

Northern Spotted Owl (NSO) Habitat Analysis

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Northern Spotted Owl (NSO) Habitat Analysis

Analysis Objectives:

1. Spatially identify the extent and distribution of existing NSO dispersal and nesting habitat within the WOPR planning area
2. Model how different management alternatives affect NSO habitat extent and distribution over time
3. Use the results to help develop a spatially and temporally informed network of Late-Successional Management Areas (LSMAs) for future NSO habitat conservation

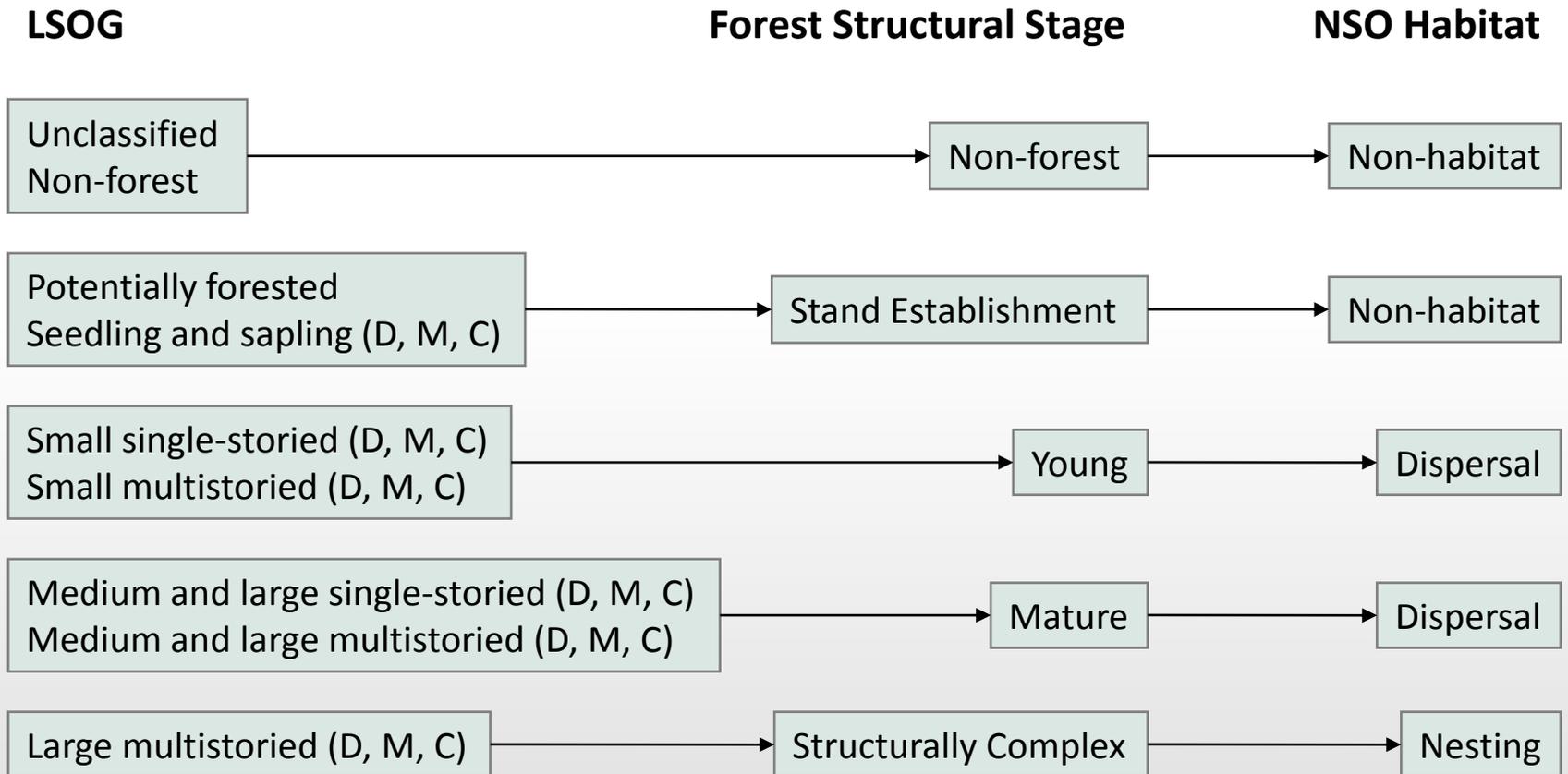
Northern Spotted Owl (NSO) Habitat Analysis

Source raster data used to classify NSO habitat:

1. Interagency Vegetation Mapping Project (IVMP)
 - *Quadratic Mean Diameter (inches)*
2. Late-Successional Old-Growth Map (NWFP Effectiveness Monitoring)
 - *Canopy Cover (IVMP)*
 - *Average Tree Size (IVMP)*
 - *Canopy Structure*
 - *Species Mix (IVMP)*
3. Plant Species Groups
4. USFS Reserves
5. NSORD (OPTIONS Model)
6. *Stand Replacing Disturbance Map (PRMP analysis only)*

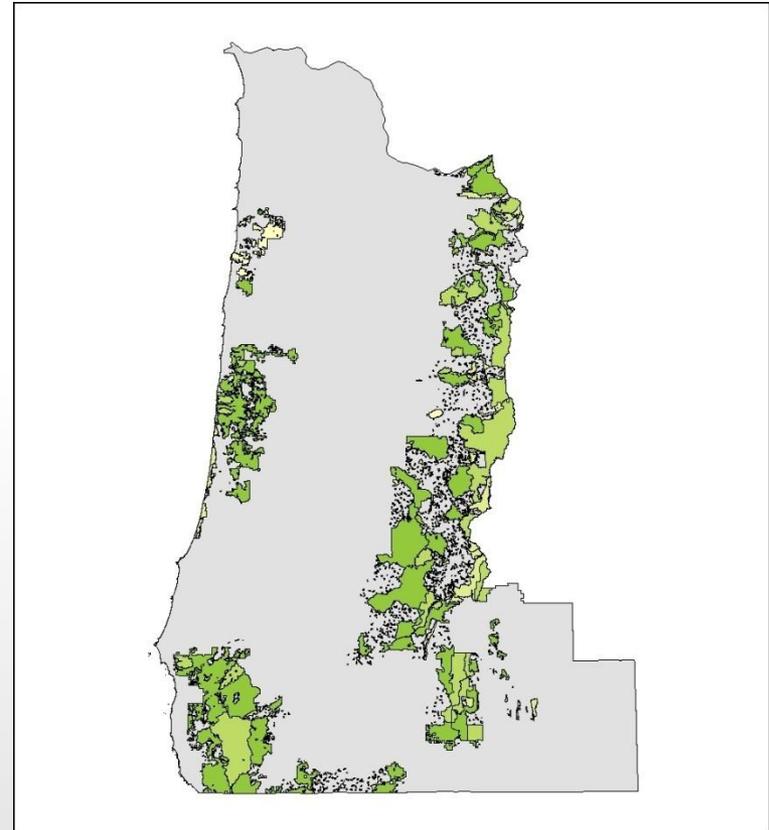
LSOG Reclassification

Non-BLM Lands



Grow USFS Reserves over time

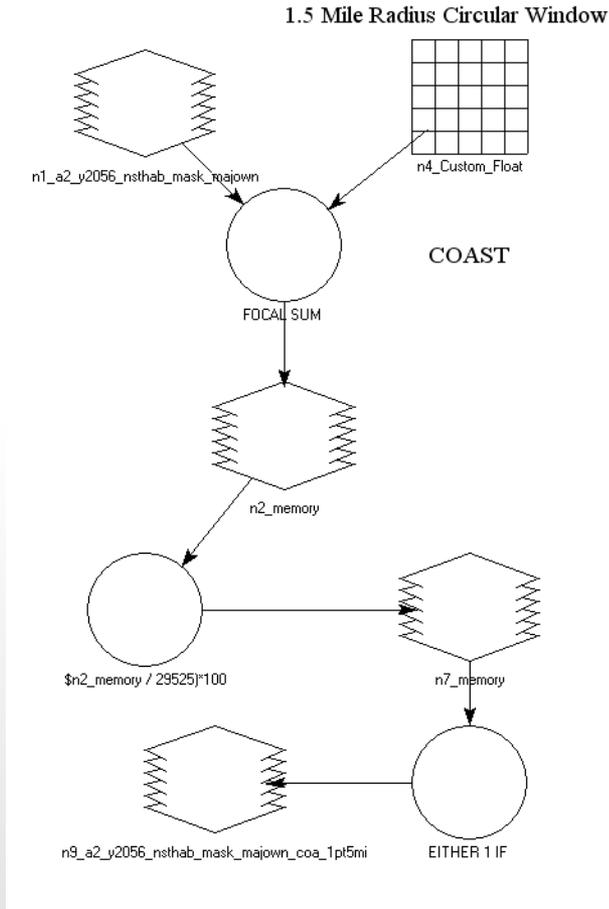
- Assumed private lands would remain relatively constant over time
1. 2006 - Different by alternative
 2. 2016 – If *Stand Establishment* in 2006 become *Young*
 3. 2026 - Same as 2016
 4. 2056 – If *Young* in 2006 become *Mature & Structurally Complex*
 5. 2106 – If *Stand Establishment* in 2006 become *Mature & Structurally Complex*



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Physiographic Province	Mean Annual Home Range	Radius of a Circle Equal in Size to the Mean Annual Home Range	Minimum Quantity of Nesting Habitat Within the Mean Annual Home Range	Minimum Quantity of Nesting Habitat Within a 500-acre Core Area
Western Cascades	2,900 acres	1.2 miles	1,450 acres	250 acres
Coast Range	4,520 acres	1.5 miles	2,260 acres	250 acres
Klamath Mountains	3,400 acres	1.3 miles	1,700 acres	250 acres

