Planning and Monitoring Application using Vegetation Survey Data

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Objective

- Description of permanent plots system
- Uses of data
- Application to analyze the data

Purposes of Permanent Vegetation Plots

- Provides information for a variety of resource users
- Provides consistent data over time
- Designed to meets present and future needs

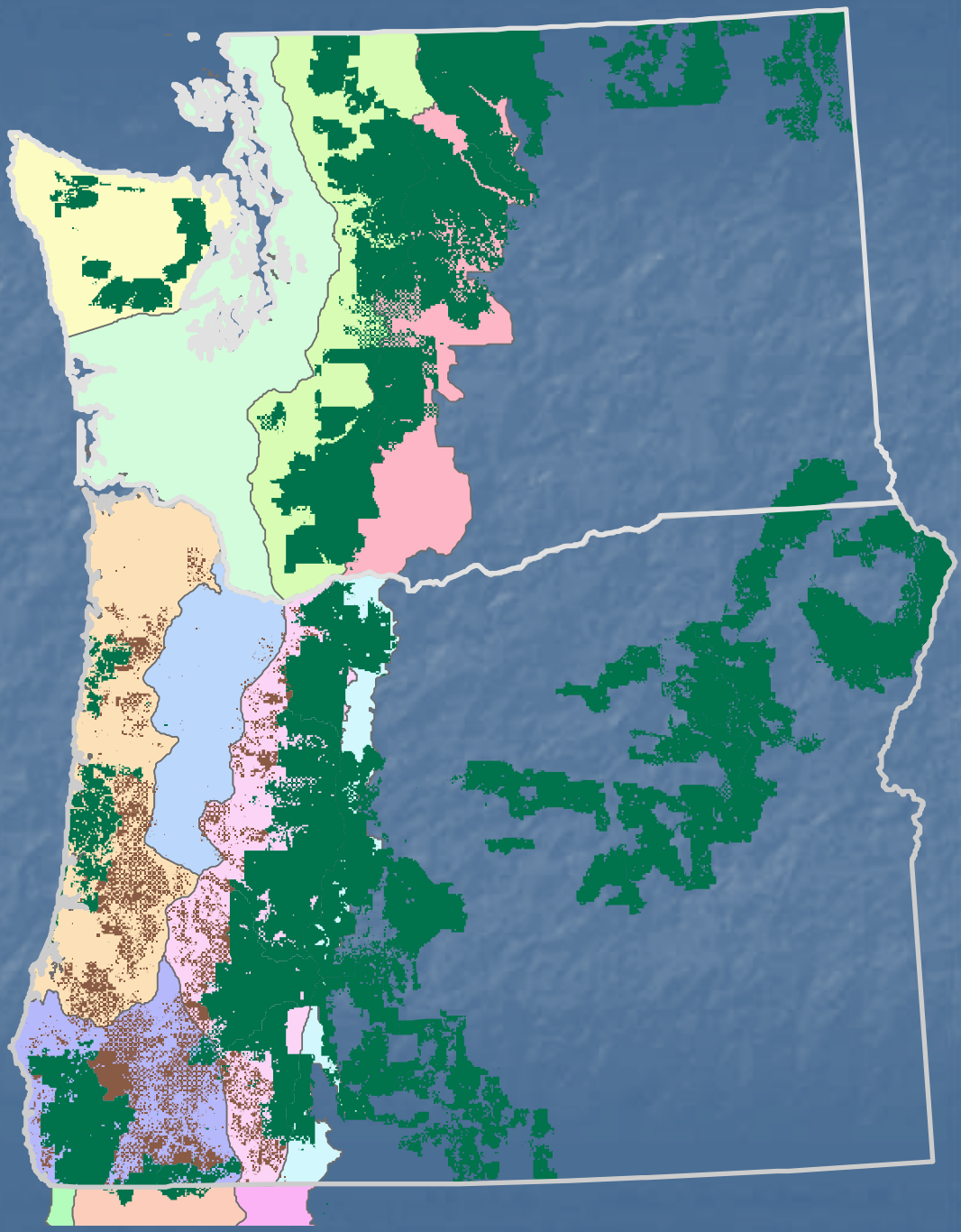
- How? By collecting data to rigorous standards

CVS

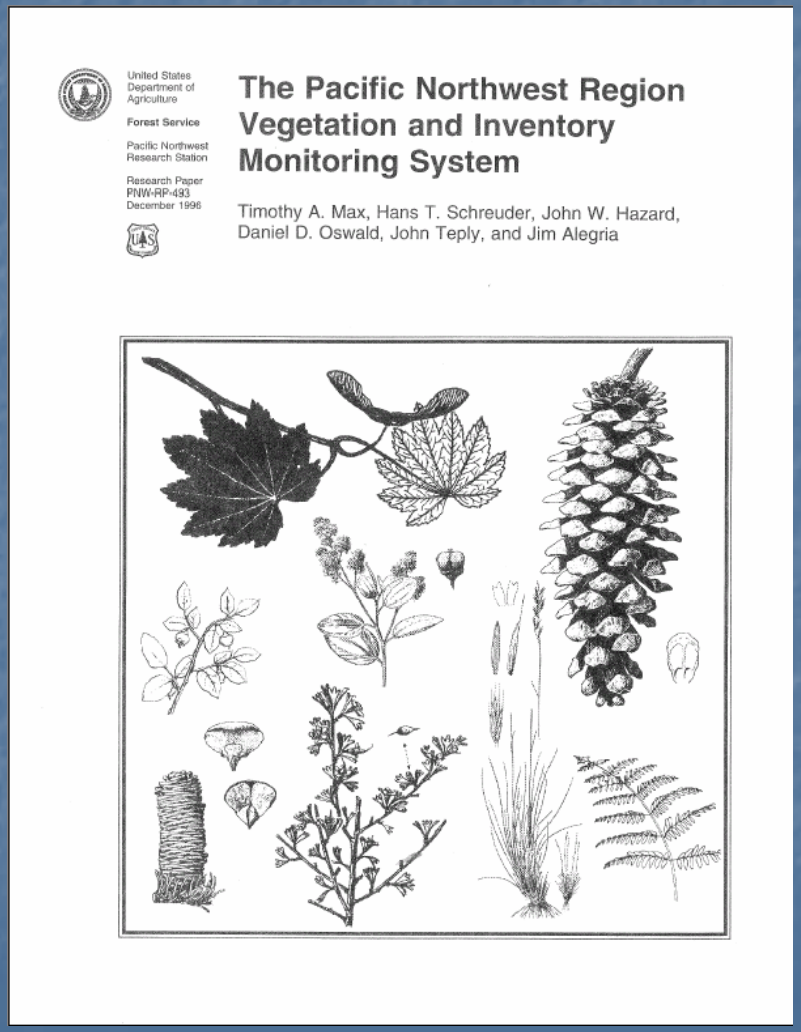
- BLM 1,376 plots (2.2 MM acres)
- FS 11,394 plots (24.7 MM acres)

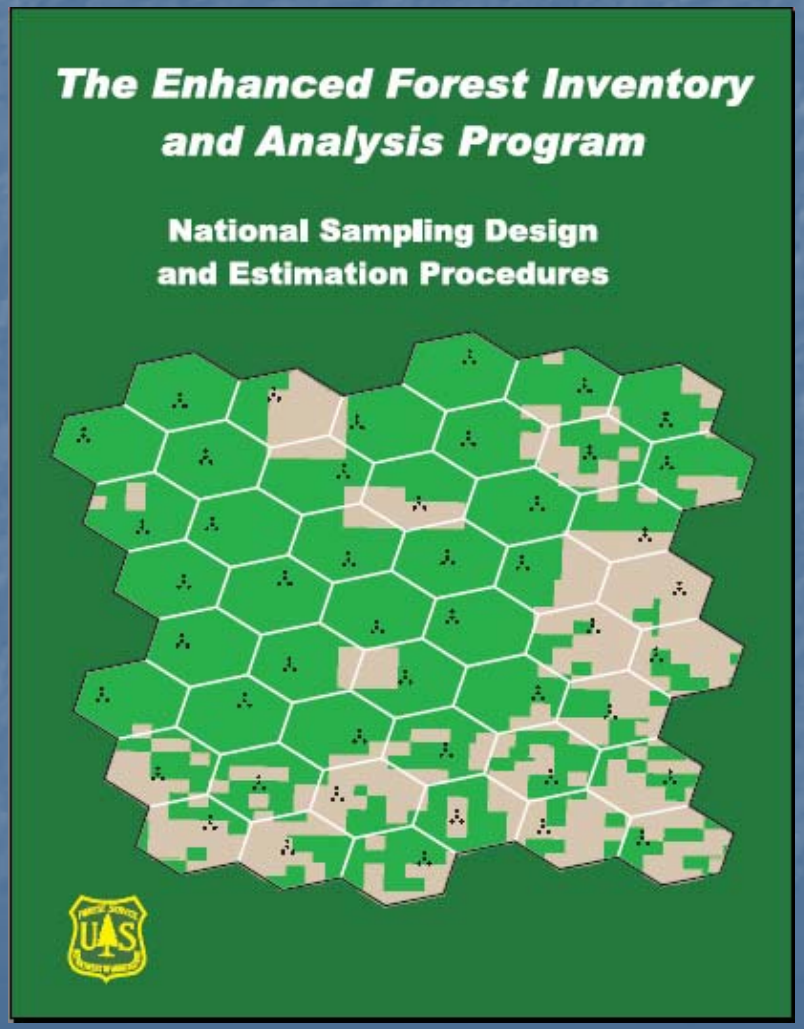
FIA

plots 4,230



Survey Designs are Peer Reviewed





What is being Collected

- Ground cover
- Trees - live and dead
- Ecological indicator species
- Down woody material

