

Type N Soft Rock Experimental Buffer Study

CMER

RSAG

Northwest Indian Fisheries Commission
Dept of Ecology

8 May 2012

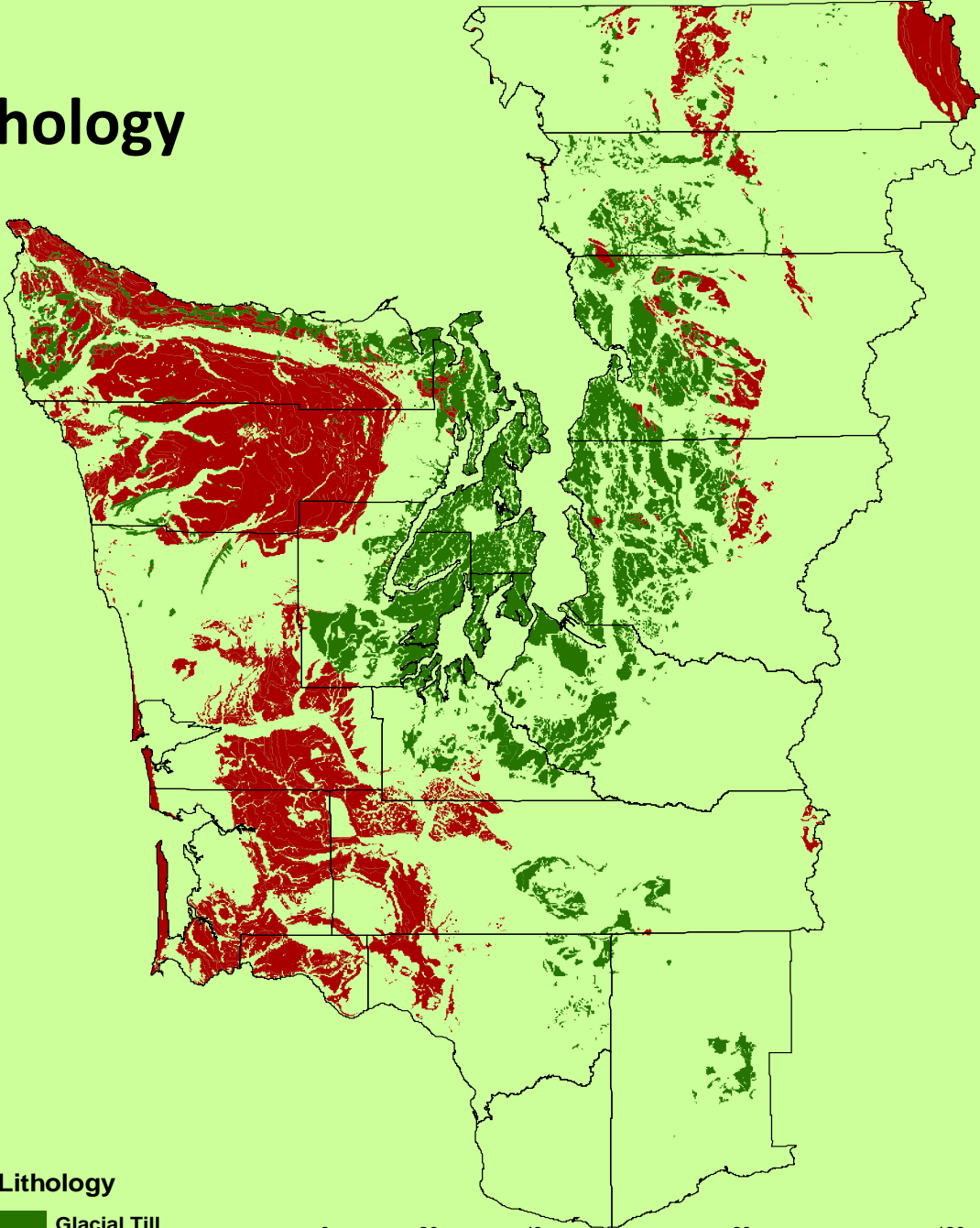
Critical Questions

- How does harvest of Type N stream basins affect **water temperature** within and at the outlet of the Type N basin?
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- How does harvest of Type N stream basins affect **sediment input to and storage** within the Type N channel?
- How does harvest of Type N stream basins affect **suspended sediment and nutrient export to downstream** Type F waters?
- How does harvest of Type N stream basins affect benthic **macroinvertebrate communities** immediately downstream of the harvest unit?

