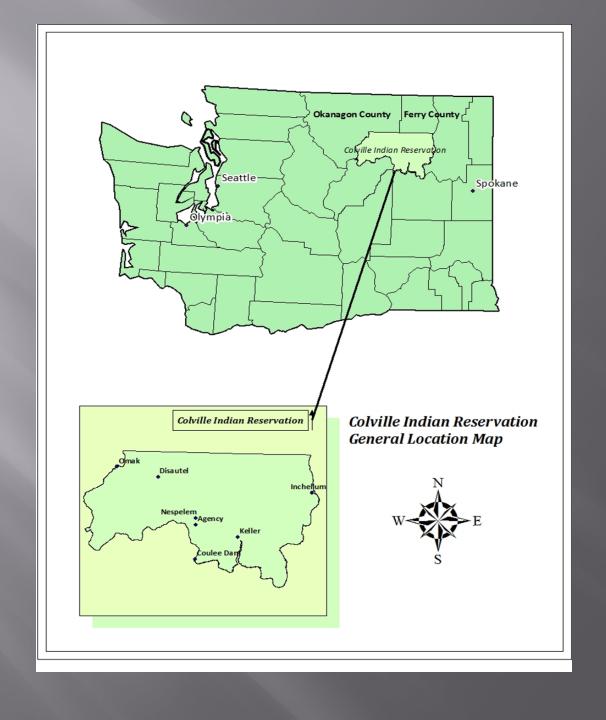
# BIG FIRE REFORESTATION

Jeremy Hunt, Forester
Bureau of Indian Affairs
Colville Indian Reservation



#### Colville Indian Reservation





1.4 Million Acres

Roughly 900,000 forested acres (660,418 commercial forest acres)

Annual Cut of 77.1 MBF

Management includes combination of regeneration/thinning treatments.

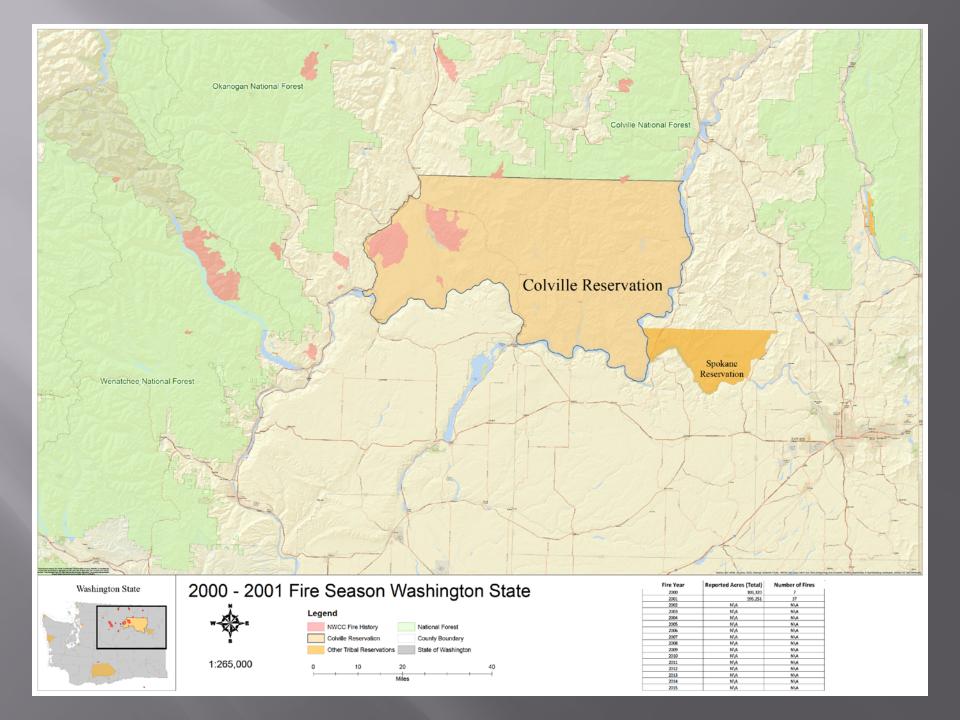
Tribe owns 2 mills (currently closed).

