

A Primer On Timber Sale Process and Forest Growth Cycle Management



**Quinault Division of
Natural Resources**



**Allottees Association and Affiliated
Tribes of the Quinault Reservation**



Timber Sale Process

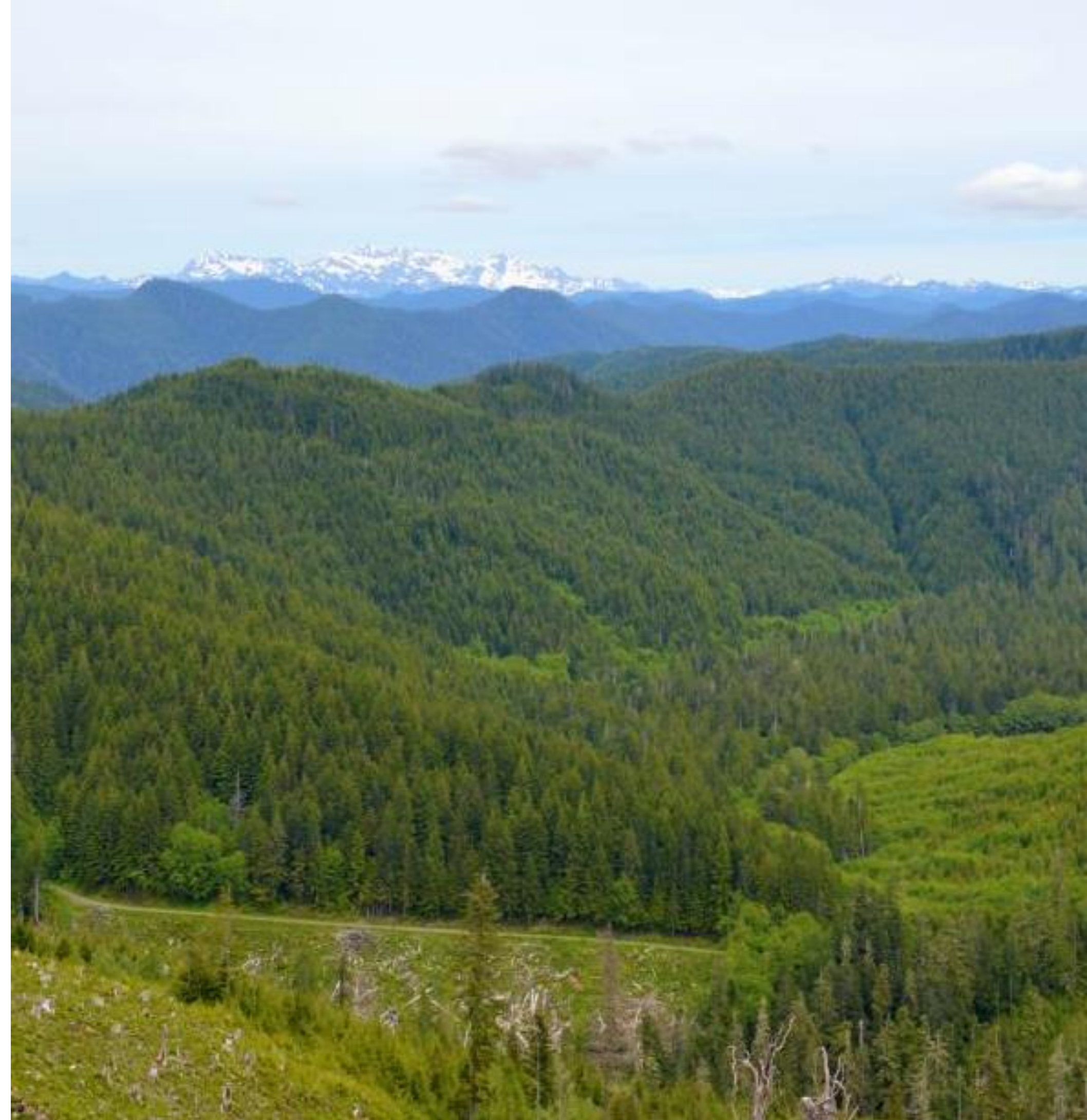
Forestry on the Quinault Indian Reservation

Timber Harvests are forest management services available to owners of interest in forested allotments with any percentage of U.S. Trust in the Quinault Indian Reservation. Owners with partial interests not held in trust status are eligible to receive their percentage of receipts from harvesting on that allotment.

The BIA must obtain approval from the majority of trust ownerships in a given allotment to proceed with a proposed harvest. This approval is typically obtained through a power of attorney (POA) granted to the BIA to act on behalf of the collective trust owners. POA requests are sent to allottees early in the process of planning a timber sale.

Feasibility of harvesting depends on volume of merchantable timber within each allotment; habitat, environmental, and cultural resource protection needs; and on the timing of the 10-year sustainable harvest schedule in the QIN Forest Management Plan.

