

BMP Implementation Monitoring – Finger Point Timber Sale; August 28-30, 2006

Summarized by Carol Seitz Warmuth

This interdisciplinary trip was conducted on the Petersburg Ranger District in August 2006. The intent of the BMP review was primarily to provide quality control to the 100% BMP implementation monitoring effort on the Forest. Participants on the interdisciplinary trip included: Teresa Streuli (PRD Timber Sale Administer), Brett Hand (PRD Harvest Inspector), Heidi Peura (PRD Fish Biologist), Rich Jennings (PRD Monitoring Coordinator), Jim Brainard (PRD Wildlife Biologist), Karen Bower (TNF Environmental Engineer), Chris Savage (PRD Deputy District Ranger) and Carol Seitz Warmuth (TNF Monitoring Coordinator). The Interdisciplinary Team monitored 2 units and 1 associated temporary road, as well as 1 LTF as part of the quality control monitoring.

Unit/ Road	Associated Road	LTF	Logging System
Finger Point 67	Temp road	Tonka	shovel
Finger Point 145		Tonka	helicopter

Background

The Finger Point Timber Sale is covered in the South Lindenberg EIS. The Record of Decision for the South Lindenberg EIS was signed 12-14-96 and the timber sale awarded 9-03-2004. The timber sale is being harvested under the 1997 Forest Plan Record of Decision and the most of the 1997 Standards and Guidelines apply to the units. South Lindenberg Timber Sale projects are specifically mentioned in the 1997 Forest Plan Record of Decision as category 2 timber sale projects for which NEPA decision documents were signed before the effective date of the Plan but timber volumes were not yet sold. The South Lindenberg project was found to be consistent with the goals and objectives with the exception of riparian standards and guidelines. Direction to modify the South Lindenberg project was included in the Plan so the project would better achieve the riparian standards and guidelines. (Projects in category 2 do not need to implement all the new wildlife standards and guidelines).

Unit 67

Unit 67 configuration changed from the South Lindenberg EIS planning stage to implementation. The unit was altered to meet mitigation for visuals, stream protection, and structural diversity. The original unit was planned for 28 acres with 10 acres laid out and harvested. The silviculture prescription was for an even-aged clear cut that was designed for cable logging systems although it was harvested by conventional shovel. Stream classification completed in 1999 was updated prior to implementation. This classification and buffer prescription called for more conservative classification and buffers on the streams. A 130 feet Class II- III stream buffer on the south west and a 100

feet Class III v- notch buffer on the north were added. The southern stream is a Class II resident fish stream that has a 130 foot wind firm buffer for most of the reach adjacent to the unit. The upper reach of this stream is a Class III stream but due to the deep incised and braided channel with highly mobile soils and close proximity to resident fish populations was prescribed a 130 feet buffer. The stream that traverses north of the unit is a Class III stream that is protected with a v-notch buffer. Two Class IV streams are shown within the unit. The unit boundary on the south was changed and some of the area was moved from Unit 67 to Unit 145. One reserve tree clump was incorporated into the no harvest buffer. Timber from this unit was hauled to the Tonka LTF.



Photo: shows Unit 67

- **BMP 12.5 Wetlands Protection Measures.** *The team rated this item 5.* The wet-hab-soil map shows the soil type as forested non-wetland (FNW). Minimal wetland disturbance with partial to full suspension achieved. A few minor inclusions were noted and measures were taken on these areas to protect the wetland.
- **BMP 12.6 Riparian Area Designation & Protection/ BMP 12.6a Buffer Zone Design and Layout.** *The team rated this item 5.* A Class II A protect stream was shown. Some inconsistent identification was noted although the protection was implemented properly. A 130 feet wind firm buffer was implemented.
- **BMP 12.8/12.9 Oil Pollution Control Measures.** *The team rated this item 5.* No stained soil was noted on site. No sheen, oil or fuel containers were noted on site. Good housekeeping measures were employed.
- **BMP 12.17 Revegetation of Disturbed Areas.** *The team rated this item not applicable.*
- **BMP 13.5 Identification & Avoidance of Unstable Areas.** *The team rated this item not applicable.* No slopes were noted over 72% slope gradient.

- **BMP 13.9 Yarding Systems to Protect Soil/ Water Resources.** *The team rated this item 5.* The unit was designed for running skyline but shovel yarding was implemented. Partial suspension prescription was implemented.
- **BMP 13.10 Landing Location & Design.** *The team rated this item 5.* The landing provided suspension required. The landing was outside the stream channel.