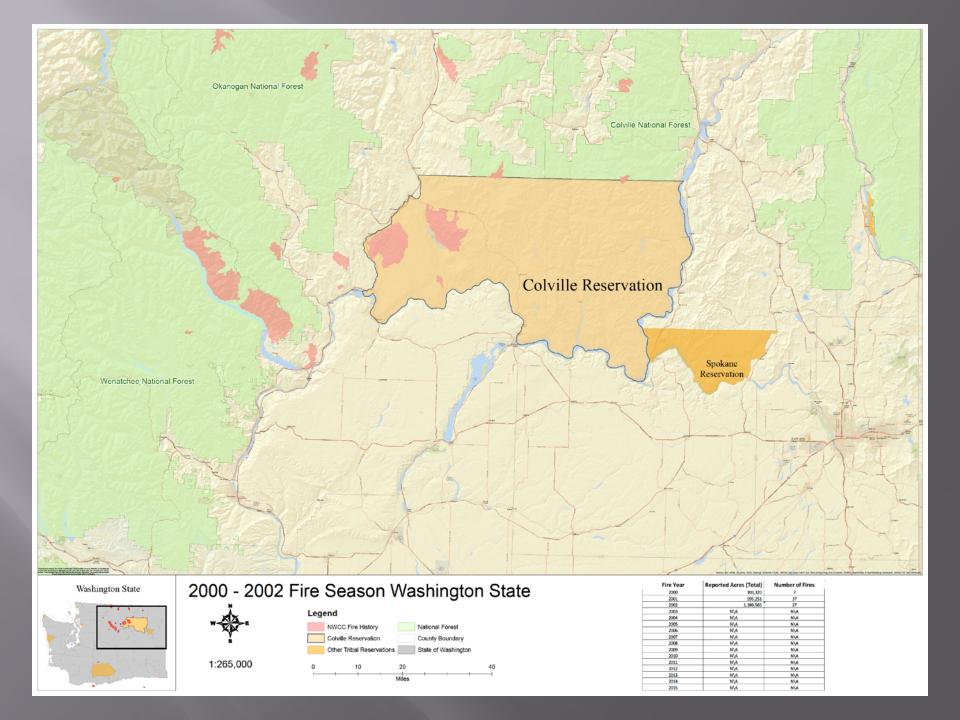
# A Brief Fire History

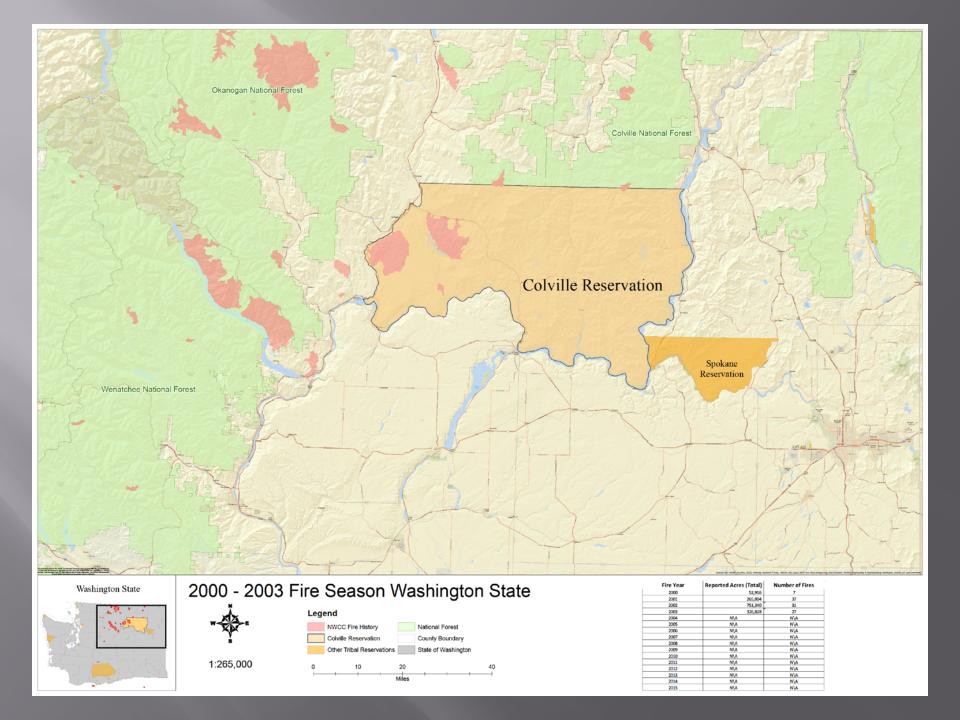
The Colville is very experienced at planting after fires!

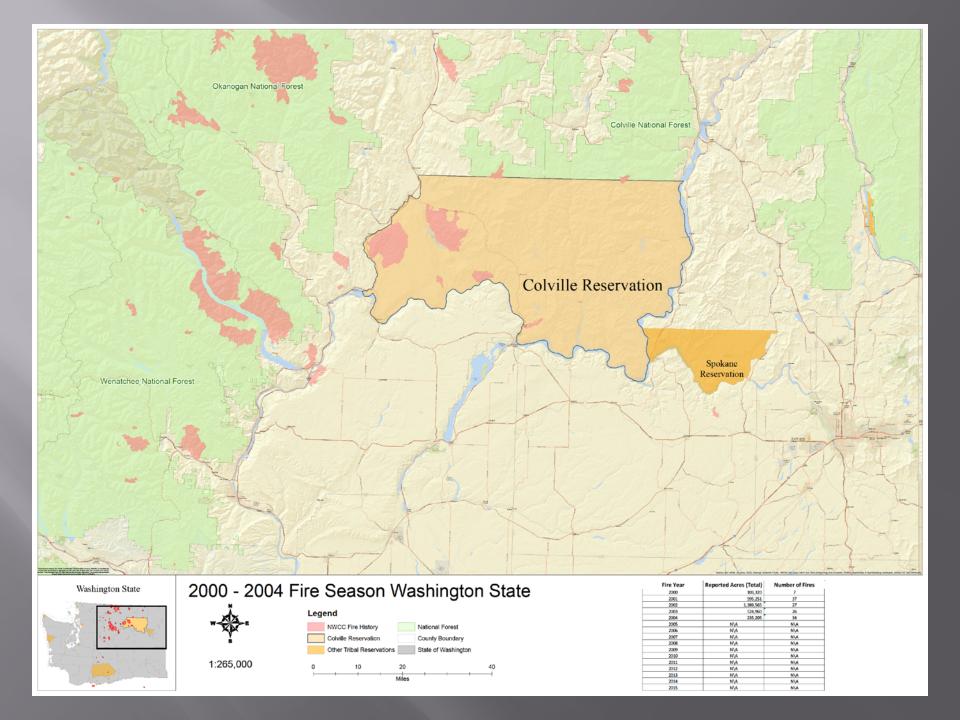
Over 250,000 acres have burned over the last 15 years.

