

**Forest Restoration Projects on the LT Murray and  
Mt St Helens Wildlife Area**

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## Summary Sheet

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**Meeting dates:** July 15, 2016

**Agenda item:** Forest Restoration Thinning Projects on the LT Murray Wildlife Area in Kittitas County

**Presenter(s):** Paul Dahmer and Clay Sprague

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### **Background summary:**

The project proposal includes two commercial thinning projects on the LT Murray Wildlife Area with a combined acreage of roughly 1,300 acres and an anticipated yield of 3.8 million board feet. The projects are supported with \$250,000 of 15-17 Capital Project funding and must be completed by June 30, 2017. The projects are similar in nature and were only split to facilitate more rapid work.

The project areas were selected by the WDFW Forester and LT Murray Wildlife Area staff in cooperation with the DNR's state forester. Criteria for selecting units included stands with forest health problems, position in high priority wildland urban interfaces, and adjacency to State Trust Lands. They have also been identified as important areas by the Tapash Sustainable Forest Collaborative.

The project areas consist of young to moderately aged, overstocked stands that are much more susceptible to epidemic disease and insect outbreaks as well as severe wildfire. Past high-grade logging activity resulted in the removal of most of the large diameter, fire resistant trees. Increasingly effective wildfire suppression techniques and the lack of active timber management have resulted in over-stocked stand conditions. These practices have resulted in an increased presence of pathogens (dwarf mistletoe and root rot) and insect activity (spruce budworm and bark beetles), as well as continuous dense fuels.

Thinning prescriptions will remove excess trees to reduce elevated wildfire and forest health risks. This leaves between 25 and 35 (in general) of the best available trees per acre to maximize habitat quality and put forests on accelerated trajectories to once again develop into resilient, fire climax forests. The following criteria will be used during the leave tree selection process:

- The Individuals, Openings and Clumps (2-7 trees/clump) marking strategy will be used.
- Species preference, in declining order is ponderosa pine, western larch, and Douglas-fir.
- Minimum diameter for leave trees is 8" in diameter at breast height (dbh).
- Leave large diameter "legacy" trees where present.
- In general, leave all trees >24" dbh unless they pose a safety threat (near roads) or, a non-preferred species, like grand fir is threatening a preferred species via competition or wildfire fuels.
- Leave healthy trees with good growing characteristics.
- Leave defective trees with unique characteristics (cat faces, "wolfy" crowns, large limbs, etc.).
- Mistletoe infected trees provide important habitat and will be left strategically throughout the units.
- Leave "unique" species that are limited to micro-sites (western red cedar and Engelmann spruce).
- Create small openings (0.5 to 1 acre) across the unit where appropriate.
- All snags that do not pose a safety threat, as per L & I guidelines, will be left standing. Any snags dropped for safety reasons will be left in place.
- Create snags in snag-deficient areas but cutting them off as high as the harvester can reach.

Timber will be harvested using ground-based systems including feller bunchers and rubber tired skidders on slopes < 45%. To the maximum extent possible, WDFW will use existing roads (open or abandoned), skid trails, and landings. There may be a small amount of temporary road construction and abandonment. Previously abandoned roads and new temporary roads (if any) will be abandoned at the discretion of the LT Murray Wildlife Area Manager. All riparian buffers, leave trees, and harvest prescriptions meet or exceed State Forest Practice Regulations.

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**Policy issue(s) you are bringing to the Commission for consideration:**

Responsible land stewardship through appropriate forest management.

The Commission maintains authority to approve forest harvest projects equal to or exceeding one million board feet. The Department recommends and is seeking Commission approval of these projects.

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**Public involvement process used and what you learned:**

WDFW will follow the State Environmental Policy Act (SEPA) public review process.

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**Action requested:**

Approval of the proposed commercial thinning projects.

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**Draft motion language:**

Move to approve the proposed commercial thinning projects as presented.

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**Justification for Commission Action:**

This action will 1) restore ecological integrity, 2) improve wildlife habitat quality for elk and other wildlife, 3) address forest health concerns, 4) reduce risks related to public health and habitat quality, and 5) accelerate development of old growth conditions.