Photo: shows Unit 67; no soil disturbance

- **BMP 13.11/13.14/14.5 Erosion Control Measures- Units, Temporary Roads.** *The team rated this item 5.* Water bars were in place and culverts were pulled. The cut banks were seeded. No water was noted pooling or flowing on the road surface.
- **BMP 13.16 Stream Channel Protection.** *The team rated this item 5.* The stream protection was implemented on the Class II- III protect stream on the southwest boundary as well as on the Class III stream on the north – northwest boundary. The stream on the north- northwest boundary is highly variable and is marked with conflicting flagging colors. This flagging is probably remnant of various field classification efforts between planning and implementation. This northern stream was prescribed a v- notch buffer and the buffer was implemented. The stream on the south- southwest boundary of the unit was prescribed a 130 foot buffer and the buffer was implemented. This stream was classified as a Class II in the lower reaches and Class III in the upper reaches. Two Class IV streams are shown within the unit. Protection measures were implemented to remove

branches from the channels and provide for partial suspension across the channels. On the unit card the stream configuration is different than on the sale area map and ground. The configuration of the southern portion of the unit was changed to provide stream protection.

- **BMP 14.26/14.27 LTF Surface Erosion Control Plan Storm Water Pollution Prevention Plan.** Reference form for Unit 145 as well as the Environmental Engineering report; August 29, 2006 Tonka Mountain LTF, Finger Point Timber Sale Site Visit.

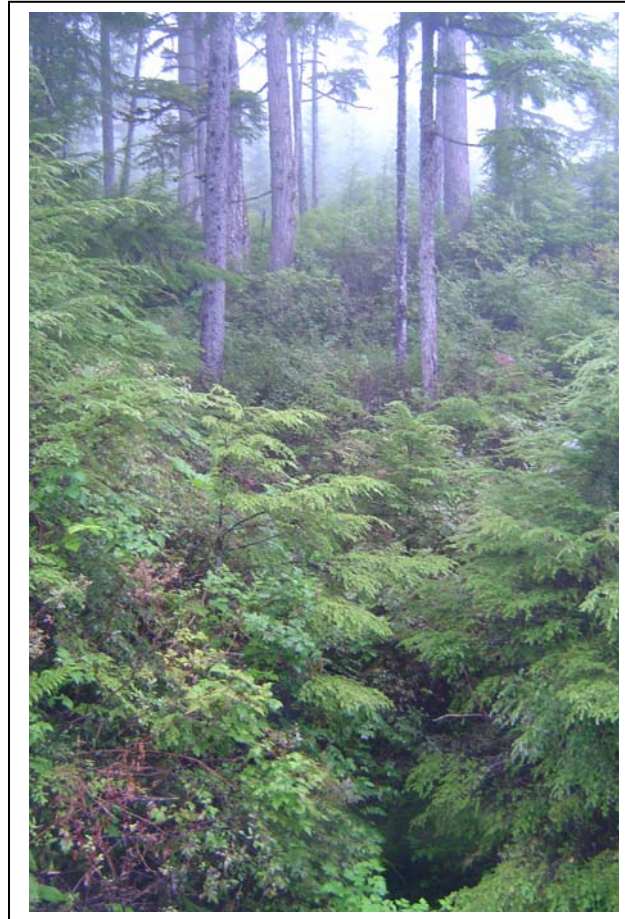


Photo: shows Class III stream

Unit 145

The configuration of Unit 145 changed from the South Lindenberg EIS planning stage to implementation. The unit was altered to meet mitigation for visuals, stream protection, and structural diversity. The original unit was planned for 25 acres with 11 acres laid out and harvested. The silviculture prescription was for an even-aged clear cut that was designed for helicopter and cable logging systems. This unit shows high value martin habitat in the unit. Stream classification completed in 1999 was updated prior to implementation. This classification and buffer prescription called for more conservative classification and buffers on the streams. An area in the southern portion of the original Unit 67 was added to Unit 145 to provide stream protection and improve yarding capabilities adjacent to the streams. The northern portion of the unit was dropped to accommodate a martin reserve area as well as provide stream protection for a concentration of Class III streams. A 130 foot Class II- III stream buffer on the north and was added. The northern stream is a Class II resident fish stream that has a 130 foot wind firm buffer for most of the reach adjacent to the unit. The upper reach of this stream is a Class III stream but due to the deep incised and braided channel with highly mobile soils and close proximity to resident fish populations was prescribed a 130 foot buffer. Two Class IV streams are shown in the southern portion of the unit. Timber from this unit was hauled to the Tonka LTF.