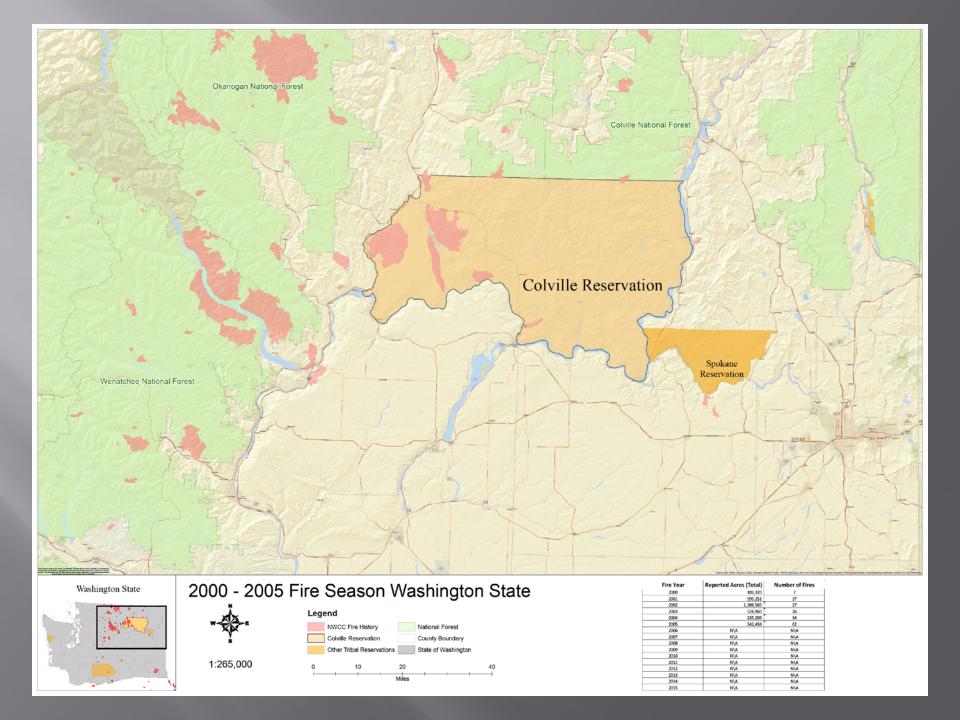
Have planted millions of seedlings.

