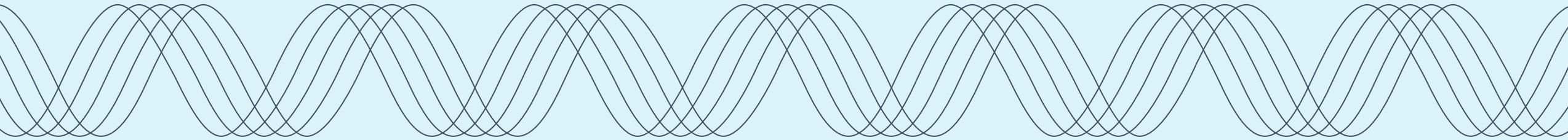




PGE Vegetation Management:

- Program Overview
- Risk Outline
- **Case Study:** Deploying Technology in an Evolving Wildfire Landscape

Alex Konopka
Senior Manager, Vegetation Management, PGE
Fellow, World Forestry Center





Three Core Truths

Living ROWs = Living Risk

- Complex, dynamic, sensitive.

People Drive Performance

- Human Performance Principles are non-negotiable.

Inspect > Expect

- Robust field presence defines outcomes.

Risk Zones & Pressures

Risk, It's like an onion!

- Primary, secondary, tertiary, off-ROW

Pressures

- Stakeholders, Funding, Compliance

Our Role

I don't trim, I support.

- Success = thousands of trimmer decisions every day.
- Work is completed by PEOPLE

Holistic Mitigation Strategies

Safety | Quality | Schedule | Budget

- Every success/failure ties back to these.



Organizational Models

In-House vs. Subcontracted – pros/cons, wildfire risk implications.
Inspection & Oversight – know your system, or risk owns you.

Contract Strategies

T&E | Unit | Lump Sum | Loaded T&E
Each may impact risk:
Corners cut
Inflated costs
Quantity vs. Quality

Programmatic Approaches

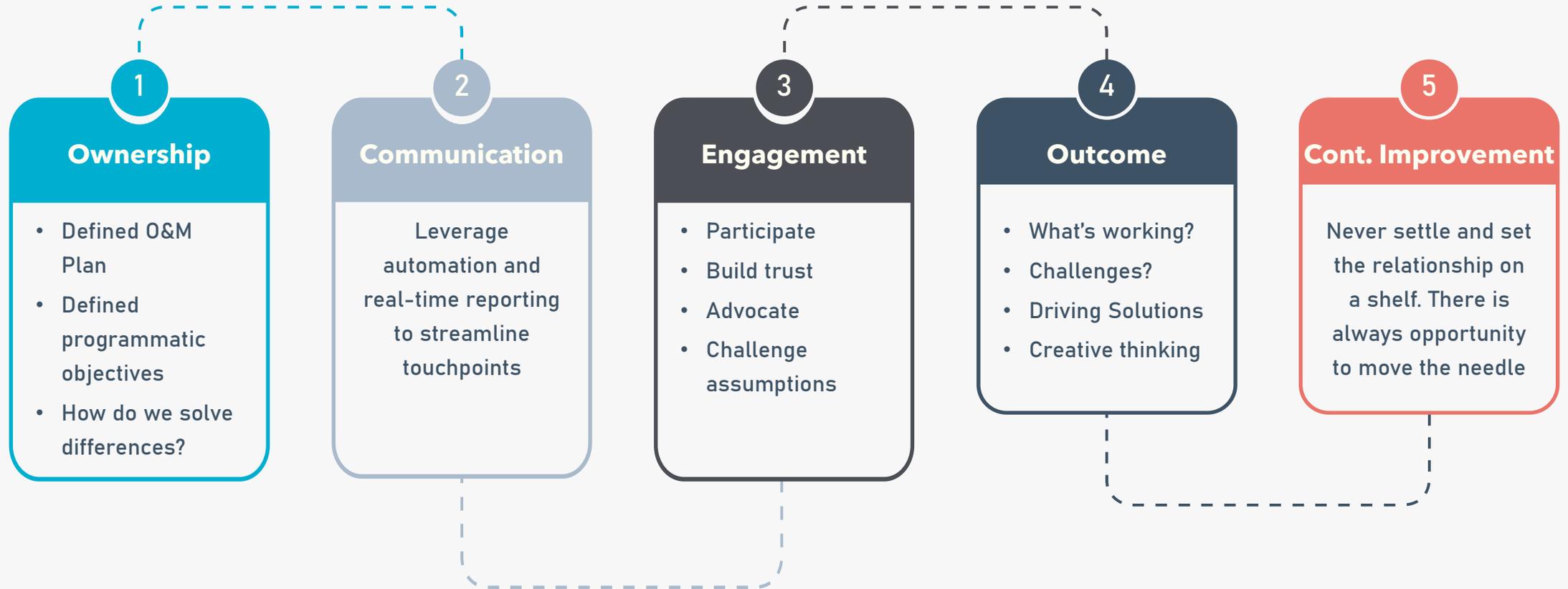
Maintenance | EVM | AWRR
Tactics: prescriptive removals, enhanced trimming, TGR, mowing.