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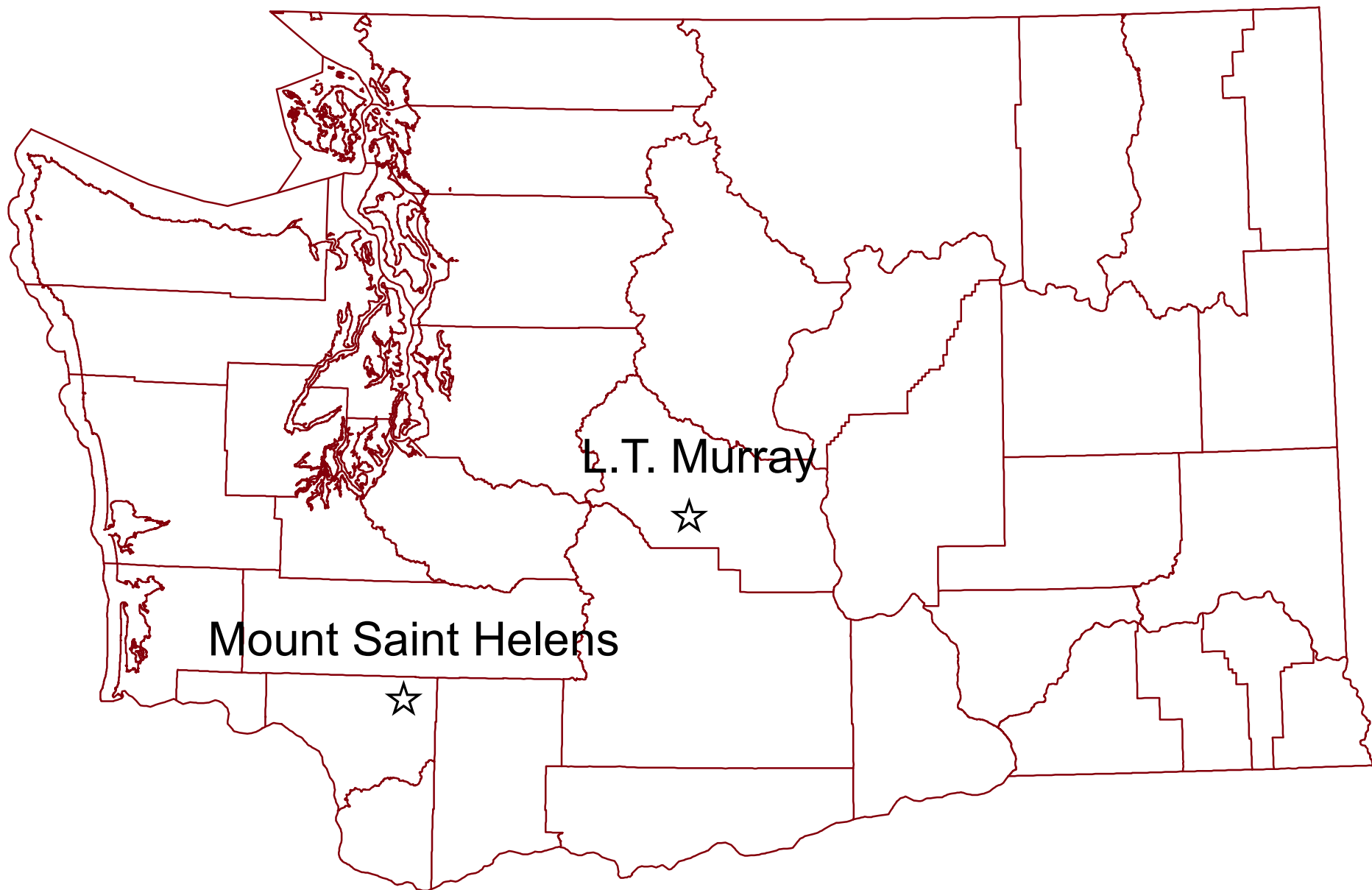
**Communications Plan:**

Wildlife Area staff will notify the public regarding temporary access impacts.