Northern Spotted Owl (NSO) Habitat Analysis



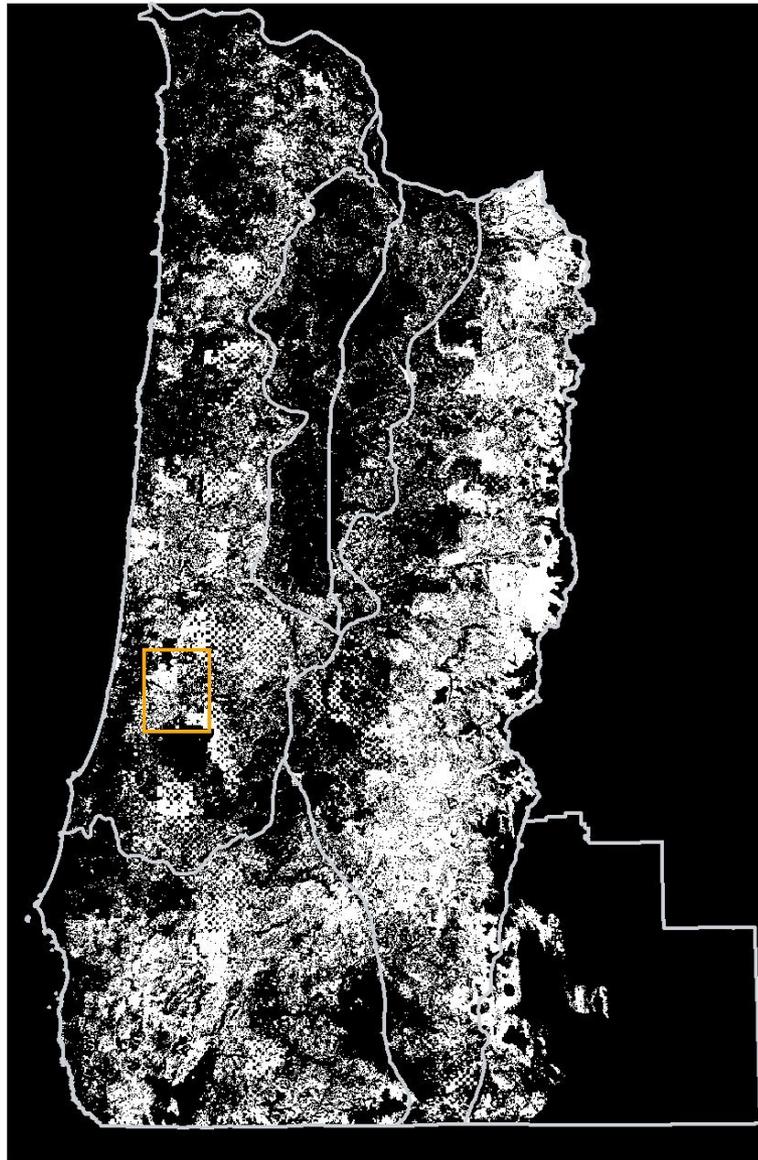
PYTHON

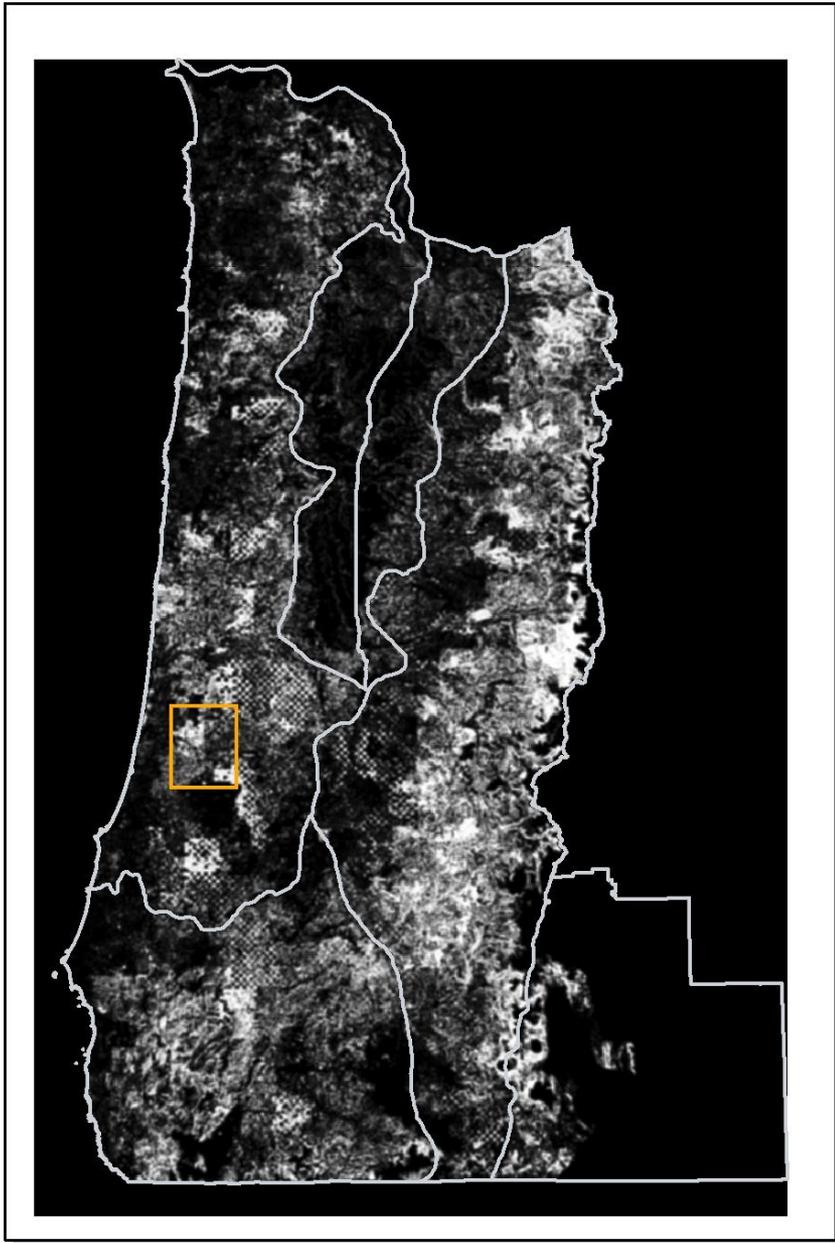
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raster_list.append("a2_y2016_nso_fedown")
raster_list.append("a2_y2026_nso_fedown")
raster_list.append("a2_y2056_nso_fedown")
raster_list.append("a2_y2106_nso_fedown")

# Start processing loop...
print ""
for raster in raster_list:
    print "Processing " + raster + "..."
    # Process: Focal Statistics...
    print "Calculating Focal Statistics..."
    gp.FocalStatistics_sa(workspace + raster + ".img", workspace + "tmp1_" + raster + ".img", "Circle 97 CELL", "SUM", "DATA")
    # Process: Float...
    print "Converting Raster to Floating Point..."
    gp.Float_sa(workspace + "tmp1_" + raster + ".img", workspace + "tmp2_" + raster + ".img")
    # Process: Divide...
    print "Calculating Percent..."
    gp.Divide_sa(workspace + "tmp2_" + raster + ".img", 29525, workspace + "tmp3_" + raster + ".img")
    # Process: Greater Than Equal...
    print "Selecting Areas >= 50 Percent..."
    gp.GreaterThanEqual_sa(workspace + "tmp3_" + raster + ".img", 0.5, workspace + raster + "_1pt5miles.img")
    # Process: Delete Temporary Files...
    print "Deleting Temporary Files..."
    print ""
    gp.Delete_management(workspace + "tmp1_" + raster + ".img", "")
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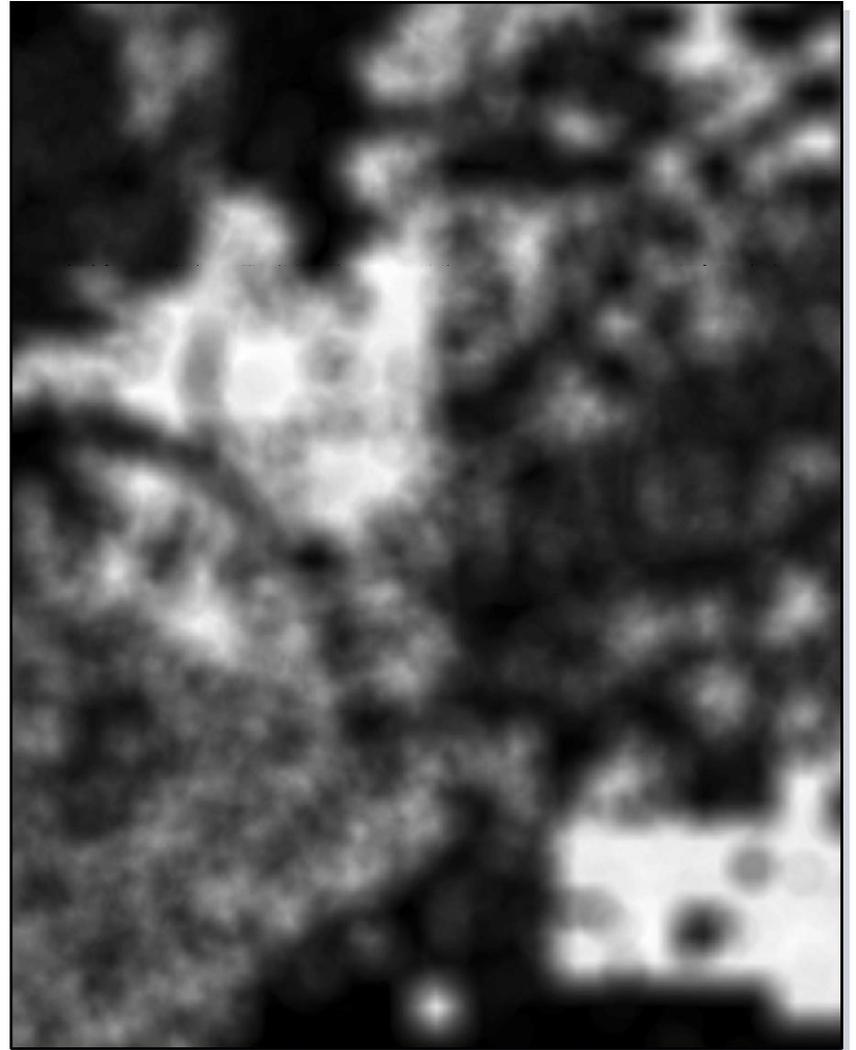
ERDAS IMAGINE 9.1

