Citizen Road Survey and Monitoring Project

2014 Accomplishment Report
Olympic Forest Coalition
in collaboration with
Olympic National Forest
and
Great Old Broads for Wilderness
Polly Dyer/Cascadia Broadband

Prepared by Shelley Spalding
January 2015

Olympic Forest Coalition

olympicforest.org

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Introduction

The Olympic Forest Coalition (OFCO), an all-volunteer organization, initiated its citizen road survey and monitoring project in the South Fork (SF) Skokomish watershed in 2009. In 2010, 2011 and 2014, we continued to train citizens in data collection, GPS use, and map and compass reading with the goal of providing the Forest Service with information that will help reduce the risk of impacts on streams and fish habitat from temporary roads constructed for thinning harvest.

OFCO developed and implemented the Citizen Road Survey and Monitoring Project as a viable way to collect information on roads and trails within the Olympic National Forest that potentially could contribute to degraded aquatic conditions. In addition, the project provides an excellent opportunity to educate citizens about road conditions and land management practices that have the potential to harm or degrade aquatic systems, as well as ways to work to eliminate these risks.

In 2014, more than 25 hikers and conservationists from the nearby area and the local chapter of Great Old Broads for Wilderness (the Polly Dyer Cascadia Broadband) volunteered to participate in the road and trail surveys for this project. OFCO provided the volunteers with training in using GPS, compass and data forms; the Broads provided the boots on the ground. OFCO lead for this program, Shelley Spalding, is a retired U.S. Fish and Wildlife Service fish biologist with knowledge of the relationship between land management activities and habitat requirements of salmonids.

Project Location and Area Description

All road surveys were conducted within the 44,000-acre planning area located in the Queets River watershed on Forest Service land. There are four subwatersheds located within the Queets watershed: Queets, Sams, Salmon and Matheny Rivers. This watershed is located in Jefferson County, Washington state.

With the creation of Olympic National Park in 1938, and the addition of the Queets Corridor to the Park in 1953, approximately 85 percent of the mainstem Queets River has been protected from logging and road building. Timber harvest began in the 1940s outside the Park boundary in the Sams, Matheny, Salmon and Clearwater drainages. As occurred elsewhere on the Olympic Peninsula, logging activity peaked between 1960 and the mid-1980s.

