

Contents

1.0	SYNOPSIS	1
2.0	GOALS AND OBJECTIVES	1
3.0	INTEGRATED RESOURCE MANAGEMENT.....	2
4.0	DESCRIPTION	3
4.1	Location	3
4.2	Climate.....	3
4.3	Forest Specific Information	4
4.3.1	Non-Trust Lands	5
4.3.2	Forest Roads.....	5
5.0	RESOURCE PROTECTION PROGRAM.....	5
5.1	Fire Protection	5
5.1.1	Prevention	5
5.1.2	Suppression.....	5
5.1.3	Hazard Reduction	6
5.2	Insects, Disease, and Noxious Weeds.....	6
5.2.1	Detection and Monitoring	7
5.2.1.1	Local Surveillance	7
5.2.1.2	Aerial Surveys.....	7
5.2.1.3	Reporting and Evaluation.....	7
5.3	Control	7
5.3.1	Cultural.....	7
5.3.2	Mechanical.....	8
5.3.3	Chemical	8
5.3.4	Preventative.....	8
5.4	Trespass	8
5.5	Disturbance Events	8
5.5.1	Disturbance Rehabilitation.....	9
6.0	SILVICULTURAL AND FOREST MANAGEMENT PRINCIPLES	9
7.0	SILVICULTURAL TREATMENTS	10
7.1	Regeneration	10
7.2	Release.....	10
7.2.1	Manual Release.....	10
7.2.2	Chemical Release	10
7.3	Thinning.....	11
7.3.1	Pre-commercial Thinning.....	11
7.3.2	Commercial Thinning	11

7.4	Sanitation Cutting.....	11
7.5	Salvage Cutting	11
7.6	Individual Tree Selection	12
7.7	Patch Cuts.....	12
7.8	Clearcut harvest.....	12
8.0	SILVICULTURAL PRESCRIPTIONS	12
8.1	Prescription Writing.....	13
9.0	HARVEST POLICY	14
9.1	Annual Allowable Cut	14
9.2	Retention.....	14
9.3	Firewood and Special Forest Products	14
10.0	TIMBER MARKING GUIDELINES & DOCUMENTATION	14
11.0	SILVICULTURAL GUIDELINES	15
11.1	Reforestation	15
11.2	Slash Disposal Standards.....	15
11.3	Special Resource Considerations	15
11.3.1	Riparian Management Zones & Wetlands	15
11.3.2	Archaeological and Cultural Sites	15
11.3.3	Endangered Species Protection	16
11.4	Organization.....	16
11.5	Implementation, Coordination, Communication	16

APPENDICES

- I Tribal Authorization Letter**
- II Environmental Assesment**
- III Hoh Indian Tribe Safe Homelands Act of 2010**
- IV. Vicinity and Ownership Maps**
- V. Hoh Tribe Inventory Summary**
- VI NRCS Soil Resource Report**
- VII Olympic Peninsula Agency Fire Management Plan**
- VIII Timber Sale Preparation Guidelines**
- IX. Tsunami evacuation map for the Hoh Tribe**

1.0 SYNOPSIS

The Hoh Indian Tribe (HIT) of Washington State's Olympic Peninsula is a category four reservation. Due to the expiration of a previous management plan and the acquisition of new lands, the Tribe has requested the creation of a new and non-expiring management plan (Tribal authorization letter available in Appendix I). This Forest Management Plan was created in accordance with the requirements found in Part 53 of the Indian Affairs Manual for category four reservations. An Environmental Assessment (EA) was created and approved by the Hoh Tribal council, the Hoh Tribe Natural Resource staff, the Olympic Peninsula Agency, and the regional BIA office in Portland, Oregon. The EA is available for review in Appendix II.

This management plan was developed with the intention of being a non-expiring or "living" document. While non-expiring, the plan is by no means permanent, necessary changes and amendments can be made to better suit the needs of the Tribe. The FMP can be modified at any time with the approval of the Regional Director (53 IAM 2-H).

It is suggested that the FMP be reviewed for necessary changes or amendments by the Hoh Natural Resources Office and the Hoh Tribal Council every 10 years, and it is mandatory that a formal review be completed by the Tribe with the assistance of the BIA every 20 years. If the plan no longer properly represents tribal goals or management direction the plan should be amended or a new plan should be developed. (53 IAM 2-H).