A2 Y2056 Binary NSO Habitat

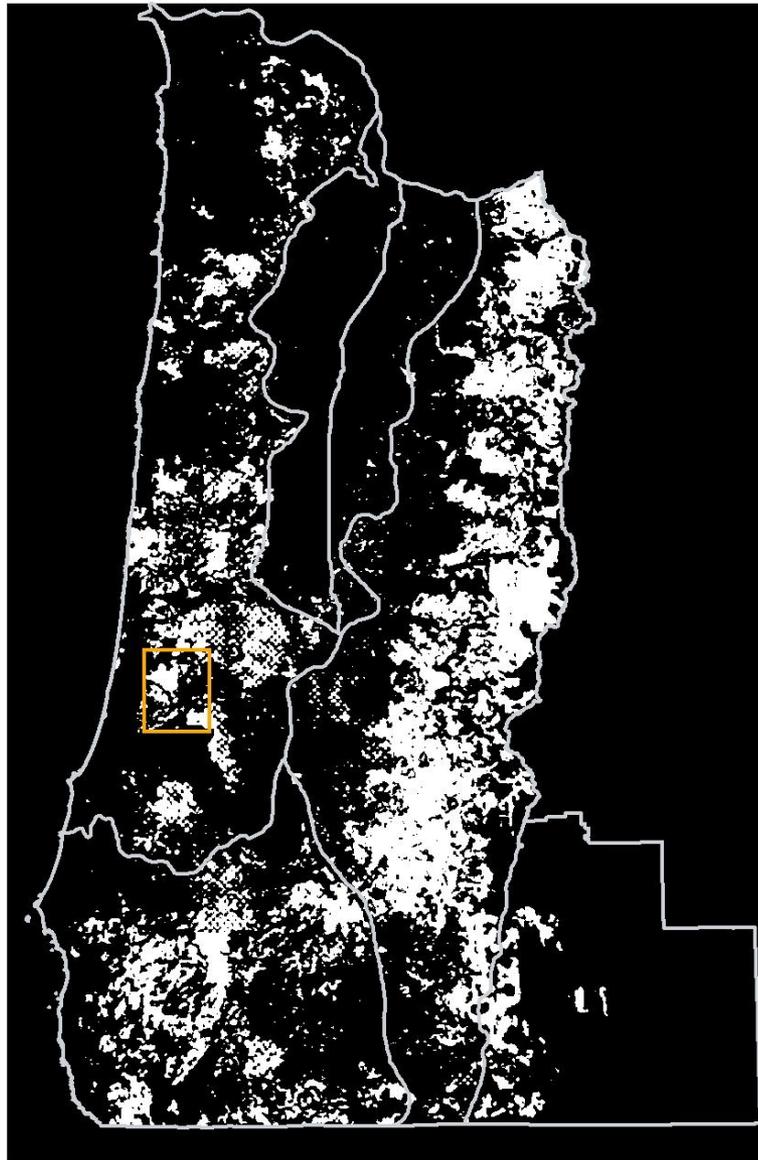




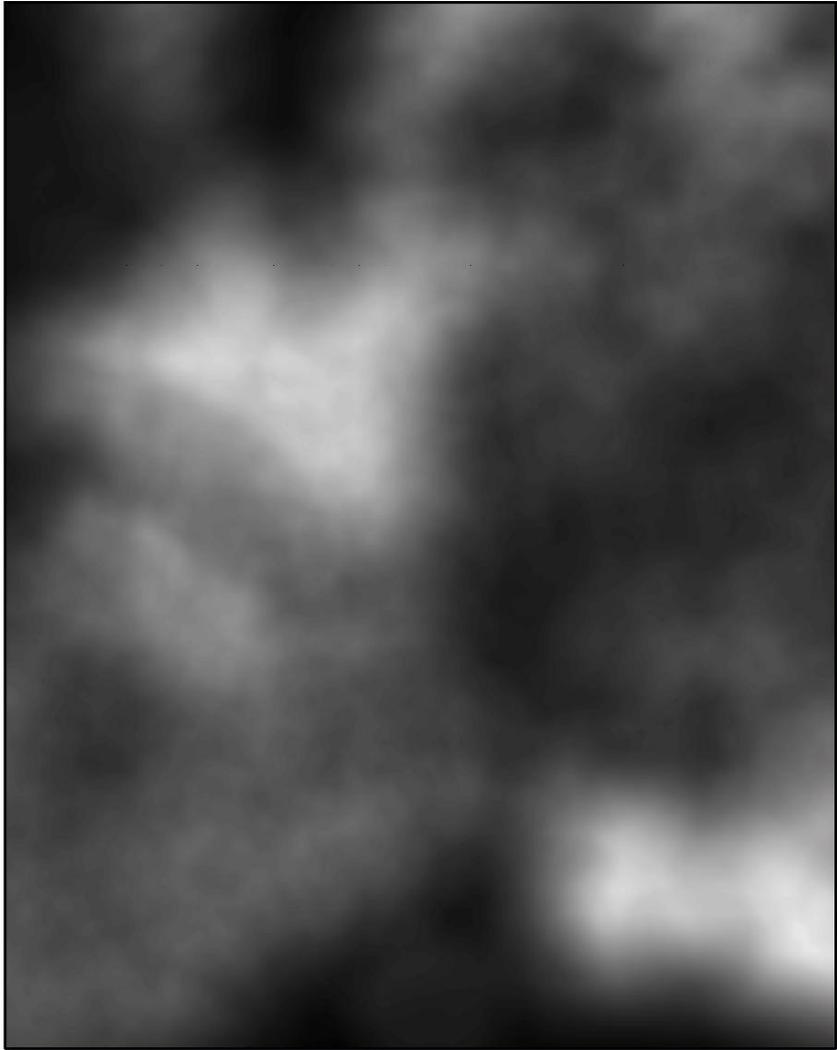
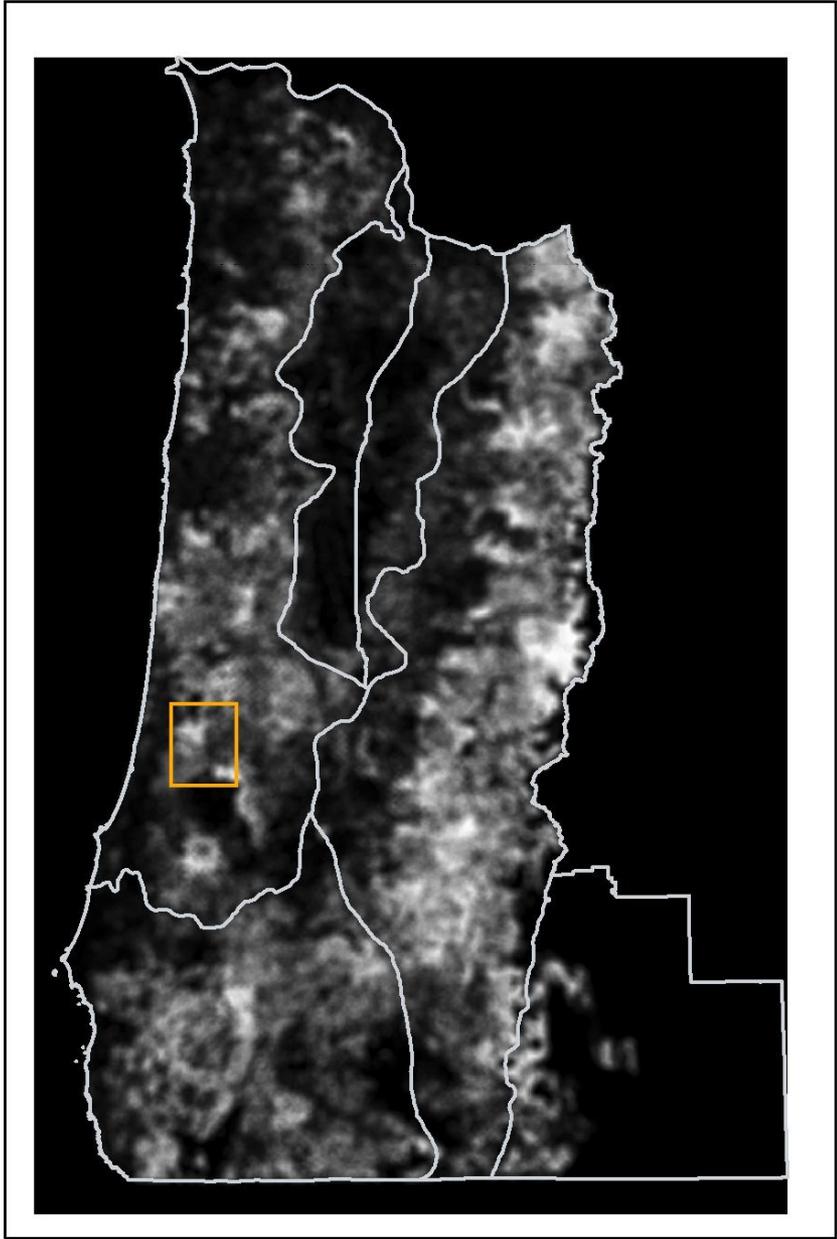
Focal Percent (500 Acres)