Site Selection Criteria

Criterion	Limit	Information Source
Geographic location	Western Washington	GIS analysis
Elevation	< 1,067 m (3,500 ft) for the Olympic Peninsula < 1,219 m (4,000 ft) for the Cascades and SW WA	
Gradient	5 – 50% (3 – 27 degrees)	
Lithology	> 80% of basin in glacial till or marine sediments	
Basin size	~12 – 49 ha (~30 – 120 ac)	
Stand age	>70% of basin between 30 and 80 years old during harvest treatment window	
Ownership	>80% owned by single participating landowner	
Harvest timing	Treatment basins: harvest Oct 2013 – May 2015 Reference basins: no harvest before Oct 2016	

Lithology

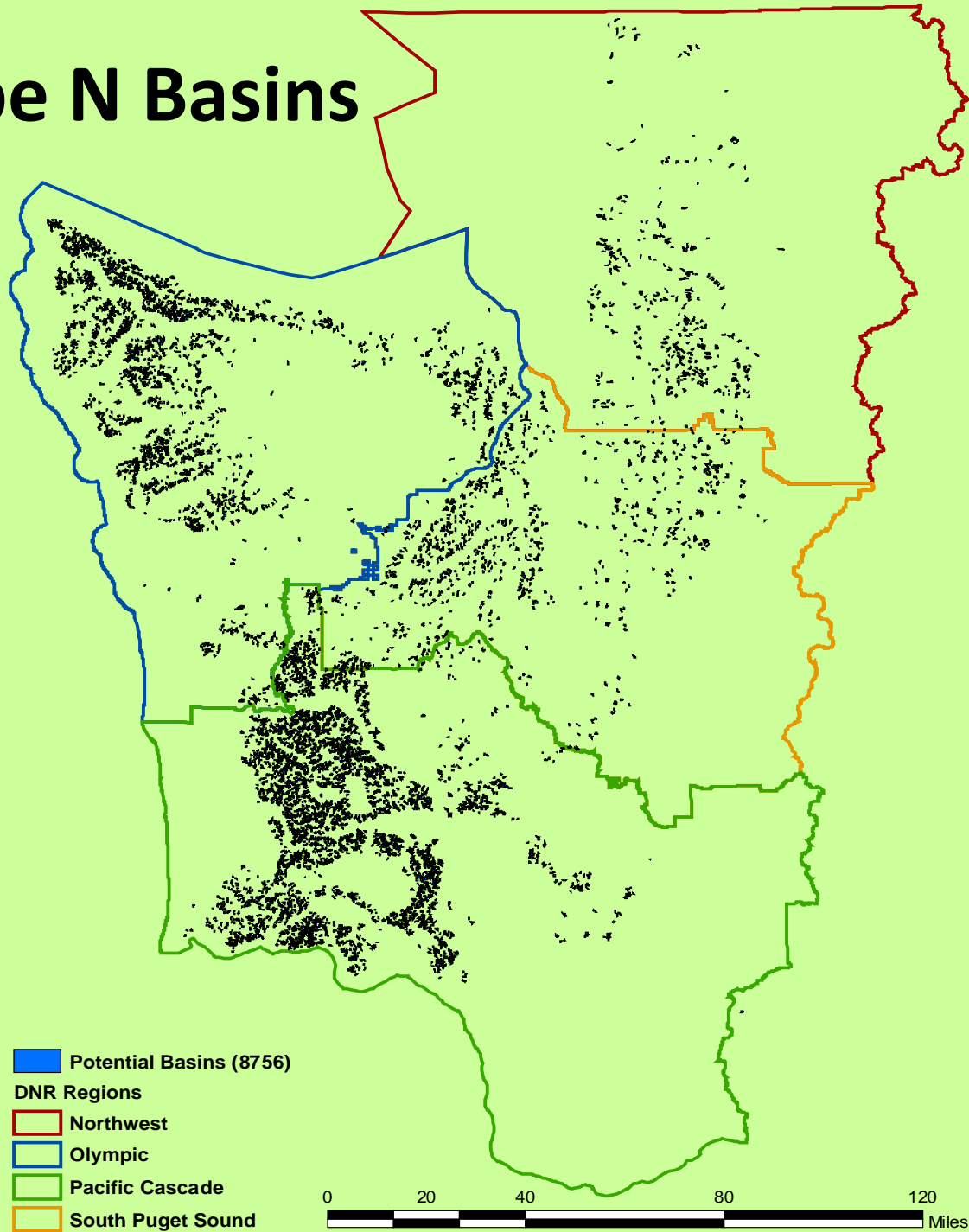


Lithology

- Glacial Till
- Marine Sedimentary



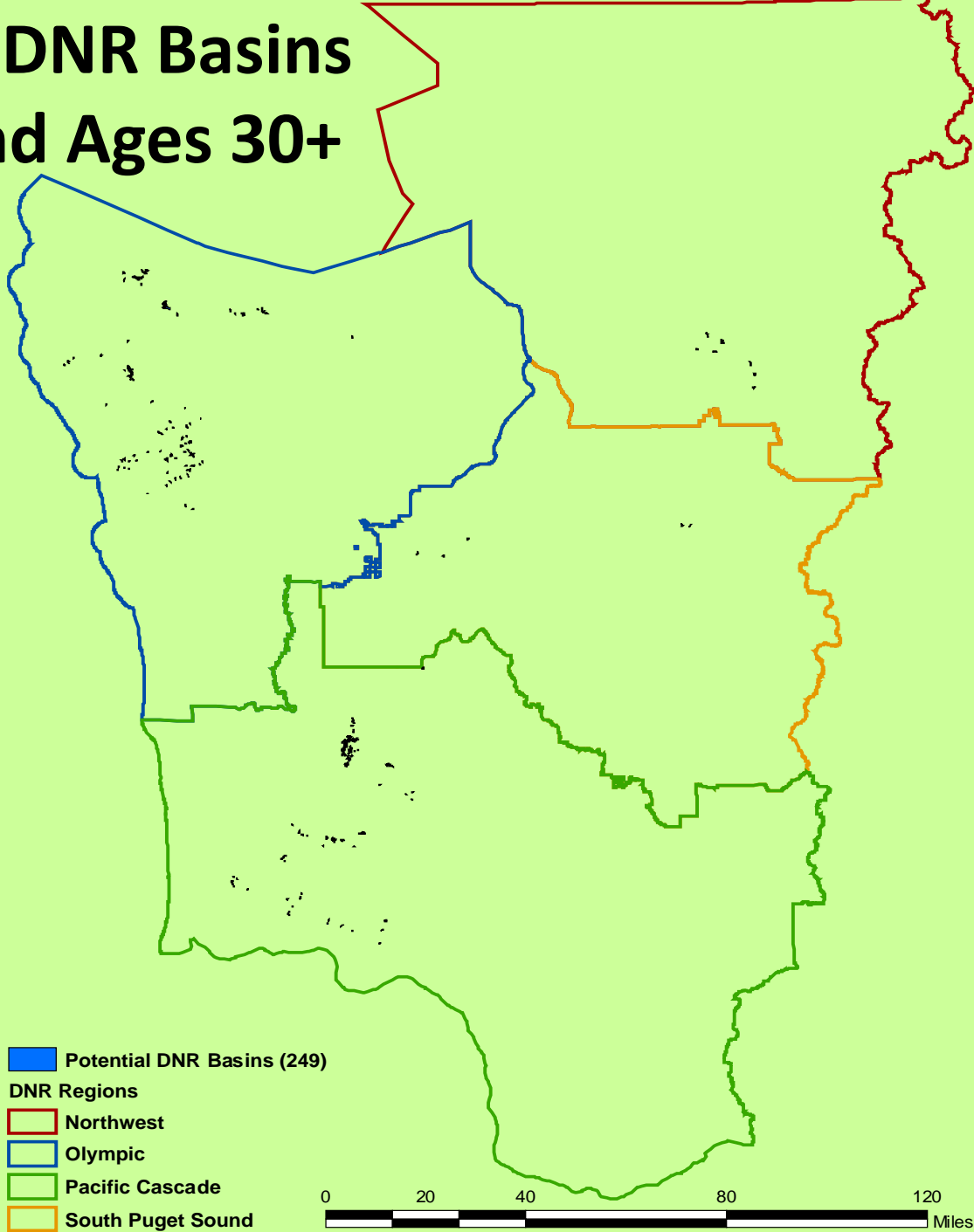
Potential Type N Basins



Site Selection Criteria

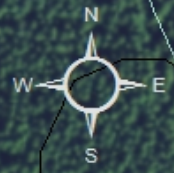
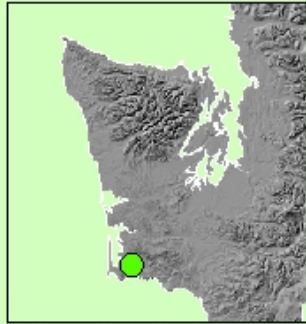
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Potential DNR Basins with Stand Ages 30+



Treatment Sites

Landowner	Potential Sites	Need last fish survey	Likely	Need Pilot Rule
DNR	4	0	NA	0
287296				
287551				
288612				
333169				
Rayonier	3	0	3	0
121873	Need buffer laid out.			
324432				
324440				
Longview	2	0	1	1
117227	Need buffer laid out			
138089	Needs Pilot rule for green-up.			
Hancock	4	0	1	3
116922	Need Pilot Rule to use modeled last fish point instead of surveyed point.			
117237				
117737				
133065	Needs buffer laid out.			
Weyerhaeuser	1	0	1	0
67385	Needs buffer laid out.			
Green Crow	1	0	1	0
294971	1 of these sites will be used as a treatment. Going to assess unstable slopes before making a decision.			
295097				
295314				
295318				
Totals	15	0	7	4



