

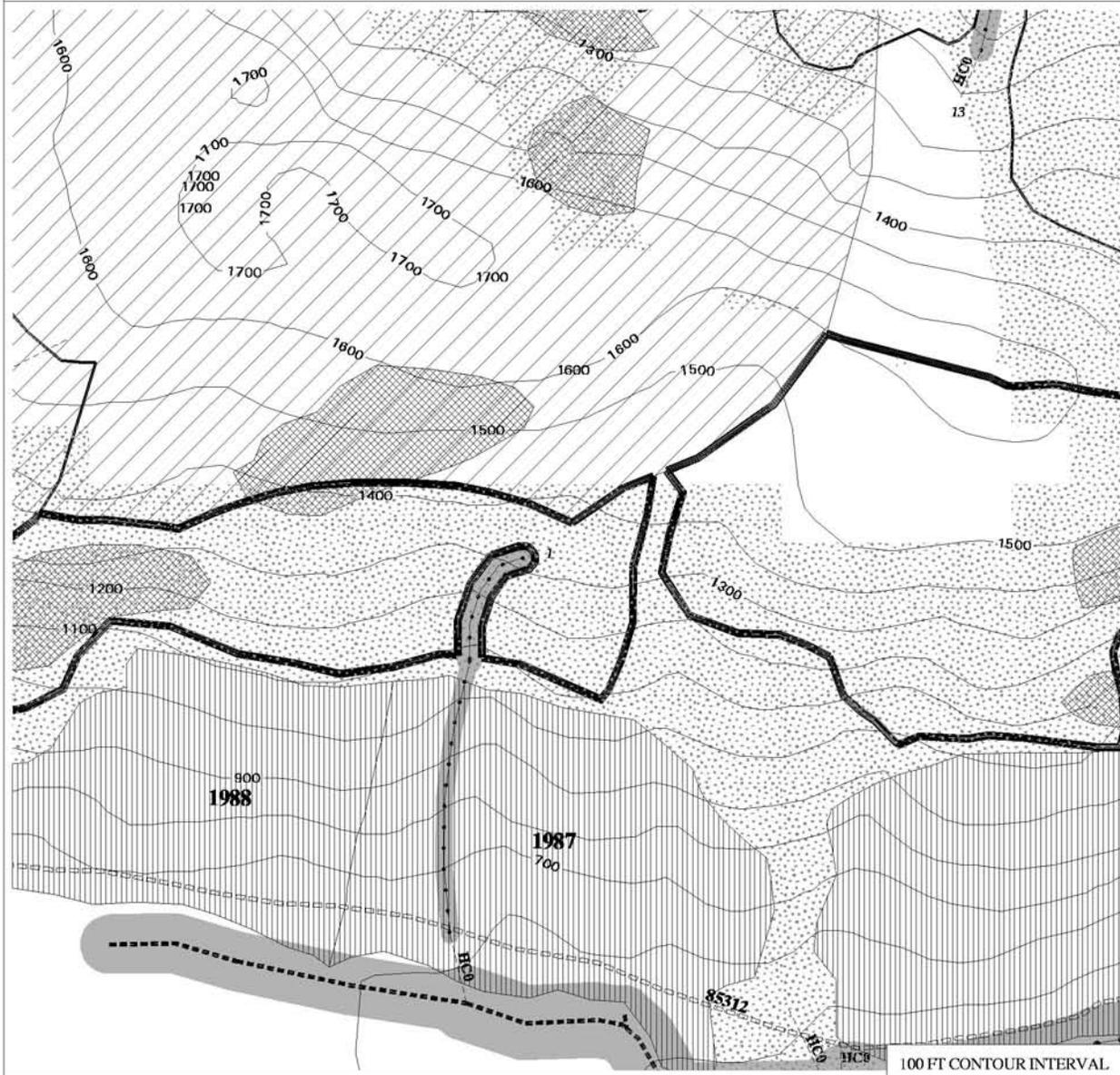
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 903      VCU: 2080/2090      HARVEST SYSTEM: Helicopter