2.0 GOALS AND OBJECTIVES

The Hoh River watershed is home to four species of wild salmon and steelhead as well as many other fish and wildlife species. Famous for its temperate rainforest and large conifers, the Hoh River is considered one of the few relatively healthy rivers remaining in the lower 48 states. Located at the mouth of the Hoh River, the Hoh Indian Tribe is dependent on the fish and wildlife of the Hoh River for their subsistence and commercial economy. The protection of the watershed's function is key to preserving these important resources. (*Hoh Natural Resources newsletter 2014*).

With this in mind it is contemplated that Hoh Tribal forestlands will be managed in a way that provides for a safe, healthy environment for Tribal members and protects basic watershed functions for the cultural and economic needs of the Tribe. Emphasis will be placed on maintenance and development of forestlands that provides clean water and habitat conditions that allow fish and wildlife species to thrive.

Direct economic benefits through timber harvesting will be minimal and infrequent. Harvest methods that will be employed include individual trees, commercial thinning's or small patch cuts (< 10 acres). Clear cut harvest methods will generally not be used but may be considered in cases where clearing is needed for housing or other Tribal infrastructure or in the case of a large scale disaster such as wind throw or fire.

Harvest of individual trees for safety, cultural or subsistence needs will be allowed with an appropriate permit. Practices that promote diverse healthy forests, such as commercial thinning, pre-commercial thinning, hardwood control and inter-planting young stands with cedar, shall also be encouraged.

The following goals and objectives were developed to reflect the values of the Hoh Tribe. These are intended to provide overall direction during forest planning and implementation. They can be modified with Tribal approval to meet the evolving needs of the Hoh community.

1. Tribal lands shall be managed for the perpetual benefit of the Hoh Tribe. Proposed actions shall insure long term ecosystem health and sustainable fish, wildlife, and plant populations.
2. All proposed forest activities will be evaluated as to their potential impacts to the ecological integrity of Hoh Tribal lands including fish and wildlife habitat, clean drinking water, historic and other cultural resources, alternative forest products, and an aesthetically pleasing landscape.
3. Forest Management activities will be planned and implemented insuring compliance with all current and future laws, policies, and forest management plan amendments.
4. Tribal lands shall provide forest resources for subsistence and cultural uses.
5. Culturally important forest resources and sites shall be protected.
6. To accommodate future growth and infrastructure needed by the Tribe and to fully implement the intent of the Hoh Indian Tribe Safe Homelands Act of 2010 (Appendix III), certain forest lands will be designated for development. Land development shall utilize low impact development methods.

3.0 INTEGRATED RESOURCE MANAGEMENT

This management plan will ensure any proposed projects and activities have proper preparation, planning, and oversight before any action is carried out. Forest activities shall be designed to protect and enhance the broad range of resources valued by Tribal members so that future generations may continue to enjoy them.

Tribal staff shall insure proposals comply with all Hoh Tribal ordinances and seek input from Tribal departments. Staff will also work closely with the Bureau of Indian Affairs – Olympic Peninsula Agency staff to insure projects meet BIA requirements and institute appropriate Best Management Practices.

Government agencies including the US Fish & Wildlife Service, Washington Department of Fish & Wildlife Priority Habit & Species Program and others shall be consulted during the planning phase of any activities to insure appropriate identification and protection of species and resources.