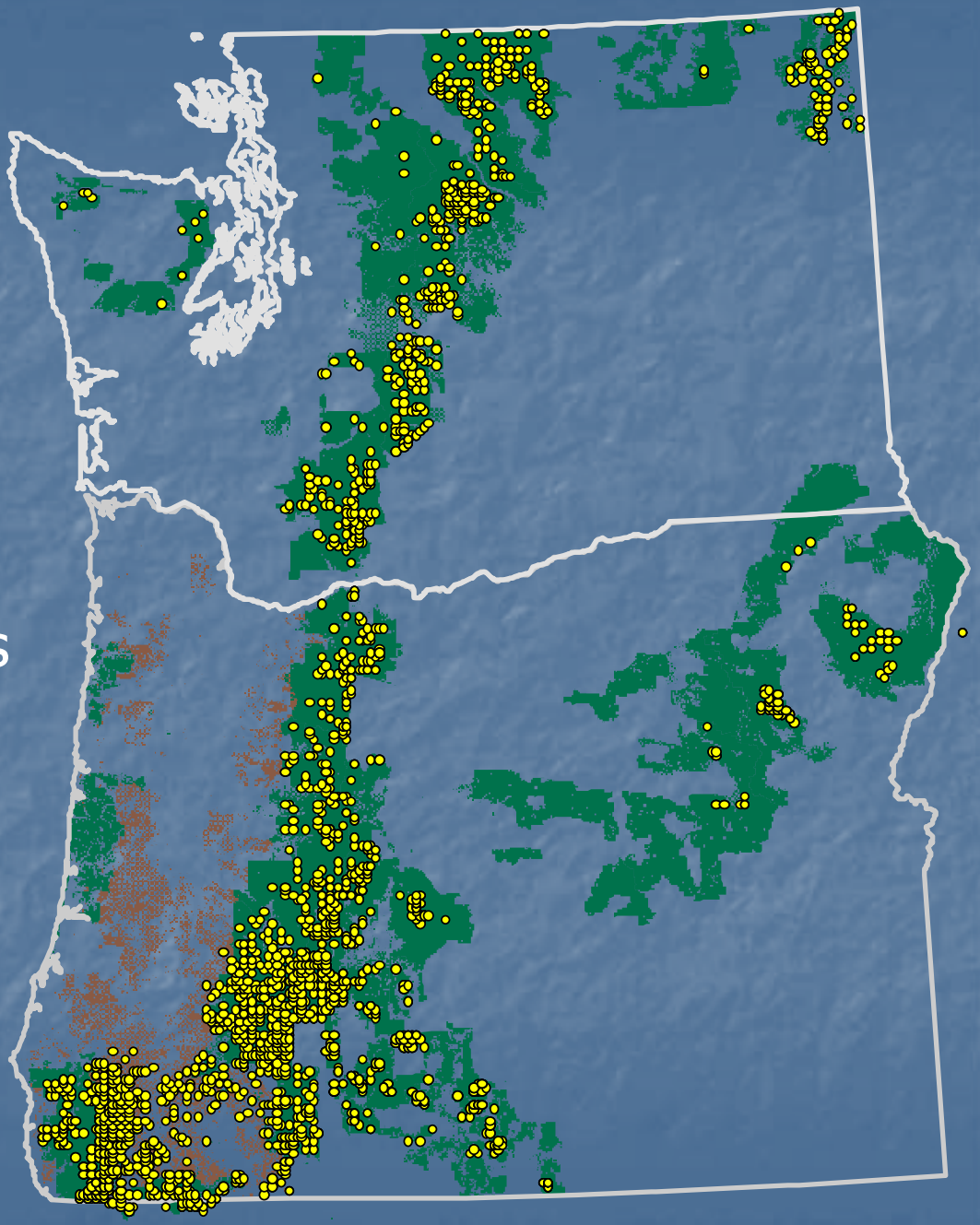
How can we use the data ?