The harvest process has several stages starting with area reconnaissance and sale layout. The proposed sale then goes through an Interdisciplinary (ID) team review. After the ID team provides comments on the timber sale that will assist layout, harvest operations, and address environmental concerns, the sale is timber cruised, the Forest Officer Report (FOR) packet is written, and a timber harvest contract is put out to bid.



Statements from Participating Entities

Quinault Mission

It is the ***mission*** of the Quinault Business Committee to always seek the Creator's wisdom and guidance to enhance quality of life of our Nation's people through:

- Preserving our roots: sovereignty, treaty rights and constitution, cultural traditions, and natural resources
- Promoting our wings: employment and educational opportunities, prosperity, and physical, spiritual, and emotional well-being

Quinault Vision

- We are a nation that draws strength from the values of our past and the resources within our community to manifest our shared future.
- We are a healthy, thriving and sustainable community that inspires hope and self-reliance and our people. Our youth share the responsibilities of leadership and are prepared to take care of their future.
- We recognize the contribution of each citizen, honor authentic engagement and open communication, and have deep reverence for the Quinault Spirit that shines through our people, our ways, and are beautiful lands

Allottees Association Mission

- The Allottees Association wishes to further the knowledge of the Allottee (and their heirs) in the sustainable management of their timberland and to encourage continued family ownership of those lands on the reservation.

Documents Guiding Allotment Management

- General Forestry Regulations for Indian Forestland include Federal regulations 25 CFR.163 and applicable tribal laws and regulations which require sustained yield practices be implemented on all forestry activities.

<https://www.law.cornell.edu/cfr/text/25/part-163>

- Forestry activities are implemented in accordance with the Quinault Indian Reservation Forest Management Plan (FMP) and Environmental Assessment (EA); the FMP is updated every 10 years and was last updated and approved in 2017.

FMP - <http://qlandandwater.org/wp-content/uploads/2017/08/2017-QIR-Forest-Management-Plan2.pdf>

EA - <http://qlandandwater.org/wp-content/uploads/2017/08/2017-FMP-Environmental-Assessment.pdf>

- The Quinault Nation's Forest Practice Regulations identifies Best Management Practices for forestry operations.

<http://qlandandwater.org/wp-content/uploads/2017/08/Title-61-Natural-Resource-Management-2018-Final.pdf>

- Allottees can sell their timber several ways and include Advertised Sales, Negotiated Sales and Expedited Timber Sales. Contact the Quinault Allotment Forester for what may work best for you.