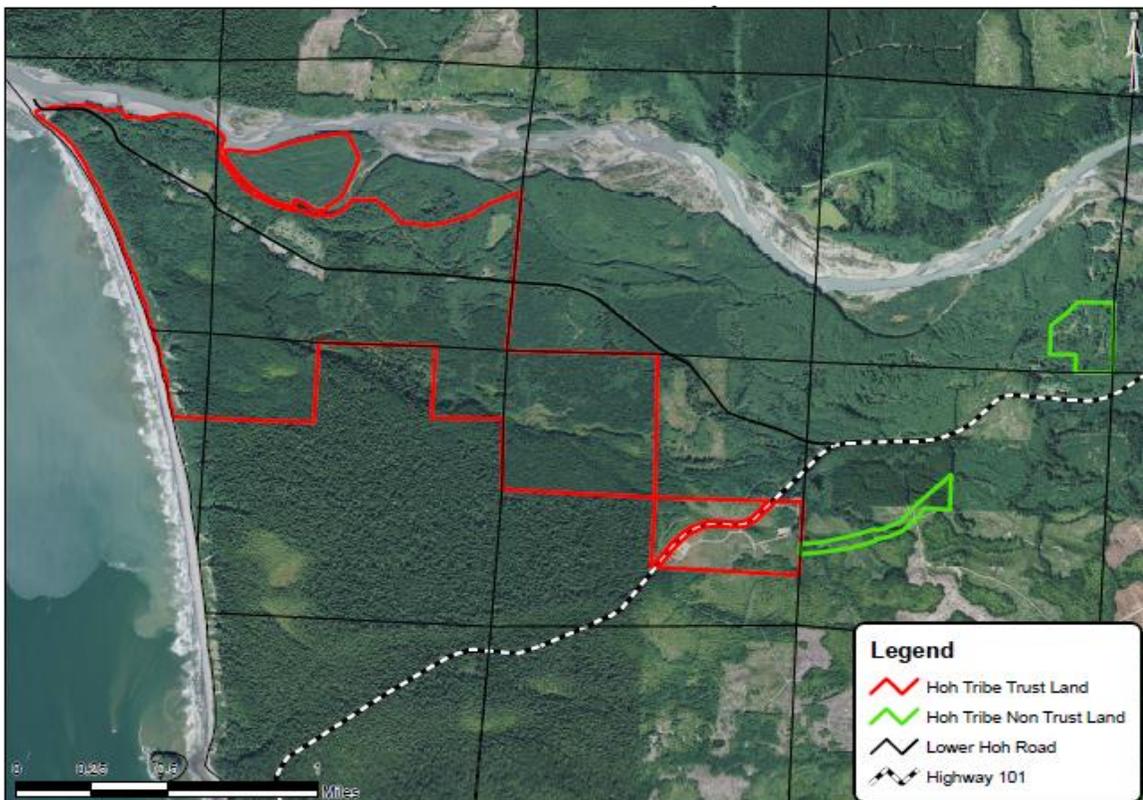
This management plan makes no attempt to schedule any specific management activities. Projects will be proposed, scheduled and evaluated in coordination with Hoh Natural Resource office.

4.0 DESCRIPTION

4.1 Location

The Hoh Indian Reservation (HIR) is located on the Olympic Peninsula in Washington State approximately 25 miles south of the City of Forks. The HIR is accessed via US Highway 101 and the Lower Hoh County road. The HIR is bordered by Olympic National Park to the south, state and private timber land to the east, the Hoh River to the north and the Pacific Ocean to the west (see vicinity map available in Appendix IV).

Exhibit 1.0: Aerial Photo of Tribal Ownership



4.2 Climate

The HIR lies within a maritime climate that is predominantly wet and mild. The average annual precipitation is approximately 125 inches (*USBOR 2003*). Average monthly precipitation reaches a high in November at 18.62 inches and a low in July with 2.48 inches. Approximately 77 percent of the average annual precipitation in the area occurs during the sixth month period from October to March. There is not much temperature

fluctuation between seasons, averaging 44 degrees F in December to 74 degrees in August.

4.3 Forest Specific Information

In 2008, Pacific Forest Management (PFM) conducted a forest inventory of Hoh Reservation lands. This inventory was updated in 2013 using growth modeling software to grow the original inventory forward and add stands that were newly acquired by the Tribe. Thirty two different stand types were identified, separated by age, volume and species composition. Descriptions of the stands, along with forest inventory information can be found in the attached Hoh Tribe Inventory Summary, *Appendix V*. A detailed description of soil types and their characteristics is included in *Appendix VI*.

Table 1.0: List of Stand Types

Stand #	Acres	Age	Volume (Mbf)	Tree Species	Stand ID
1	36.3	55	892	RA, WH, SS	261319001
2	5.9	50	72	RA, WH, SS	261320002
3	7.4	54	199	WH, SS, RA	261320003
5	12.1	10	0	RA, WH, SS	261320005
6	13.8	50	354	WH, SS, RA	261320006
8	44.2	50	1410	WH, SS, RA	261320008
9	28.2	50	245	WH, SS, RA	261319009
10	12.4	60	285	SS, WH, RA	261330010
11	13	45	260	WH, SS, RA	261329011
12	12.5	53	234	RA, WH, SS	261319012
13	9.3	50	85	WH, SS, RA	261319013
14	26.1	44	212	SS, WH, RA	261319014
15	31	70	993	SS, WH, RA	261319015
16	37.5	35	455	WH, SS, RC, RA	261329016
17	2.6	21	6	RA	261320017
20	4.1	120	381	WH, SS	261320020
22	9.6	70	97	SS, WH, RA	261320022
27	10.8	29	69	RA	261320027
28	3	120	283	WH, SS	261320028
30	22	60	333	RA, WH, SS	261320030
31	40.6	56	856	WH, RA, SS, DF	261320031
34	54.5	62	2064	WH, SS, RA	261320034
37	75.9	39	1795	WH, DF, RA, SS	261328037
42	7.6	20	5	RA, WH, SS	261328042
43	54.9	-	1102	WH, DF, RA	261328043
44	5.3	20	-	WH, SS, RA	261328044
48	47.7	-	-	-	261328048
49	6.4	-	-	-	261328049
50	2.1	25	-	WH, SS, RA	261328050
53	6.1	50	82	WH	261328053
64	3.5	-	-	RA, WH	261328064