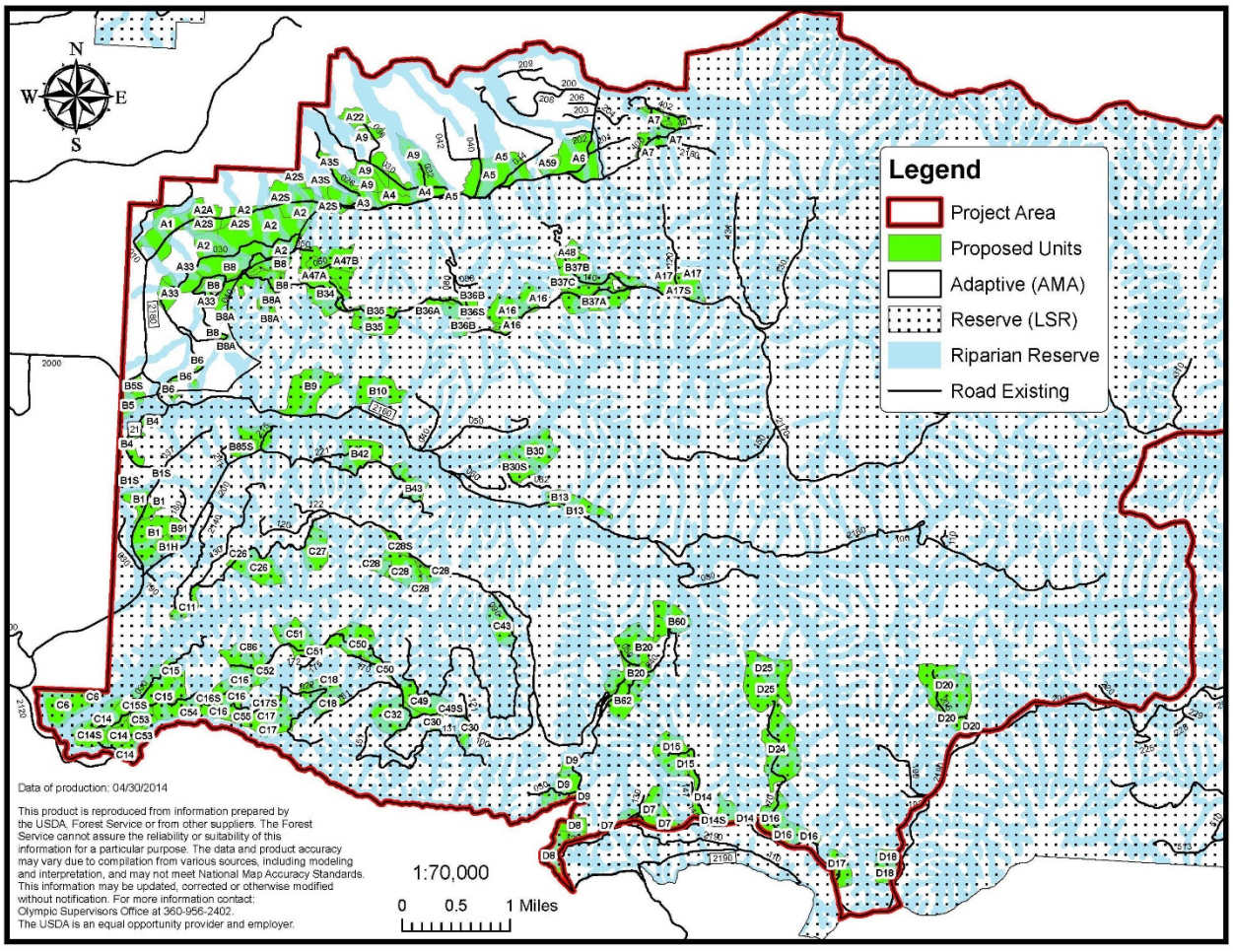
The Olympic National Park, which encompasses the headwaters of the Queets River, is the only UNESCO World Heritage site in Washington and the only International Biosphere Reserve. "Protected forests, marine sanctuaries and national parks are not zoos, not just places to see nature," *New York Times* columnist Thomas Friedman wrote, reporting from the World Parks Congress in Sydney, Australia. "They are the basic life support systems" that provide the clean air and water, food, fisheries, stable temperatures and natural coastal protections that sustain us and our human communities.

Five species of salmon, including steelhead, spawn in the Queets. Private Harry Fisher of the 1890 O'Neil Expedition described the historic runs as "... great salmon thrashing in the water all night long ... every few yards was to be seen the remains of a fish where cougar, coon, otter, or eagle had made a meal." Because most of the Queets watershed is protected, its salmon runs are among the most productive in the country.

Valleys of the Olympic Peninsula contain what many consider to be the best remaining examples of the Northwest's rainforest. The valley sidewalls of the Queets River are steep and Douglas-fir and Pacific silver fir are co-dominant with western hemlock. Valley bottoms and terraces support typical rainforest trees, including bigleaf maple, Sitka spruce, western red cedar and western hemlock. Glaciers abound in the upper watershed, with the Queets River originating at the foot of the Humes Glacier on the southeast side of Mount Olympus in the Olympic Mountains. It is also fed by Jeffers Glacier, on the south side of Mount Olympus, and Queets Glacier, on the north side of Mount Queets. An average of 150–200 inches of rainfall in the Olympics produces enormous runoff from this relatively small basin.

Background

Throughout the Olympic Peninsula, the Olympic National Forest (ONF) is planning a number of large thinning harvest projects (4,000 to 5,000 acres each) over the next several years, including the Queets Vegetation Management Project (QVMP). Associated with these projects will be the construction of "temporary log-haul" roads, some in areas that were designated by the Northwest Forest Plan as "Riparian Reserves." In this process, unclassified roads are brought up to log-haul standards by the logging contractor and then typically decommissioned by the contractor to the pre-logging condition (pull culverts or sidecast dirt that were necessary for log haul) at the end of their contract.