Steps in the Timber Harvest and Stand Management Process



Timber Sale
Layout



Field
Review



Volume Cruise
and Data



Forest Officer
Reports



Timber Harvest



Reforestation



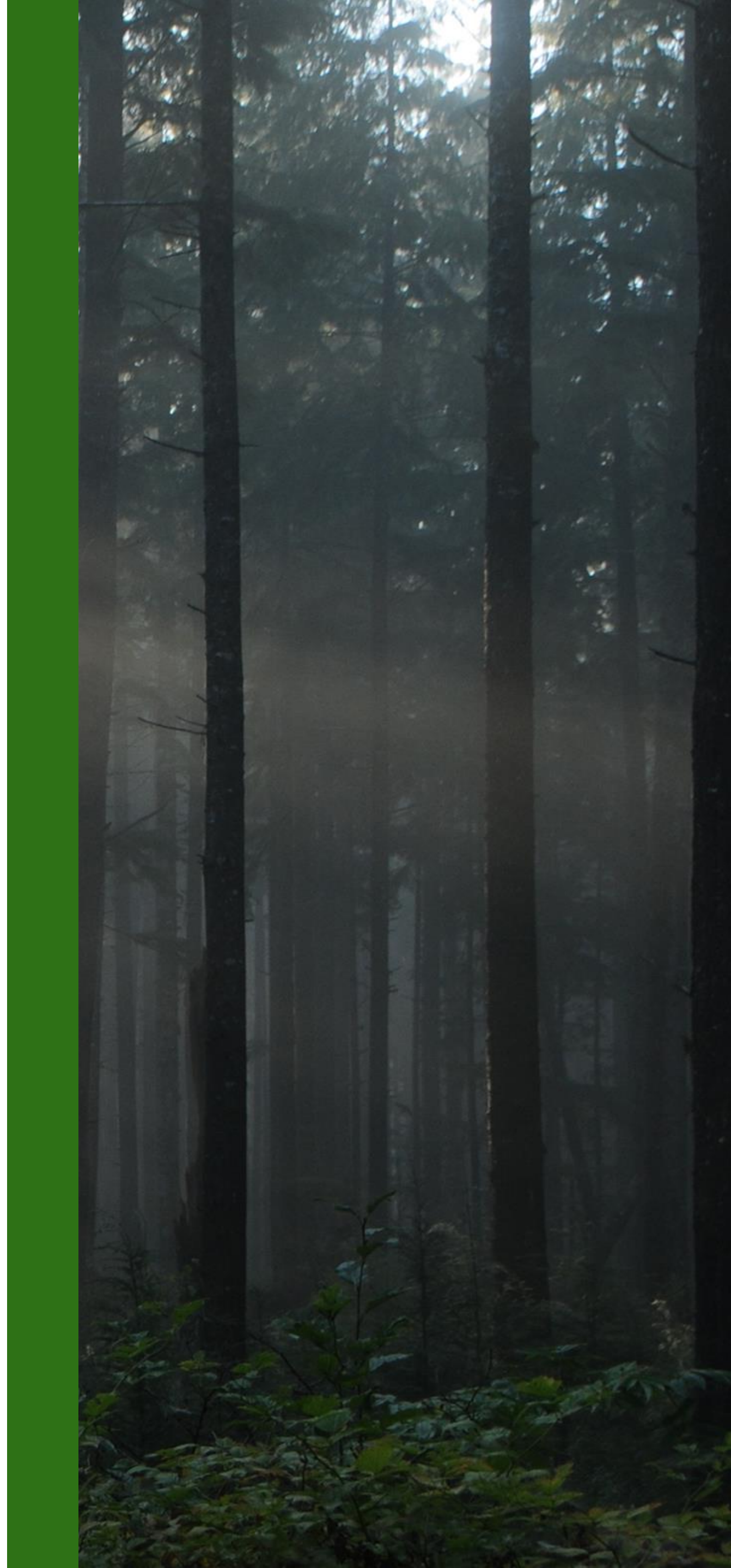
Stand
Improvement

A vertical photograph of a forest with tall, thin trees. A bright sun flare is visible on the left side, casting light through the canopy. The image is partially obscured by a green vertical bar on the right.

Timber Sale Layout

In order to prepare an allotment for harvesting a timber sale must be laid out. Sale layout includes sale area reconnaissance, flagging harvest unit boundaries and road systems, and marking protection buffers around water resources and sensitive wildlife habitat or cultural sites.

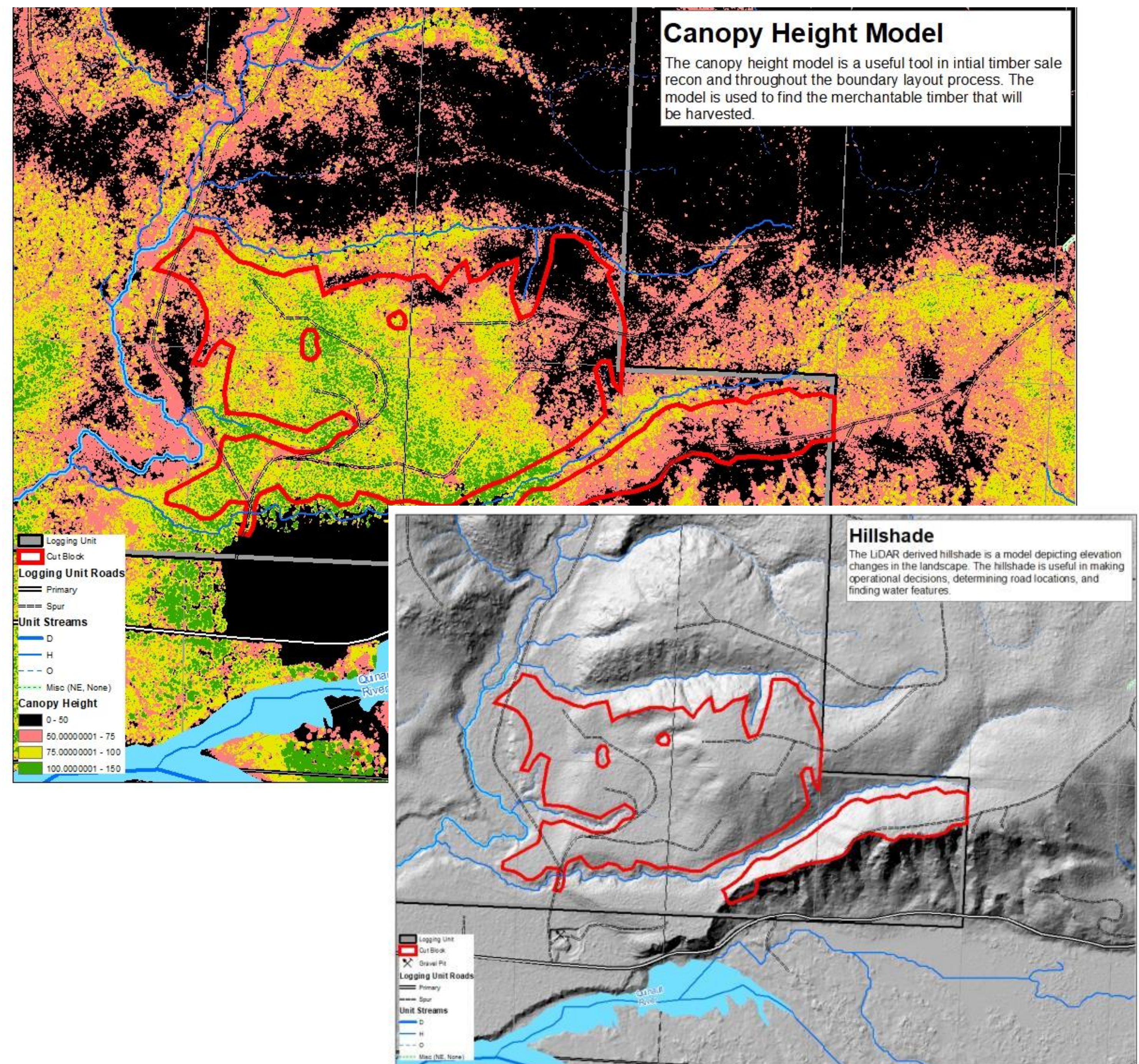
Sale layout is done to communicate forest protection regulations to loggers and is done in accordance with the guidelines in the QIN Forest Management Plan.