Habitat

Photo by Tom Kogut,Gifford Pinchot NF

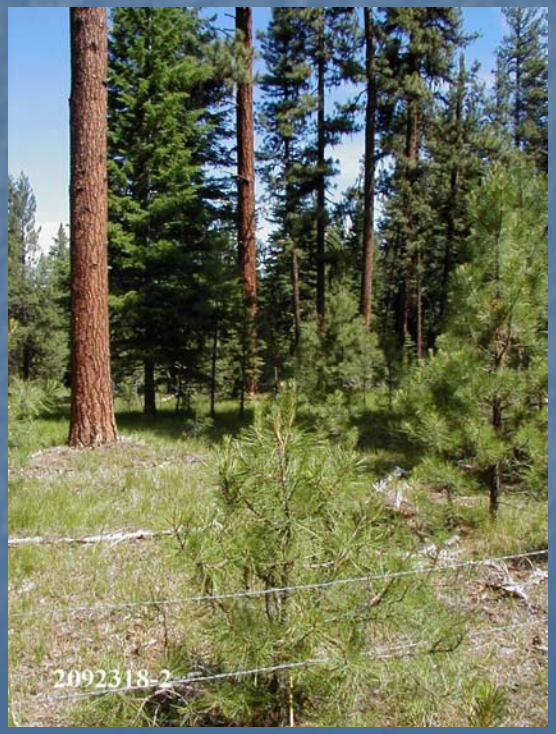
Distribution

Location of 5 needle pines



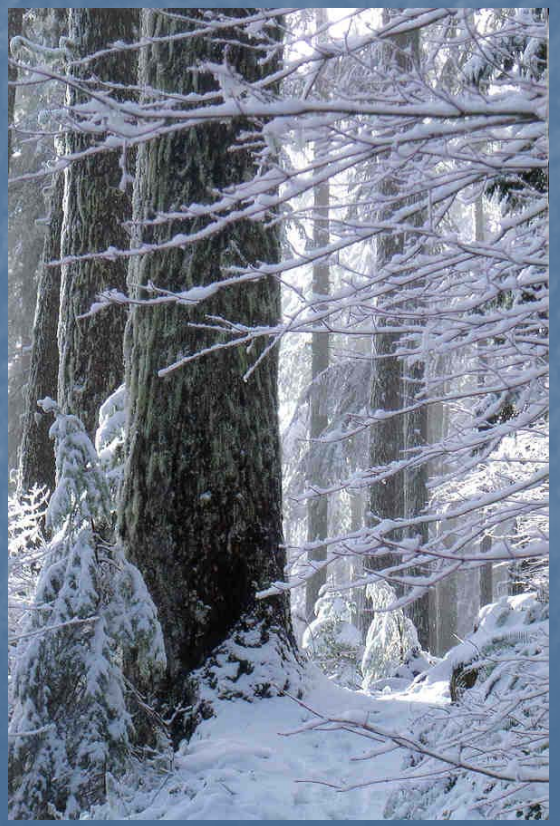
Stand

- Size
- Age

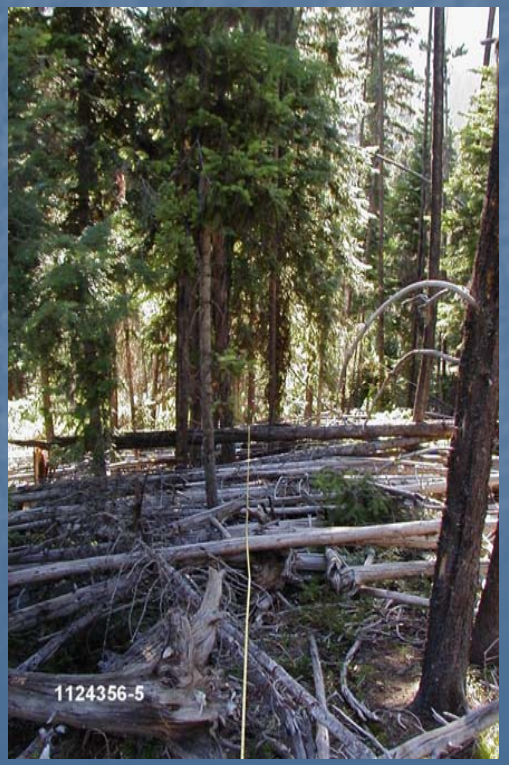


- Species

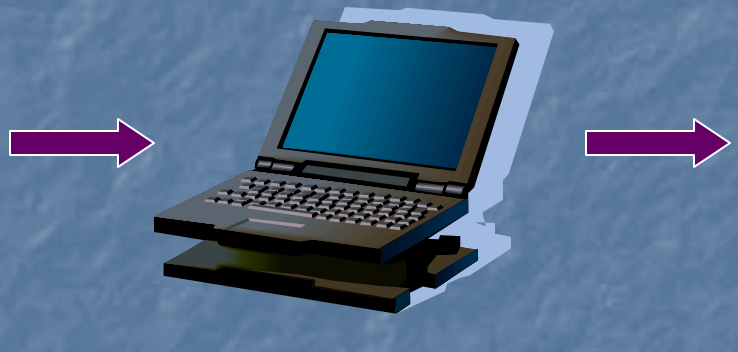
Composition

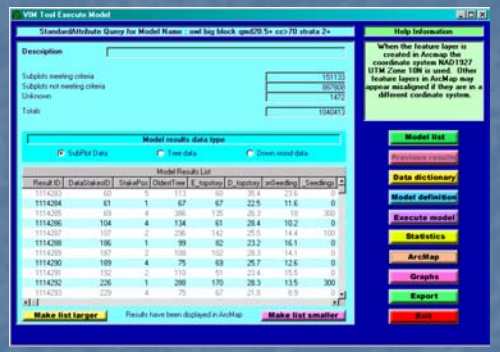


Down Woody Material



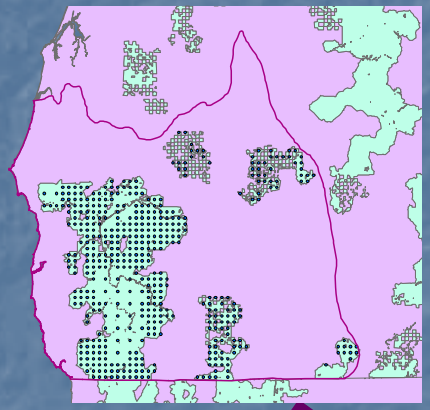
Vegetation Inventory and Monitoring Tool