Photo: shows Unit 145

- **BMP 12.5 Wetlands Protection Measures.** *The team rated this item 5.* The wet- hab soil map shows the soil type as forested non-wetland (FNW). Minor inclusions of wetland are shown within the unit and protective measures were implemented. Full suspension was achieved over the wetlands.
- **BMP 12.6 Riparian Area Designation & Protection/ BMP 12.6a Buffer Zone Design and Layout.** *The team rated this item 5.* A Class III that transitions to a Class II stream is shown on the north side of the unit. A 130 feet buffer was prescribed and implemented on the north boundary of the unit. This 130 feet buffer may have been over conservative in the Class III reaches.
- **BMP 12.8/12.9 Oil Pollution Control Measures.** *The team rated this item 5.* The SPCC was in place. Proper disposal of filters and containers were implemented. No stained soil was noted on site. No sheen, oil or fuel containers were noted on site. Good housekeeping measures were employed.
- **BMP 12.17 Revegetation of Disturbed Areas.** *The team rated this item not applicable.*
- **BMP 13.5 Identification & Avoidance of Unstable Areas.** *The team rated this item 5.* Slopes were noted over 72% slope gradient in small inclusions in the unit. The unstable slopes were avoided during layout.
- **BMP 13.9 Yarding Systems to Protect Soil/ Water Resources.** *The team rated this item 5.* Full suspension was prescribed and implemented in the unit. The unit was designed for over story removal > 18 “Diameter Limit.
- **BMP 13.10 Landing Location & Design.** *The team rated this item 5.* The landing along the temporary road in Unit 67 was utilized for this harvest.

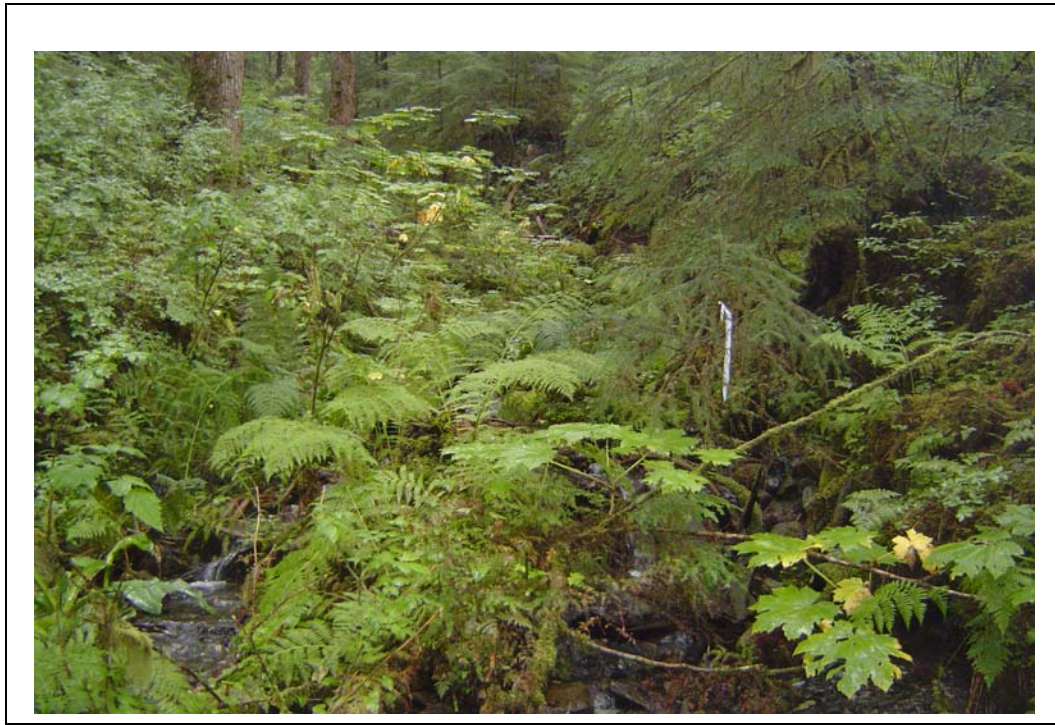


Photo: shows Class II to Class III stream between Units 67 & 145

- **BMP 13.11/13.14/14.5 Erosion Control Measures- Units, Temporary Roads.** *The team rated this item not applicable.*
- **BMP 13.16 Stream Channel Protection.** *The team rated this item 5.* The upper Class IV stream was prescribed partial suspension and full suspension was achieved. A log bridged the stream and a wetland area. The log did not appear to be disrupting water flow and was left in place to minimize soil disturbance. The lower Class IV stream has a variable channel and varies between a Class IV and non stream. Full suspension and removal of tree branches from the channel was implemented in the Class IV streams. Reference BMP 12.6 for Class II- III stream description.