Future State

LiDAR & Hyperspectral
Modeling & Forecasting
Automation
Real-Time Reliability Collaboration → targeted vegetation risk reduction.

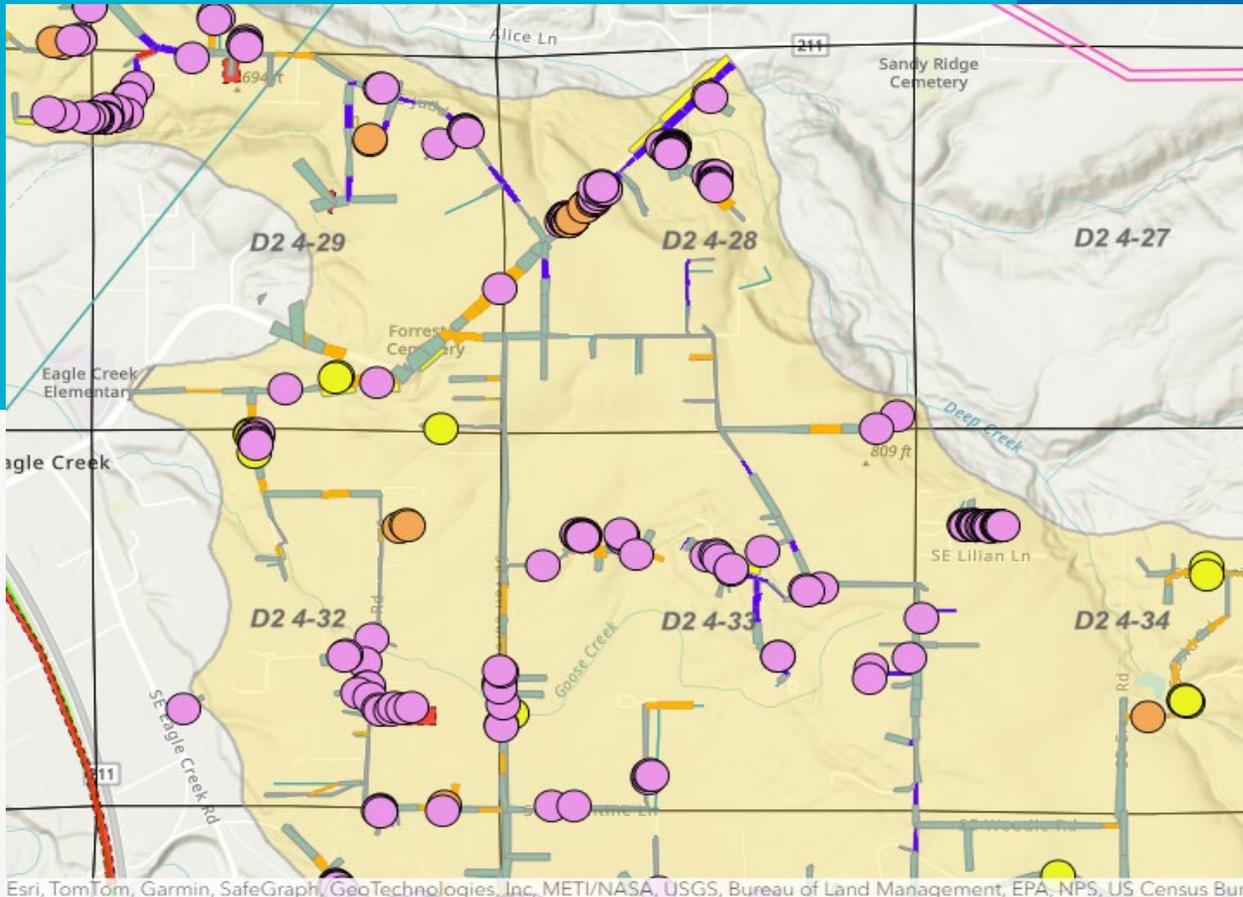
Case Study: Partnership through digitization