The proposed thinning described for the QVMP is intended to implement the Forest Plan by increasing structural diversity and accelerating the development of late-successional forest characteristics in selected forests stands in the Queets River watershed. The Project will conduct variable density thinning on approximately 5,000 acres, re-open approximately 19.8 miles of currently unclassified, abandoned or decommissioned roads, and construct about 2.4 miles of new roads.

In the draft Environmental Assessment (EA) for the QVMP, the proposed action departs from the usual practice of having the logging contractor decommission temporary log-haul roads. Analysis

for the EA identified approximately 18.4 miles of unclassified or abandoned roads and 1.4 miles of previously decommissioned roads for reconstruction, and construction of about 2.4 miles of new roads. Most significantly, about 16 miles of the 22.2 total miles of roads proposed for development are proposed to be added to the existing roads system. These roads would not be decommissioned until an unspecified "future time," and, along with the remaining 6 miles of developed road, would be decommissioned only "as funding allows." Whether or not the addition to the ONF road system of 16 miles of newly reconstructed or constructed roads is recommended in the final decision for the QVMP will not be determined until the final EA is released—sometime in mid-2015. The Olympic National Forest has an extensive backlog of existing roads that already need decommissioning.

Approximately 20 percent of the constructed temporary log-haul roads will be within Riparian Reserves. Riparian Reserves include land along streams, and unstable and potentially unstable areas. They are managed to maintain and restore riparian structures and functions, provide benefits to riparian-dependent and associated species other than fish, improve travel and dispersal corridors for many terrestrial animals and plants, and provide for greater connectivity of the watershed.

The project in the Queets is Phase 1 of a three-phase project to document baseline conditions for log-haul roads in the QVMP prior to construction; Phase 2 surveys would document conditions when these roads are constructed; and finally, Phase 3 of the surveys would document the conditions when the roads are decommissioned by the contractor or closed by the Forest Service. This grant is for the Phase 1 of surveys in the Queets. It will likely be 4–5 years before the contracts are let for the construction of the roads, and documentation for the second stage of the project could occur.

The Project Director worked closely with ONF staff while developing this project, including the timber sale contracting officer, environmental coordinators, natural resources staff officer, and GIS specialist. The staff was extremely helpful and provided numerous maps to help in locating planned temporary roads being targeted for the survey project. They also described the ongoing timber harvest occurring on one of the Queets roads (FS 2140) and it was decided that it potentially would be unsafe (due to heavy equipment and logging truck traffic) to send volunteers to do surveys in the area this field season. Fortunately there were more than enough proposed log haul roads to keep the volunteers busy.

Information gathered from this project will be provided to the ONF and other interested parties to assist in assessing the potential impacts from re-opened roads that have not been used for decades and for determining how adequate these roads can be treated post-logging in order to prevent sediment delivery to streams. This information will be also be useful to forest conservation organizations throughout the Pacific Northwest where similar "thinning" projects are being planned.

Threats to aquatic resources on the Olympic Peninsula are significant and continue to grow under climate change. The SF Skokomish River is the most flood-prone river in the state of Washington. We anticipate that our information will make a significant difference in this very special place—the forests of the Olympic Peninsula—one of the largest carbon sequestration areas in the country.

Methods

A Garmin Oregon 550t GPS unit was used to photograph and locate waypoints on the surveyed road segments being proposed for construction as temporary log-haul roads. Road segments greater than 500 feet in length, and segments all or partially located within Riparian Reserve, were prioritized for surveys. The information was transferred to Garmin's Basecamp program and also overlaid on Google Earth maps. An Appendix containing this information plus an Executive Summary and the full report can found on the Olympic Forest Coalition website: olympicforest.org.

Because many of the road segments had been abandoned or out of use for 20 or more years, locating them required extensive map work, pre-survey ground truthing, and compass work. Even at that, sometimes it felt like one was trying to locate the proverbial "needle in a haystack." This project required the Project Leader to participate in all surveys with data recording assistance from volunteers.