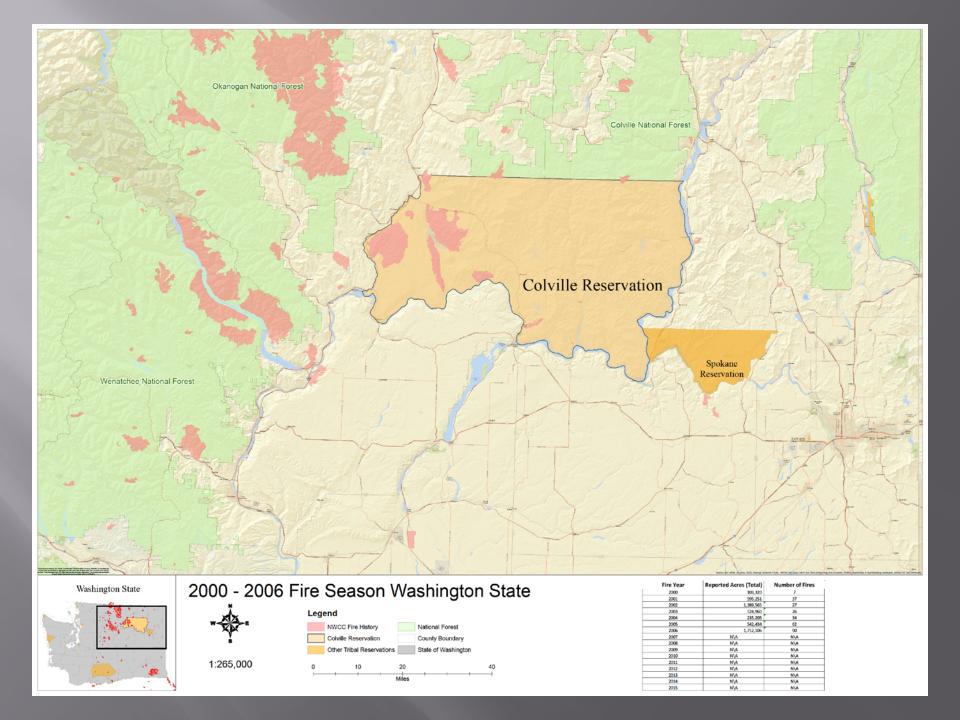


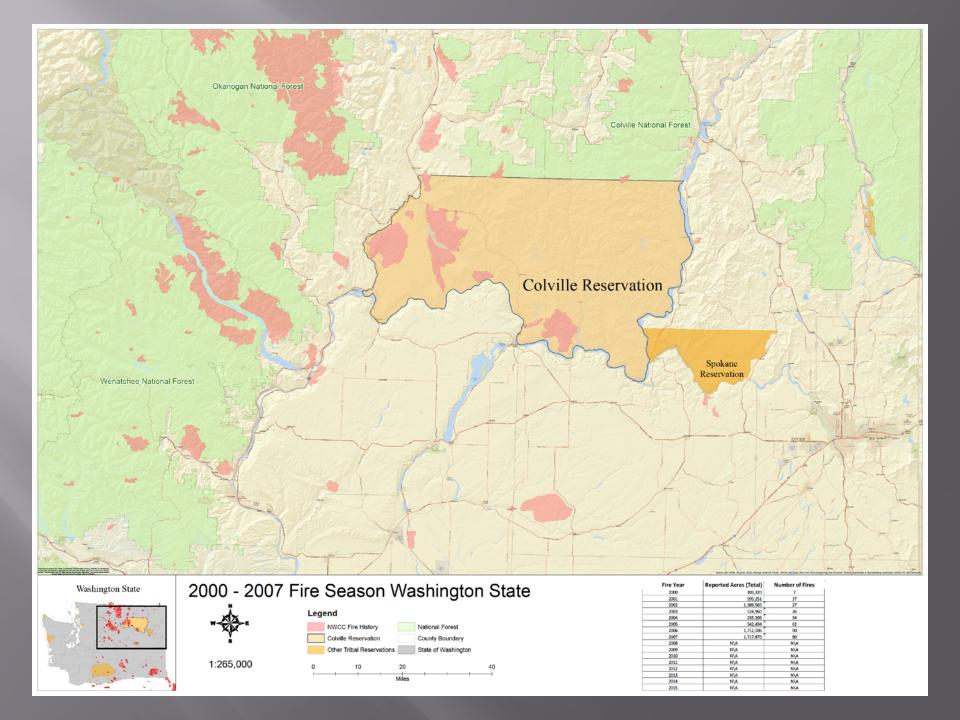


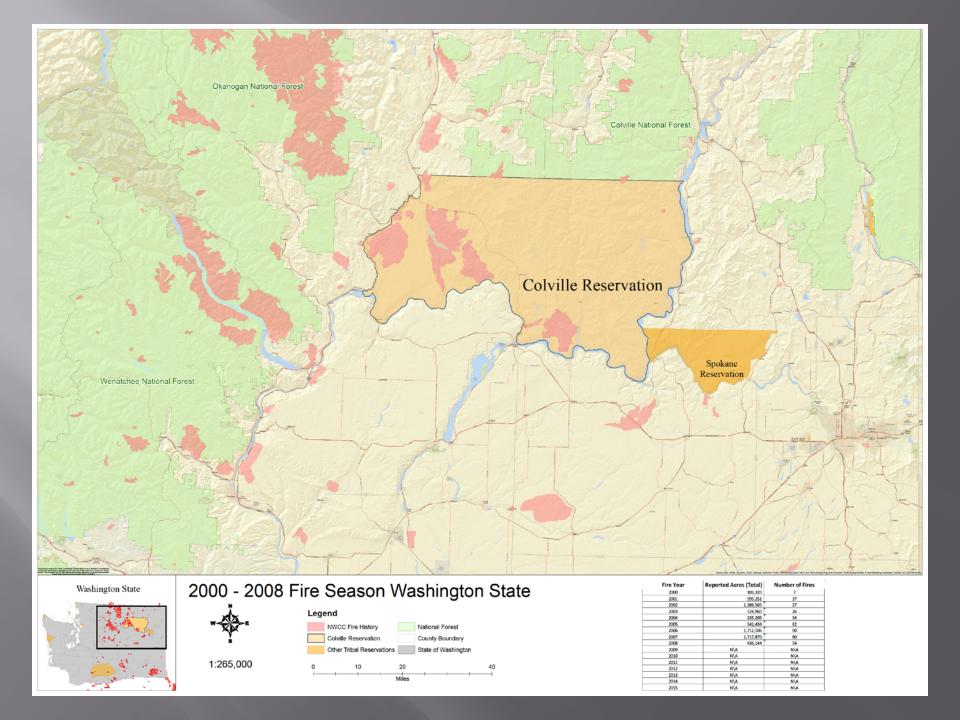


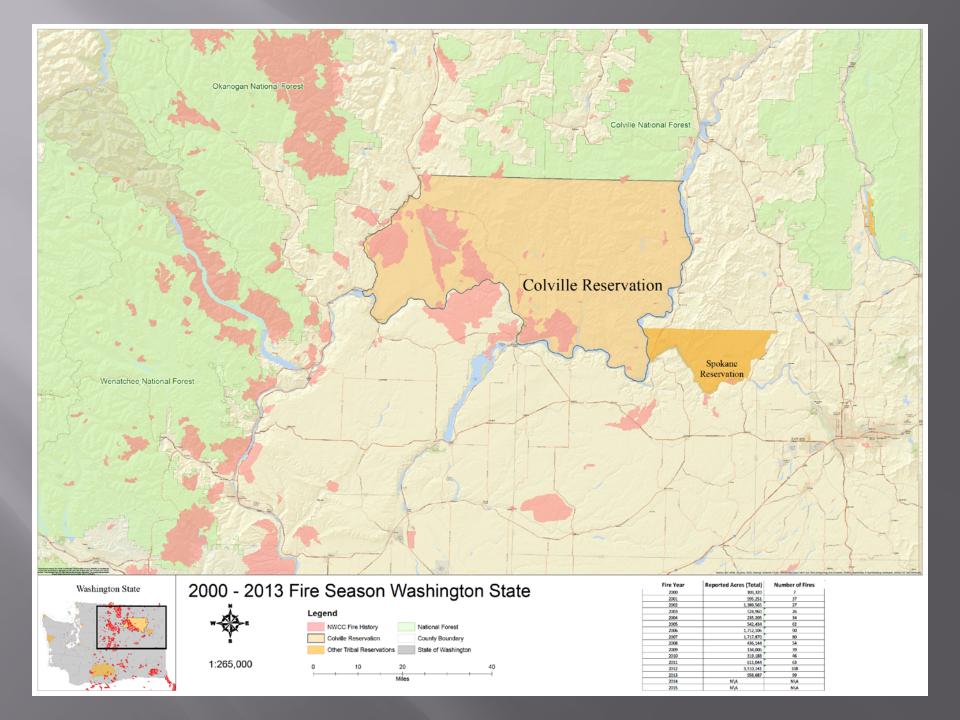


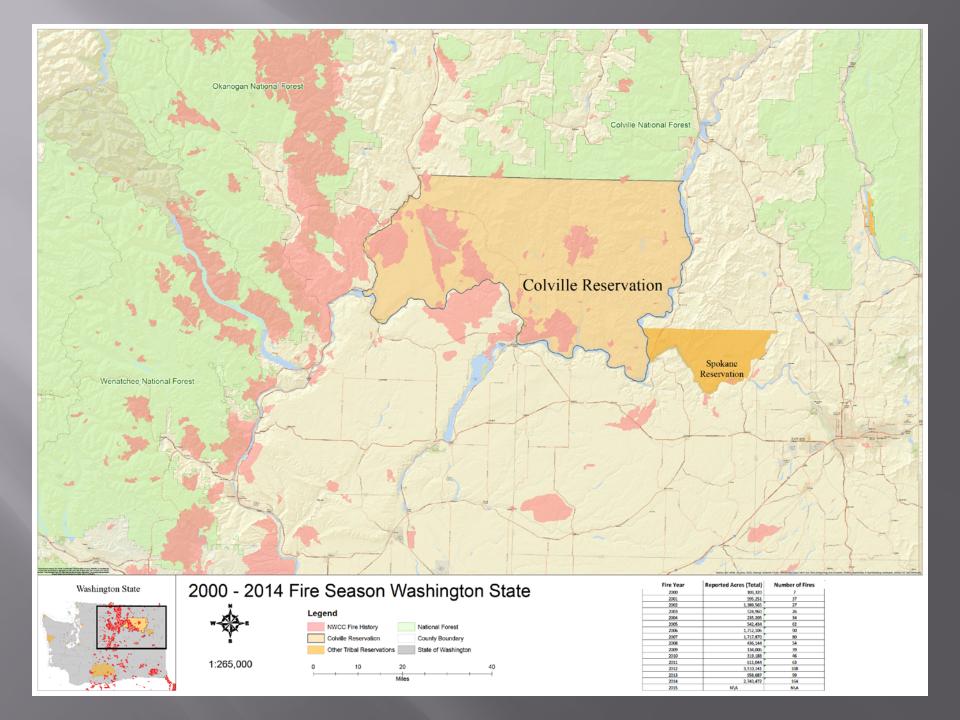


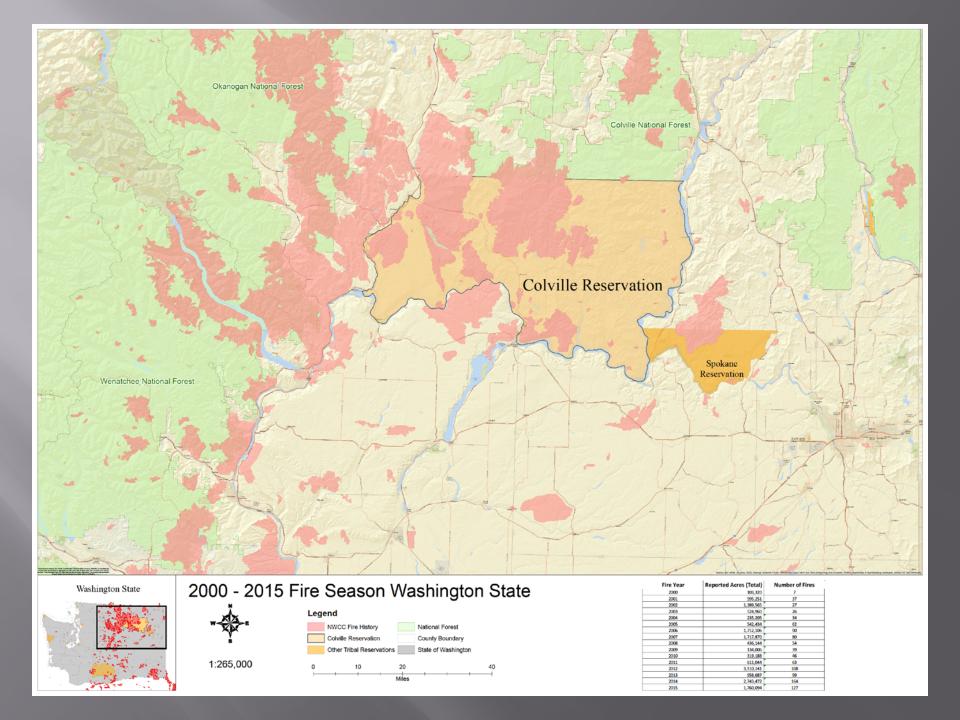


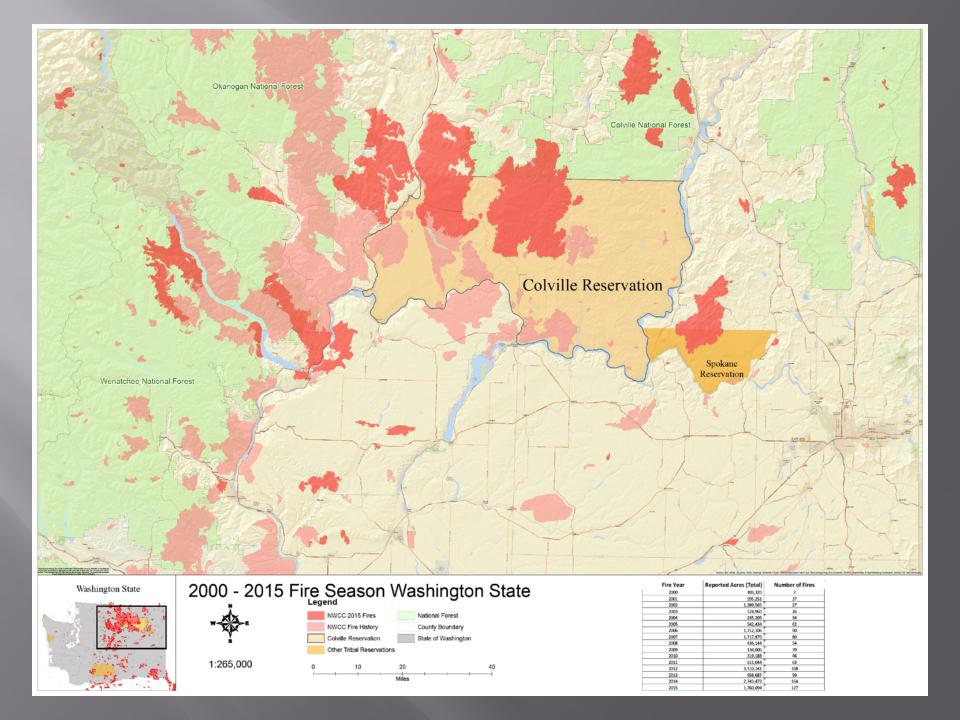








