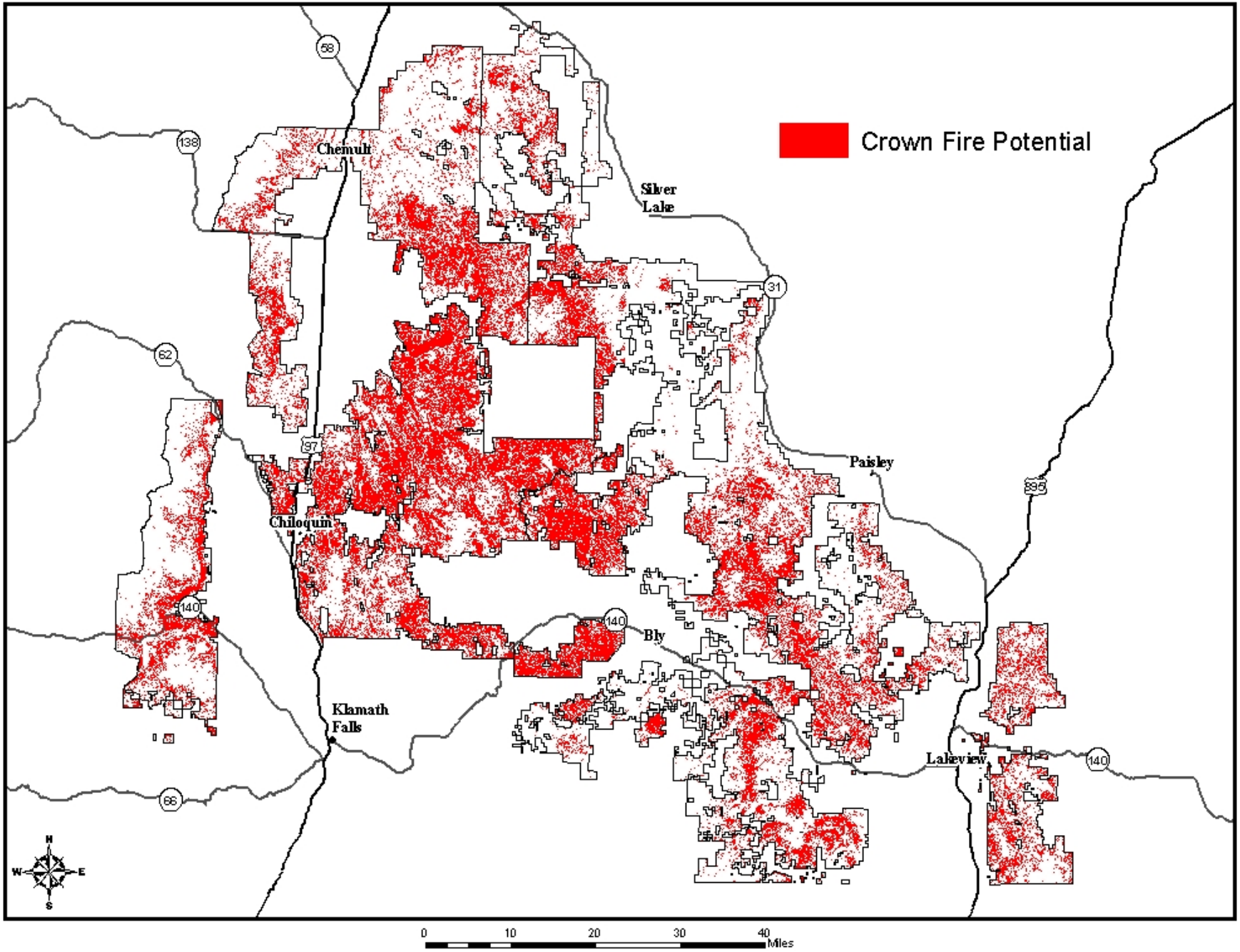

Accelerated Restoration on the
Fremont-Winema National Forest

Crown Fire Potential on the Fremont-Winema National Forest



In a recent report prepared for Governor John Kitzhaber and Oregon's Legislative Leaders (2012), it recommends several steps to advancing landscape-scale forest restoration including:

1. Any effort to 'scale up' the pace of forest restoration on Oregon's Eastside National Forests will have to be accompanied by a **large-scale planning effort led by the USFS**.