Logistics and training

For the citizen road survey project in the Queets watershed, the Project Director gathered and analyzed data, as well as trained citizen volunteers in data collection, GPS use, map and compass reading, and identification of features such as tension cracks and post-construction channel adjustments that can contribute sediment to streams, thus posing risks to water quality and threatened or endangered fish. Through their training and field work, the volunteers learned how roads, trails and associated sediment can affect water quality for aquatic species, including salmon and trout, in several important Olympic Peninsula rivers. As well as volunteer surveyors, we also employed technicians to assist with the pre-survey road location information in this relatively remote part of the Olympic Peninsula.

Because the Queets watershed is located on the remote Olympic Peninsula coast, the Project Director, citizen volunteers and field technicians were able to either camp or stay in a cabin located near (1.5 hours driving time) the Queets road survey area. Most survey trips consisted of a "three day excursion," with two overnights in order to maximize training and surveying. Typically the first day of surveys followed this schedule:

7:00 AM	Get up, make lunch for field day, collect and pack gear for surveys
8:00 – 8:30	Breakfast
8:30 – 10:00	Training
10:00 – 11:30	Drive to survey location
11:30 – 12:30	Field training (GPS, data recording, features to be noted, etc.)
12:30 – 1:00	Lunch
1:00 – 4:00	Continue surveys
4:00 – 5:30	Return to cabin
5:30 – 7:00	Hike on the beach, happy hour and cook dinner

Day 2 was similar, except there was no training and surveyors drove directly to survey sites.

Day 3 was similar to Day 2, except surveyors packed up all gear (sleeping bags, clothes, etc.) in the morning, drove to the survey sites following breakfast, and left for home between 1:00 and 2:00 of the third day.

The training provided a history of land management in the Queets area, including the relationship of this thinning project to the Northwest Forest Plan of 1994 and the land allocations established by the Plan: Late-Successional Reserves (LSR), Adaptive Management Areas (AMA) and Riparian Reserves. RRs overlie all other management allocations. Data collection and GPS instruction were conducted in the field.

The Project Director, citizen volunteers and/or field assistant, when possible, walked the entire proposed log-haul road segment and collected photo-documented waypoint information. A Garmen 550 GPS unit was used to photograph and locate waypoints on surveyed road segments being proposed for construction as temporary log-haul roads. These same waypoints will be used for future surveys once the temporary log-haul road has been built (Phase 2), and when the temporary log-haul roads have been decommissioned (Phase 3). Only Phase 1 (baseline documentation of pre-road construction conditions) was conducted with this grant. Road segments greater than 500 feet in length, and segments all or partially located within Riparian Reserves were prioritized for surveys. The data has been transferred to Garmin's Basecamp program and overlaid on a Google Earth map. This data, as well as the photo-documentation, is contained in an Appendix which is available on the OFCO website. This final report and the Appendix containing information from the surveys have been provided to OFCO, ONF, Great Old Broads for Wilderness and The Burning Foundation. A total of 5 "three-day field work" trips and several single-day trips were conducted in the Queets. Surveyors and/or technicians stayed overnight in the area for the two nights of each three-day field work trip in order to minimize travel time and expenses.

Testimonials

"The interaction between the Forest Service and Citizen Survey coordinator (Shelley Spalding), and the surveys themselves, promote learning that can foster deeper understanding of project objectives and treatment methods implemented. The Forest Service appreciates the efforts by Citizen Survey volunteers and the perspectives shared … The reports provide information about site conditions that assist Forest Service personnel in selecting and prioritizing sites that warrant further reconnaissance or treatments to address impacts to aquatic resources.

Robin Stoddard, Olympic National Forest hydrologist (retired)

Having the opportunity to participate in road surveys of old logging roads that are planned to be reopened as temporary haul roads was a very educational experience. Walking the old roads and studying the surrounding forests that are slated for thinning and/or commercial harvest sales gave me an understanding of the complex and controversial issues associated with the "management" of our forests … It is important to understand the complex and controversial issues around managing the forests in order to be able to work to protect and preserve these unique ecosystems. These road surveys helped me understand the work that we have in front of us and to appreciate the many years and hard work of those that have been the voices for our forests and the wild things within.

Colette Rush, volunteer

The OFCO/Olympic National Forest road survey project offered me an increasingly more complex view of the dynamic role our forests play and the required thoughtful and crucial steps we each need to take to steward these precious forests for the present and future generations.