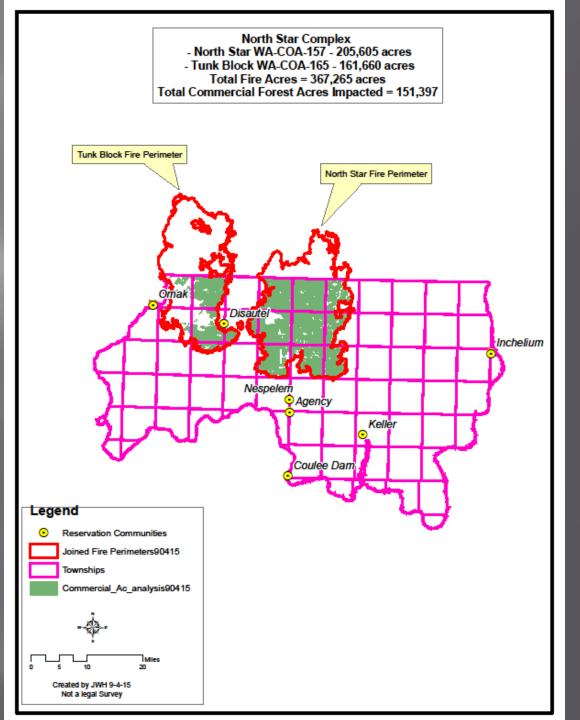




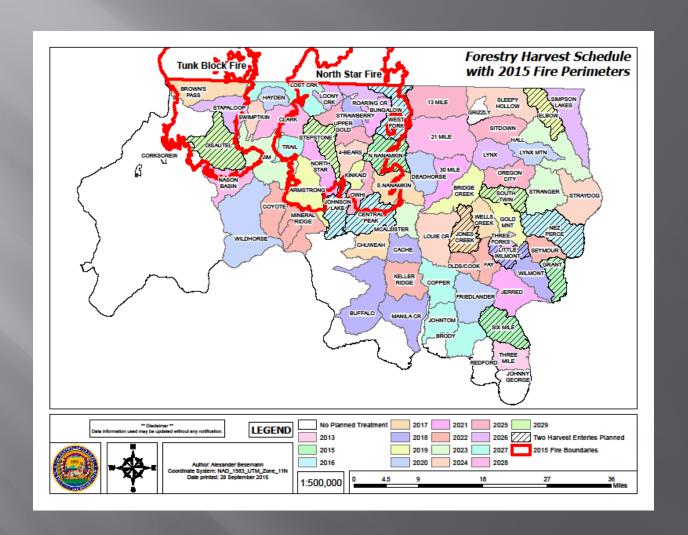
**TUNK BLOCK FIRE** Acres 81,977 (165,947)

**NORTH STAR FIRE** Acres 170,934 (218,138)

The perimeter of both fires equal 600 miles.



#### Impact to Harvest Plan



#### Salvage Operations (Ongoing)





Roughly 140 million board feet salvaged.