Type Breaks

- Surveyed
- Modeled

Streams

- Type S
- Type F
- Type N
- Type U
- Wetland/Marsh

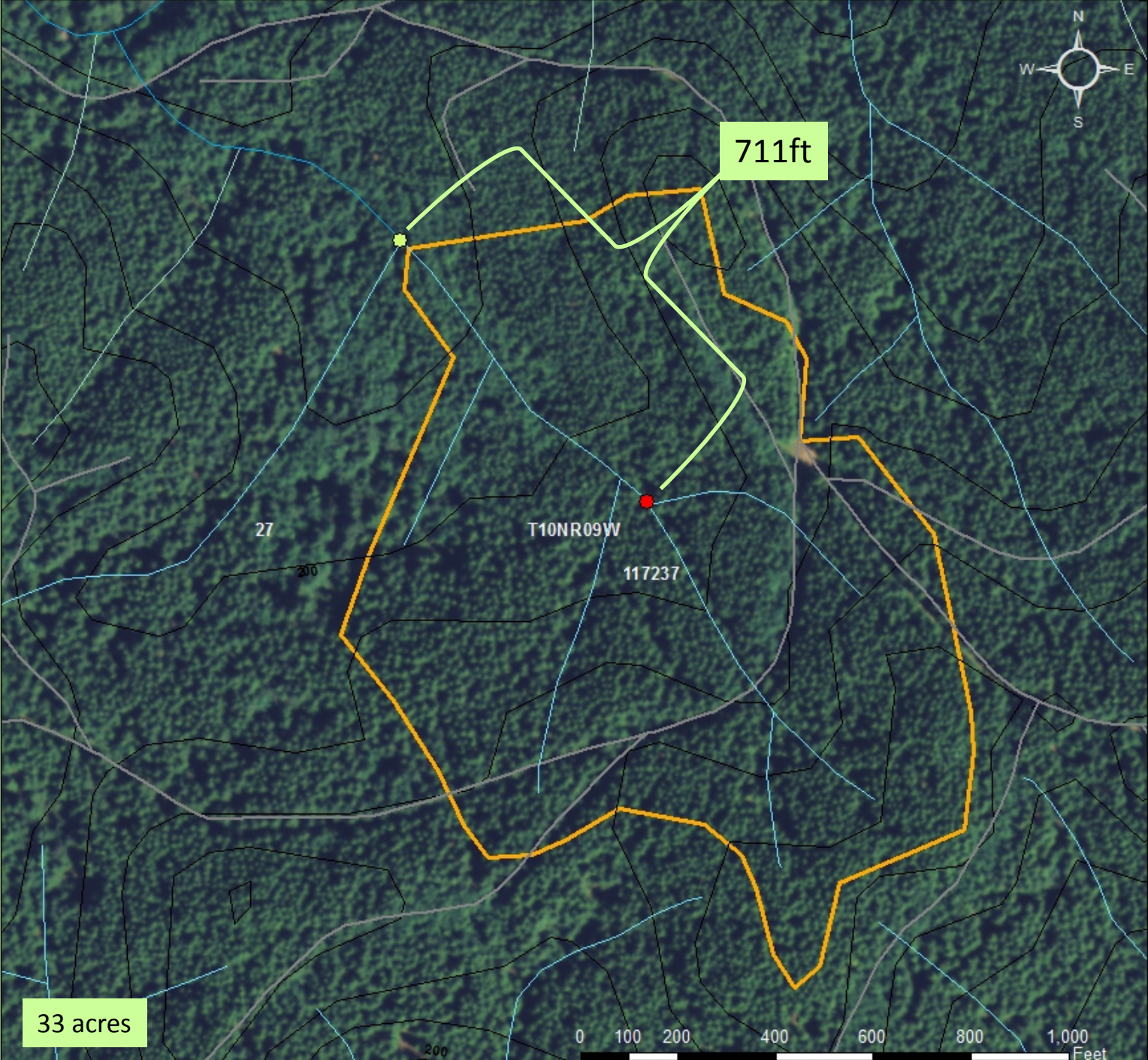
Roads

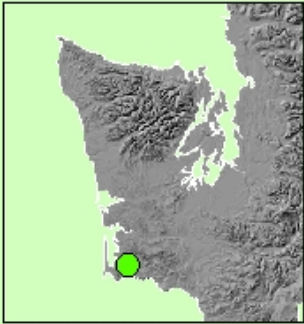
- Highway
- Paved Road
- Dirt Road

Contours 40ft

Basins

- Rayonier