Photo: shows Unit 145

- **BMP 14.26/14.27 LTF Surface Erosion Control Plan Storm Water Pollution Prevention Plan.** *The team rated this item 4.* The NPDES plan was in place. A settling pond was in place in the center of the running surface of the LTF. Site compliance inspection was completed by the environmental engineers June 14, 2006. The loading area should have been retrofitted so the equipment did not run through the settling pond as logs were unloaded and bundled. Rutted soil was noted on the running surface of the LTF with 4- 10” ruts. The SA directed the operator to clean up scrap tree materials and mud and dispose in a designated area. A poor rock source and degrading rock on the surface contributed to the need for continual maintenance at the site. Fuel containment was implemented according to requirements. Secondary containment was shown at the fuel site. The pumps at the fuel site that were secured within the containment. The spill kit was on site. Good housekeeping measures were employed. The fuel tanks were double walled. Fuel records (logs) were kept to show fuel issued verses stored. The tanks were labeled with appropriate placards and fire extinguishers were on site. The LTF was re-surfaced periodically with fresh rock; however, a new lift is needed. A new lift of rock is planned as part of an overall retrofit.



Photo: shows Tonka LTF

Implementation of Class III & Class IV Stream Classification

Measurements along transects in Class III and IV streams were taken and compared to the Tongass Forest Plan Implementation Clarification (TPIT) that was intended to provide guidelines for consistent classification of Class III and IV streams. The monitoring showed that the stream classifications in the Finger Point units were generally consistent with the guidelines.

Specific results show in Unit 67 the Class III stream on the north side of the unit may have been a Class IV stream in some of the reaches according to the TPIT classification criteria but the western Class II- III stream on the boundary between Unit 67 and Unit 145 was a Class III stream that transitioned from a Class II. On the northern Class III stream, 3 transects showed the bank full width was 4- 9 feet and the incision depth was 5.4- 7.2 feet. On the Class II- III stream, 2 transects show the bank full widths ranged with 19- 21 feet and the incision depth of 18.7- 42.5 feet. The stream channel side slopes showed sandy loam soils. The channel showed some scour and undercutting in the banks. The bed load was rounded and showed some gravel bars.

Unit 145 shows two Class IV streams in addition to the Class III stream discussed above. The Class IV stream channels showed bank full widths of 1-5 feet and incision depths of 0- 10 feet in the 5 transects measured. Some of the stream channel shown on the lower drainage was a wet area without an established channel. This area was relatively flat and there was no distinct flow. The lower reach of the one Class IV stream may have been a non-stream. In some reaches of the northern channel and the southern channels the bed load was angular sand to cobble size material. In a few reaches the bed load was primarily organic soils. There was vegetation shown in the channels and moss growing on the rocks.