4.3.1 Non-Trust Lands

The Hoh Indian Tribe also holds an additional 42.8 acres of Non-trust or “fee status” lands. All fee lands are subject to the WA-DNR Forest Practices Act and therefore are not governed by this document. In the event Fee lands are converted to trust status they are immediately considered relevant to this document.

4.3.2 Forest Roads

Forest roads are an asset to the Tribe. It is suggested that an inventory be taken of the existing roads within the reservation. This will help identify and prioritize road maintenance activities as well as determine which roads should remain active and which can be left unmaintained until needed in the future. As part of this assessment all road drainage structures including waterbars, crossdrains and stream crossings should be identified. Stream crossings should note whether the structure is fish passable and whether sedimentation can be reduced using silt traps or other methods.

5.0 RESOURCE PROTECTION PROGRAM

5.1 Fire Protection

5.1.1 Prevention

The U.S. Forest Service and the Washington State Department of Natural Resources have public outreach and prevention programs that can benefit the Tribe. These programs include, school visits, billboards, and television ads. During periods of high fire danger, the Tribe could use their website and community newsletter to disseminate prevention messages, announce planned pile burnings or discuss fireworks safety.

Forest operations including firewood cutters and commercial forest operations will follow State of Washington guidelines for required fire safety equipment and Industrial Fire Protection Levels for regulation of forest activities during fire season (April 15th – October 15th).

5.1.2 Suppression

The Olympic Peninsula Agency’s, 2004 Fire Management Plan covers Hoh Tribal trust lands. The plan outlines suppression responsibilities which are currently contracted to the State of Washington DNR. The overall goal is to keep fires small and provide for efficient, effective fire detection and suppression. Now incorporated by reference, this document is attached (Appendix VII).

The Tribe should consider designating a qualified liaison in case of a wildfire emergency. The liaison should receive interagency training in basic Incident Command System as well as basic fire suppression techniques. The purpose of the

liaison would be to interact with the appropriate agencies if a wildfire occurs to insure the Tribes needs are met.

5.1.3 Hazard Reduction

Given proper conditions, there is an increased risk of wildfire in areas that have recently been harvested. Each proposed management activity should indicate how excess woody debris (slash) will be disposed of or reduced (hazard reduction plans are typically a part of every silvicultural prescription).

In addition, any areas adjacent to homes, buildings, the Lower Hoh Rd, or Highway 101 should follow WA. State DNR guidelines for extreme fire hazard reduction.

5.2 Insects, Disease, and Noxious Weeds

The Hoh Reservation lands are currently healthy and experience little disease or pest damage. However, there is always a threat of infestation of insects, disease, or the invasion of non-native plant species. Gone unnoticed and untreated, forests and riparian areas may suffer habitat loss and loss of productivity from infestations.

Invasive Knotweed (*Polygonum spp.*) was first observed on the Hoh River in 1998 (*10,000 years foundation 2011 annual report*). Due to their lack of natural predators, and their ability to spread by root and stem fragments, invasive knotweed species have spread and become widely established throughout North America and Europe. Knotweed clones can completely clog small waterways and displace streamside vegetation, increasing bank erosion and lowering the quality of riparian habitat for fish and wildlife. Rapid spring growth and deep, extensive roots enable knotweed to outcompete most other plants, even small trees and shrubs (*King County noxious weed control handbook*).

In 2002 the Hoh Tribe along with other partners implemented a plan to aggressively eradicate this species from the Hoh river system. According to the 2011 report on “Knotweed Control on the Hoh River” by the 10,000 years institute this eradication effort has been successful and is ongoing.

Spruce Tip Weevil (STW) is one of the more common insect pest in the area. The STW feeds on the buds and leaders of Sitka Spruce, Douglas-fir and true firs. While STW is not fatal in most cases, infestations do cause structural damage to trees, which can create an undesirable product for timber use. STW damage can be minimized by interplanting a diversity of species and avoiding pure Spruce stands.