UNIT 903 OCCURS IN ALTERNATIVE(S): 4



MAPSCALE 1:7200

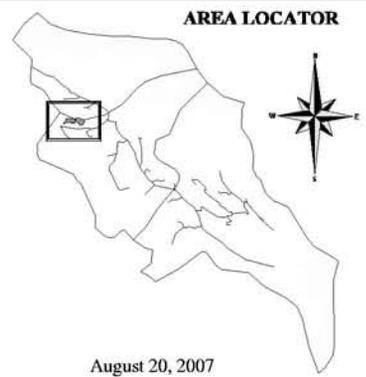


100 FT CONTOUR INTERVAL

- Existing Harvest Unit with Year Harvested Unit Boundary
- Adjacent Proposed Unit
- Proposed NFS Road
- Temporary Road
- Existing NFS Road
- NFS Road Reconstruction
- Class I Stream
- Class II Stream
- Class III Stream

- Class IV Stream
- Stream Channel Type
- Stream Number – See Narrative
- High Value Marten Habitat
- Areas Dropped From Alternative(s)
- Inventoried Roadless
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes > 72%
- Existing Rock Pit

- HC6
- 1



August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	903	<b>In Alternatives:</b>	4	<b>Total Unit Acres:</b>	72.7	<b>Vol Strata Acres:</b>	High: 72.3 Med: 0 Low: 0.4
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	1,084	<b>Prescription /Percent Retention:</b>	ST40

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand contains a good mix of 12-39" DBH mountain hemlock (44% BA) 16-48" DBH spruce (34% BA) and 12-36" DBH western hemlock (22% BA). Wind risk is low.</p>
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<p><b>Silvicultural Objective/Desired Future Condition:</b> Maintain or create a stand with three or more distinct age (size) classes of trees that maintains species diversity, provides for a high degree of structural diversity and meets Forest Plan scenery and high value marten habitat requirements.</p>
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<p><b>Silvicultural Prescription:</b> Uneven-aged management – Single tree selection. Designate up to 40 percent of existing basal (236 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. Refer to the intro to unit cards, marking guidelines and detailed RX for more information.</p>
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<p><b>TIMBER/LOGGING:</b> Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate helicopter yarding.</p>
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<p><b>ENGINEERING/ROADS:</b> N/A</p>
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<p><b>BOTANY RESOURCES:</b> No concerns</p>
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<p><b>FISH/WATERSHED: Concern:</b> Stream 1 is a Class III HC channel with unstable side-slopes.</p>
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<p><b>Response:</b> Category B protection (BMP 12.6, 13.14). No harvest within v-notch (RIP III).</p>
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<p>No-harvest buffer will encompass all unstable ground surrounding the channel.</p>
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<p><b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.</p>
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<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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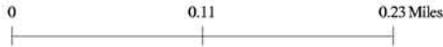
<p><b>SOILS/WETLANDS:</b> Slopes range greatly from 5-90% in Unit 903. The soils are generally well-drained and formed over bedrock. There are about 9 acres of slopes over 72% scattered throughout the unit. The largest continuous area is 5 acres located in the western portion. The soils are generally well-drained over bedrock. There are no signs of instability, hollow topography or past landslides in this area. <b>Concern:</b> Some landslides may initiate on the slopes greater than 72% and enter streams. <b>Response:</b> Do not harvest any slopes greater than 72% within 120 feet of any stream. Slopes up to 80% may be harvested with the proposed helicopter prescription. Avoid slopes greater than 80% in Unit 903. (BMP 13.5, 13.9). An onsite analysis for suitability on slopes over 72% was conducted on this unit as per Forest Plan Standards (soil resource report).</p>
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<p><b>WILDLIFE: Concern:</b> Unit contains high value marten habitat. <b>Response:</b> Proposed timber management will not create openings greater than 2 acres in size within this habitat. Retention of 60% of the basal area will meet marten standards and guidelines. <b>Concern:</b> Vancouver Canada geese observed in ponds north of units. <b>Response:</b> No design elements or mitigation required to meet Forest Plan standards and guidelines.</p>
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### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 904      VCU: 2090      HARVEST SYSTEM: Cable