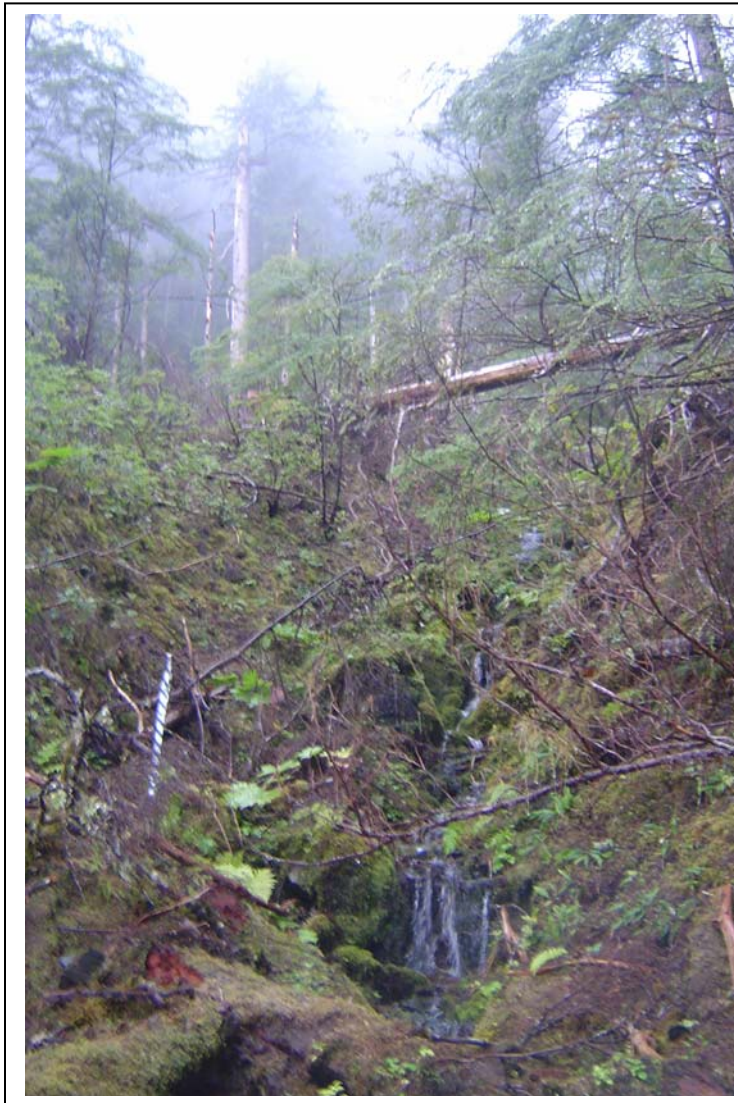


Photo: shows Class IV stream in upper edge of Unit 145

Conclusions

The monitoring conducted by the IDT shows the applicable BMPs were implemented on the Finger Point Timber Sale. The strengths in this implementation lie in the changes that were made between planning and layout as well as between layout and harvest to drop acreage where numerous braided channels bisected the slopes and provide stream protection. Acreage was moved from one unit, where the unit was shovel yarded, to an adjacent helicopter unit to provide for full suspension and provide for stream protection. A second strength was in the implementation of the stream protection best management practices. The layout and administration crews were responsive in defining stream buffers for the Class III streams and Class II- III stream. The Timber Sale Administrator acted responsibly to verify stream classification when the flagging was conflicting and ensure the buffers were implemented. The one stream on the north side of Unit 67

probably showed two colors of flagging due to the retrofitting of the timber sale to the new standards and guidelines.

Overall the timber harvest and road construction was completed with little potential impact to the soil and water resources. The stream buffers were intact. The stream buffers were serving to protect the stream channel and provide a source for large woody debris. There was no soil disturbance noted in the units and the operator achieved the required suspension. The Class IV streams were well cleaned of tree branches and transported water down slope. The stream classifications were generally consistent with the TPIT classification guidelines for Class III and Class IV streams. The Timber Sale Administrator and Harvest Inspector worked with the operator to ensure that suspension was achieved, streams were cleaned and post haul maintenance completed.

The oil pollution prevention measures were noted as particularly well implemented. The operator had double walled tanks and secondary containment on site. There were oil water separators operable on site. A shipping tank was used to transport fuel to the field. The tanks were appropriately marked with placards and fire extinguishers were available.

There were a few aspects that need follow up action on this timber sale. The sale administrators and engineering representatives worked to limit non-point source storm water discharge at the LTF although the facility design, minimal size of the facility, and poor quality surface rock is limiting the function of the structure. The LTF showed a settlement pond constructed to attenuate sediment transport and logs laid at the edge to hold back surface material. Due to the poor rock quality, low slope of the LTF surface, and timber haul/ transport at the facility, continual maintenance of the facility is necessary and has been directed by the Sale Administrator and Engineering Representative. The deep mud and rutted running surface of the LTF and bundling area may contribute sediment to the ocean. The lack of a functioning settling pond and ditch system at the LTF may contribute to the LTF running surface eroding and sediment transport during major storm events. This LTF facility needs grading, an additional lift of more durable rock, and re-designed to provide for a settlement pond that is outside of the roadway and running surface of the LTF. Recommendations include follow up on these action items immediately to improve the running surface and during the next operating season for the more extensive modification. According to the Timber Sale Administrator and Engineering Representative, the surface was scrapped of mud and some rock was spread following this monitoring trip. Additionally a retrofit design has been prepared with reconstruction work scheduled for 2007.