PGE & USFS collaboration with PGE's AWRR Vegetation Management Program



AWRR

Advanced Wildfire Risk Reduction



Application

- ArcGIS
- QuickBase

Development

- Paradise, CA
- Combining app intuition with operational awareness

Implementation

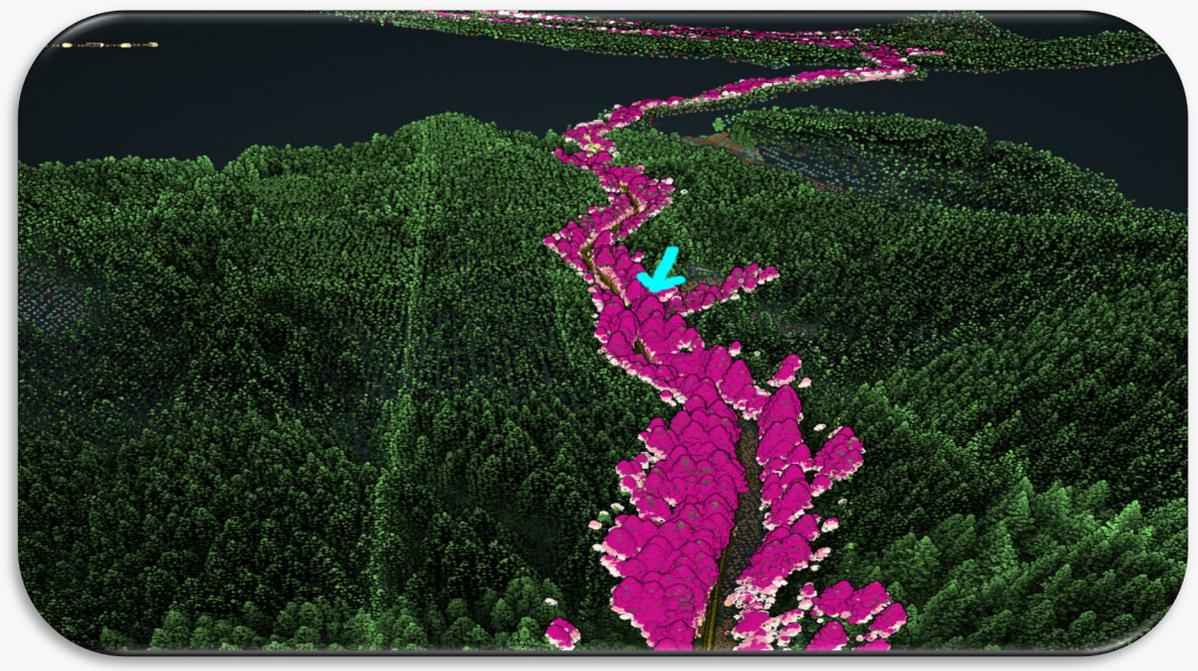
- Operational timeline
- Field training
- Challenges
- Successes