2. **Improving the efficiency of the USFS' planning and implementation** will reduce total management costs creating the potential to accomplish more forest restoration.

- Currently, restoration through commercial timber removal occurs on approximately 10,000 –15,000 acres/year. **(.75%)**

- Based on the 10 Year Plan, the Forest proposes to ramp up restoration through the timber sale program to achieve 30,000 - 40,000/year. **(2% Annually and 20% in Ten Years)**


Tools for Implementation Efficiencies

Designation by Prescription (DxP)

- Included Timber is prescribed rather than Marked.
  - The most significant implementation efficiency. Allows the Forest to capitalize timber value.

DxP Cost Savings

- Orange Quart (QT) of paint = $10.10 per QT
- Blue QT of paint = $7.18 per QT
- Can paint 32 trees per QT
- Employee can mark about 8 acres a day
- Average pre-sale employee is about $200 per day
- **Yota IRTC** – 8.8 MMBF – 3.5 MBF/Acre
- Cut trees
  - Estimated cut trees from cruise = 146,198
  - Net commercial acres = 2,524
  - Cut trees/acre = 57.9
  - 4,568 QT's of blue = **$32,803 in paint**
- Leave Trees (assuming 15" residual Dbh – 1.23 sq ft per tree)
  - Residual BA = 50
  - Leave trees per acre = 40.7
  - Estimated total leave trees = 102,727
  - 3,210 QT's of orange = **$32,423 in paint**
- Labor
  - 315.5 work days of Marking
  - **$63,100**

Designation by Prescription (DxP)

- Challenges
  - Needs to be written clearly to minimize room for interpretation.
  - Transferring cost from pre-sale to sale admin? Should be a net savings.
  - Incorporating specificity such as ICO.
    - We are testing a solution that we created in Partnership with the Klamath Tribes, TNC, and Derrick Churchill. Working with TNC to develop an ICO tracking APP for Contractors.
  - Monitoring compliance – Developing Protocol and Contractor Quality Control Plan.

Virtual Boundaries

- Unit boundaries would not be delineated by the Forest or the contractor, but rather by using current GPS technology during operations.

- There would be special cases in which the Forest would still need to delineate boundaries (i.e. cultural sites, private land, and endangered species habitat).

Trimble Timber Pilot

- Alert operator of proximity to sensitive areas
- Historical reference of where the harvesting machine traveled
- Easy for forester to see what areas have been harvested/missed

