – 2021 (as of 9/17/2021)

Year	DNR Acres Burned		Other Ownership Acres Burned		Total Acres Burned
	Forested	Non-forested	Forested	Non-forested	
2000	535	717	709	7,646	9,607
2001	3,081	758	72,538	87,449	163,826
2002	298	207	21,188	13,285	34,977
2003	2,116	120	115,313	16,161	133,710
2004	1,941	945	62,526	19,745	85,157
2005	1,802	1,210	39,510	41,157	83,679
2006	11,494	2,015	285,519	62,179	361,207
2007	336	5,385	25,206	229,635	260,562
2008	2,322	2,346	23,252	56,684	84,605
2009	5,673	4,776	8,202	55,480	74,132
2010	719	2,207	21,651	54,085	78,662
2011	99	769	4,470	20,880	26,218
2012	12,138	22,259	109,998	207,413	351,808
2013	2,463	6,001	40,211	100,097	148,772
2014	32,432	32,921	156,309	212,925	434,586
2015	57,409	20,066	625,607	388,028	1,091,110
2016	1,226	15,791	20,682	267,453	305,152
2017	9,336	10,708	198,038	154,115	372,197
2018	1,854	18,368	125,241	261,022	406,486
2019	386	3,525	33,328	95,924	133,163
2020	5,413	46,752	69,107	681,356	802,628
2021	24,186	8,351	444,770	192,568	669,875
Total Acres	177,258	206,196	2,503,375	3,225,287	6,112,116



2021 Statewide Wildfires Map

as of 9/13/2021



State Uplands Participation in Wildfire Efforts

~230 State Lands staff participate in Wildfire efforts
in a variety of roles with corresponding credentials, including:

- Incident command
- Firefighter
- Ground and air operations
- Public Information/Communications
- Camp/Basecamp support
- Fire Investigator
- Finance
- Logistics & Planning

~67,700 hours in July-August, 2021 by state lands staff participating in Wildfire efforts



Wildfire on Non-forested State Uplands



Wildfire Impacts to Agricultural and Grazing Lands

DNR-Managed Agriculture & Grazing lands burned – 2021*

- Agricultural leases - 3,924 acres burned
- Grazing Leases - 8,077 acres burned
- Grazing Permits - 12,473 acres burned

**As of 9/15/2021*



Wildfire on Agricultural Lands Response

- Dryland wheat fields tend to get harvested prior to wildfire season
- Lower impact on irrigated agricultural lands



- Occasional instances of smoke taint on vineyards can cause crop loss
- Significant wildfire impacts to soils are rare
- Resting periods after wildfire, with lessee-specific recovery plans

Wildfire on Grazing Lands Response

- Support ‘Rest and Recovery’
(grazing deferment)
- Emergency grazing or haying on
Conservation Reserve Program lands
(with USDA Farm Service approval)
- Subleases on lands with unused
grazing acres
(with permission of primary lessee)





Wildfire on Forested State Uplands



Wildfire and Forested State Uplands



- ~24,000 forested acres burned
(2021 to date)
- Primarily eastside of Cascades
- Mixed severity fire impacts
- Potential for fire salvage sales



Photo: Schneider Spring's Wildfire 2021



Statutory and Policy Guidance



RCW 79.15.210-220

Best interest of the trusts, considering financials, physical, and social environment

Policy for Sustainable Forests

Catastrophic loss prevention



Habitat Conservation Plan

Northern Spotted Owl habitat management areas



Photo: "High Severity" Multistory stand burned over near Loomis (Chickadee fire)

Fire Salvage Guiding Principles

1. Retain pre-disturbance objectives

- Fiduciary
- Habitat & ecological

Simply operating under a different set of conditions

2. Recognize that recovery of valuable materials ("salvage") is an economic activity

- Strive to minimize ecological impacts

General Approach



1. Determine the extent and level of damage
2. Determine where its prudent to consider harvest given the changed environmental conditions
3. Determine how much of damaged materials can be recovered considering financial outcomes and budget constraints



2022 Fire Salvage Sales

- ~17 large fires in 2021 impacted DNR-managed lands
- 18,000+ acres will be assessed for potential salvage
- Board approval on salvage sales may start as early as Spring 2022





Case Study



Virginia Ridge Timber Sale

Lessons and Opportunities

In 2015, project was identified due to:

- Overstocking of timber
- Proximity to wildland-urban interface
- Declining forest health

Extensive public participation to balance

- View shed of Methow Valley
- Financials on forest health treatment

Outcome:

- 3 Harvest Units
- 40+ trees/acres retained

Initial treatment concluded late 2019



Unit 2: Pre-treatment

Virginia Ridge

Unit 2

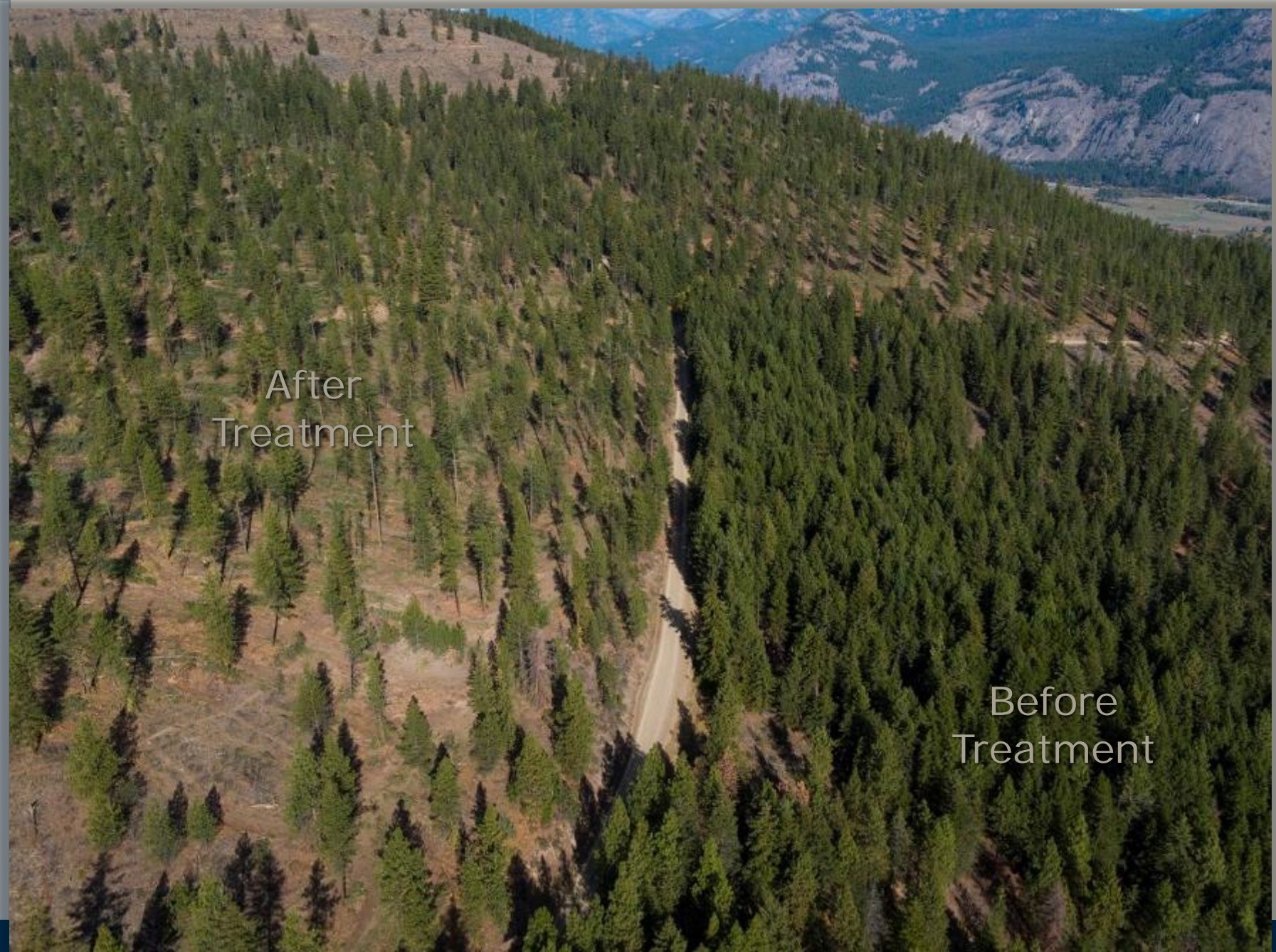
Pre-Treatment

October 2019



Virginia Ridge

Unit 2
Oct 2019
Drone Image



Virginia Ridge

Pre-Treatment



Unit 1

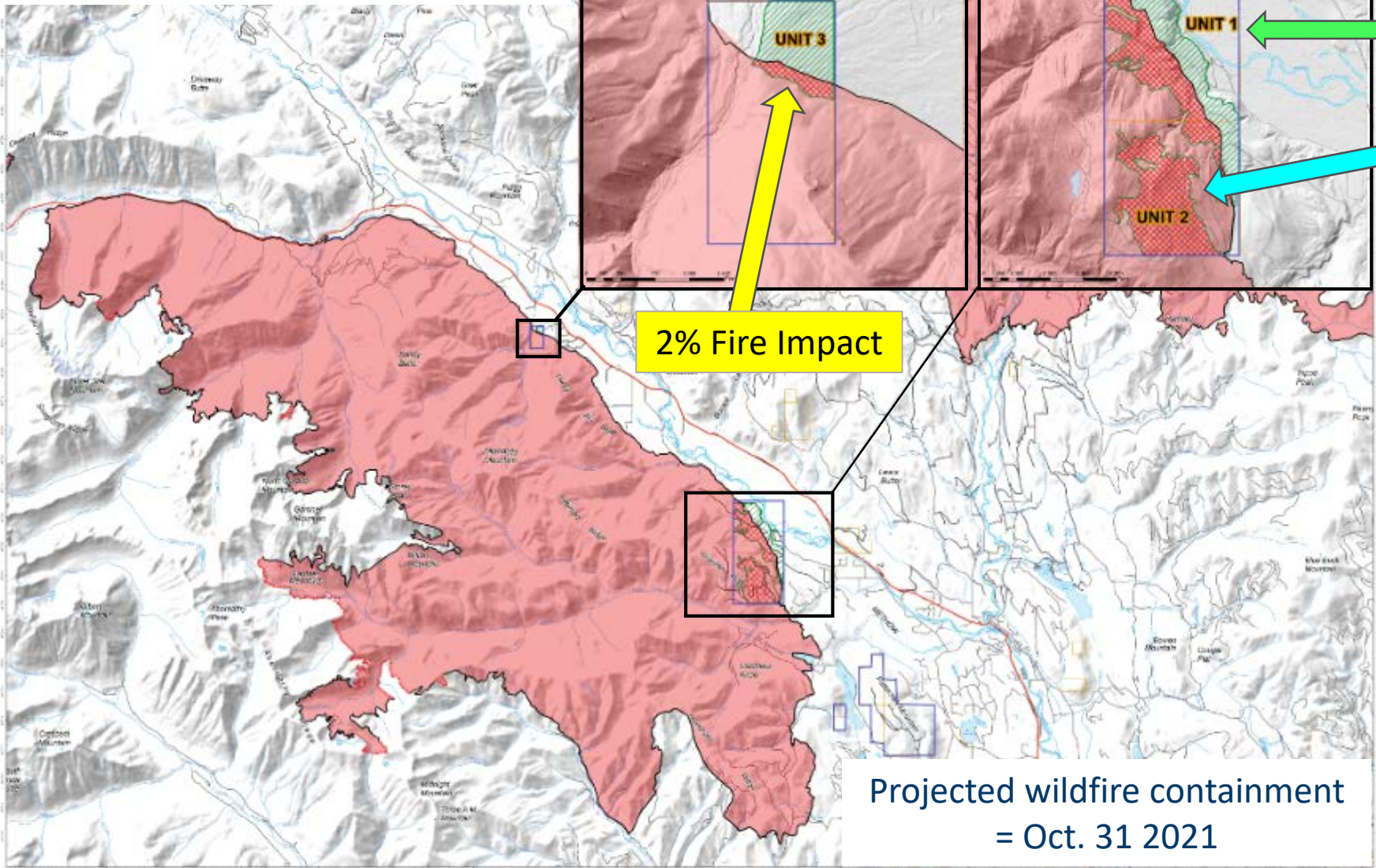
Post-Treatment



Unit 1



Lightning caused fire – July 8, 2021



54% Fire Impact

100% Fire Impact

2% Fire Impact

Cedar Creek Fire

Impact to Virginia Ridge Timber Sale

Approx. 55,187 acres burned

- ~946 acres of DNR-managed lands
- ~478 acres of Virginia Ridge sale boundaries

~2.3 miles of fire line created within Virginia Ridge boundaries assisted in containment of the Cedar Creek Fire

Cedar Creek WA-OWF-000320
Fire Perimeter as of 2021-09-05
55,187 Acres

Virginia Ridge Timber Sale Units	Cedar Creek Fire Area	Contained Line	Active Roads	Highway
Area of Unit damaged by fire	DNR Managed Lands	Fire Edge	Other Roads	Streams

WASHINGTON STATE DEPT OF NATURAL RESOURCES
Date Created 8/22/2021 by SML/SSC



**Virginia
Ridge
2021
*Unit 1***

Post Harvest &
Post Fire

Mixed severity
fire effects



**Virginia Ridge
2021
Unit 2**

Post Harvest &
Post Fire

Moderate severity
fire effects



Virginia Ridge 2021 *Unit 2*

Post Harvest &
Post Fire

Moderate
to High
severity fire
effects

- Opportunities for salvage
- Post fire monitoring



Takeaways

- Through management we can reduce Forest Health issues
- Treated stands improve conditions for fire management
- Opportunity to capitalize on the value of commercial products





Summary



Wildfire is a threat to DNR managed lands

- Active response limits damages
- Proactive forest management leads to better results
- Post disturbance management serves our fiduciary responsibility to the beneficiaries