The change analysis included some information about changes in the unit size and descriptions of the changes; however, the specific changes in the units were difficult to discern. The change analysis did not address the changes in the logging systems, nor shifts in the acreage distinctly. There were portions of the unit that were not included in layout; however, no notation as to why these areas were dropped. Recommendations include development of a change analysis map or unit card that displays graphical changes.

Figure: Finger Point Timber Sale Map

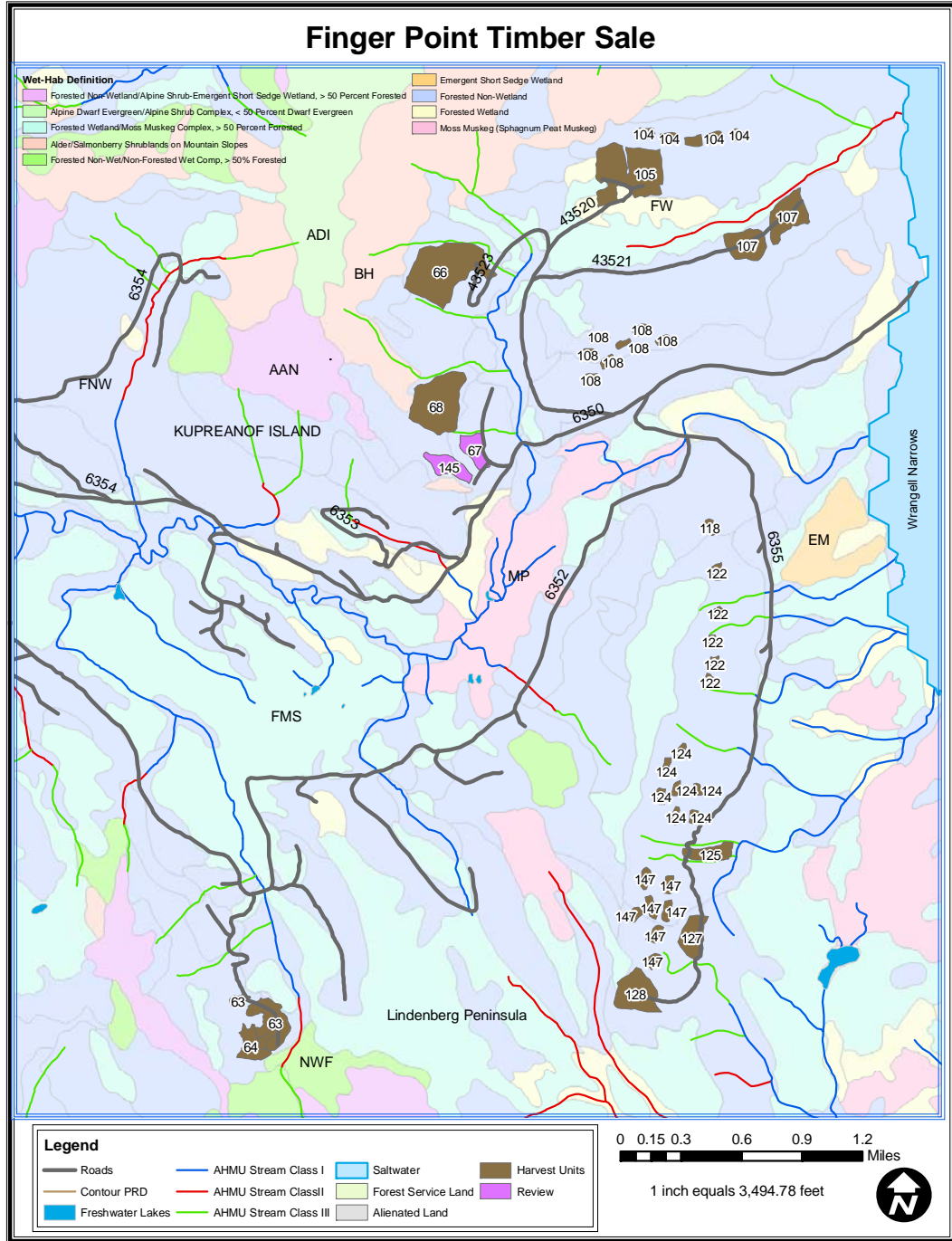


Figure: Finger Point Timber Sale Monitoring Sites