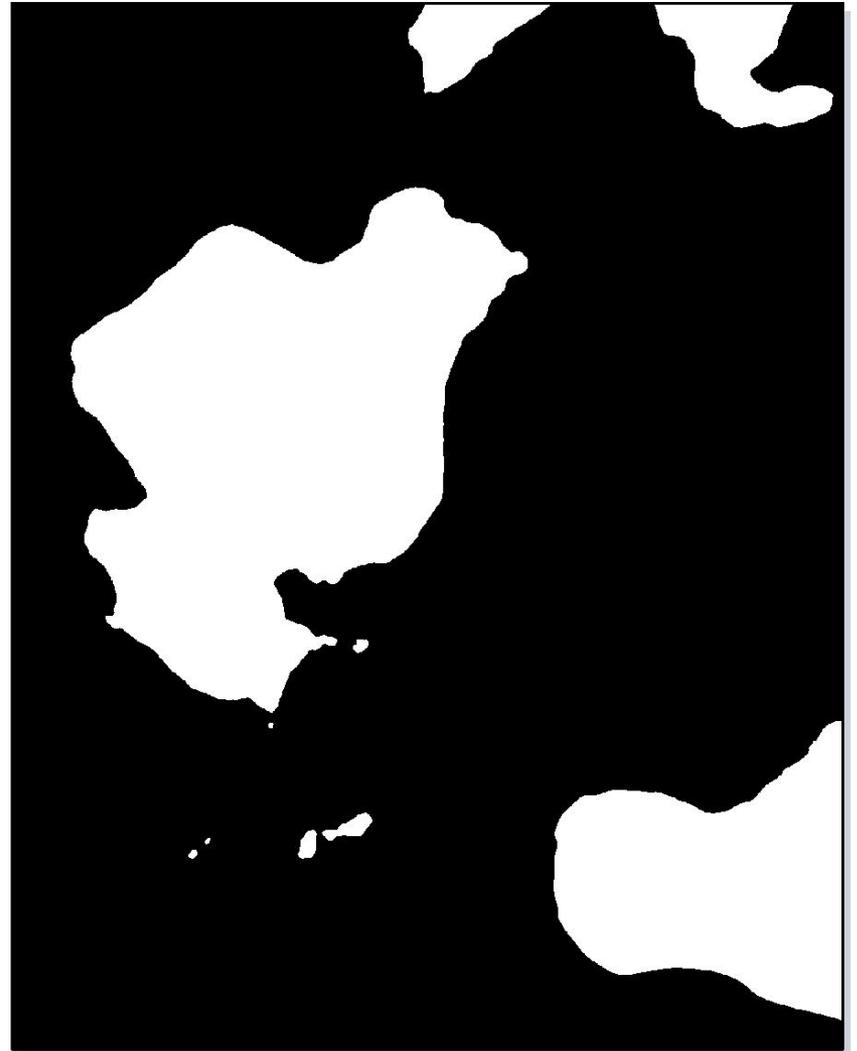
NSO Habitat $\geq 50\%$ (500 Acres)



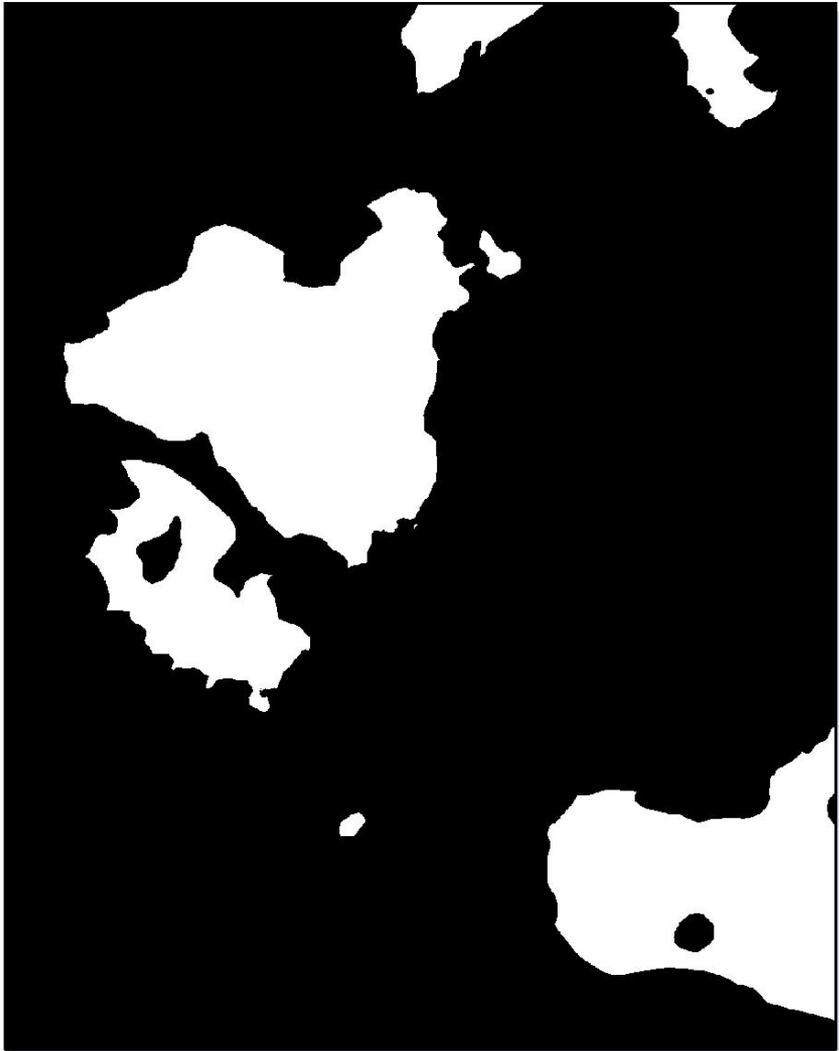
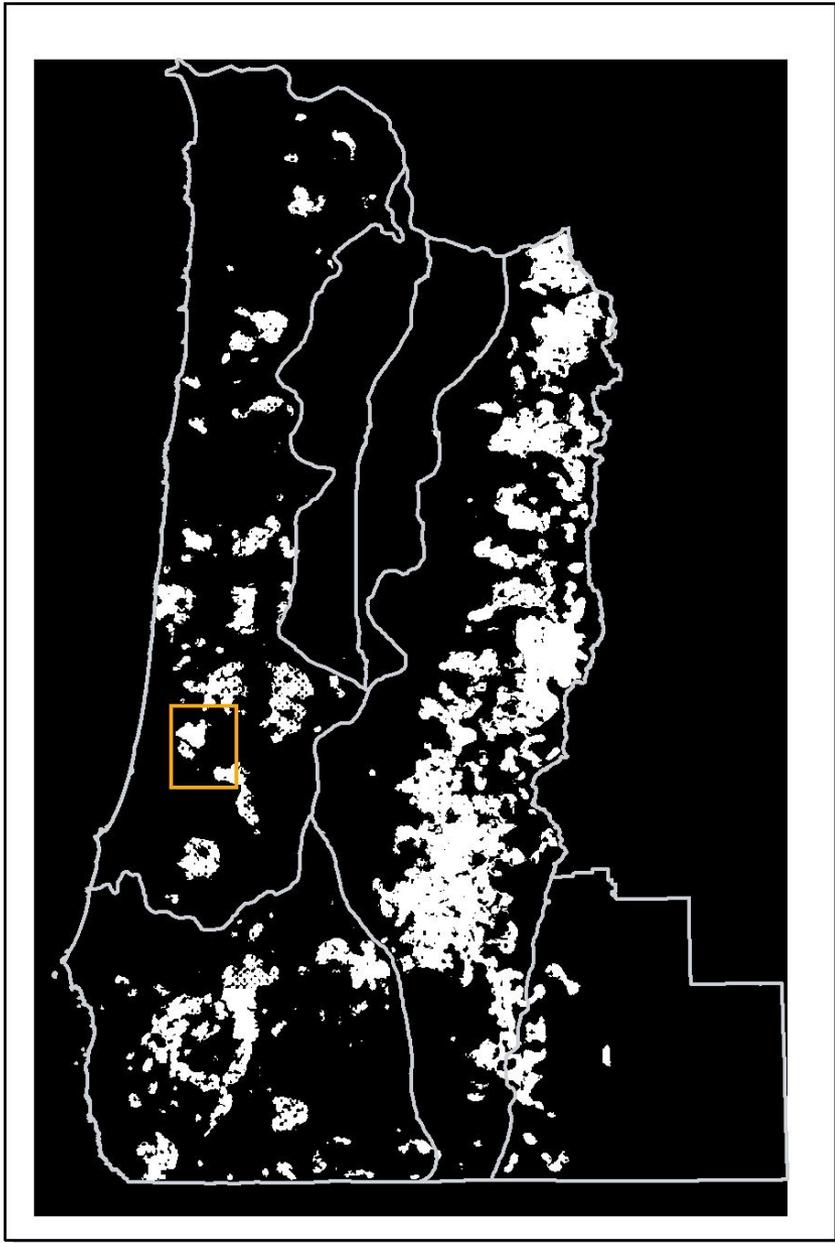
Focal Percent (1.5 Miles)