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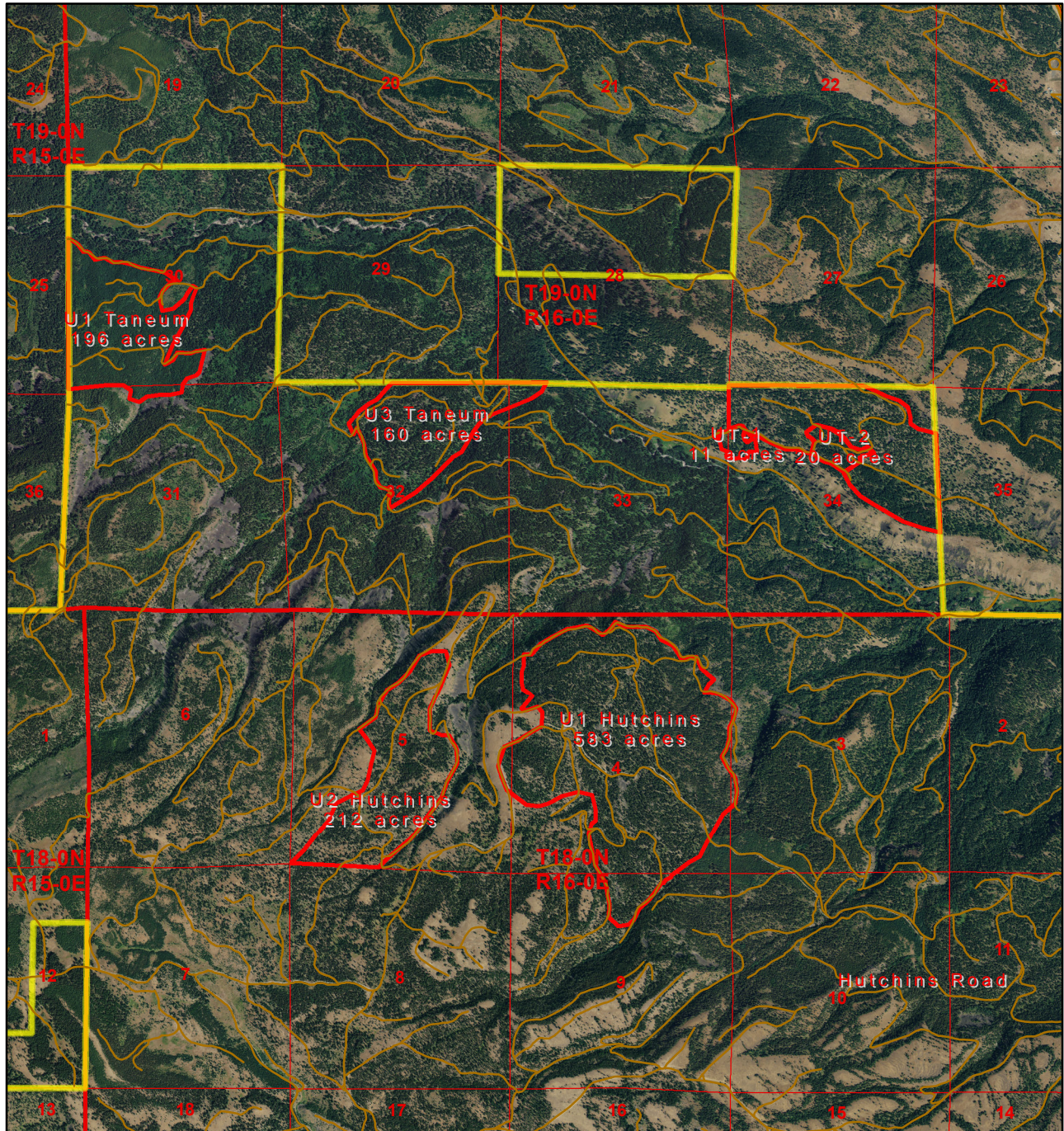
*Form revised 12/5/12*

# Forest Thinning Project Locator Map







0 25 50 100 Miles

# LT Murray: Thinning Units



## Legend

-  All roads: open, closed and abandoned
-  LT\_Murray\_Units
-  Sections
-  WDFW Wildlife Area



0 0.175 0.35 0.7 1.05 1.4 Miles

1 inch = 0.73 miles

July 15, 2016 Conference Call: Supplemental Photos for the LT Murray Thinning Project

Existing Conditions: 1) Dense plantation conditions, 2) mistletoe/insect/disease stunted trees, 3) few legacy trees.