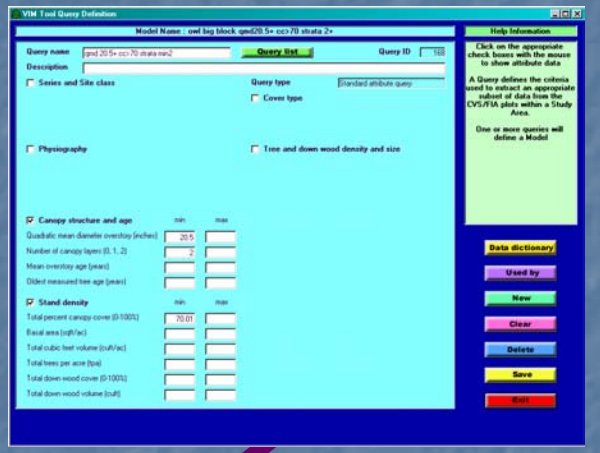


VIM

Study Area

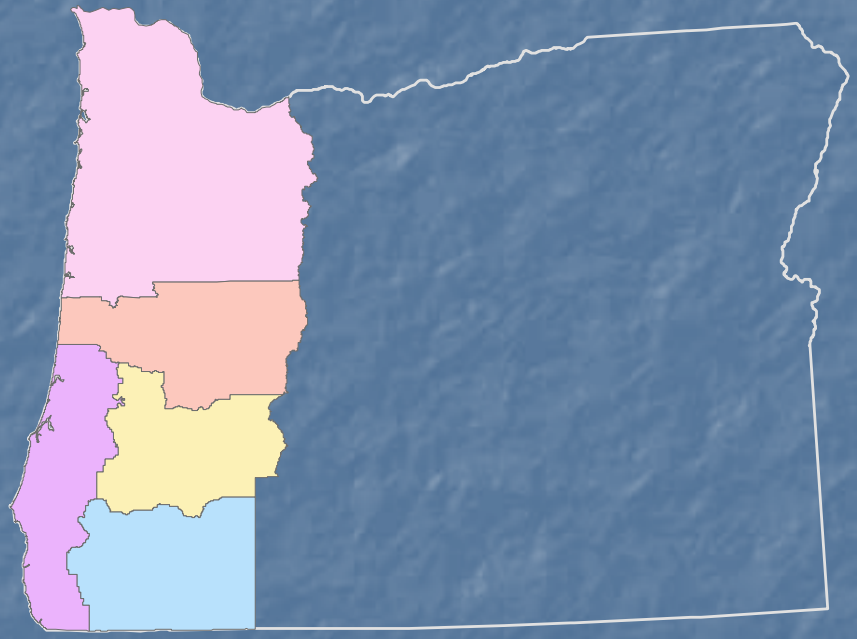


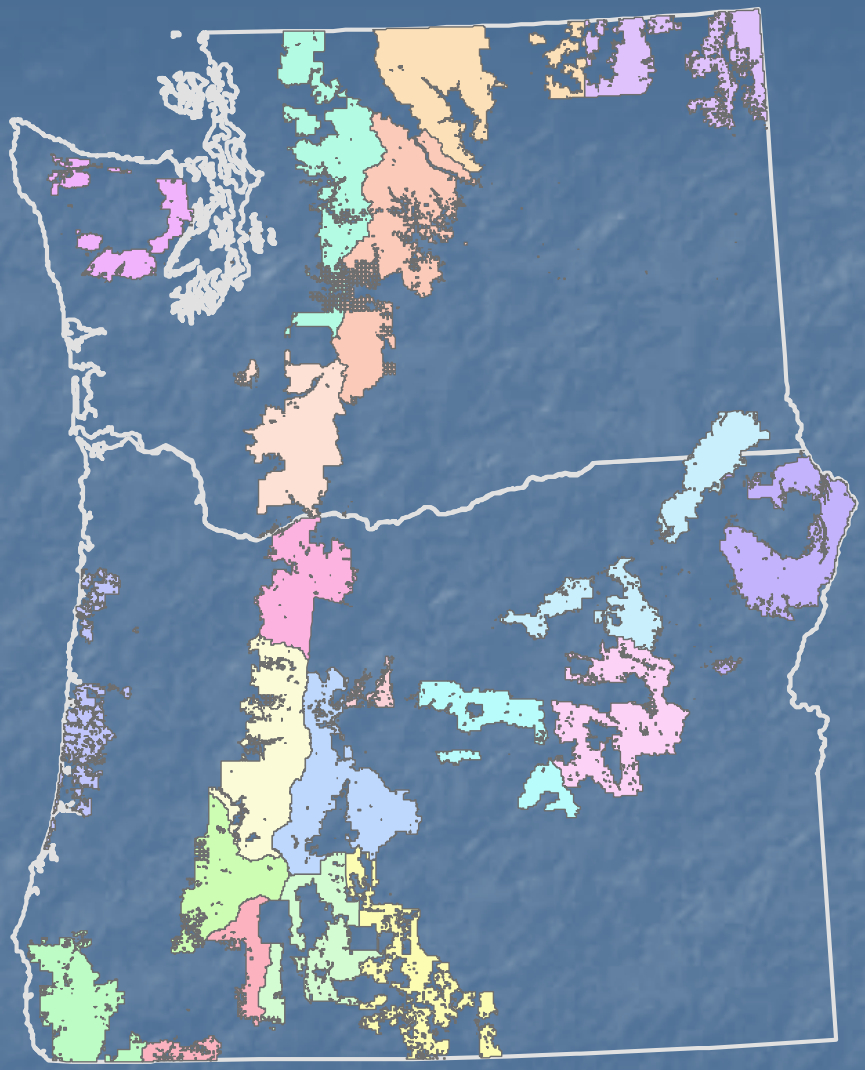
Criteria



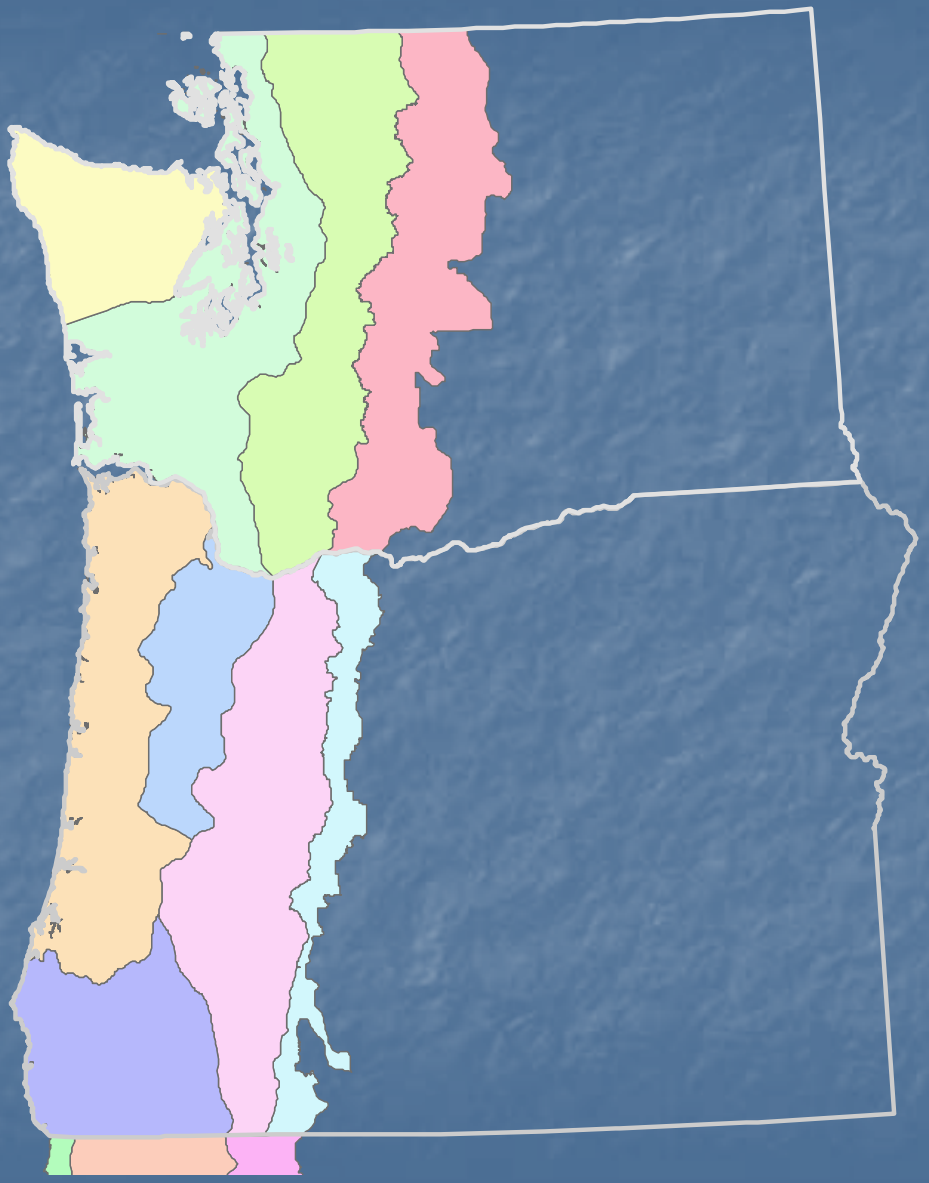
Model

Administrative Units





Province



User defined GIS layer

Criteria

- PNV series and site class
- Physiography
- Canopy structure and age
- Conifer or hardwood cover
- Tree and down wood density and size

Tree and down wood density and size

Live trees per acre with dbh

	min	max	
tpa			trees/ac
dbh			inches

Snags per acre with dbh and height

tpa			trees/ac
dbh			inches
height			feet

Logs (pieces per acre) with diameter and length

ppa			pieces/ac
large end diameter			inches
length			feet

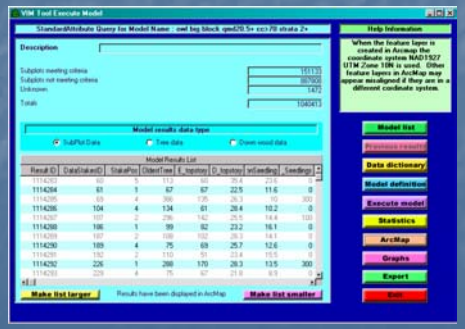
Criteria Based on FIA Condition Class:

- Accessible Forest Land
  - Stand size class
  - Forest type
  - Owner groups
- NonForest Land
  - Nonforested uses