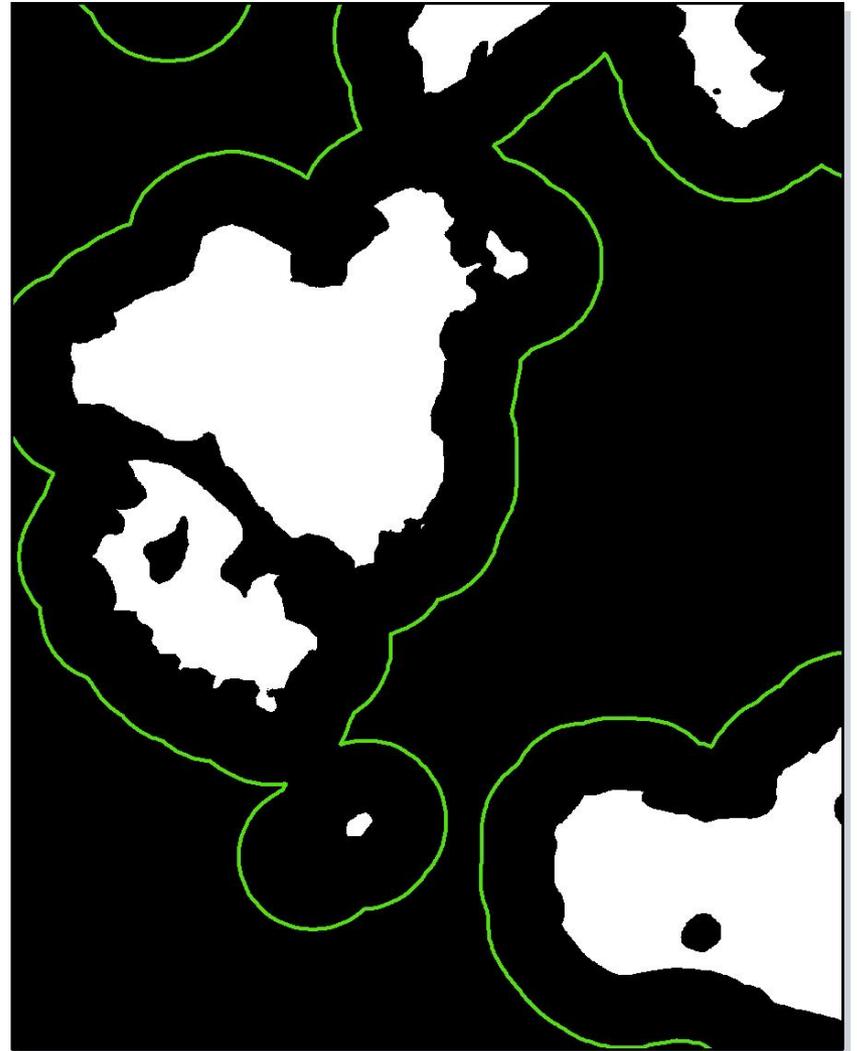
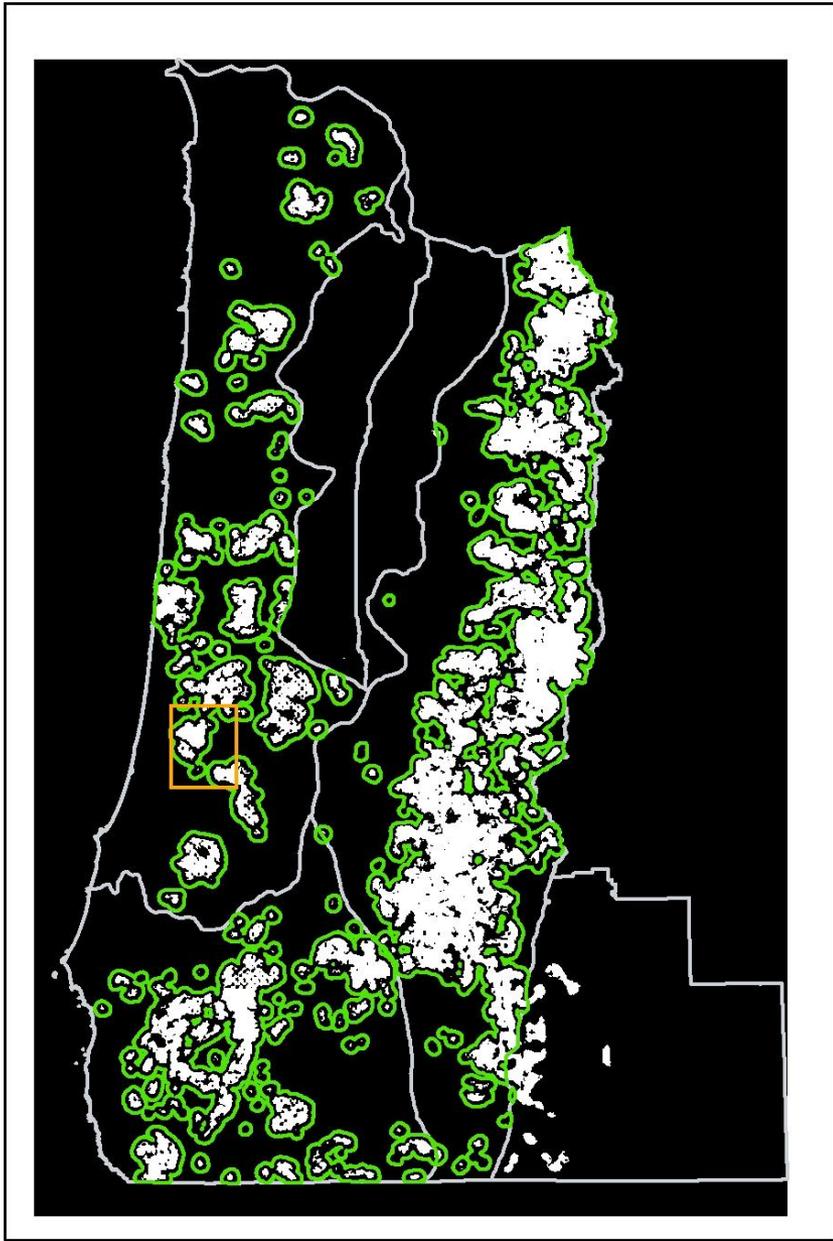
NSO Habitat $\geq 50\%$ (1.5 Miles)



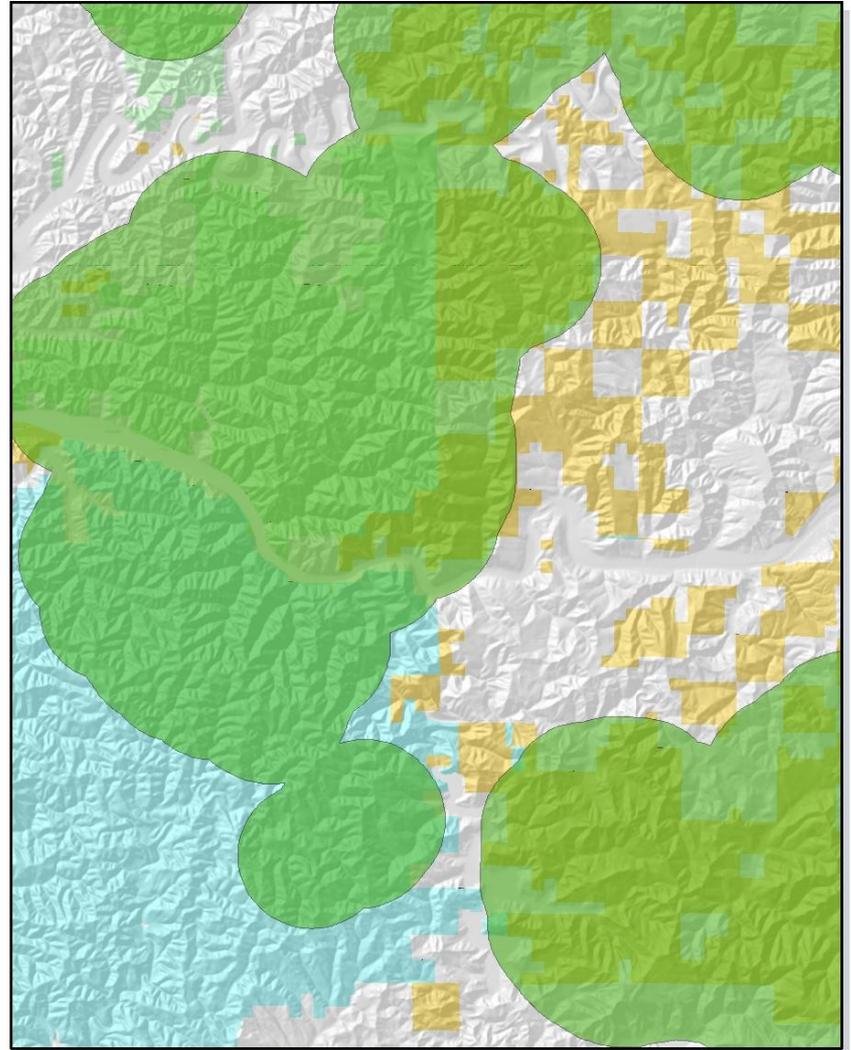
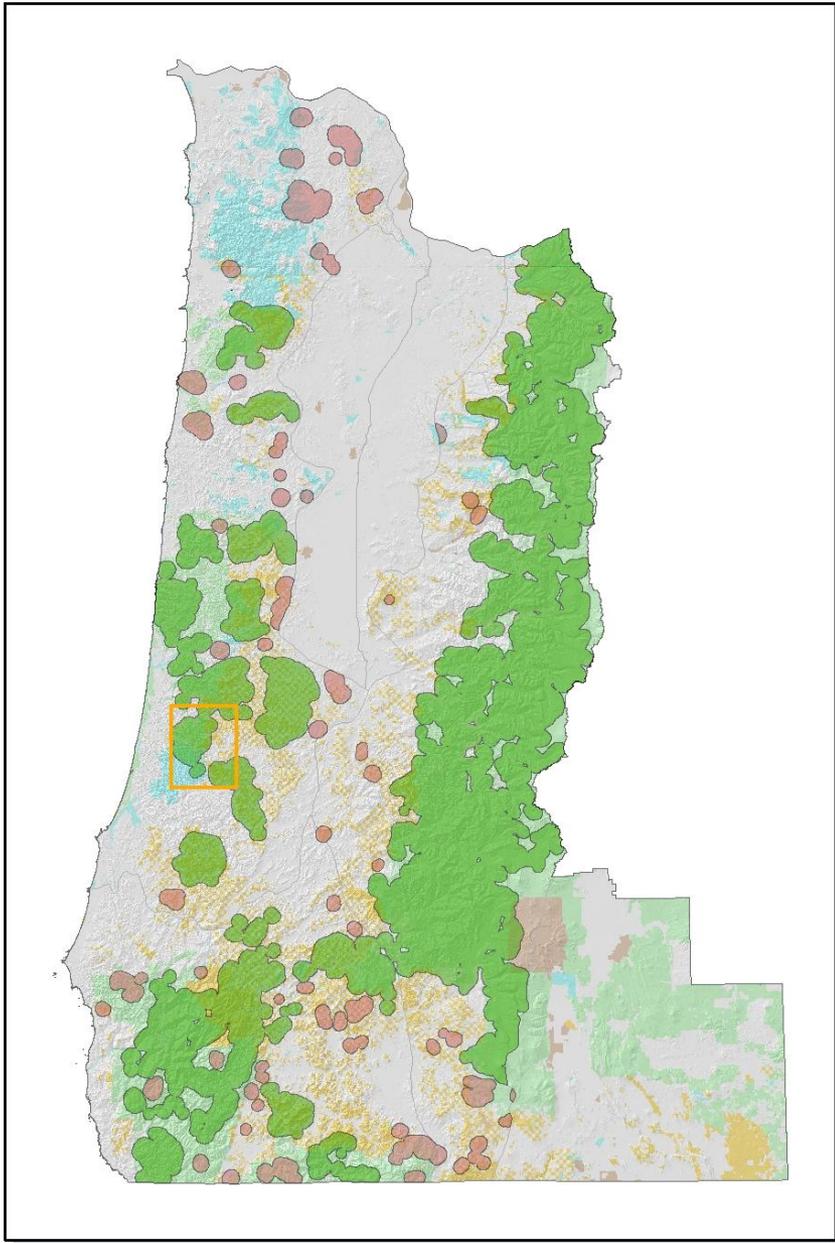
NSO Habitat $\geq 50\%$
(500 Acres and 1.5 Miles)