Western hemlock dwarf mistletoe (*Arceuthobium tsugense*) is a common occurrence among hemlock throughout their coastal range. The disease primarily distorts the limbs and bole, causing swelling and abnormal branching. Damage is usually limited to grade defects but can cause mortality in some cases.

Other noxious plants have been observed on the Reservation or in surrounding areas. These include: Scotch broom (*Cytisus scoparius*), Non- native blackberry (*Rubus spp.*), Reed canary grass (*Phalaris arundinacea*), and Canadian thistle (*Cirsium arvense*). These species can have a detrimental effect on forests, streams and wildlife. Each species have different control methods. It is recommended that the Tribe continue to work with its partners to identify and eradicate these noxious species.

5.2.1 Detection and Monitoring

5.2.1.1 Local Surveillance

Site monitoring for noxious and invasive species should be carried out on a regular basis by Tribal staff. Monitoring can be done in conjunction with an individual's daily duties. Identification and documentation is an important step in the control of non-native species.

5.2.1.2 Aerial Surveys

Aerial photographs can be used to identify forest health issues on and adjacent to reservation lands. Aerial surveys are taken annually by WA-DNR and constitute a valuable tool in determining disease and insect infected areas.

5.2.1.3 Reporting and Evaluation

It is suggested that a formal inventory of invasive species be created in order to monitor problem areas and to avoid expansion. Instances of invasive species and insect damage should be reported to Natural Resource staff. A regular protocol for reporting invasives/infestations will help managers determine how potentially damaging a threat might be, and whether action needs to be taken to eradicate the problem. It is also important to take note of problem areas on adjacent lands. If an adjacent ownership holds a potential threat to Reservation lands, the landowner should be contacted.

Any instance of invasive species or insect damage considered being an eminent threat, professional entomologists, pathologists, or invasive species experts should be consulted for further evaluation and guidance.

5.3 Control

5.3.1 Cultural

Cultural control of pests involves management of vegetation on a particular site to increase resistance and resilience to threats. In the case of Sitka spruce, promoting biodiversity in seedling selection, as well as selecting disease and insect resistant seedlings, can minimize potential tip weevil infestations.

5.3.2 Mechanical

This method involves the removal of infected or infested flora, usually with the use of a chainsaw, other machinery or fire. Burning of infected slash, mechanical removal of root rot laden stumps, and the pulling of noxious weeds are all methods of mechanical control.

5.3.3 Chemical

This method involves the use of herbicides, pesticides, fungicides and other chemical treatments to control forest pests and diseases. Chemical means of control should be a last resort to minimize perceived threats to the ecosystem and the local water supply. In some instances chemical is the only effective means of treatment (knotweed). In this case it is important to work with partners who are licensed and have expertise in chemical application.

5.3.4 Preventative

Planning and foresight are some of the most effective tools in combating infestation. Beginning reforestation operations as soon as possible after harvest can greatly reduce the number of noxious weeds on a site and allows trees to establish a healthy start before a brush layer can take hold. Another preventative measure in the fight against invasive species is employing onsite equipment and vehicle wash stations. Washing vehicles and equipment before entering and leaving a worksite can greatly reduce seed dispersal to and from site.

5.4 Trespass

Trespass occurs when there is an accidental or intentional take or destruction of Tribal resources. Trespass is often committed by an adjacent land owner but can also be committed any individual or group. All instances of trespass should be reported to the Tribe Natural Resource Director, who will then be responsible for investigating each case and reporting them to the OPA superintendent.

5.5 Disturbance Events

Disturbance events are those events that cause immediate and profound changes to a particular area; these can come in the form of fire, wind storms, landslides, tsunamis, or floods. While some disturbances can be prevented or avoided, some are inevitable and require well planned recovery and rehabilitation efforts.

The HIR is situated in a location that it is in constant danger from both the Pacific Ocean and the Hoh River. Being 0-200 feet above sea level causes the Hoh to be extremely vulnerable to tsunami events. Both tsunamis and flooding from the Hoh River can cause extensive erosion problems in lowland areas. In addition, major windstorms occur infrequently that can damage forest resources, as well as homes and infrastructure. Documented major wind events have occurred in 1890, 1921, and 1962.

5.5.1 Disturbance Rehabilitation

The first step after any disturbance event is to provide for the safety of human life. Any hazards or safety concerns caused by disturbance should be addressed before other actions are taken. The next priority should be the salvage of any valued resources. Once a site has been salvaged, rehabilitation efforts should be the primary concern.

Stand regeneration is important for both the recovery of the stand but also for reconsolidating any unstable soils that might have been created or exposed during the event.