A vertical photograph of a forest with tall, thin trees. The image is partially obscured by a green vertical bar on the left.

Reconnaissance

Tools such as tree canopy height and slope models are used to identify potential harvest areas. Canopy height maps help foresters locate areas with mature, merchantable timber volume.

Hillshade models expedite the layout process by helping foresters locate streams and other water features in a harvest area. Other resources such as soil data slope models help foresters make the best silvicultural decisions for each forested stand.



Stream Definitions and Protection Buffers



Riparian Management Zones are protected areas that filter water and buffer sediment from entering the water courses.

Riparian Buffer Widths ¹	
Stream Type	Width (feet)
Type D	200 ft
Type H	80-100 ft ²
Perennial Type O	50 ft ³

¹Measured from the ordinary high water mark

² Identified Type H streams that receive a no-entry buffer of 100 feet under green timber Harvest will also receive a 100' no-entry buffer in cedar salvage.

³ Type O streams receive a buffer where the stream would receive a buffer under green tree harvest rules.

Type D streams – major bodies of water identified by the Quinault Indian Nation, including the Quinault River, the Queets River, and Lake Quinault, among others.

Type H streams – waters known to or presumed to provide fish habitat that are not classified as type D streams. These streams generally have wide, rocky or sandy bottoms and relatively gentle gradients.

Type O streams – streams with defined channels that do not meet the definitions of Type D or H streams. These streams frequently have narrow bottoms and steep gradients. Type H streams often transition to Type O streams at waterfalls or other barriers that inhibit fish passage.



Road System Development

Once harvest boundaries have been identified, a road plan must be developed. Old roads left from previous harvests are reconstructed and used as often as possible. Where old roads may compromise water quality, new roads may be constructed to avoid damaging water resources. The costs of road construction are incorporated into the timber sale appraisal.

To support ground-based harvesting, roads are built to reach within 600 feet of all corners of the harvest area; this is done to improve harvest efficiency and to minimize soil compaction. In areas with steeper terrain, roads are built to create landing areas for cable yarders.

If roads must cross streams, appropriate crossing structures must be installed. On fish bearing streams, bridges or large stream simulation culverts are generally required. On non fish-bearing streams, smaller or temporary culverts may be installed.



ID Team Field Review

Once the timber sale layout is complete a field review is conducted by an Interdisciplinary (ID) Team. The ID team is made up of professionals from the Timber Management, Roads & Rock Pits, Forest Development, Invasive Species, Hydrology, Fish Habitat & Water Quality, Wildlife Habitat & ESA, Cultural Resources, and Fire Management Programs.

The field review is conducted to ensure that forest practice regulations and the rules written in the QIN Forest Management Plan are being met and any negative impacts to the natural or cultural resources are avoided or mitigated.

Timber Cruise and Data Compilation

Once a timber sale has been reviewed and comments provided by the ID Team, a timber cruise is conducted. Timber cruising is a process of taking tree measurements to accurately estimate the volume and value of merchantable timber in the harvest area.

If a timber sale includes multiple allotments, each allotment is cruised separately. Reports are generated detailing total sale volume, volume per acre, species composition and other useful statistics. These estimated volumes are written into the Forest Officer Reports and the prospectus for the timber sale and are used to market the timber to surrounding mills, loggers, and other interested parties. Cruise volumes will also determine how much revenue an allotment will receive.