NSO Habitat Blocks by Province



NSO Habitat Blocks by Province



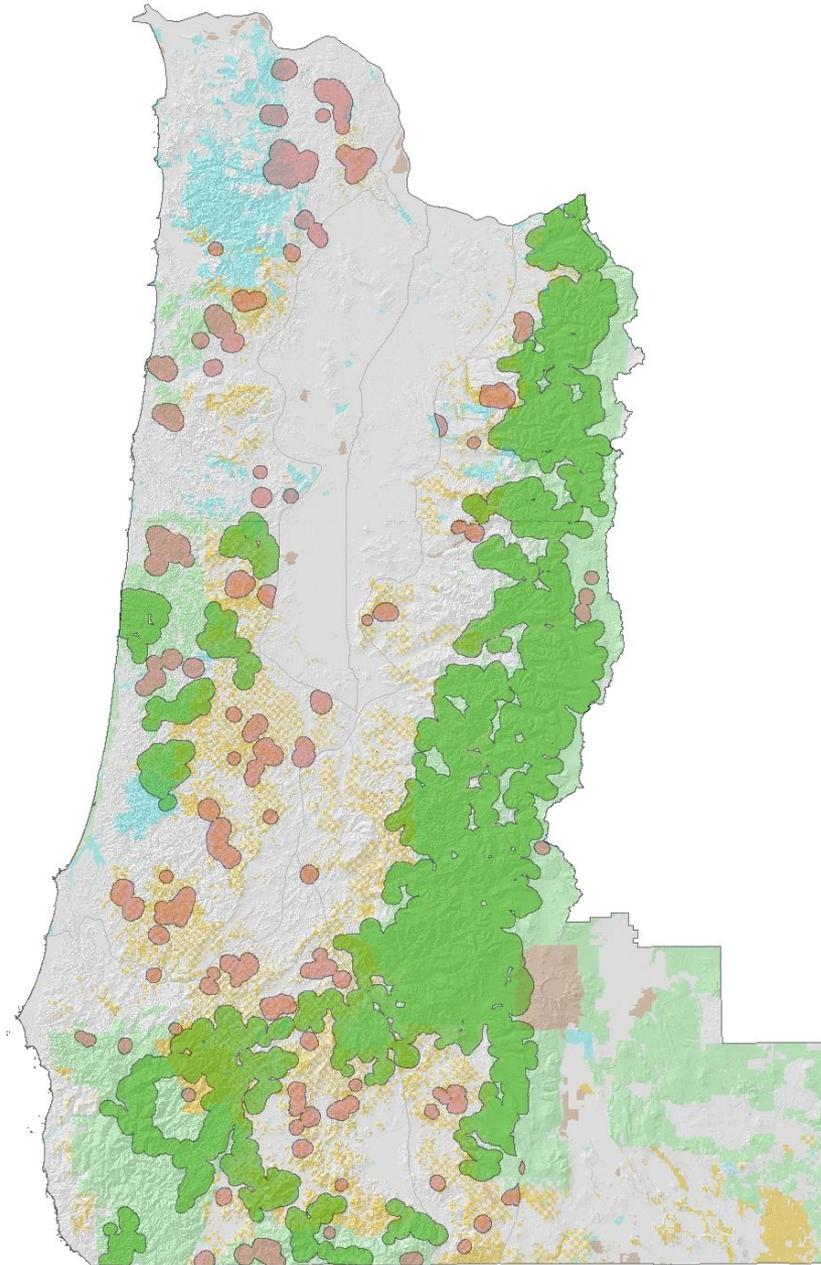
A3 Y2006

NSO Blocks - All Ownerships

-  Small Block
-  Large Block

Major Ownership

-  Private or unknown management
-  State or local government
-  Other federal agencies
-  Bureau Of Land Management
-  United States Forest Service



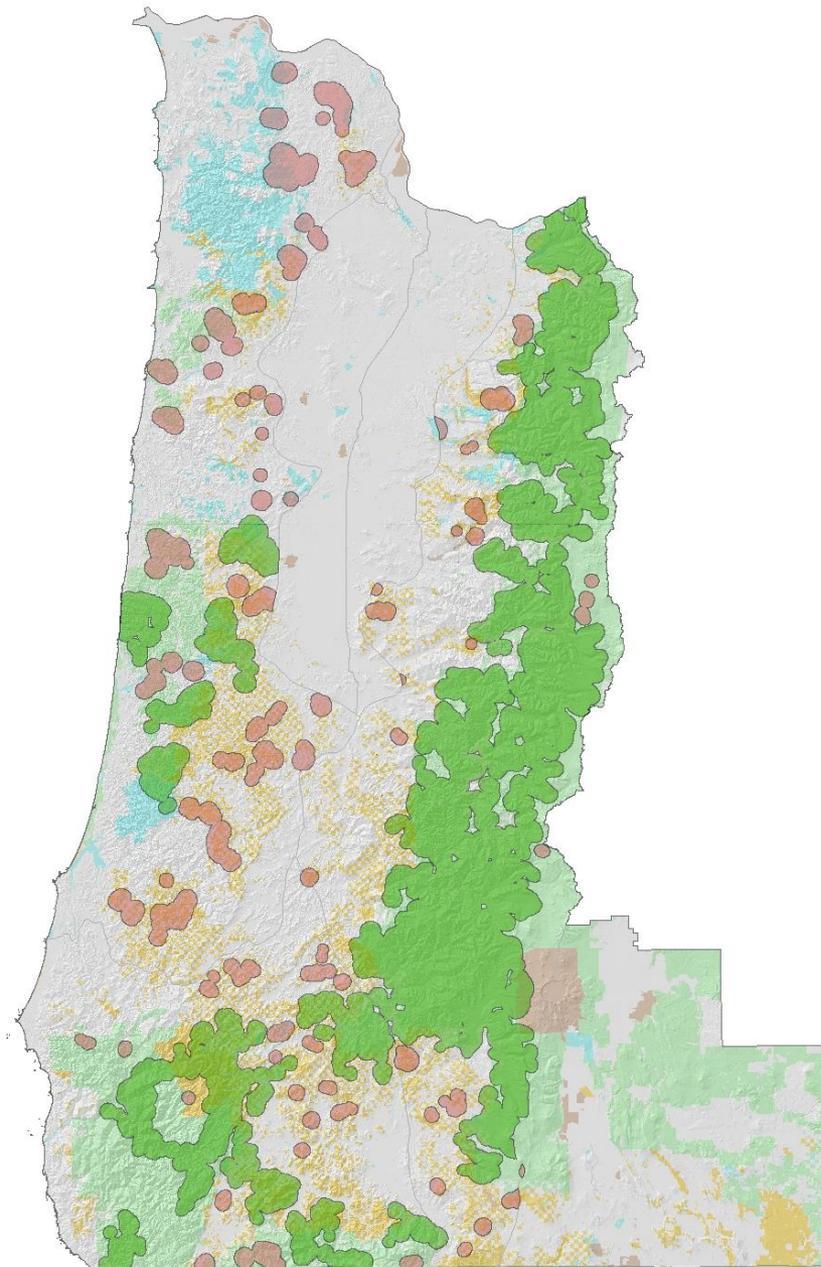
A2 Y2016

NSO Blocks - All Ownerships

-  Small Block
-  Large Block

Major Ownership

-  Private or unknown management
-  State or local government
-  Other federal agencies
-  Bureau Of Land Management
-  United States Forest Service