Anticipated immediate post treatment conditions: (Sherman Creek Examples)



Desired Future Conditions: A remnant stand of open, mature forest on the LT Murray. Historically 50-70% of the Ponderosa Pine woodlands looked like this - currently about 3% do.



## Summary Sheet

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**Meeting dates:** July 15, 2016

**Agenda item:** Forest Restoration Thinning on the Mount Saint Helens Unit of the Mount Saint Helens Wildlife Area in Clark County

**Presenter(s):** Paul Dahmer and Clay Sprague

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**Background Summary:**

The project proposal includes thinning WDFW forests surrounding the North Fork Toutle River sediment plain. The sediment plain is non-vegetated due to materials constantly washing down from the blast zone. The surrounding forest landscape is largely managed as industrial forest where early successional conditions are greatly shortened with herbicide treatments and late succession forests are not allowed to develop. Therefore, WDFW-owned forests have the potential to provide forest structure and wildlife forage opportunities that are otherwise limited.

The project will improve habitat quality by thinning up to 250 acres of dense Douglas fir plantations that were planted circa the 1980 eruption. The dense plantations lack both species and structural diversity. Furthermore, overstocked conditions will cause the stands to stagnate due to excessive competition. By thinning, WDFW will accelerate tree growth, encourage other tree species (western red cedar, western hemlock, Sitka spruce, bigleaf maple, madrone, alder, etc.), increase understory vegetation, and increase wildlife forage, especially for elk. Small pocket openings will also be created on about 5% of treated areas to increase structural diversity and potential wildlife forage.

Thinning of the dense Douglas fir plantations will be modest to prevent excessive windthrow following treatment. The majority of larger wind firm trees will be retained. Cut trees will be selected to accelerate growth of other tree species that are suppressed and to encourage accelerated growth of Douglas fir trees that will be retained. In addition, snags and logs will be retained for wildlife.

Timber will be harvested using ground-based systems, which may include feller bunchers, shovel yarders, and rubber tired skidders on slopes < 40%. To the extent possible, WDFW will use existing roads (open or previously abandoned), skid trails, and landings. There may be a small amount of temporary road construction and abandonment. Roads will be abandoned post-harvest at the discretion of the Mount Saint Helens Wildlife Area Manager. All riparian buffers shall meet or exceed State Forest Practice Requirements.

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**Policy issue(s) you are bringing to the Commission for consideration:**

Responsible land stewardship through appropriate forest management.

The Commission maintains authority to approve forest harvest projects equal to or exceeding one million board feet. This project could involve harvesting up to 1.2 million board feet. The Department recommends and is seeking Commission approval of this project.

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**Public involvement process used and what you learned:**

WDFW will follow the State Environmental Policy Act (SEPA) public review process.

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**Action requested:**

Approval of the proposed commercial thinning project.

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**Draft motion language:**

Move to approve the proposed timber harvest as presented.

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**Justification for Commission Action:**