Targeted areas with the highest mortality and easiest access.

Still mapping the completed salvage acreage.

Anticipate finishing by July of 2017.



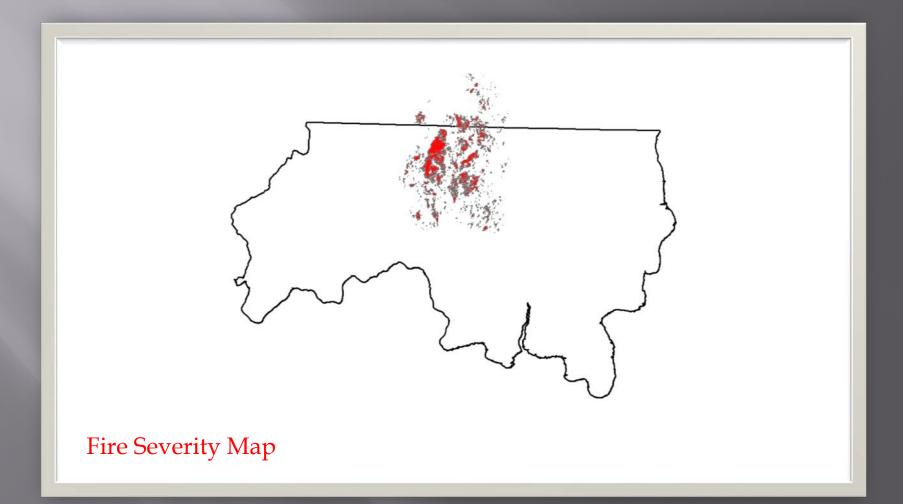
# Things to Know for Planting Operation (Where, What and When?)