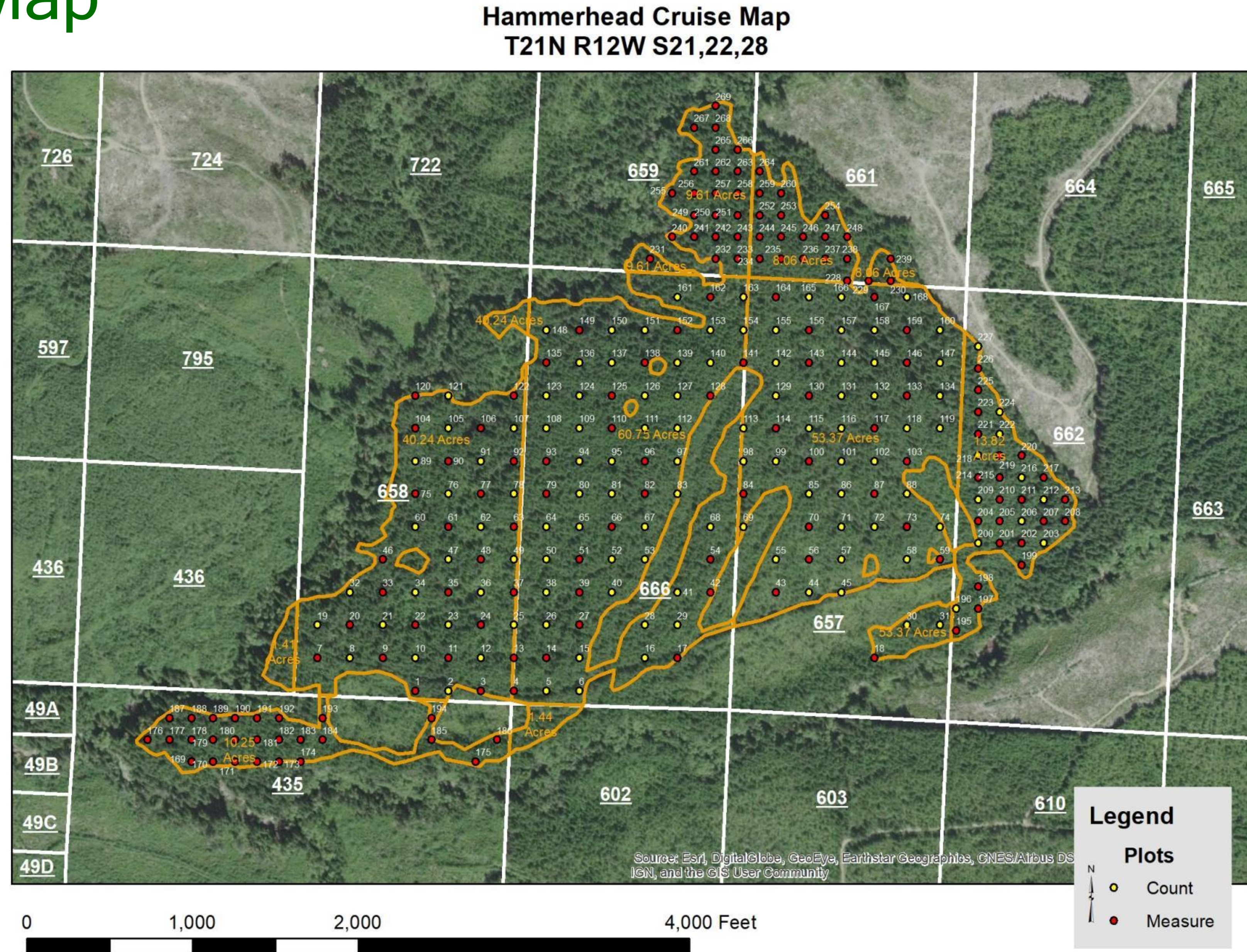


Timber Sale Cruise Map

Cruise maps show the location and number of cruise plots within each allotment in a timber sale area.

Each allotment is cruised individually and at a different cruise intensity depending on the variability of the timber. If the timber is consistent throughout the stand, fewer plots may be needed to accurately estimate the merchantable volume. More plots may be needed if the timber is highly variable.

The cruise provides the data for management decisions on the property





Property Surveying and Timber Trespass

Property surveys may be conducted where harvest operations abut allotment boundaries. These boundaries are surveyed to mark legal boundaries between two allotments. Surveying is necessary to avoid timber trespass. Timber trespass is the action of crossing a legal ownership boundary and harvesting timber from adjacent property.

Cedar Salvage

Old growth cedar stumps and downed logs can still be found scattered throughout the reservation. Cedar salvage operations are undertaken in conjunction with or after green timber harvests.

The cedar volume harvested under these salvage operations is used to make cedar shingles and shakes.

Cedar salvage volumes are estimated during the timber cruising process. At each cruise plot estimates of cedar salvage volume are also recorded. No specific measurements are taken, rather an estimate on approximate cords per acre. At the end of the cruise an average cords per acre in each allotment is calculated and then multiplied by the acreage to get the total estimated volume.