I learned on this project that there are designations assigned to different tracts of land within a national forest, such as LSR and AMA. I became acutely aware of the need to continue my education, especially on defined uses allowed within each designation. What does "Restoration Thinning" actually mean in action? How will this actually translate in the forest? What are the long-term effects? How do we know we are doing the best stewardship of this land for the long haul? Who and what takes priority? These are questions I come away with and answers I want to pursue because it matters. It matters greatly to me and the world I want to leave for others. I am influenced by and try to approach my decisions and actions on the Native American wisdom that states that my actions today will have impacts for seven generations.

It was a delight to be able to participate and learn on this project. In addition I was able to walk in amazing lands, gather scientific data, look for wildlife tracks and signs, identify flora and be with great women.

Jo Ann Fjellman, volunteer

Acknowledgments

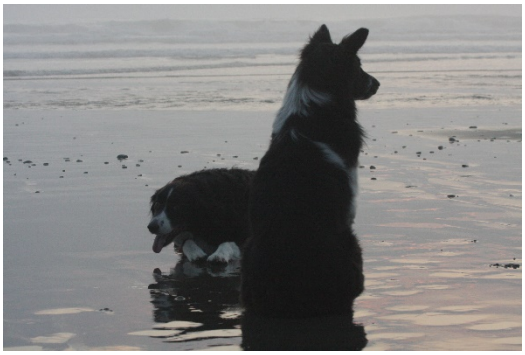
The following Olympic National Forest staff were very helpful and provided maps, tables, and information on the proposed temporary roads for the Queets Vegetation Management Project:

Michael Hutchins
Kim Crider
Greg Wahl
Suzy Lathem
Pete Sanda
Jana Carlson

Volunteers, young and old, male and female, provided assistance and encouragement in locating and documenting the temporary road segments. Many more people expressed interest in participating in the surveys and there were several last-minute cancellations due to unexpected events. The surveys involved often hiking on difficult terrain, over blown-down large trees, and through challenging vegetation—not a walk in the park at all!

Colette Rush
Cindy Levy
Jo Ann Fjellman
Diane Shiner
Sue Oliver
Karen Bachelder
Susan Bakke
Pat McLaughlan
John Woolley
Michael Pierce
Tobin Tripp
Helmut and Marcy Golde – our most gracious and welcoming hosts
Field technicians: Matt Clark, Timm Tripp and Maya Cutler

And, of course, the dogs!