- How many acres/severity were affected?
- Areas affected by the fire? Elevation? Basic site characteristics.
- What are the desired species in the areas affected?
- Economic Considerations, Future Mill Needs?
- Accessibility? Can it be easily planted or are the roads in bad shape?
- Productivity? Higher site index = higher value stands.
- Past harvest/silvicultural activity

# Mapping and Available Spatial Data

- A lot of spatial data to use in planning.
- Cut history/Planting history GIS Layers.
- Soil Mapping, Habitat Type Mapping
- DEM, and contour data
- Burn Severity Maps
- 1 foot resolution aerial photography (taken before and after fire).
- Road map, harvest planning mapping

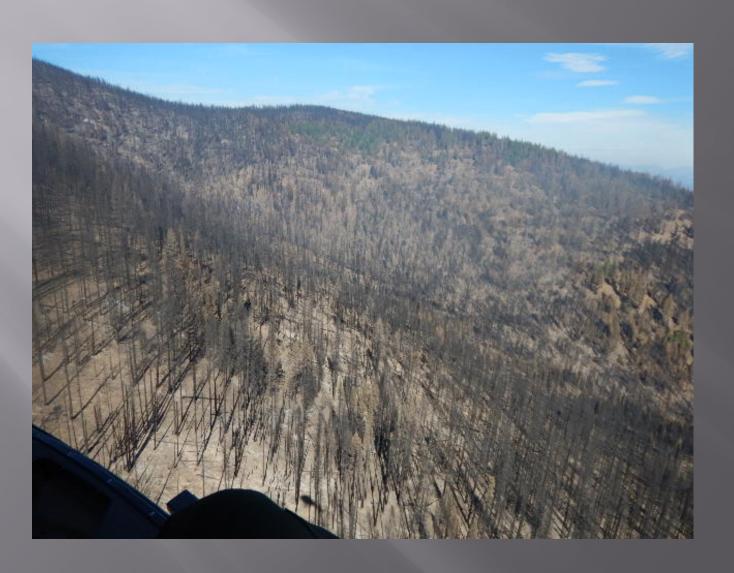
# Mapping (Where?)



# Mapping (Where?)



# Mapping (Where?)

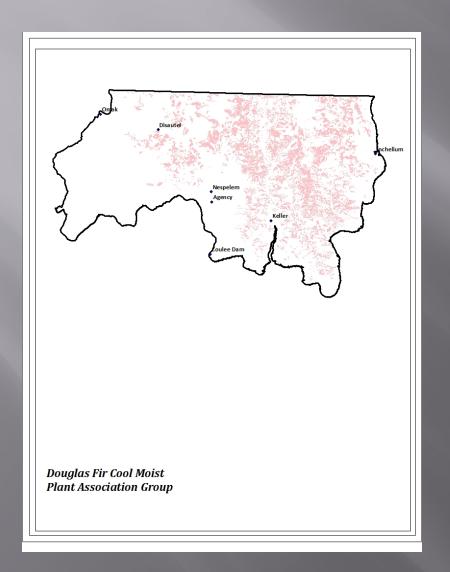


Old fashioned mapping from a helicopter.

Might puke a few times!!!

Can map a lot of the damage from high peakes and look out towers! No puke!

# Mapping (What?)

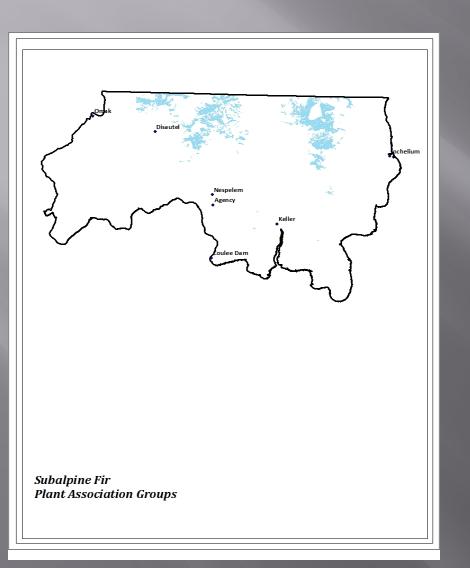


Douglas fir cool moist. Makes up a large part of the fire area.

Forest Management Plan calls for planting moist DF sites with WL, PP mix. Usually get some DF regeneration naturally.

Very productive sites, but can brush out quickly.

# Mapping (What?)

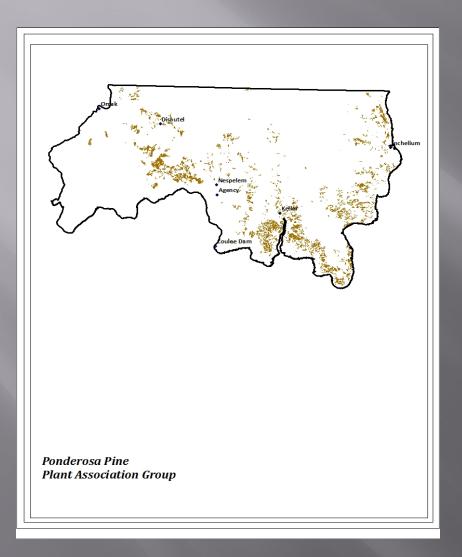


Subalpine sites dominated by lodgepole pine tend to regenerate naturally. Could plant lower density, 200 tpa WL, in lodgepole areas.