Forest Officer Reports

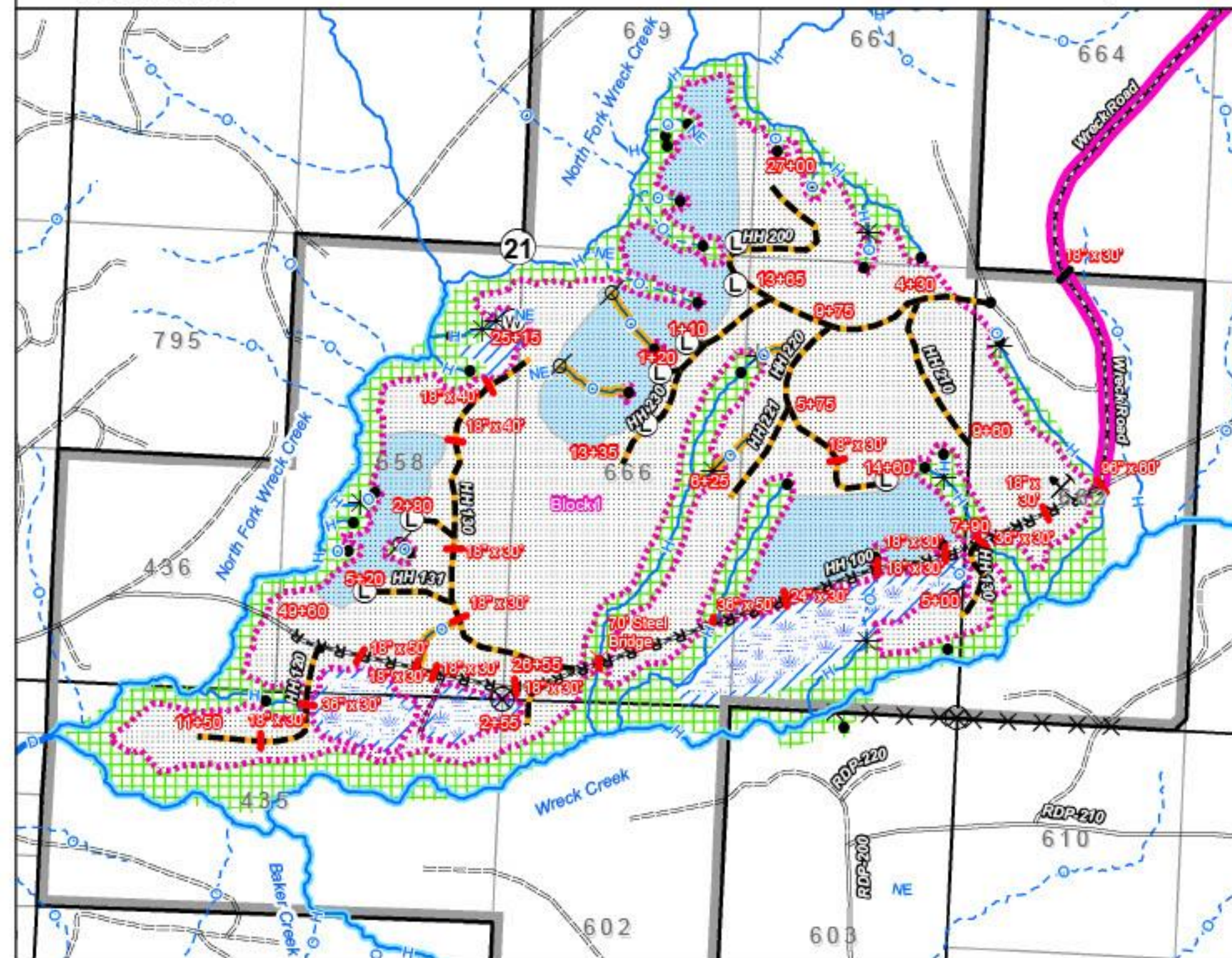
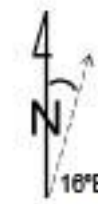
A Forest Officer Report (FOR) packet is prepared for each proposed timber sale. The FOR packet includes: Timber Appraisals, Harvest Contract, Timber Marketing Prospectus, FOR, Road Use and Deferred Maintenance fee calculations, Sand and Gravel Permits, Archaeological Surveys, National Environmental Policy Act (NEPA) documents, and finalized Harvest Maps.

The FOR is required by Code of Federal Regulations (CFR 163.14(c)(2)). The timber cruise and appraisal are required by CFR 163.14(c)(1). Once the Forest Officers Reports have been approved and signed by the BIA the timber sale contract can be put out to bid.



NW Regional Office
Taholah Agency
Quinault Indian
Reservation

Exhibit A - Logging Unit Map Hammerhead



Legal: Sec. 21, 22 & 28 T21N R12W
Willamette Meridian, Grays Harbor County, WA
Allotments: 435, 436, 602, 657, 658
659, 661, 662, 666