UNIT 904 OCCURS IN ALTERNATIVE(S): 2



MAPSCALE 1:7200



- Existing Harvest Unit with Year Harvested
- Unit Boundary
- Adjacent Proposed Unit
- Proposed NFS Road 85343
- Temporary Road
- Existing NFS Road 8530
- NFS Road Reconstruction 8534
- Class I Stream
- Class II Stream

- Class III Stream
- Class IV Stream
- Stream Channel Type
- Stream Number – See Narrative
- High Value Marten Habitat
- Areas Dropped From Alternative(s)
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes Greater Than 72%
- Existing Rock Pit

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- HC6
- 1
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August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	904	<b>In Alternatives:</b>	2	<b>Total Unit Acres:</b>	26.1	<b>Vol Strata Acres:</b>	High: 0 Med: 26.1 Low: 0
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	581	<b>Prescription /Percent Retention:</b>	CC

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand consists primarily of 12-32" DBH western hemlock (53% BA), 16-36" DBH mountain hemlock (28% BA) and 12-44" DBH spruce (19% BA). The southwestern portion of the unit is more productive with well drained soils. An area of windthrow exists along the eastern boundary adjacent to the previously harvested stand. Wind risk is moderate to high.</p>
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<p><b>Silvicultural Objective/Desired Future Condition:</b> Create an even-aged managed stand of the same species composition as the original stand that meets Forest Plan scenery and high value marten habitat requirements, uses an economical regeneration method, and is windfirm, free of mistletoe infection and growing at full site potential.</p>
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<p><b>Silvicultural Prescription:</b> Even-aged management – clearcut: This unit contains stream buffers (refer to fish/watershed section). A high wind risk boundary may be created in the NW side of unit. Review during layout to determine if windfirming is warranted.</p>
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<p><b>TIMBER/LOGGING:</b> This unit is comprised of one cable setting.</p>
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<p><b>ENGINEERING/ROADS:</b> Temporary road 9004 accesses unit from existing Road 85312. Road location has been flagged. Deviations to flagged route must be approved by USFS prior to construction.</p>
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<p><b>BOTANY RESOURCES:</b> No concerns</p>
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<p><b>FISH/WATERSHED: Concern:</b> Stream 1 is a Class I PA and FP channel. <b>Response:</b> Locate southern unit boundary at least 130 feet from Stream 1 in eastern half of unit, and at least 100 feet from stream 1 in western half. Maintain a RAW zone of 120 feet north of no-cut buffer (BMP 13.16, RIP-III). <b>Concern:</b> Streams 2, 3, 4, 5, 6 are Class II HC channels within 300 - 400 feet of Stream 1, and Class IV HC channels beyond 400 feet. <b>Response:</b> No harvest within 100 feet of blue and white flagged segments and maintain RAW zone of 120 feet on the east sides of no-cut buffers. Category A protection. For green and white flagged segments, Category C protection (RIP-II, BMP 13.16). Remove logging debris from stream (BMP 13.9, 13.16) <b>Concern:</b> Stream 7 is a Class II HC channel within 400 feet of Stream 1, and a Class III HC channel above. <b>Response:</b> Category A protection for blue and white flagged segment. No harvest within 100 feet of channel and v-notch side-slopes. Manage for windfirmness within 120 feet of no-cut buffer (RIP-III). Orange and White flagged segment gets Category B protection (BMP 13.16). No harvest within v-notch side slopes (RIP-III). Manage for windfirmness within 120 feet of no-cut buffer (BMP 12.6, RIP-II, RIP-III). <b>Concern:</b> Temporary road – stream crossings <b>Response:</b> crossing structures and locations will be approved by USFS prior to construction. Upon completion of unit harvest, restore natural drainage patterns by removing road fill from channels and installing water bars as necessary (BMP 13.16). Seed and fertilize disturbed soil adjacent to streams (BMP 12.17)</p>
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<p><b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.</p>
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<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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<p><b>SOILS/WETLANDS:</b> Slopes range from 5-60% in Unit 904. <b>Concern:</b> The southern half is forested wetland. <b>Response:</b> A minimum of partial suspension is required to meet soil and wetland resource standards. (BMP 12.5, 13.9) <b>Concern:</b> The proposed temporary road is located on forested wetland and not alternative route exists. <b>Response:</b> Provide adequate cross drainage to maintain groundwater flow. Remove all structures and close the road after the unit has been harvested. (BMP 14.9) (33 CFR BMPs 4, 5, 6)</p>
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**Summary of Concerns, Responses, BMPs and Mitigation**