Reporting

- Work assignment
- GF/Forester check
- QA/QC
- Data custody

Portland General Electric

Digital Strategy



C1/C3 Patrolled Line Mileage



Work Details

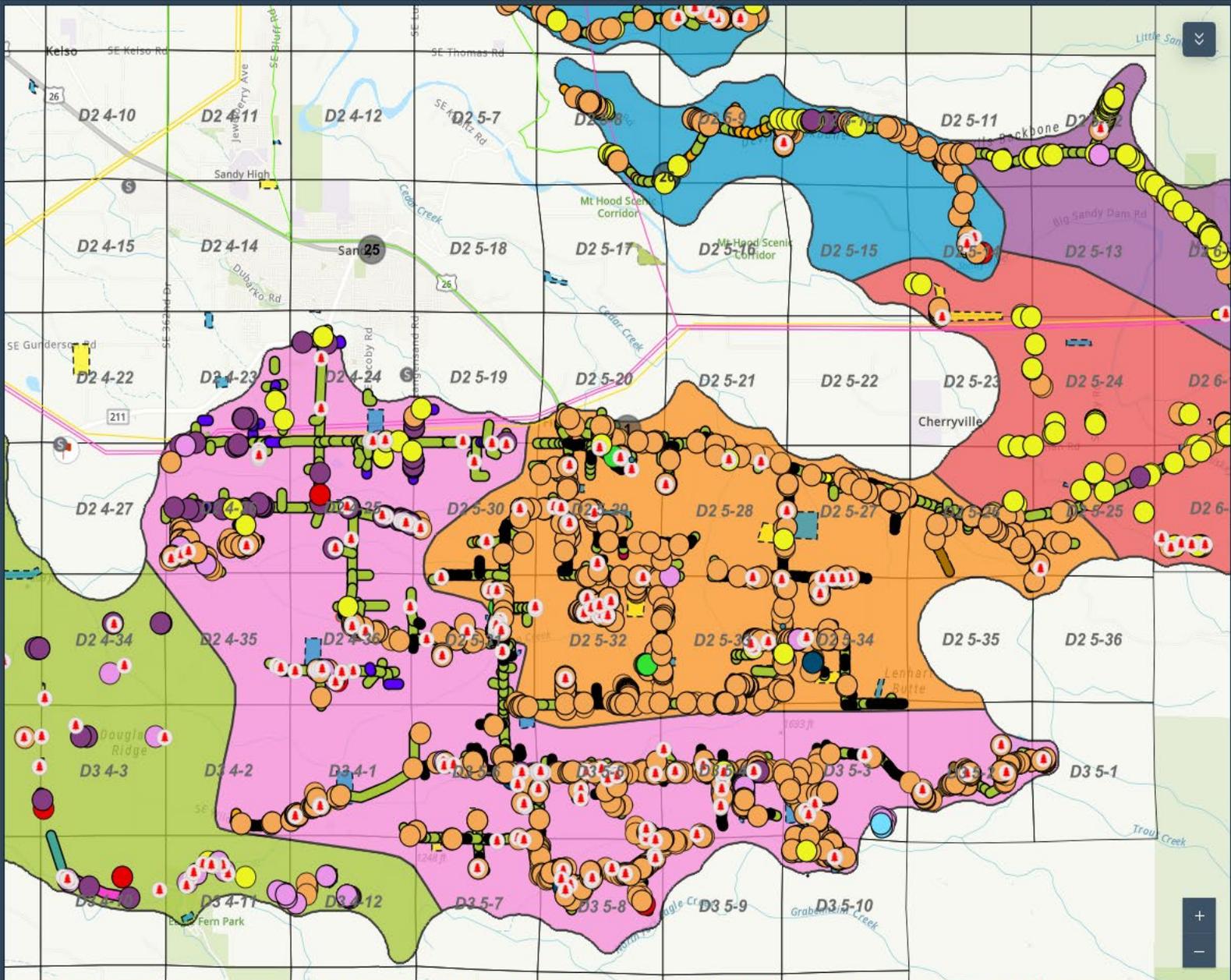
Trees Worked: Trimmed/Removed

31,583

C2 - % Audited



C3 - % Audited



Open C1 Count

0

Closed C1 Count

21

Open C2 Count

4,881

Closed C2 Count

7,769

Open C3 Count

378

Closed C3 Count

578

Current Year: C2 Crew Completed



Last Week: C2 Crew Completed

239



1206 ft

1221 ft

6-25D

Mt Hood Scenic Corridor

D2 7-30C

D2 7-31B

64601 Brightwood Loop

< > 1 of 4

AWRR Work: C2- Remove (Work Complete)

Zoom to Pan

Work Details

Year	
Work Boundary	HFRZ
Work Type	Remove
Status	Work Complete
Condition Level	C2
Equipment	55
Species	Douglas Fir
Size - DBH	12-23.9
Debris Management	Chip
Forester Last Name	Donovan
Forester Comment	Dead; in corner of yard next road
Foreman Last Name	Cole
Crew Completion Date	November 6, 2023