Rehabilitation efforts will be addressed as needed and will be undertaken as soon as a plan of action can be established and the area is deemed safe for human entry. The Tribe anticipates working closely with BIA-OPA staff to develop and coordinate rehabilitation plans.

6.0 SILVICULTURAL AND FOREST MANAGEMENT PRINCIPLES

The forests of the Hoh Indian Reservation provide habitat, clean water, and cultural value for the Hoh Tribe and also local wildlife. HIR forests support the growth of merchantable timber as well as other valued, alternative forest products. All silvicultural treatments or harvest operations will require proper planning and preparation. The following principals are intended to guide all forest operations on Hoh Indian lands.

1. All proposed actions should be evaluated for conformance with management goals and objectives.
2. Prior to all operations which will cause site disturbance (thinning, harvest, use of equipment, etc.) each site should be inspected by natural resource personnel for sources of cultural value, including plant life of cultural importance. In addition, Tribal Departments will be consulted to secure any input regarding the proposal.
3. The Tribe shall consult with State and Federal fish & wildlife officials to develop appropriate protections for sensitive species and sensitive sites.
4. Identify opportunities to enhance streams such as hardwood conversion in riparian zones or placement of large woody debris, and rehabilitation of old existing roads.
5. Increase presence of Western red cedar (important species for cultural use) during reforestation efforts and through designation as retention trees.
6. Identify, protect, restore, and promote any flora deemed to be of cultural importance such as cedar, camas, cranberries and Labrador tea.
7. Promote forest biodiversity, structural complexity, and development of older forest characteristics.

7.0 SILVICULTURAL TREATMENTS

Silvicultural treatments will be used to influence the growth and structure of a given stand. Whether the final goal for a stand is harvest, habitat creation, or recreational enjoyment, applying the proper silvicultural prescription can help achieve the desired outcome. Active management can create a healthy forest ecosystem that provides for the needs of the Tribe.

With the exception of minor forest products permits described under section 9.3 of this plan, all proposed activities will require the creation of a silvicultural prescription document as outlined in section 8.0 of this plan. The following silvicultural treatments are common practices that may be included in a silvicultural prescription:

7.1 Regeneration

Regeneration is the reestablishment of trees on a site after a harvest or disturbance event. Regeneration can be done using either natural or manual methods. Natural regeneration methods can include retention of seed trees during harvest or reliance on adjacent mature forest stands for seeding.

Manual regeneration is the physical planting of seedlings and is the quickest way to adequately restock a forest stand. Regeneration should occur as soon as possible after harvest or site disturbance. Care should be taken to obtain planting stock from reputable sources, from a seed zone and elevation that matches the planting site. Also trees species native to the coast such as western hemlock, sitka spruce and red cedar should be used.

7.2 Release

Release is a strategy used to clear or retard competing vegetation for increased seedling survival and growth. It should be implemented when a young stand is being shaded out by an undesirable species such as red alder (*alnus Rubra*).

7.2.1 Manual Release

Manual release is the physical destruction of competing vegetation by cutting or pulling. Manual techniques can be very effective on smaller sites. Release from Red alder is usually done manually with chainsaw and is quite effective.

7.2.2 Chemical Release

In general the use of chemicals for release will be a last resort on reservation lands and will only be used if there is no other effective means of control. The use of chemicals on reservation lands must be in compliance with label requirements and only be administered under the direction of a licensed pesticide operator.

7.3 Thinning

Thinning is the intentional reduction of trees per acre on a given stand; this is done to reduce competition to improve growing conditions for the remaining trees. By cutting some trees on a stand, the remaining trees are afforded more space, sunlight, soil moisture and nutrients. This allows increase in tree growth. Small diameter and undesirable trees are generally preferred trees for removal.

In addition to increased tree growth thinning operations can influence stand structure, diversity, and speed the development of older forest characteristics.

7.3.1 Pre-commercial Thinning

Pre-commercial denotes the fact that trees are not mature enough for commercial use. Pre-commercial thinning is done on stands around 13-16 years or when the stand has reached canopy closure. Stand spacing is increased by cutting undesirable trees and competition is decreased. Pre-commercial thinning operations will generally leave 300-450 trees/acre to adequately stock the site.

7.3.2 Commercial Thinning

This method is used when trees have matured into merchantable timber, generally in stands greater than 30 years old. By only harvesting some of the trees on site, growth is redistributed back into the remaining trees. Thinning from below is the recommended prescription where the smallest trees are removed from the stand leaving the larger trees more room to grow. Commercial thinning operations will generally leave 120-180 trees/acre.