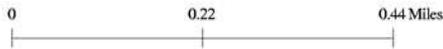
**WILDLIFE: Concern:** Goshawk observed in the unit. Surveys did not identify a nest site. **Response:** Goshawk is likely associated with identified nest site. If a goshawk nest is identified in or adjacent to the unit, contact the project biologist; follow Forest Plan direction for the development of the nest buffer.

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### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 907      VCU: 2090      HARVEST SYSTEM: Cable

UNIT 907 OCCURS IN ALTERNATIVE(S): 2 3 4 5



MAPSCALE 1:14000



100 FT CONTOUR INTERVAL

- Existing Harvest Unit with Year Harvested 1988
- Unit Boundary
- Adjacent Proposed Unit
- Proposed NFS Road 85343
- Temporary Road
- Existing NFS Road 8530
- NFS Road Reconstruction 8534
- Class I Stream
- Class II Stream

- Class III Stream
- Class IV Stream
- Stream Channel Type
- Stream Number – See Narrative
- High Value Marten Habitat
- Areas Dropped From Alternative(s)
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes Greater Than 72%
- Existing Rock Pit

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- HC6
- 1



<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	907	<b>In Alternatives:</b>	2, 3, 4, 5	<b>Total Unit Acres:</b>	44.9	<b>Vol Strata Acres:</b>	High: 29.6 Med: 15.3 Low: 0
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	881	<b>Prescription /Percent Retention:</b>	CC

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand consists primarily of 12-30" DBH western hemlock (70% BA) with some scattered 16-36" DBH spruce (17% BA) and 24-28" DBH mountain hemlock (13% BA). The eastern edge of the unit is the most productive. The western edge is less productive and contains some areas of windthrow. Wind risk is moderate. Mistletoe infection is moderate to heavy.</p>
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<p><b>Silvicultural Objective/Desired Future Condition:</b> Create an even-aged managed stand of the same species composition as the original stand that meets Forest Plan scenery and high value marten habitat requirements, uses an economical regeneration method, and is windfirm, free of mistletoe infection and growing at full site potential.</p>
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<p><b>Silvicultural Prescription:</b> Even-aged management – clearcut: This unit is bounded on the SE by a class I stream buffer and does not contain high value marten habitat.</p>
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<p><b>TIMBER/LOGGING:</b> This unit is comprised of three cable settings that are defined by logical setting breaks based on topography and lateral yarding capabilities. There are some limited shovel yarding opportunities near the road.</p>
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<p><b>ENGINEERING/ROADS:</b> Temporary road 42 accesses unit from existing Road 85331. Road location will be flagged by USFS prior to harvest.</p>
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<p><b>BOTANY RESOURCES:</b> No concerns</p>
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<p><b>FISH/WATERSHED: Concern:</b> Streams 1, 5 and upper segments of streams 2, 3, 4, 6, 7 are Class IV HC0. <b>Response:</b> Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). <b>Concern:</b> Lower segments of streams 2, 3, 4, 6, and 7 and Class II HC0. <b>Response:</b> Category A protection. No harvest within 100 feet of channel or within v-notch. <b>Concern:</b> Stream 8 is a Class I MC2 along SE unit boundary. <b>Response:</b> Category A protection. Locate unit boundary beyond v-notch and 100 foot no-harvest buffer. <b>Concern:</b> Stream 9 is a Class I HC channel along S unit boundary. <b>Response:</b> Category A protection. Locate unit boundary north of v-notch and 100-foot no-harvest buffer (BMP 12.6, 13.9, RIP-III). <b>Concern:</b> Temporary road – stream crossings. <b>Response:</b> Log stringer bridge designated for Stream 9 (BMP 14.17). Other crossing structures and locations will be approved by USFS prior to construction. Upon completion of unit harvest, restore natural drainage patterns by removing road fill from channels and installing water bars as necessary (BMP 13.16). Seed and fertilize disturbed soil adjacent to streams (BMP 12.17).</p>
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<p><b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.</p>
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<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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**Summary of Concerns, Responses, BMPs and Mitigation**