- DNR
- Green Crow
- Hancock
- Longview
- Weyerhaeuser





Type Breaks

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Roads

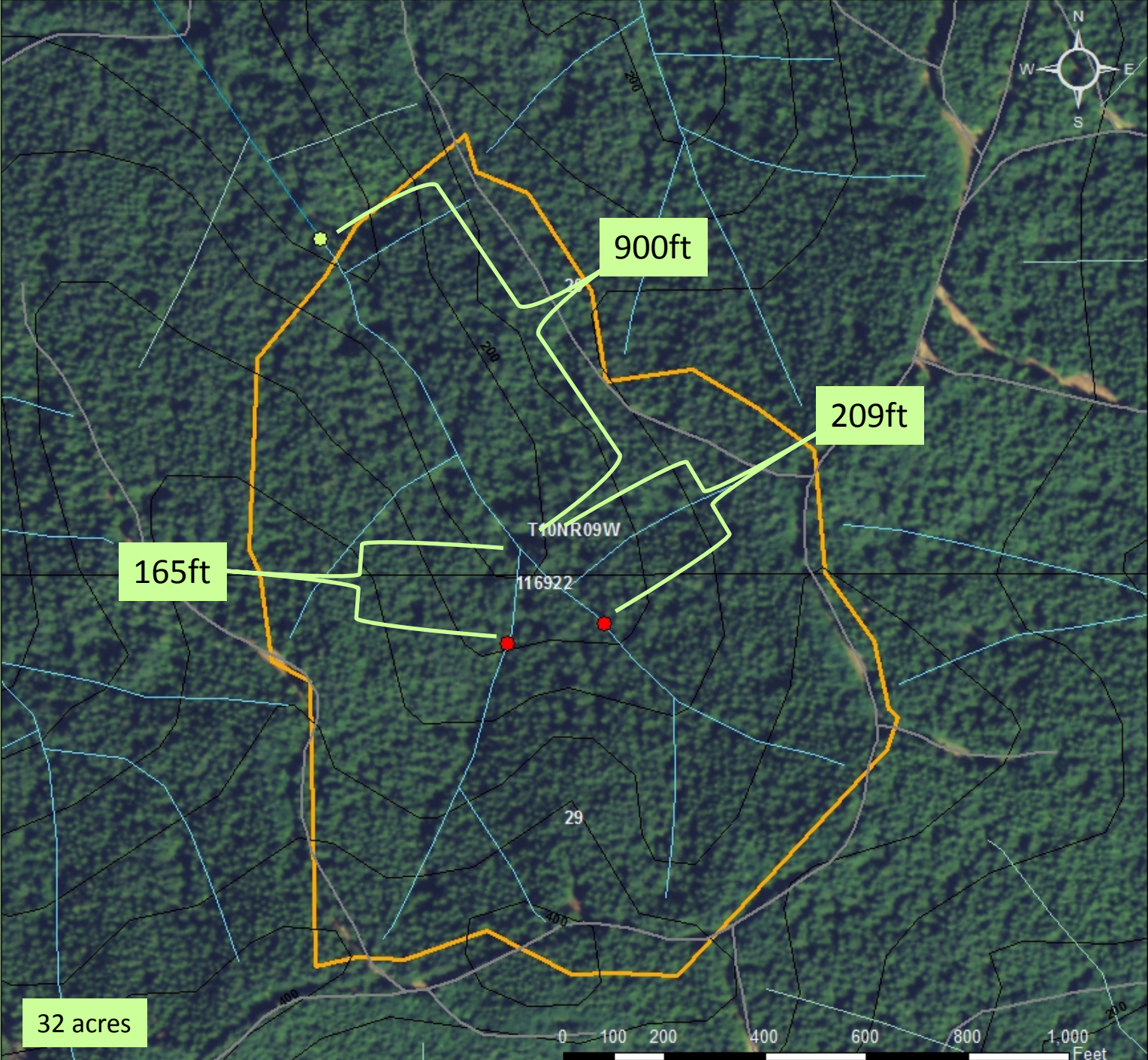
- Highway
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Contours 40ft