7.4 Sanitation Cutting

This method is the taking of trees that are found to be infected or damaged. Examples of sanitation cutting would be instances of isolated root-rot or mistletoe within a stand that is otherwise healthy. Infected trees would be identified and removed before the disease could be spread. It is unlikely that this method of harvest will be used on reservation lands.

7.5 Salvage Cutting

Salvage harvest is done to recover resources after a disturbance event. Disturbance events could include but are not limited to, wind-throw, fire, landslide, tsunami, or flood. Salvage cutting should only be done if it is deemed economically feasible or there is a threat to public safety. Salvage cutting generally involves harvest of selected damaged trees while leaving most healthy live trees. The Tribe may occasionally use this method to salvage blow down trees.

7.6 Individual Tree Selection

This method involves the harvest of certain individual selected trees. The method is used for removal of firewood, poles or other cultural uses. It is also used where trees present a hazard to buildings or other structures. The remaining forest stand should be left undamaged and intact. This will be the primary method used in the permit system described in 9.3 of this plan.

7.7 Patch Cuts

The patch cut method can be considered a form of clear cut harvest as most or all trees within a harvest unit or “patch” are taken. However, patch cutting is on a much smaller scale (< 10 acres), and will often have irregular boundaries to promote wildlife use. Occasionally small patch cuts are interspersed in commercial thinning units to provide wildlife habitat. In this case patch size is generally < 2 acres. This harvest method is intended to mimic small scale disturbances that would occur naturally. Wind-firmness of adjacent stands should be considered when patch location is being determined.

7.8 Clearcut harvest

Clearcut harvest methods involve the removal of all or nearly all the trees on a site. The Tribe may use this method in the case where housing or infrastructure development is necessary. The only other foreseen use of this method is in the case of a large scale blowdown or fire event. The advantages of this method are generally for short term favorable economics and regeneration of shade intolerant species. The disadvantages are the potential risks to other Tribal resources such as cool clean water, wildlife habitat and the potential increased blowdown from newly exposed edges. Because the reservation is within the hemlock/spruce zone it is not necessary to have the large openings that douglas fir regeneration requires. It is the Tribes desire to avoid using this harvest method.

8.0 SILVICULTURAL PRESCRIPTIONS

A silvicultural prescription can be a single treatment, or a series of coordinated treatments assigned to a particular stand on a specific timeline. Prescriptions are created in order to meet management objectives for a stand. Prescriptions must be created for each stand and approved prior to implementation.

Silvicultural prescriptions also provide a method of documentation and monitoring that will help ensure management goals and objectives are being considered and implemented in all activities and operations.

8.1 Prescription Writing

Minimum requirements for all silvicultural prescriptions are as follows:

Description of the Site

Legal description, slope, aspect, elevation, soils, site class, sensitive species concerns, as well as descriptions of all water resources on site.

Description of the Existing Stand

Age class, species representation, stocking levels (trees per acre, basal area per acre, volume per acre), competing vegetation by species, insect and disease concerns as well as potential regeneration concerns.

Description of the Desired Stand

A discussion of short and long term objectives for the stand including stocking levels and species, pest control, and a list of non-timber resources or values.

Access

A general description and map of where the site is located and how it is accessed. All road specific actions, including improvements, construction or maintenance should be specified.

Harvest Methods

A general description and map of areas that will be ground based vs. skyline or cable methods. Any special equipment or yarding techniques as well as utilization standards should also be detailed.

Treatments

Detailed descriptions of any and all treatments that will be used to reach desired stand conditions. This would include: proposed site preparation, slash disposal and reforestation methods.

Impact Mitigation

Each prescription should include a section detailing how potential impacts will be avoided or minimized. Potential impacts include habitat disruption, soil disturbance, sedimentation, air quality, as well as all instances of water crossing.

Special Considerations

Special considerations refer to endangered species, present infrastructure, unique challenges, or any other pertinent site specific information not detailed in previous sections. This would include descriptions of buffers left for riparian areas, wetlands or other features. This section is intended to provide general oversight, document safety concerns, and to cover any information that might be important to ensure successful completion of operations.

Cultural Resource Investigation

Before any management action is taken on any stand or site, a thorough investigation of the site should be completed by a team of two tribal members. The intention of this site visit is to identify and document cultural or historical sites and resources, and to ensure they are not damaged or lost.

9.0 HARVEST POLICY

The Hoh Natural Resource Director will be responsible for planning specific harvest operations, and acquiring approval from the Hoh Tribal Council. All harvest operations will require the completion of a Silvicultural Prescription as outlined in this document. All BIA timber sales procedures will be followed. Timber harvest activities should follow Timber Sale Preparation Guidelines (Appendix VIII).