	Acres
Logging Unit - Gross:	680
Cutting Block - Net:	198.9

Emergency Coordinates

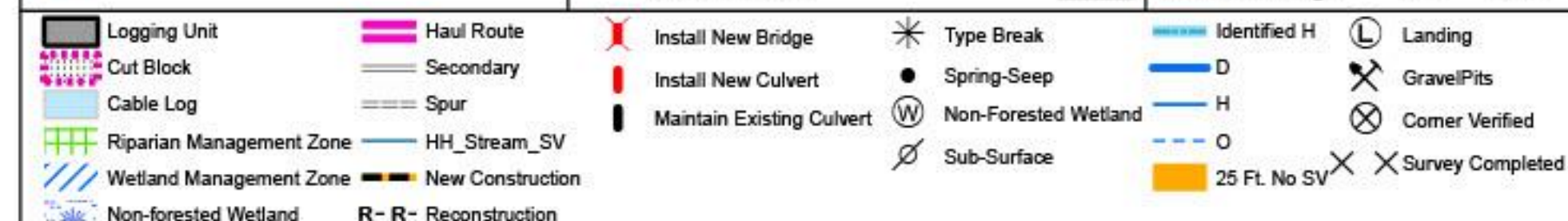
Latitude: 47°17'41.17"N
Longitude: 124°12'11.52"W

Provisions:
Any type of stream within the cut block boundary
shall receive a 30' ELZ

0 900 Ft
1 in = 900 feet

Road Plan	STA	Rock	CYD/STA	CYD
New Const:	125+25	Pit Run	100	12,525
Reconst:	49+60	Pit Run	100	4,960
Total:	174+85			17,485

Proposed Struc.	TLLN (ft)	TL CYD
(11) 18"x30' CPP	330	220
(2) 18"x40' CPP	80	50
(1) 18"x50' CPP	50	30
(1) 24"x30' CPP	30	20
(2) 36"x30' CPP	60	50
(1) 36"x50' CPP	50	30
(1) 96"x60' CMP	60	100
70' Steel Bridge	70	100



Harvest Maps

Maps are prepared for each timber sale showing harvest units, existing and proposed roads and drainage structures, harvest prescriptions, stream and wetland buffers, and any special resource protection areas.



Forest Management Deductions

Forest Management Deductions (FMD) are funds withheld from the gross proceeds of the sale of products harvested on Indian forest lands. Historically FMDs were set at 10% and most tribes have kept their FMDs at this level. The QIN currently collects 6% for timber and 3% from cedar salvage.

On the Quinault Indian Reservation, FMDs are to be utilized to perform forest land management activities in accordance with an approved expenditure plan. These activities are vital for ensuring the natural resources on the reservation are managed in both an economically productive and ecologically sustainable manner.



FMD Expenditure Plans Budgets and Expense Reporting

Expenditure plans are prepared annually by the BIA showing how FMD funds are intended to be spent for the year.

FMD expenditure plans must be approved by an authorized Tribal representative and the Superintendent.

At the end of each fiscal year, expense reports are submitted detailing the actual expenditures of FMDs during the year.



Reforestation and Timber Stand Improvement

The QDNR manages the full life cycle of the timbered stands on the Quinault Indian Reservation. Multiple management activities may be implemented following a harvest or to prepare a growing stand for harvest. FMDs are used to support these activities. Under current management practices, stands on good growing sites are managed on an average 40-50-year harvest rotation. Sites with lower productivity (i.e. poorer soils) may require much longer rotation ages.