**SOILS/WETLANDS:** The slopes range from 20 to 120% in Unit 907. There are about 10 acres of slopes greater than 72% in cliffs along the southeastern backline. This portion of the unit has a history of landslides. Northern boundary of the unit is a landslide. **Concern:** Timber harvest may accelerate landsliding on slopes over 72% gradient. **Response:** Avoid the steep area during layout by locating the backline below the slopes over 72% (BMP 13.5). The rest of 907 is suitable for the proposed cable harvest with partial suspension (BMP 13.9). An onsite analysis for suitability on slopes over 72% was conducted on this unit as per Forest Plan Standards (soil resource report). **Concern:** The proposed temporary road is located on forested wetland and not alternative route exists. **Response:** Provide adequate cross drainage to maintain groundwater flow. Remove all structures and close the road after the unit has been harvested. (BMP 14.9) (33 CFR BMPs 4, 5, 6)

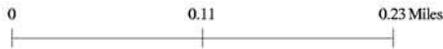
**WILDLIFE: Concern:** Unit contains high value marten habitat. **Response:** Retain 10-20% of original stand structure as measured by basal area or trees per acre in high value marten habitat. Maintain an average of 4 large live trees/acre (20-30" DBH or larger), 3 snags or decadent trees/acre (20-30" DBH or larger), and 3 large, downed trees/acre (20-30" DBH or larger and 10 feet long). Where trees this large are not available, substitute next largest trees. Retained trees can be clumped to maintain a reasonable assurance of windfirmness and to minimize operational difficulties. **Concern:** Unit is located east of a travel corridor that maintains connectivity from low to high elevation habitat. High deer use observed in west and southwest portion of the unit. **Response:** Do not extend unit to the southwest or west boundary. **Concern:** Red-tailed hawk observed in unit. Suspect that there is a nest in the northeast portion of the unit. **Response:** Maintain a 600-foot no-harvest buffer that is windfirm around active raptor nest if identified and restrict harvest and road building activities from March 1 to July 31 within the buffer.