Virtual Boundaries

- **Monitoring:**
  - **Initiated a study with TNC, LCRI, and OSU.**

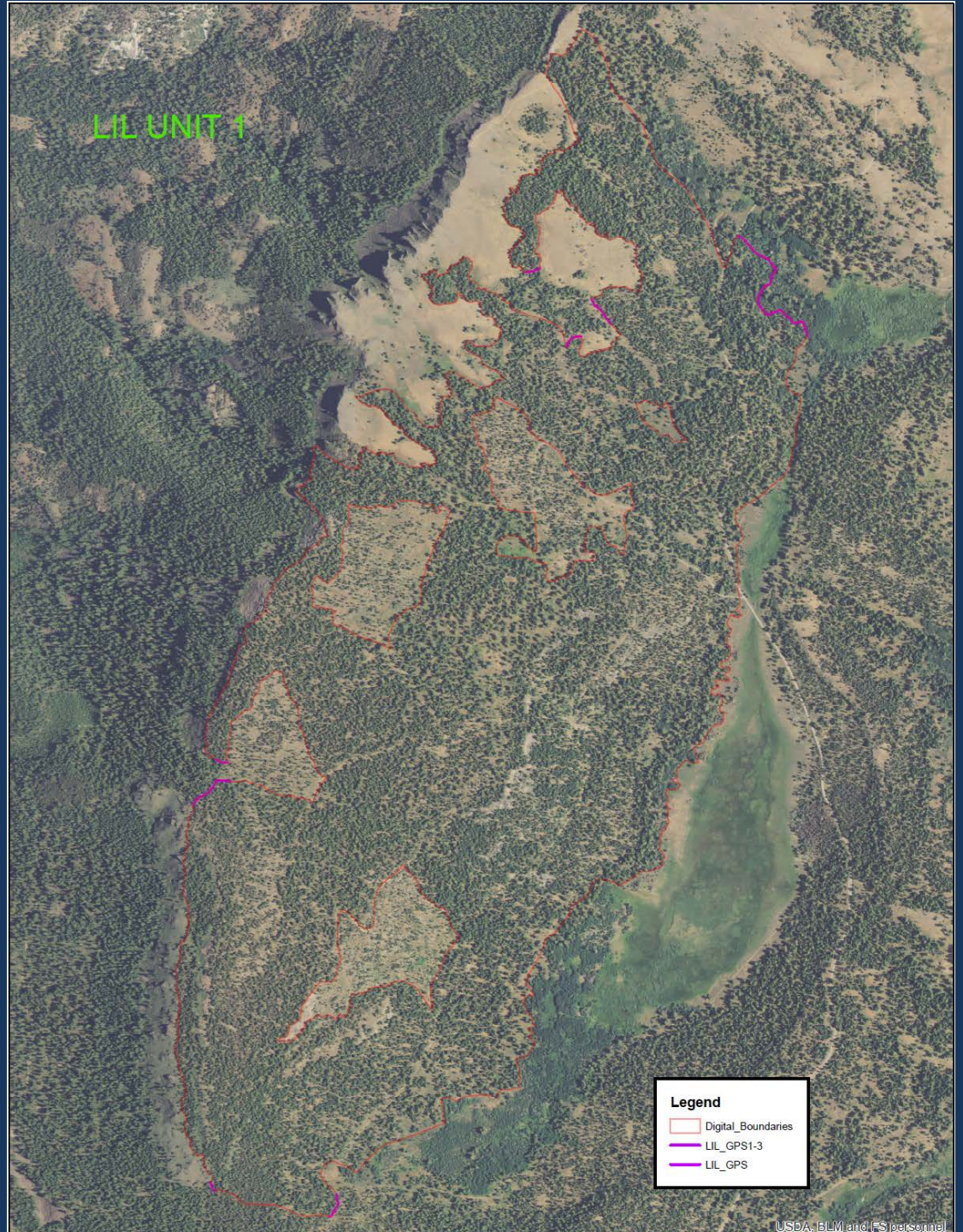
Area Determination

- Units would be delineated based on ≤1 meter imagery .

- This GIS data would be used to determine the volume estimate and provided to the contractor to use in GPS technology during operations.

Next Steps

- End Result Service Contract (ERSC)
- Volume Estimates
- RX Fire Plan


LIL UNIT 1
Legend
Digital_Boundaries
LIL_GPS1-3
LIL_GPS
USDA, BLM and FS personnel

Estimated Savings

(Distances Appx.)

Total Perimeter	Miles Tagged and Painted	Miles Using Discernable Boundaries
76 Miles	11-12 Miles	65 Miles

65 miles tagging and painting at 2-3 miles per day - per person = 26 man days

65 miles GPS'ing at 4-5 miles per day - per person = 15 man days

These estimations are assuming optimal conditions and working 10 hour days.

With trainings, weather, and other issues that cost time from optimal days. My estimation is that the strategy we utilized save us over a month of field work for a crew of 3-4.


Questions?