Plant 400 trees per acre WL in timber types dominated by subalpine fir.

Light severity fires can still cause significant mortality.

# Mapping (What?)



Ponderosa Pine Plant Association Group.

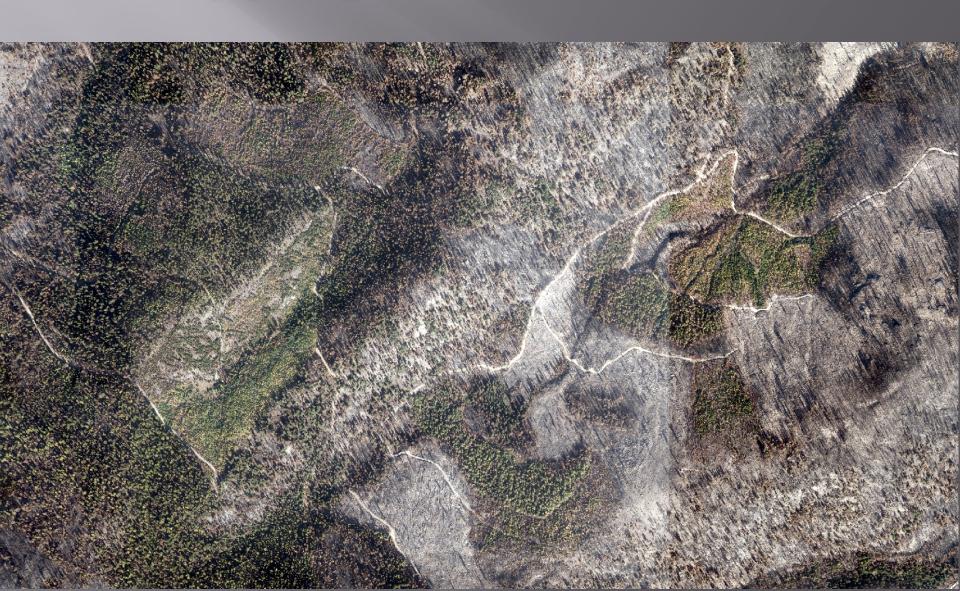
Dry Site

Well Drained Soils

Rattle snakes!

Limited Success with reforestation efforts.

# Mapping (Where & What?)



# Prioritizing Stands to Plant



Not enough funding to plant all acres severely burned.

Mapping and previous experience help determine chance of success.

Prioritize planting areas.

Can you use herbicide?

Limited funding, choose planting sites wisely.

















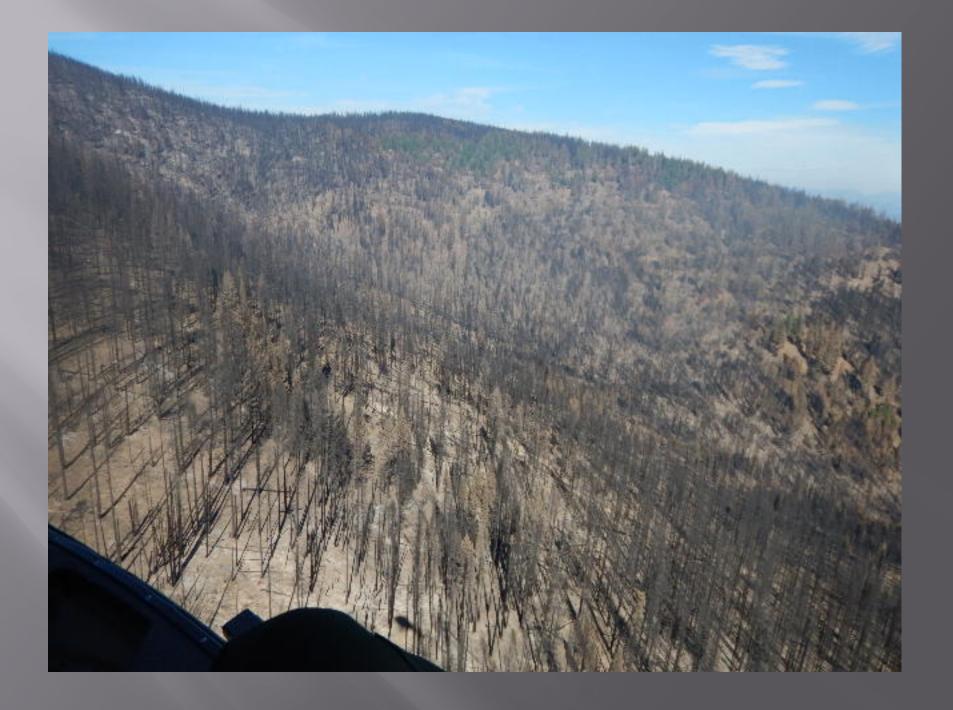
















## The Only Question you Need to Answer











#### When To Plant?

- This is mostly related to budgets.
- Often times do not find out budget until well after the sowing season, early spring or even summer.
- Must have orders in place much earlier, preferably in the fall or early winter.
- Are salvage operations complete?
- Do you have enough planters to handle it all in one planting season?
- Greenhouse Needs?
- Green house space?
- Seed Inventory

# Things You Need to Know When to Plant

- It's all in the timing!!!
- Need to know your budget asap.
- What is your green house space?
- How is your seed inventory?
- What is your planting capacity?
- Chance of success (past planting experience).

#### Tribal Greenhouse



Is there enough greenhouse space?

Container sizes available?

Timing of tree orders?

### Planting Operation



How do we organize planting operation?

Typically start at lower elevation and work up.



Questions??