Model

Results

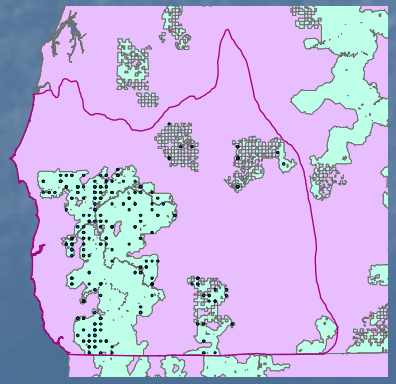
Statistics



Export

- Excel
- Access
- Text

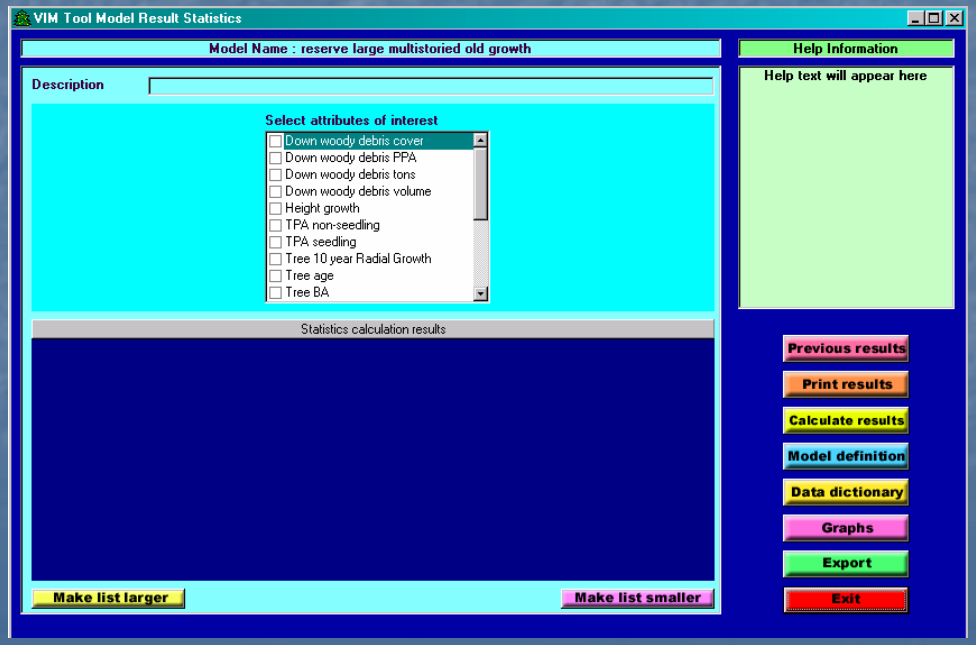
GIS



Statistics

Acres & Host of Attributes

- Bootstrap confidence intervals
- FIA Estimation Procedures



Example 1

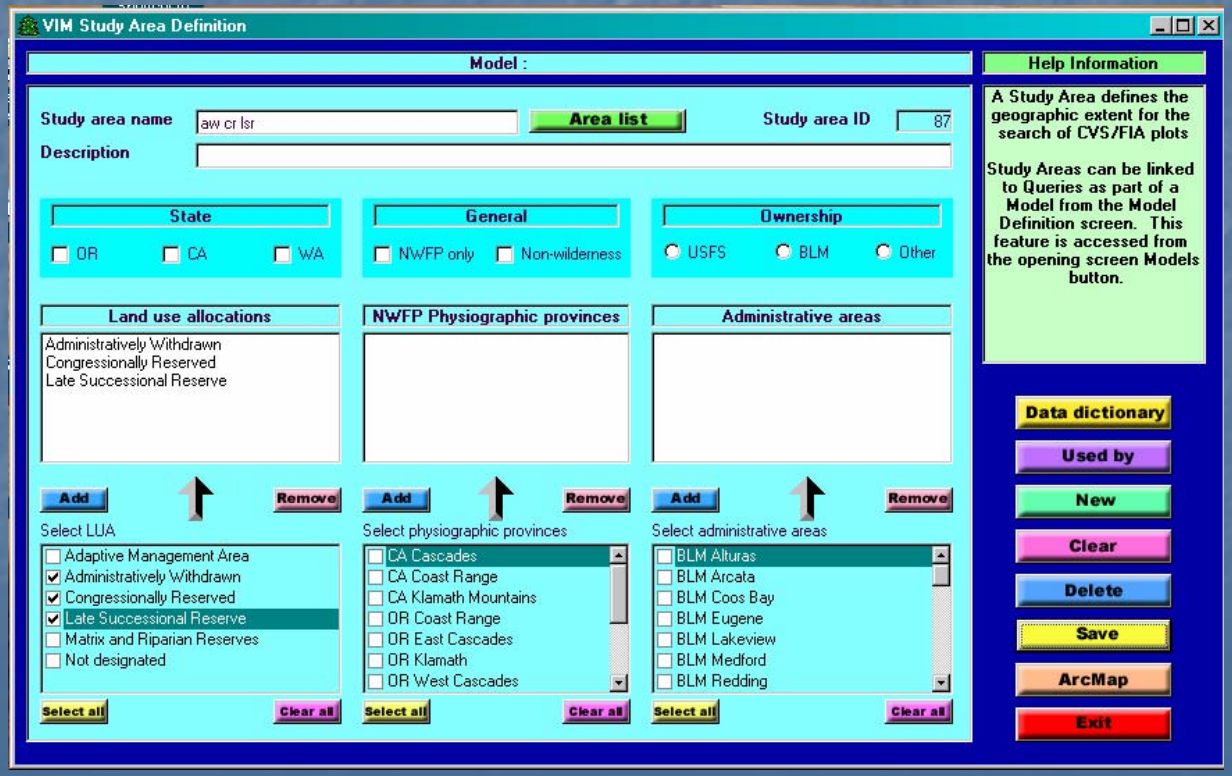
How many acres of older forest are in reserves?

Define Study Area

Land Use Allocations: Administratively Withdrawn

Congressionally Reserved

Late Successional Reserve



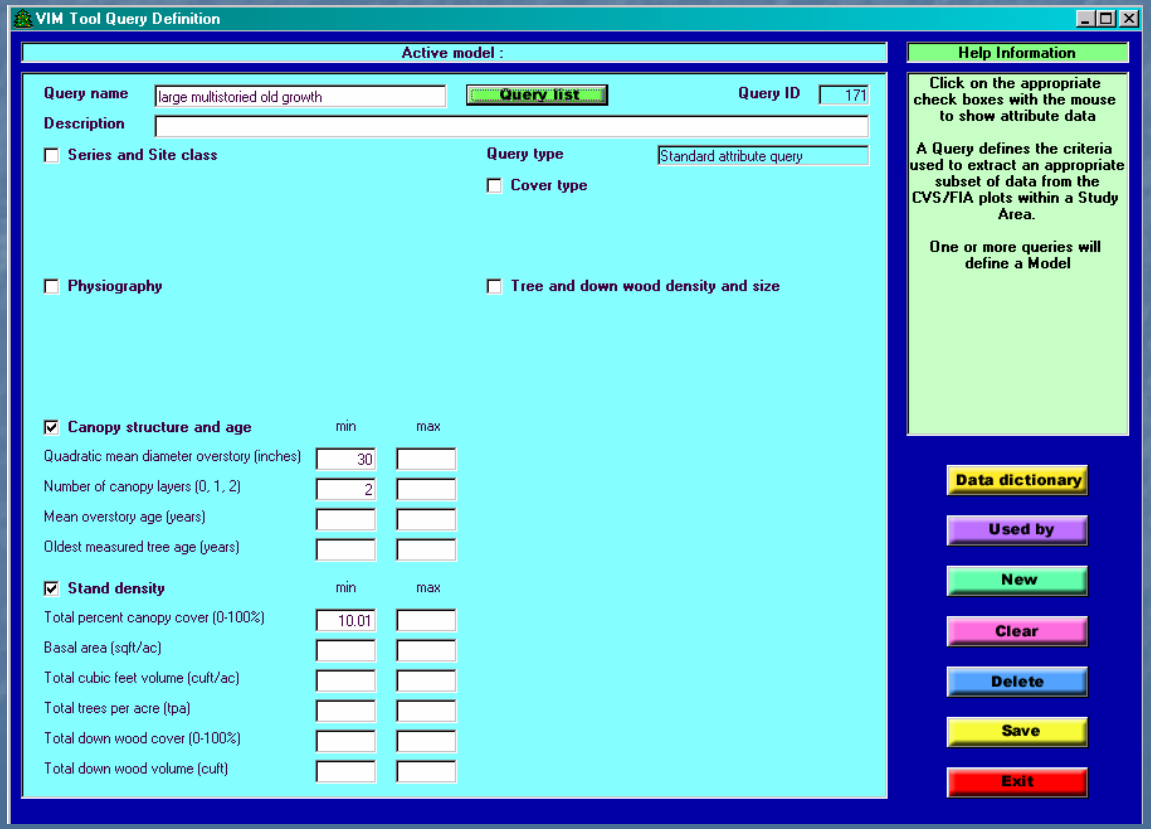
Define Criteria

Large multistoried

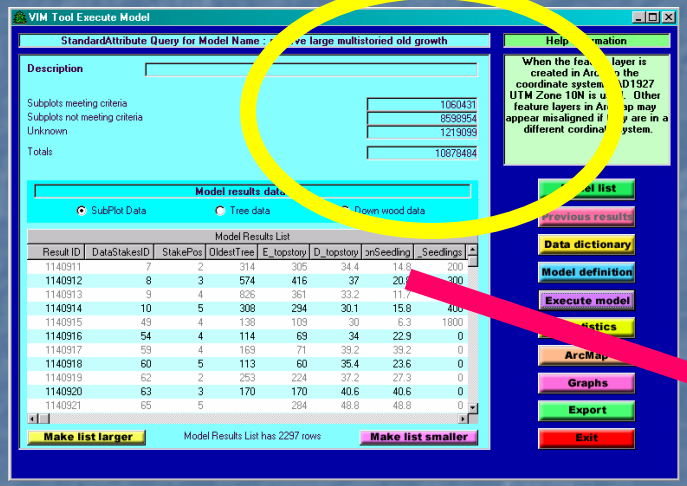
Over-story DBH>=30”