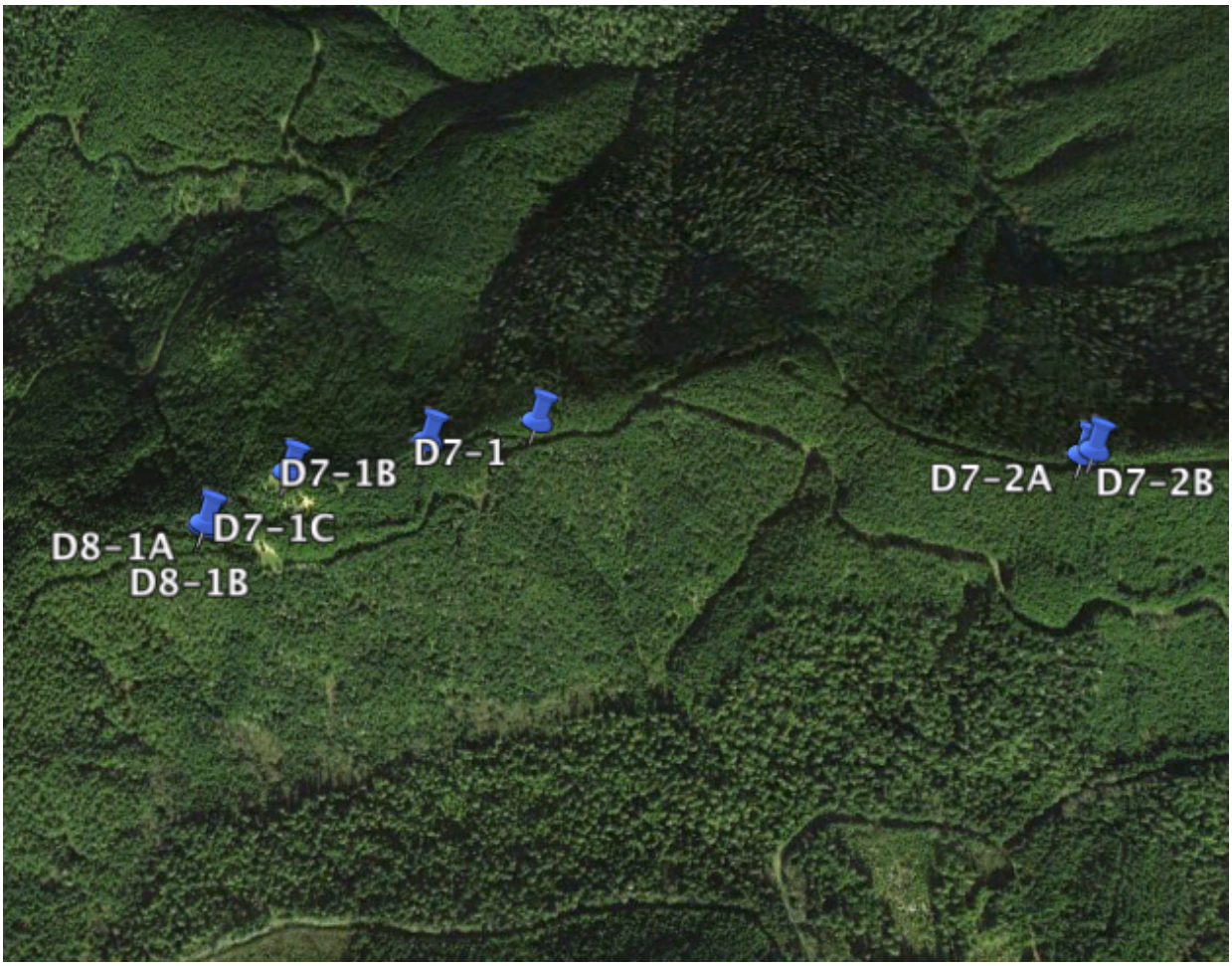


This project has been funded by a grant from The Burning Foundation. We are very grateful for their support.

Appendix A

Temporary Road Segment Photos, Waypoints and Notes

***Over 30 roads were surveyed. This Appendix includes examples for two roads with the photos, waypoints and notes. For a complete Appendix, please go to the OFCO website* olympicforest.org.**



FSR 2190 Temp. log haul road no. D7-2

Date: August 2014 Weather conditions: sunny/breezy

Land Management category: LSR

Road Approach:

Is there a barricade or berm: No

Is there dispersed camping at the entrance: No

Does the road visually disappear? Yes

Road use: Foot Little _X__ Miedium___Heavy___

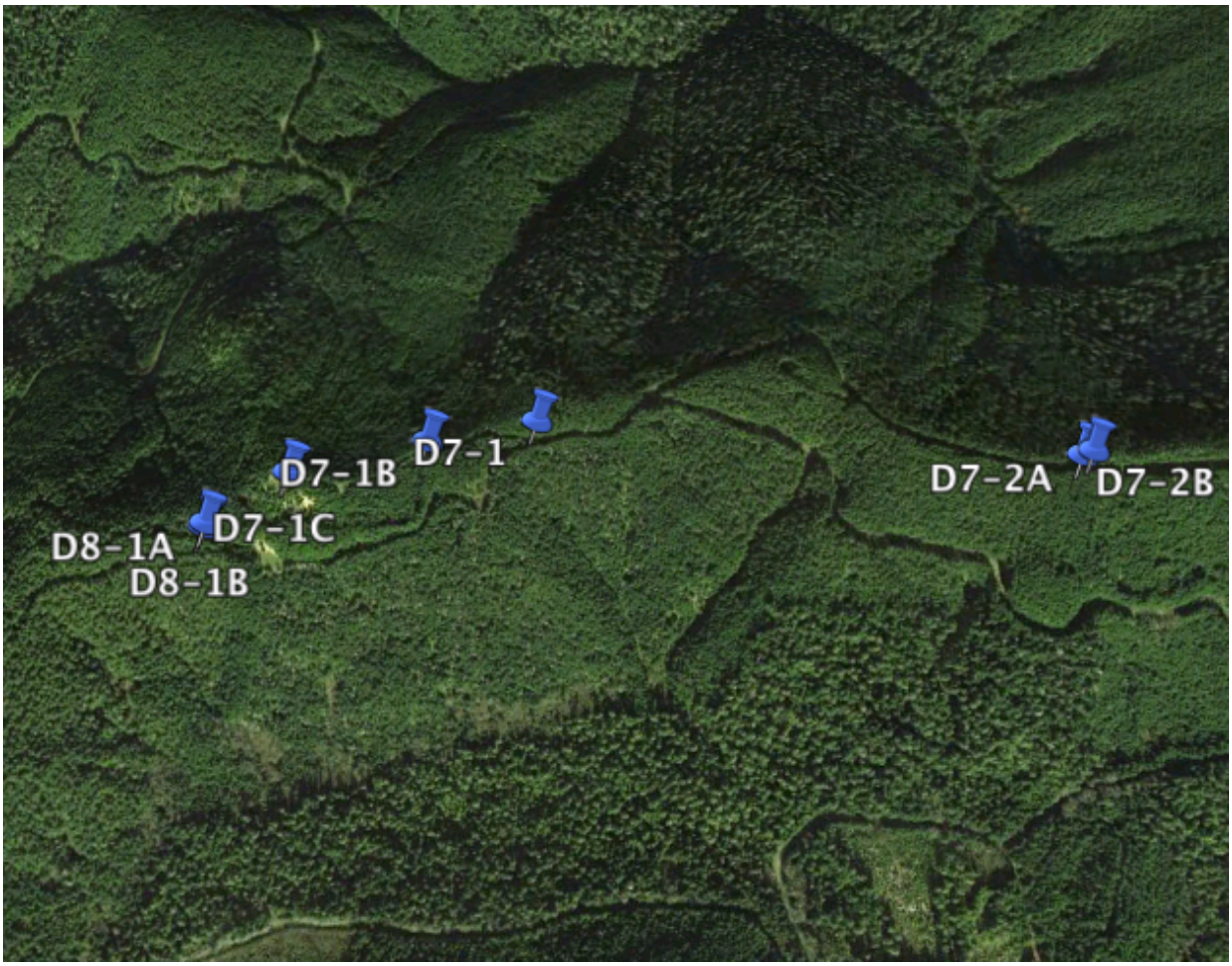
Motorized None_X__ Medium___ Heav___

Notes: ## The two sets of survey notes for the same roads are combined. Two sets because the two teams chose to stay together

D7-2A Direction: 60°
UTM N 10T0429670 W 5263289
Notes: Difficult to see entrance.

N47 31.154 W123 56.051

D7-2B Direction:
UTM N 10T0429685 W 5263298
Notes: Foot entrance widens to clear roadbed along ridge.
N47 31.158 W123 56.038



FSR 2190120 Temp log haul road no. D7-1 and D8-1

Date: August 2014 Weather conditions: clear and sunny

Land Management category: LSR

Road Approach:

Is there a barricade or berm: no

Is there dispersed camping at the entrance: no

Does the road visually disappear? no

Road use: Foot Little _X_ Medium___Heavy___

Motorized None___Low _X_ Medium___ Heav___

Notes: The two sets of survey notes for the same roads are combined. Two sets because the two teams chose to stay together

120A N47 31.166 W123 56.588
Notes: route to D7-1

D7-1 N47 31.144 W123 56.694
Notes: beginning of road; exposed steep bank on west.

D7-1B N47 31.111 W123 56.817
Notes: medium steep uphill road

D7-1C N47 31.069 W123 56.967
Notes: end of road; old log landing; elk scat, fire ring, bear scat earlier

D8-1A N47 31.025 W123 57.055
Notes: ? not sure if D8-1 or 2 –
quickly becomes confusing –
foot trails cross over slide area,
overgrowth, ends at open tree fall area

D8-1B N47 31.022 W123 57.056
Notes: reverse direction; road
possible 120 road right below