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Basins

- Rayonier
- DNR
- Green Crow
- Hancock
- Longview
- Weyerhaeuser



165ft

900ft

209ft

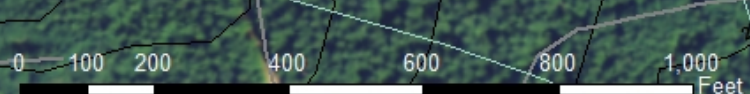
32 acres

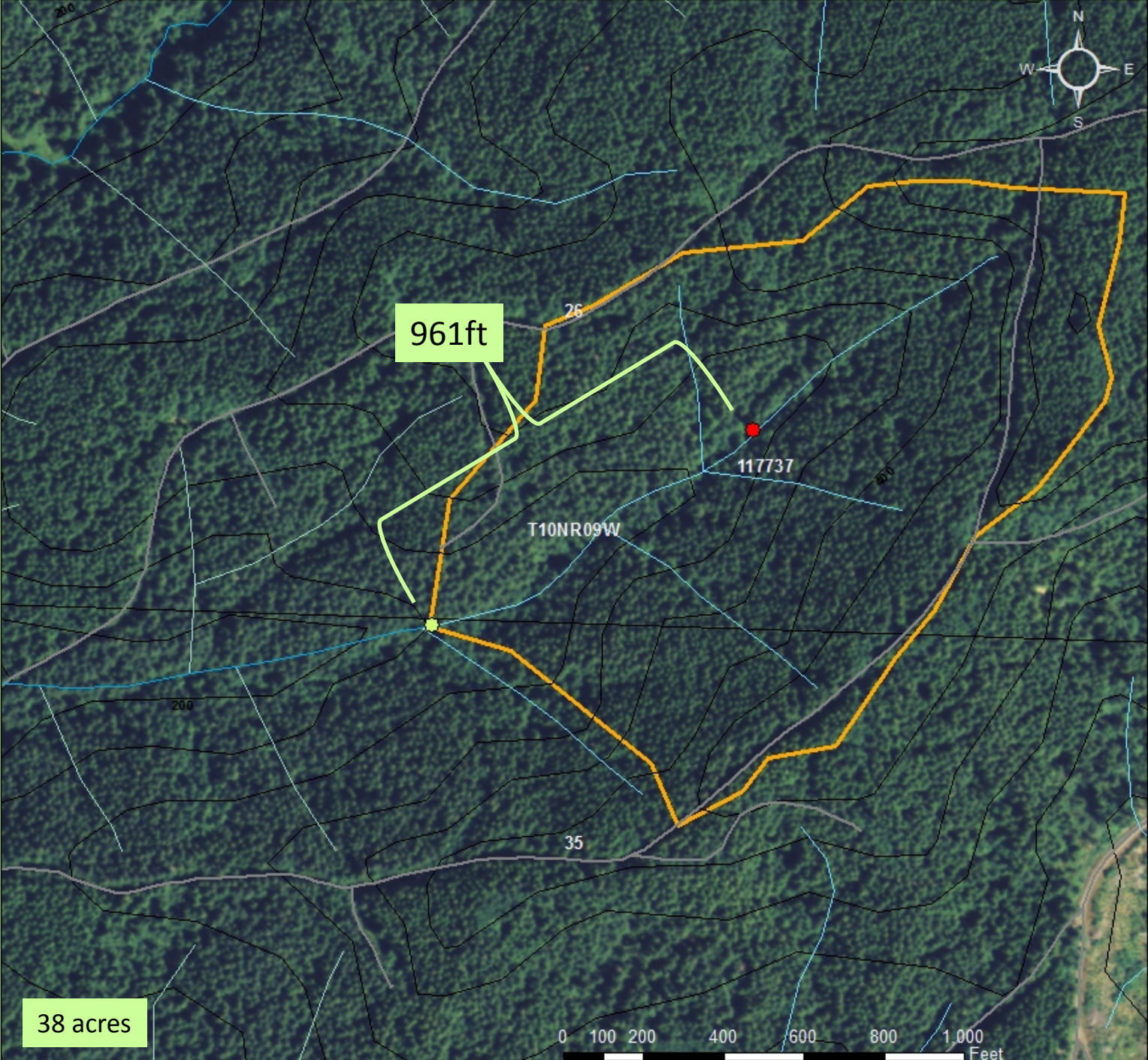
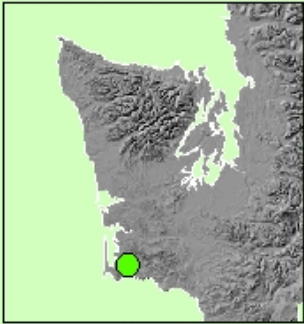
T10NR09W