Hours	
Crew Completion Comment	
Customer Notification	In-Person
Date of Customer Contact	
Customer Address	64601 Brightwood Loop
FollowUp Needed	
FollowUp Note	No

Audit/Close Date	
QA/QC Comment	
Prescription	
Safety Notes	
Active	Yes
Photo	Yes
Flagging Required	No
HFRZ Zone	1
ODOT Permit	No
Within ROW	No
Within MAD	
Within USFS	No
Line Clearance Qualified	Yes
Google StreetView URL:	View
Edit Date	December 7, 2023
Editor	e00710@pgn.com_pge



AWRR | FSPM: Patrol + Mitigation Strategies

Before + After



FSPM: Before

During patrol, small diameter, suppressed firs were targeted for removal; pruning prescribed to target overhang and encroaching growth; and mowing to mitigate the dense undergrowth of fast-growing maples and other infill.



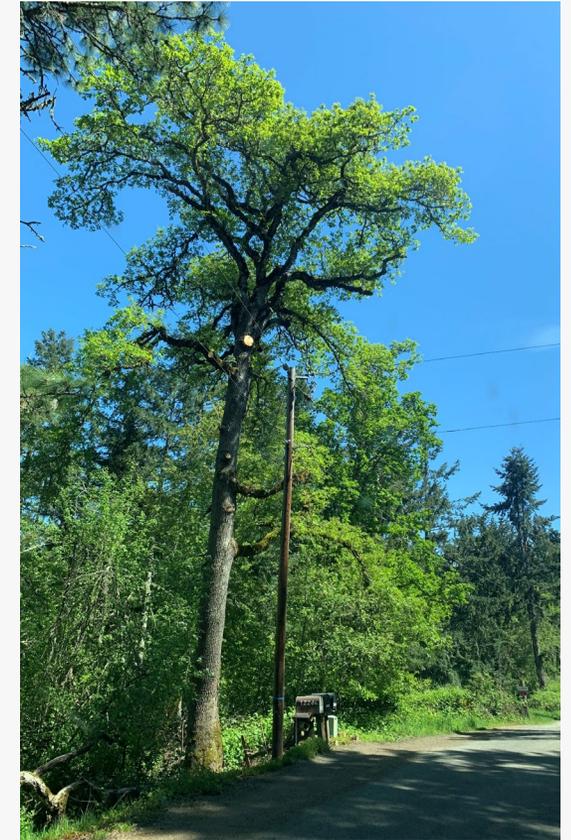
FSPM: After

After implementing mitigation measures, the corridor is now accessible, visible, and has reduced ignition and outage risks.