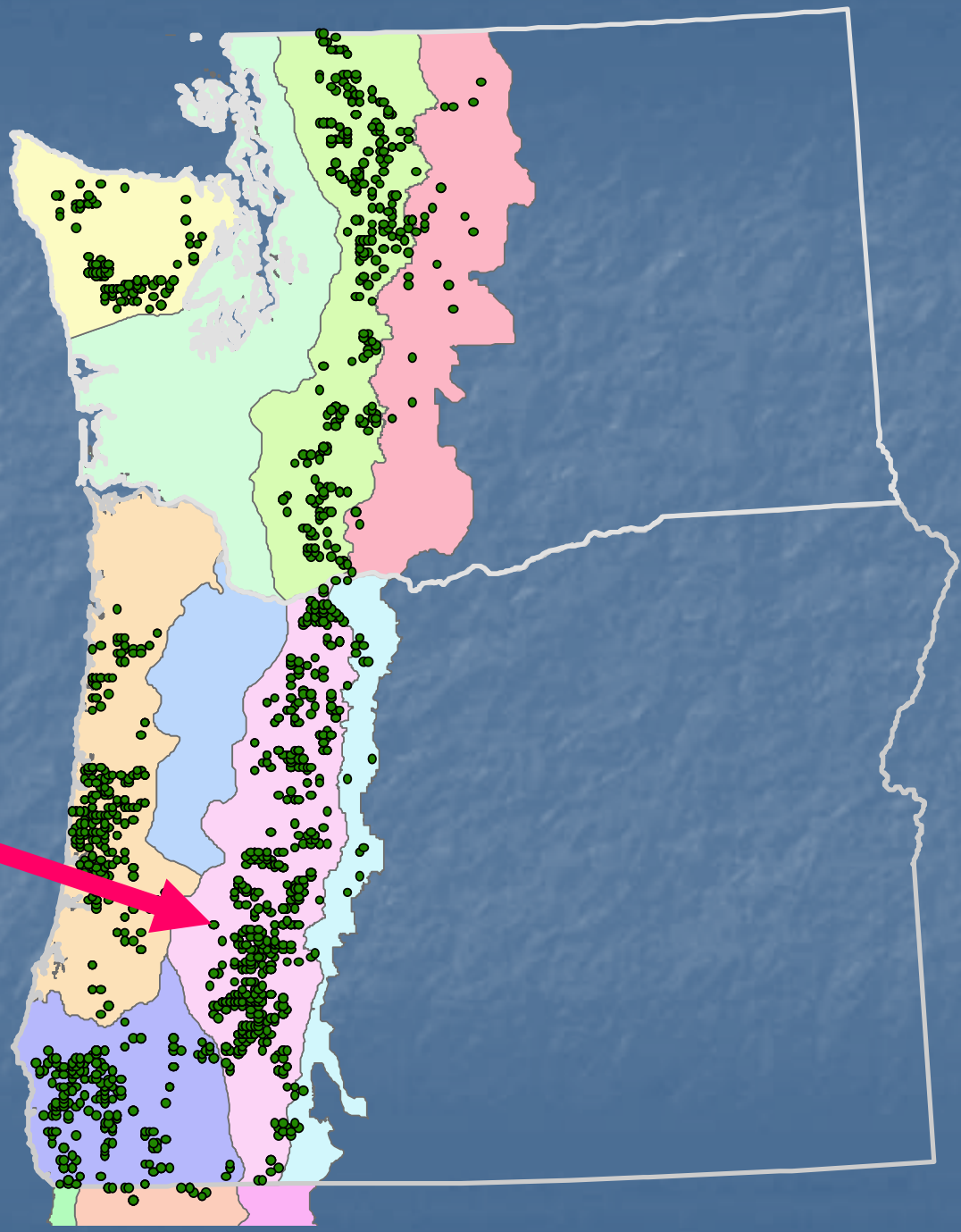
Canopy layers >=2

Canopy cover >10%



- Quantitative Results
- Plots sent to GIS





Comparison

Keep same study area

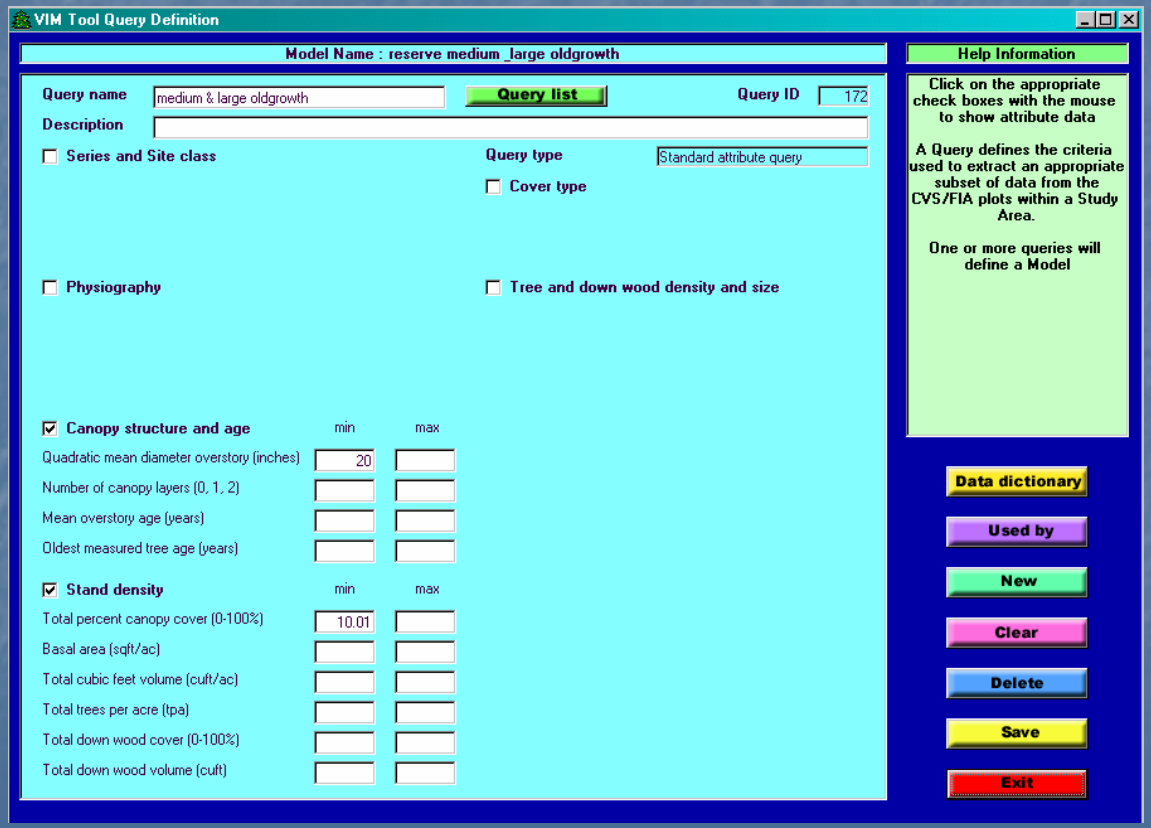
Use different older forest definition

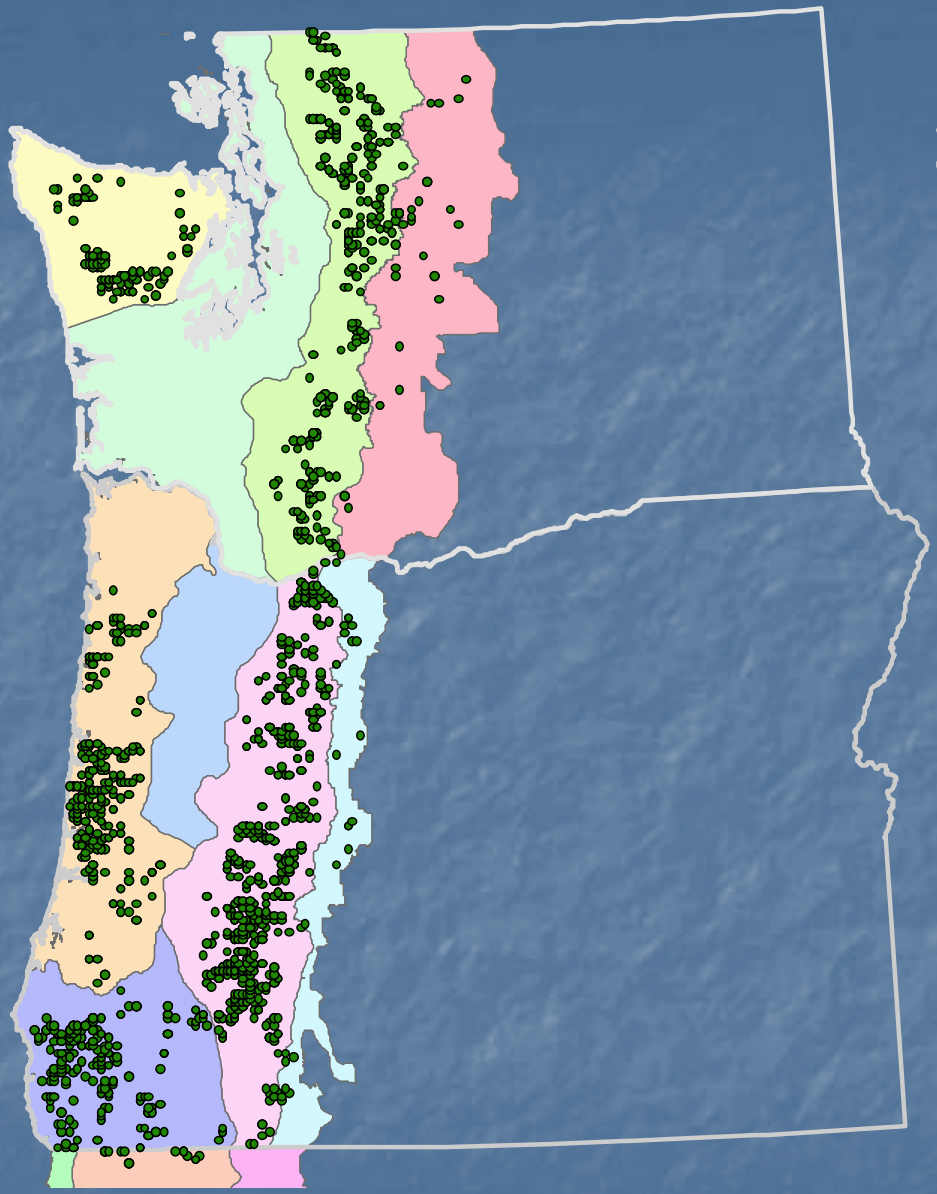
Criteria

Medium & Large

Over-story DBH >=20”