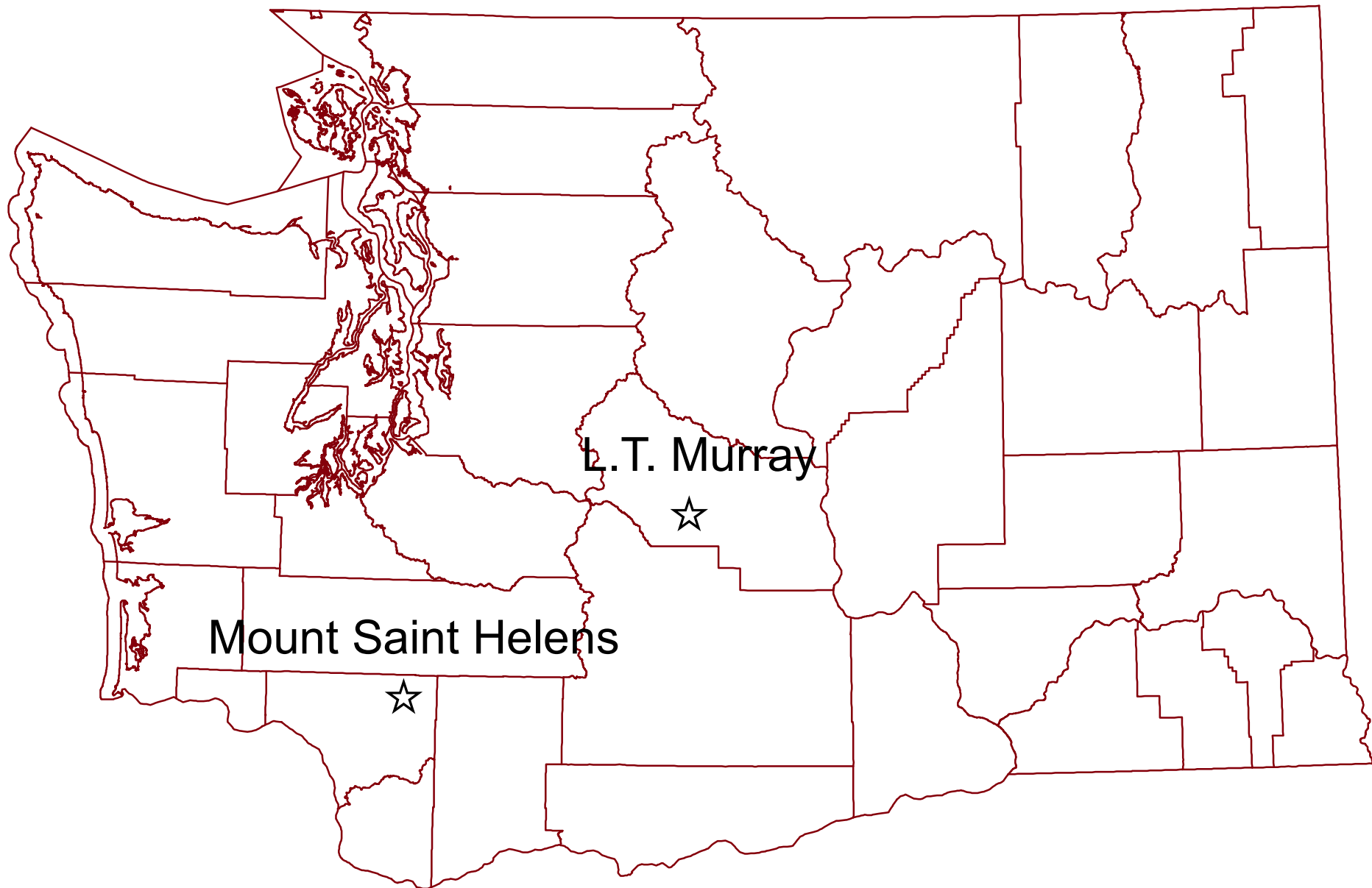
This action will 1) restore ecological integrity, 2) improve wildlife habitat quality for elk and other wildlife, and 3) accelerate development of old growth conditions.

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**Communications Plan:** Wildlife Area staff will notify the public regarding temporary access impacts.