9.1 Annual Allowable Cut

The HIR ownership is too small to determine an economically feasible annual allowable cut. There is no set harvest schedule. Harvests should be conducted periodically based on tribal need. Harvests should be considered sustainable in that the quantity of timber harvested should not exceed the biological growth for the selected interval.

9.2 Retention

Regardless of harvest method, snags, legacy, and wildlife trees should be retained within each harvest unit. Retention trees can serve a variety of methods including: legacy seed dispersal, wildlife habitat, and in the case of large and older age cedar, cultural significance.

In general all Cedar trees will be retained unless harvest is necessary for operational reasons. If Cedar trees are harvested the Tribe will be given the opportunity to use the trees for the benefit of the community before consideration is given to selling to a non-tribal entity.

9.3 Firewood and Special Forest Products

The Tribe may issue firewood, pole, cedar salvage or other minor forest products permits. Forest products harvested under permit should not exceed 2,500 board ft. or \$5,000 in value and be consistent with (53 BIAM, Chapters 3&4). Secondary forest products such as salal, mushrooms, cones, fir bows may not need such permitting system.

10.0 TIMBER MARKING GUIDELINES & DOCUMENTATION

Timber harvest boundaries shall be clearly marked on the ground. Boundaries should be traversed or surveyed and tied to local property corners to insure ownership. A map should be generated documenting the harvest boundary that is spatially accurate. The

map should be to scale and document stream and road locations as well as stream or other buffers.

All timber harvests shall have a written contract that documents the products being sold as well as a description of the boundaries and other special contract requirements. Road work specifications should also be detailed. Contracts should be developed in coordination the BIA- OPA staff.

11.0 SILVICULTURAL GUIDELINES

11.1 Reforestation

Reforestation should occur within three years of harvest operations but preferably within one year after harvest. Selection of tree species should depend on site characteristics. Native species should be used which are primarily western hemlock, sitka spruce and red cedar. Red alder can be considered for heavily disturbed areas such as gravel pits. A certain amount of diversity in tree species should be pursued on each site to decrease stand susceptibility to disease and infestation. Planting densities should range from 300-450 trees/acre.

11.2 Slash Disposal Standards

Slash disposal shall insure that all aspects of Washington's extreme fire hazard rules are met. In general the tribe recognizes the benefit of leaving slash in the forest to promote the development of fertile soils. Trees processed adjacent to roads create large pile accumulations. If local market conditions are favorable these piles can be chipped and hauled away as biomass. In lieu of chipping, the piles can be burned or left on site. Pile burning usually occurs after fall rains have begun to minimize risk of fire spread.

11.3 Special Resource Considerations

11.3.1 Riparian Management Zones & Wetlands

Buffer zone widths will be determined by size and reach of stream or wetland as well as whether or not fish are present. Natural resources staff will assist with categorizing stream types and developing appropriate buffer prescriptions on a site specific basis. Stream and wetland protection will, at a minimum, meet the standards outlined in the Washington Forest Practice Rules.

11.3.2 Archaeological and Cultural Sites

As outlined above, a full inspection of each site for cultural value will be complete before any proposed activity is carried out. Any cultural resources or artifacts will be reported to the Natural Resource Director who will, with the help of the Tribal Council, determine appropriate actions and protections.

11.3.3 Endangered Species Protection

Every effort will be made to identify and protect all known endangered species that inhabit the Reservation and adjacent lands. Silvicultural prescriptions and harvest operations will be designed with habitat conservation as a priority.

Prior to initiating a specific proposal, the Hoh Natural Resource staff will consult with the US Fish and Wildlife Service (USFWS) to determine location and protection standards for any listed species on, or near a given proposal.

11.4 Organization

Forest management activities on the reservation are governed by the Hoh Indian Tribe through direct oversight of the Natural Resource Director. The Natural Resource Director is responsible for developing and overseeing contracts. The Natural Resource Director answers directly to the Hoh Tribal Council. Tribal staff will utilize BIA-OPA staff to help guide proposed activities.

11.5 Implementation, Coordination, Communication

The Natural Resource Director is responsible for actively soliciting review and input from the Tribe and its members as well as resource professionals and others regarding implementation of its Forest Management Plan. This consultation is required to address legitimate concerns related to specific proposals. The Natural Resource Director shall also initiate an environmental assessment of proposed actions including appropriate mitigation measures.