Canopy cover >10%





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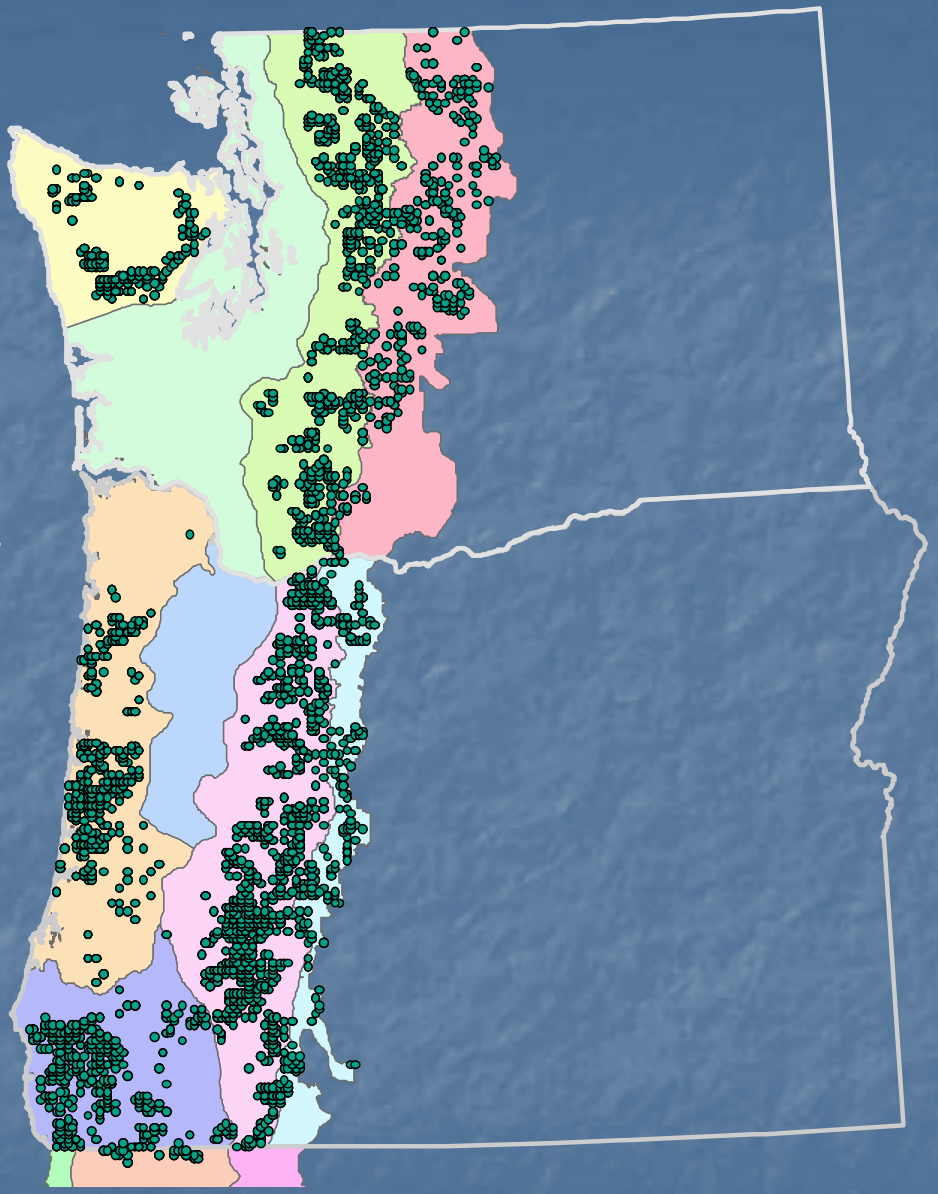


Medium & Large

Example 2

How many acres available of high quality owl habitat in large reserves ?