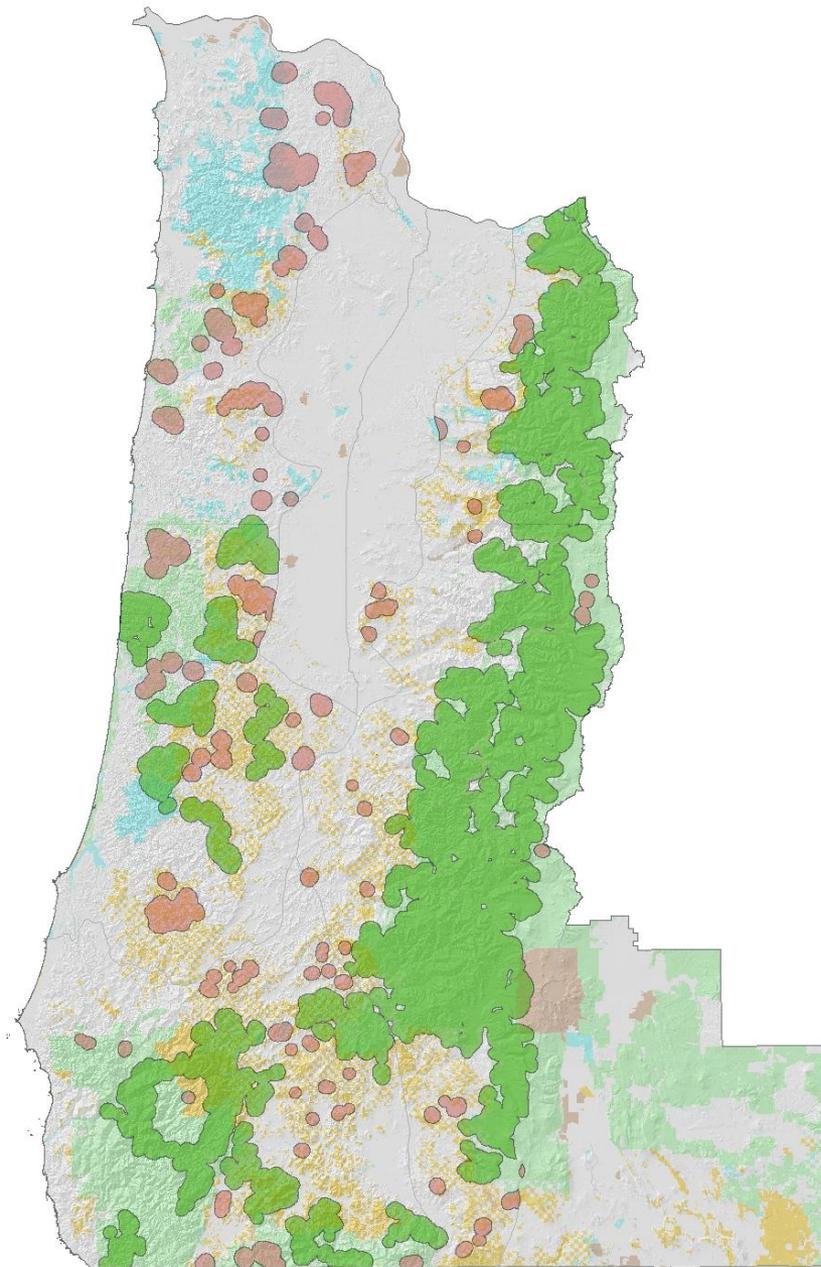
A2 Y2026

NSO Blocks - All Ownerships

-  Small Block
-  Large Block

Major Ownership

-  Private or unknown management
-  State or local government
-  Other federal agencies
-  Bureau Of Land Management
-  United States Forest Service



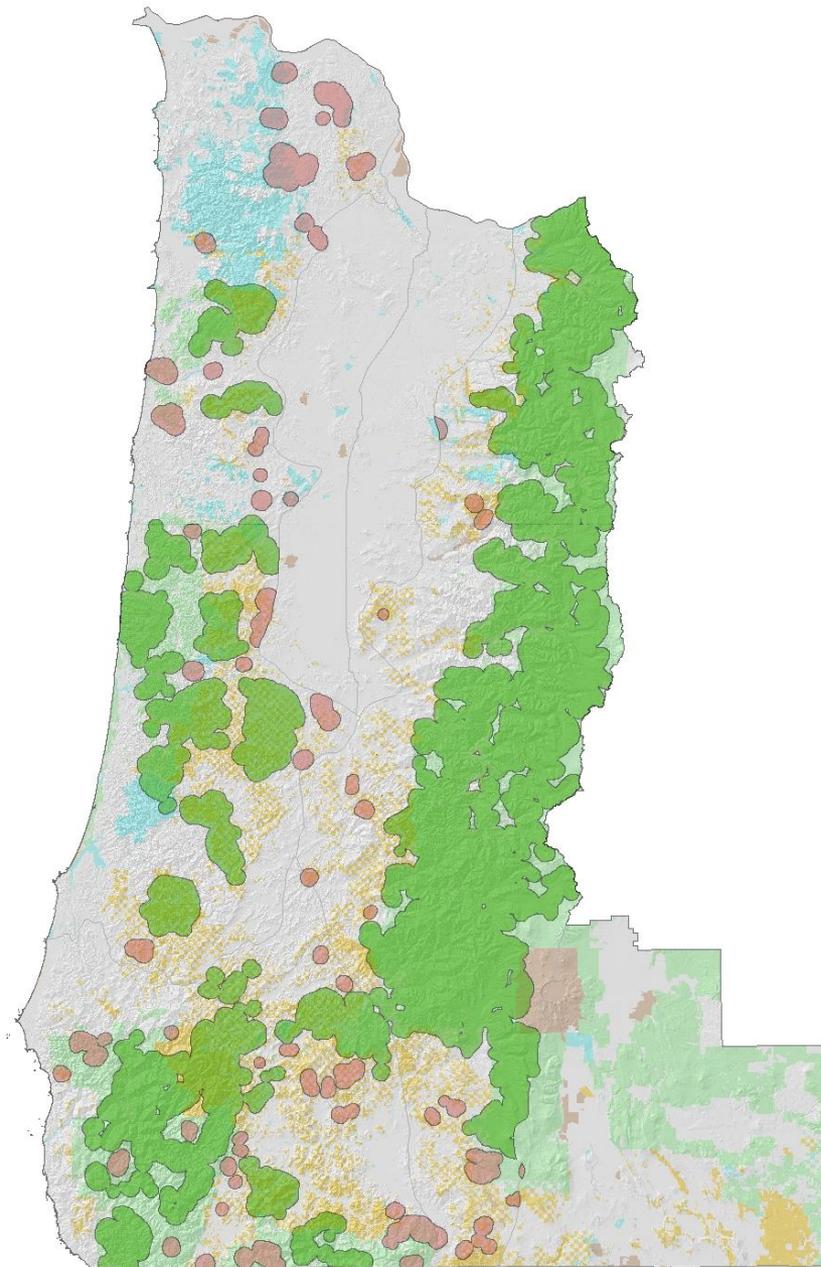
A2 Y2056

NSO Blocks - All Ownerships

-  Small Block
-  Large Block

Major Ownership

-  Private or unknown management
-  State or local government
-  Other federal agencies
-  Bureau Of Land Management
-  United States Forest Service



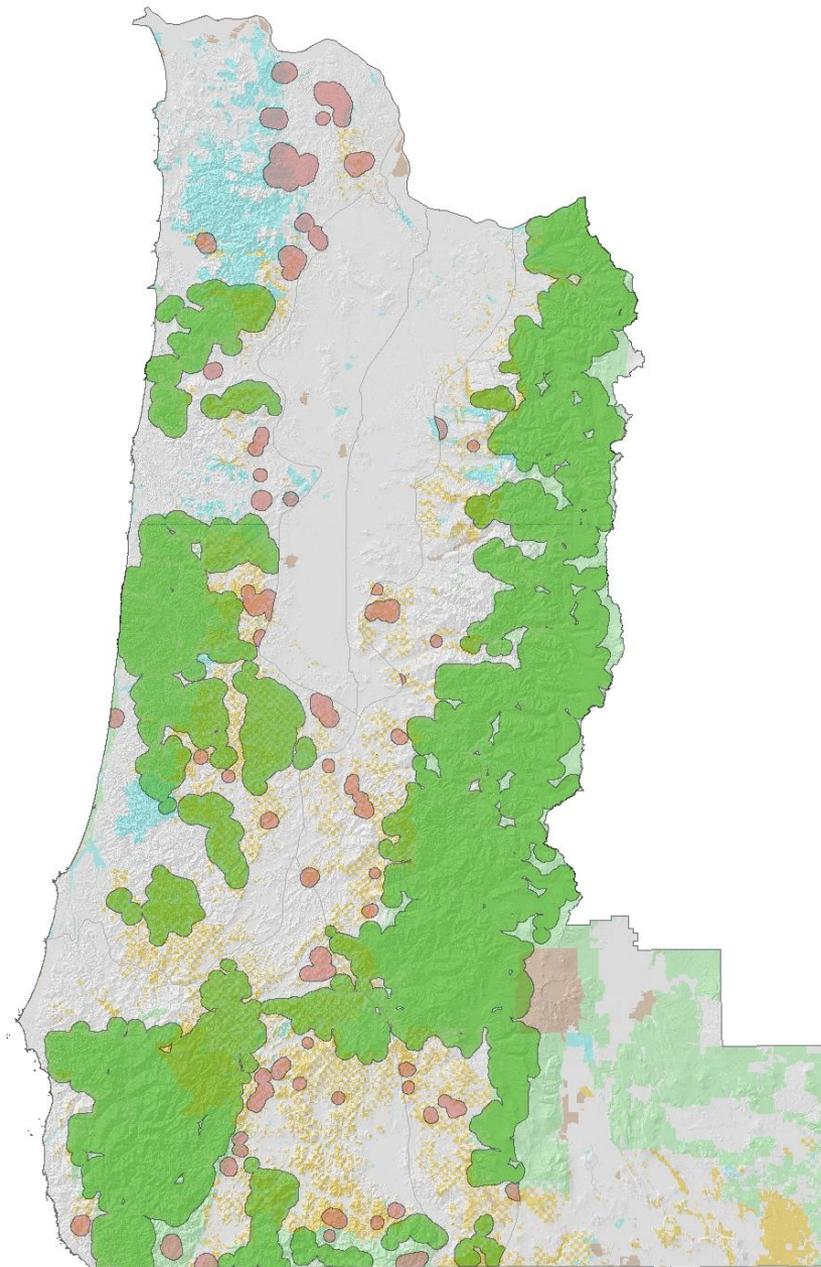
A2 Y2106

NSO Blocks - All Ownerships

-  Small Block
-  Large Block

Major Ownership

-  Private or unknown management
-  State or local government
-  Other federal agencies
-  Bureau Of Land Management
-  United States Forest Service