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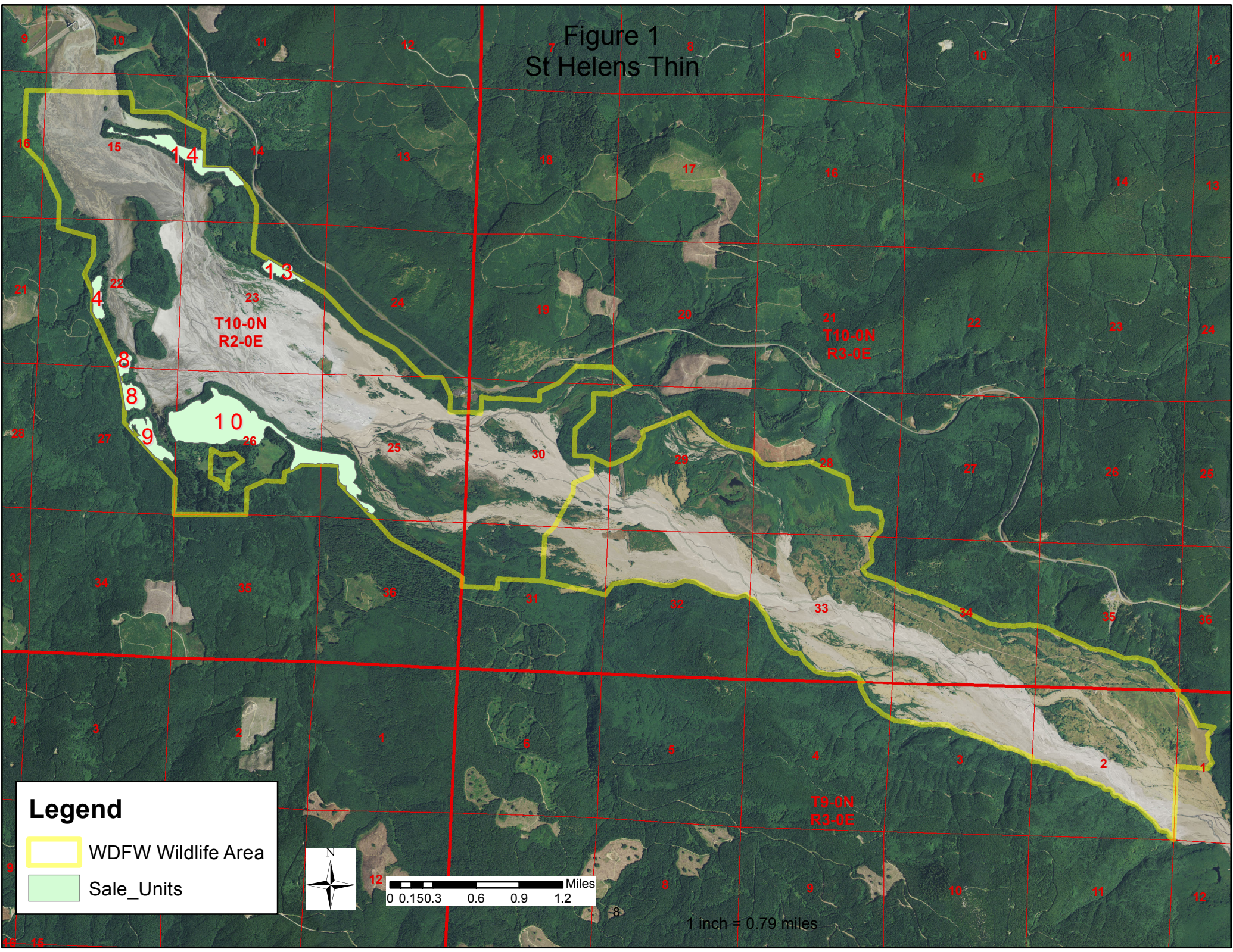
# Forest Thinning Project Locator Map





0 25 50 100 Miles



Figure 1  
St Helens Thin



**Legend**

-  WDFW Wildlife Area
-  Sale\_Units



0 0.150.3 0.6 0.9 1.2 Miles

1 inch = 0.79 miles

July 15, 2016 Commission Conference Call: Mount Saint Helens Thinning Project-Supplemental Photos

Existing Plantation Conditions: Single species, no understory and slowing growth.



Anticipated Immediate Post-Thinning Conditions



Desired Future Conditions: Put on similar trajectories as existing, small pockets of rapidly maturing second growth on the unit that have not been managed as dense plantations.

Estimated age: 90 years

Estimated age: 110 years