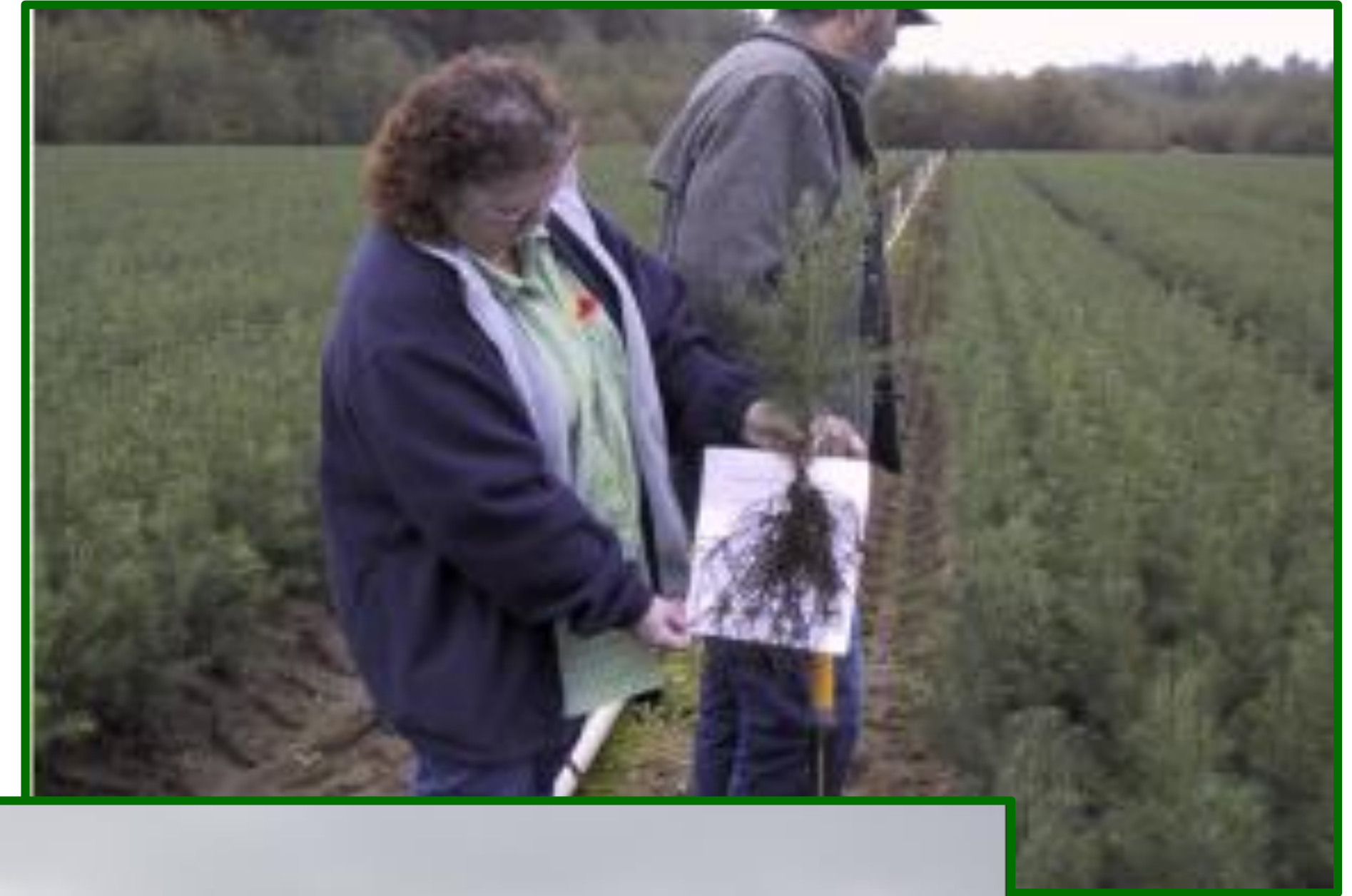
After a stand is harvested, the residual logging slash from yarding and processing of logs is piled along roadsides and landings or throughout the harvest unit and burned. This reduces the potential for damaging wildfires to start on or spread throughout the reservation and creates growing space for the next crop of trees.



Reforestation

Most harvest units are replanted in the spring following harvest. Seedlings are grown from seed sources that are matched to the elevation and growing site of each harvested unit. Reforestation helps maintain the lands on the Reservation in appropriate forest cover, improves the quality and yield of the next harvest rotation, and accelerates the establishment of ecologically and economically desirable species.

The QDNR's reforestation target is to establish healthy, well-distributed, fully-stocked stands within 2 years of harvest that reach free-to-grow status by the 5th growing season. FMDs are used to support reforestation projects.



Timber Stand Improvement

As timbered stands grow, they are periodically monitored for stand health and stocking density. About 15-20 years following reforestation, many stands become overstocked and trees start to compete with one another for sunlight, water, and nutrients.

If left alone, these overcrowded stands will show reduced growth and stressed trees may become more susceptible to damage from insects and diseases. These may be pre-commercially thinned to reduce overcrowding and to release the best and healthiest trees so they can continue to grow free from competition.

Pre-commercial treatments do not produce immediate revenue, but the cost is justified by the increased value of future growth. FMDs are used to support timber stand improvement projects.



Harvest Scheduling

The rolling 2-year harvest schedule is planned and the harvest locations identified. Allottees have been notified through the Power of Attorney (POA) requirements. Allottees whose allotments are on the 2-year harvest schedule can contact the Allotment Forester and find out when their property will be harvested in the next 12 to 24 months.

Harvest areas beyond 2-years through 10-years are identified but are subject to the Forestry Department receiving the appropriate POA's which requires 51 % ownership or more, market conditions, road building and reconstruction needs and access to the properties. Harvests are planned but may not be ready if these items are not completed.



Harvest Scheduling

Alternatives if an Allottee does not want to wait:

If an Allottee does not want to wait for their property to come up in the harvest schedule they can contact the Allotment Forester to talk about alternatives. One alternative is to contact the Quinault Land and Timber Enterprise to harvest the timber, through an unadvertised timber sale, or sell their property. With approval by a majority of the trust owners and the Superintendent, an Allottee can do an expedited timber sale. In an expedited timber sale, the allottee will contract with a private contractor to set up an advertised timber sale that will have to follow the regulations and requirements of the Forest Management Plan and will have to cover the cost of preparing their allotment for harvesting out of their own pocket. When harvests are prepared by the Forestry Department all cost are covered.

Contact Information

Allottee Services Forester:

Jeff Winiecki
Taholah Agency
360-276-4850 ext. 7668

Allottees Association :

allottees.assn@gmail.com

Bureau of Trust Fund Administration (BTFA): 888-678-6836

As of October 1, 2020, the BTFA has replaced the Office of the Special Trustee (OST). This number can be used to update contact information in the Federal system or for assistance with IIM accounts.



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