A2 LSMA-36

- + Revised A2 LSMAs ***
- + Original A2 LSMAs ***

*** Yellow = Additions
Orange = Unchanged
Red = Subtractions

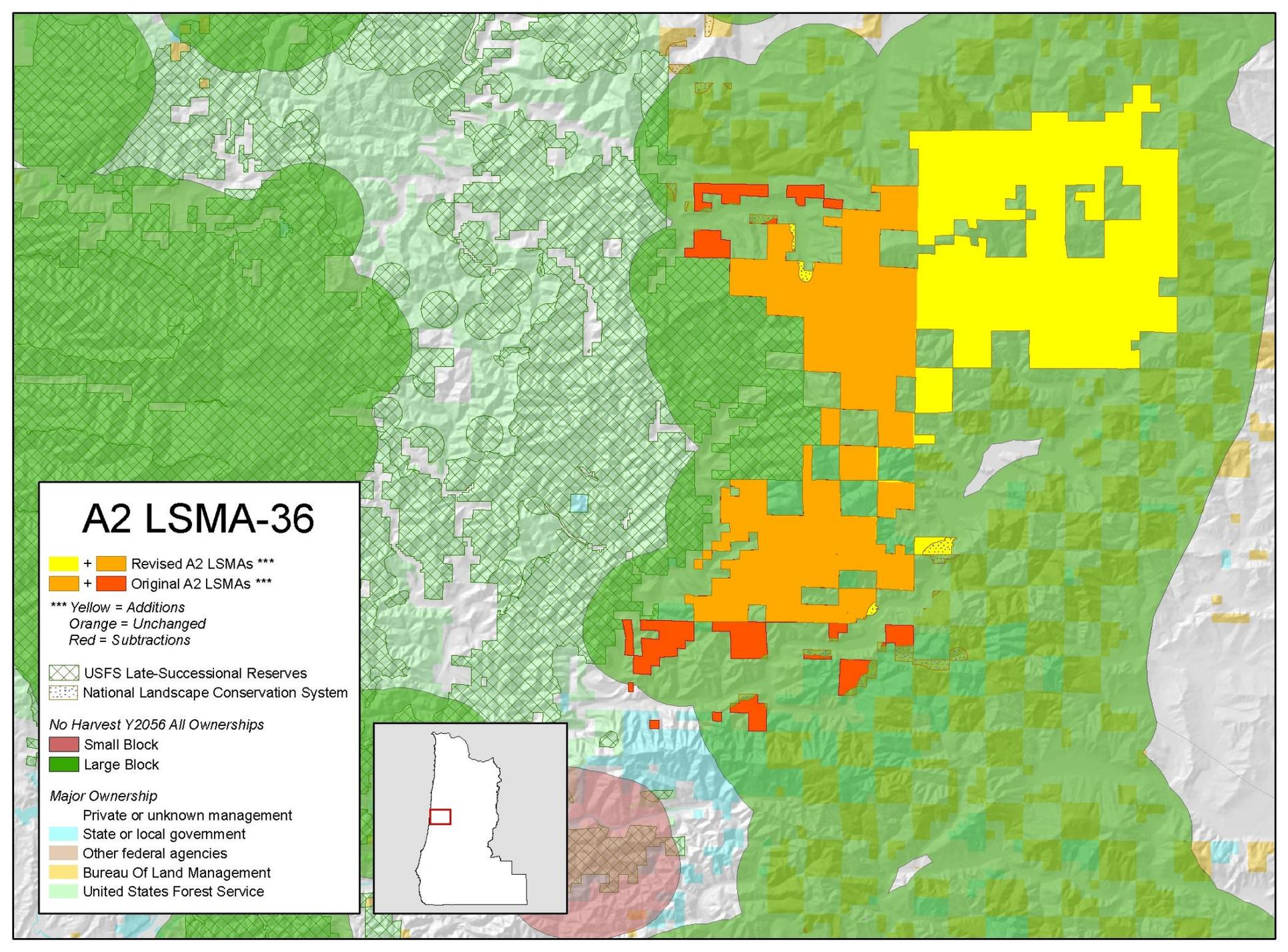
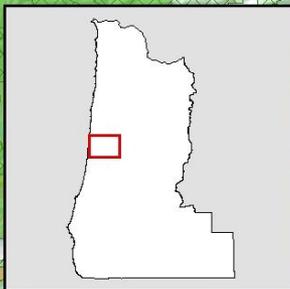
- USFS Late-Successional Reserves
- National Landscape Conservation System

No Harvest Y2056 All Ownerships

- Small Block
- Large Block

Major Ownership

- Private or unknown management
- State or local government
- Other federal agencies
- Bureau Of Land Management
- United States Forest Service



A2 LSMA-24-27

- Yellow + Orange Revised A2 LSMAs ***
- Orange + Red Original A2 LSMAs ***

*** Yellow = Additions
Orange = Unchanged
Red = Subtractions

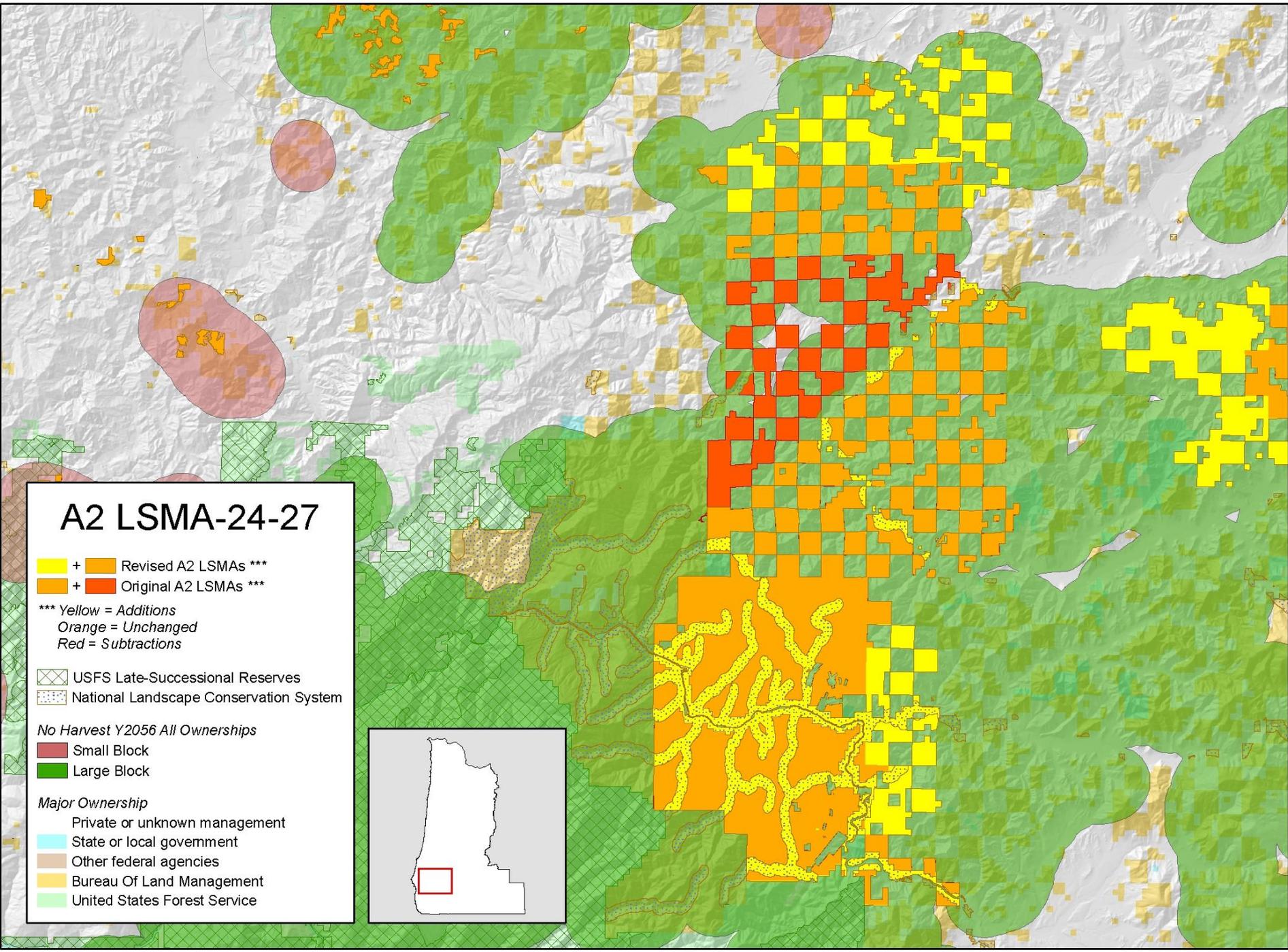
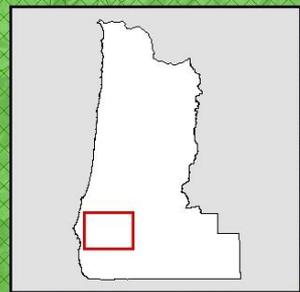
- USFS Late-Successional Reserves
- National Landscape Conservation System

No Harvest Y2056 All Ownerships

- Small Block
- Large Block

Major Ownership

- Private or unknown management
- State or local government
- Other federal agencies
- Bureau Of Land Management
- United States Forest Service



A2 LSMA-11

- Yellow + Orange Revised A2 LSMAs ***
- Orange + Red Original A2 LSMAs ***

*** Yellow = Additions
Orange = Unchanged
Red = Subtractions

- USFS Late-Successional Reserves
- National Landscape Conservation System

No Harvest Y2056 All Ownerships

- Small Block
- Large Block

Major Ownership

- Private or unknown management
- State or local government
- Other federal agencies
- Bureau Of Land Management
- United States Forest Service