FSPM: Before

C2 Pruning
During patrol, structural defects were found in the overhang of an Oregon white oak.



FSPM: After

C2 Pruning
A tree crew was tasked with pruning and removing targeted limbs to reduce the risk of failure.

Confidential

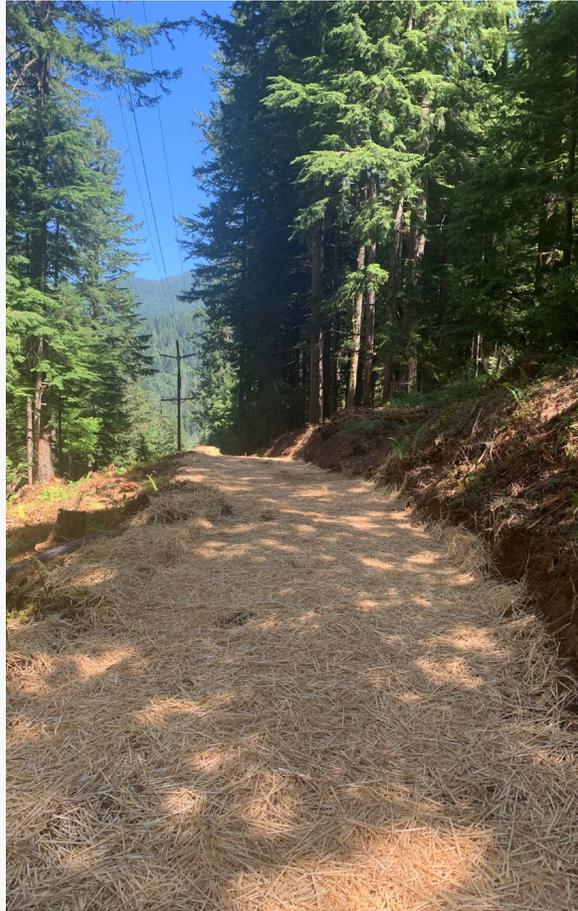
AWRR | FSPM: Patrol + Mitigation Strategies

Before + After



FSPM: Before

Through coordination with the USFS, this densely vegetated corridor within the Mount Hood National Forest was prescribed mowing along with C2 pruning and removal.



FSPM: After

C2 vegetation along with infill removal reduces the risk of contact with conductors while expanding the corridor and opening up access and visibility for utility patrol and operations in the future.



FSPM: Before

Working with the property owner, AWRR targeted removal of small firs growing under the conductor and undesirable firs adjacent to the right-of-way, opening up the corridor and delivering long-term results.



FSPM: After

After the mitigation process, a mower masticated the remaining fir limbs and small-diameter infill. This not only works toward long-term results but also improves access and visibility.

Confidential

AWRR | FSPM: Patrol + Mitigation Strategies

C2 Removal + Mowing



C2: Pruning + Removal

Mitigating C2 vegetation, by removing on/off ROW trees and pruning encroaching limbs and overhang, expands the corridor width in heavily wooded areas.

Before

A densely vegetated area in Grand Ronde along Alvord Alley in Zone 10, populated by faster-growing fir, ash, willow, cottonwood, and alder, is prescribed both C2 removals and mowing as mitigation strategies.

C2 Removal + Mowing: After

The risk of vegetation contact with the conductor was reduced by removing fast-growing C2 vegetation using a fuel reduction strategy. A Slashbuster was used to clear the infill efficiently. Foresters will keep monitoring the area for C1/C2 vegetation and the emergence of fast-growing infill, treating it during the next patrol and mitigation period.

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AWRR | Mowing

Before + In Process + After



Confidential



Before



After



AWRR | Mowing

Before + In Process + After