116922

29

400





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Roads

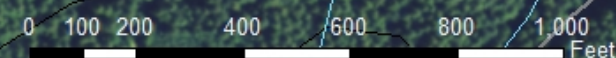
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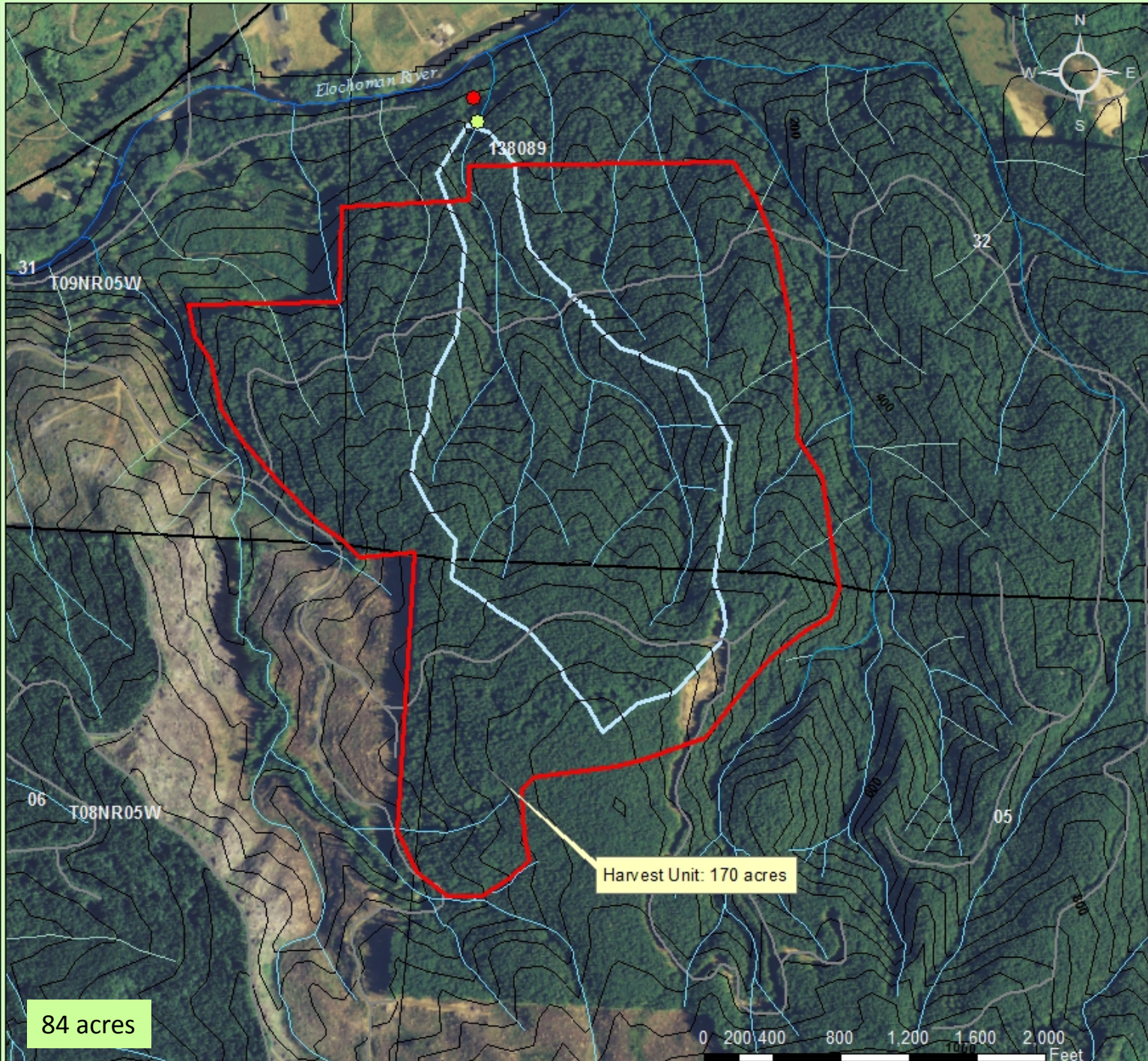
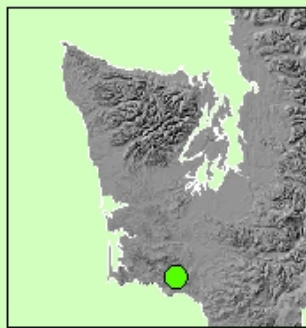
Contours 40ft

Basins

- Rayonier
- DNR
- Green Crow
- Hancock
- Longview
- Weyerhaeuser

38 acres





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- Modeled

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Roads

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Contours 40ft

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