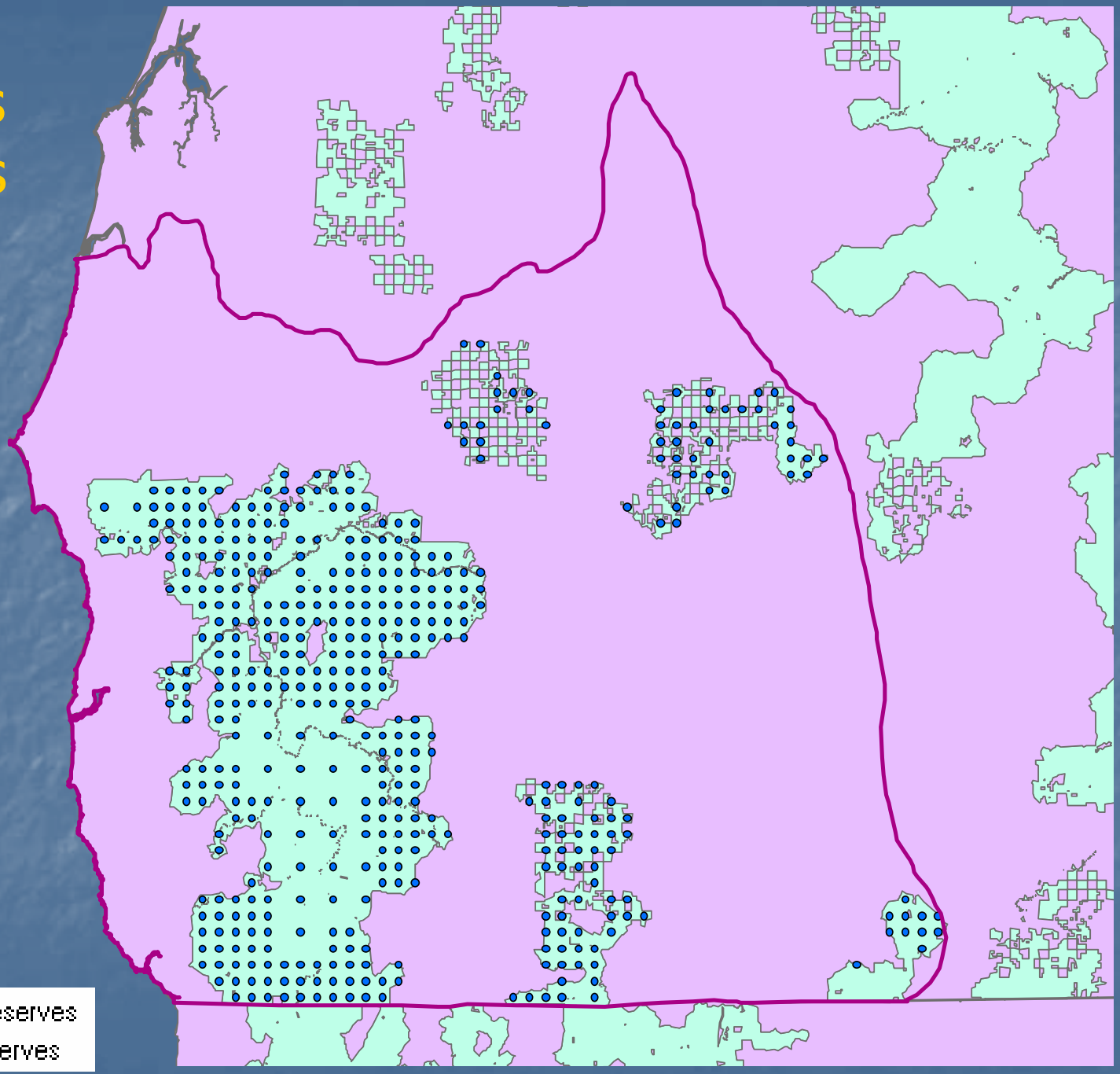
Photo by Tom Kogut,Gifford Pinchot NF

Northern Spotted Owl

Block reserves

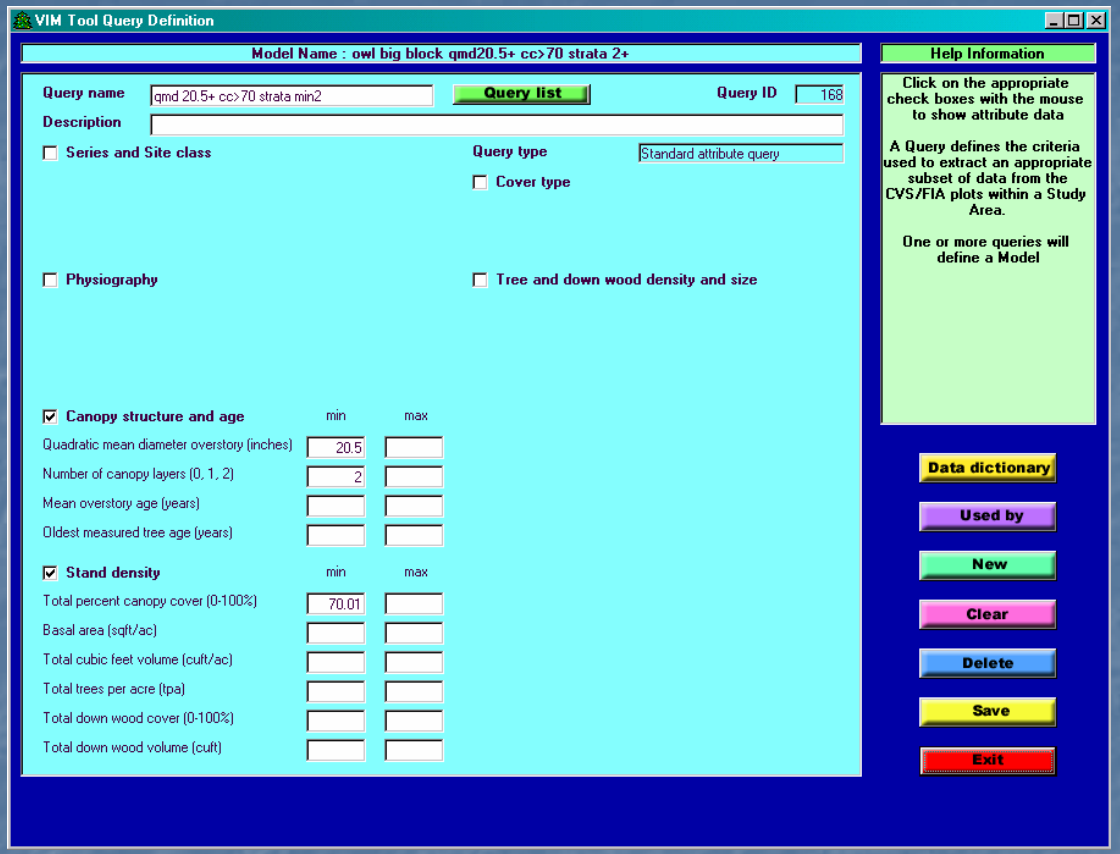
Photo by Tom Kogut,Gifford Pinchot NF

GIS defines study areas



Define Criteria

- Over-story DBH >= 20.5”
- Crown closure > 70%
- Canopy layers >=2



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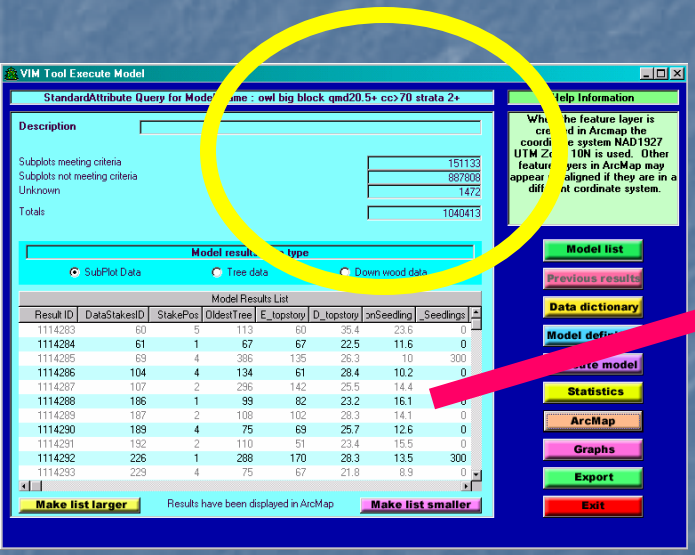

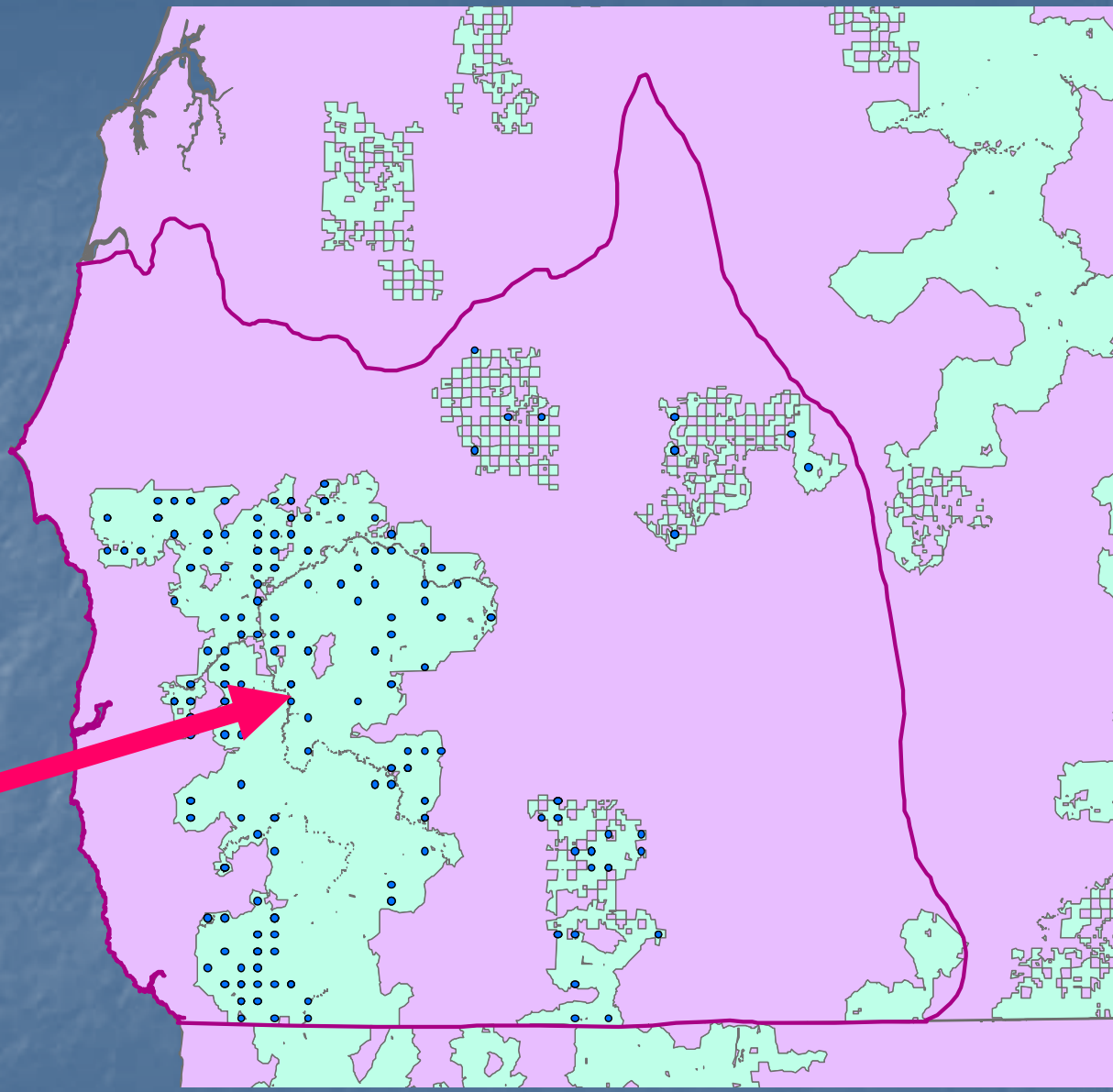

Status of VIM

- To be released this summer
  - CVS FS OR/WA & BLM w OR
- Next winter:
  - Will incorporate NF California
  - FIA data

Questions