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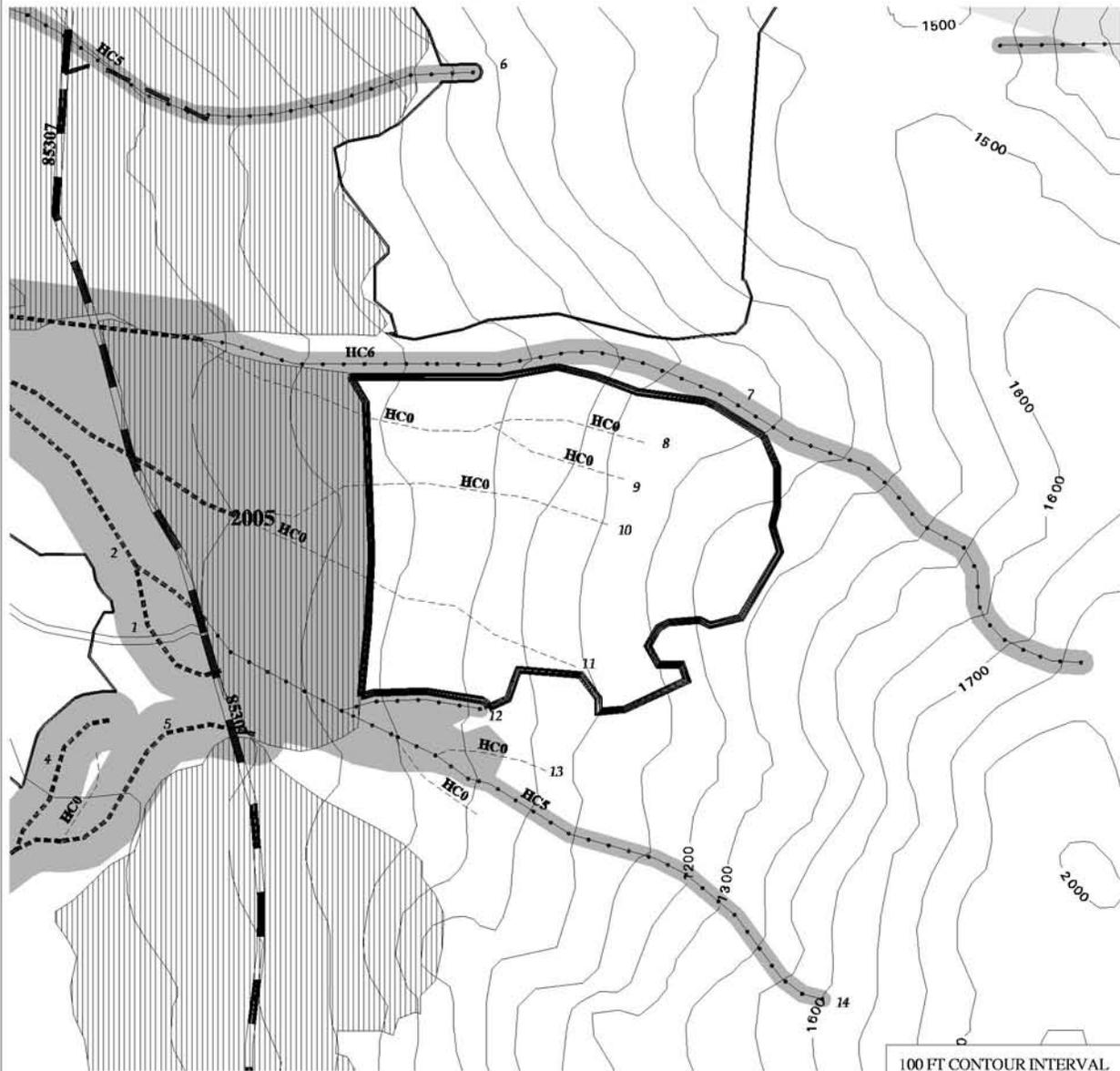
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 909      VCU: 2090      HARVEST SYSTEM: Helicopter

UNIT 909 OCCURS IN ALTERNATIVE(S): 2 3



MAPSCALE 1:7200

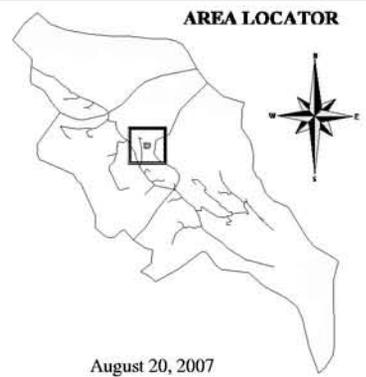


100 FT CONTOUR INTERVAL

- Existing Harvest Unit with Year Harvested
- Unit Boundary
- Adjacent Proposed Unit
- Proposed NFS Road 85343
- Temporary Road
- Existing NFS Road 8530
- NFS Road Reconstruction 8534
- Class I Stream
- Class II Stream

- Class III Stream
- Class IV Stream
- Stream Channel Type
- Stream Number – See Narrative
- High Value Marten Habitat
- Areas Dropped From Alternative(s)
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes Greater Than 72%
- Existing Rock Pit

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- HC6
- 1
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August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	909	<b>In Alternatives:</b>	2, 3	<b>Total Unit Acres:</b>	31.2	<b>Vol Strata Acres:</b>	High: 0 Med: 29.6 Low: 1.6
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	246	<b>Prescription /Percent Retention:</b>	ST25

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand consists of primarily of 12-36" DBH western hemlock (44% BA), 12-48" DBH mountain hemlock (42% BA), and 24-44" DBH spruce (15% BA). There are windthrown trees scattered throughout the stand. Wind risk is moderate to high.</p>
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<p><b>Silvicultural Objective/Desired Future Condition:</b> Maintain or create a stand with three or more distinct age (size) classes of trees that maintains species diversity, provides for a high degree of structural diversity and meets Forest Plan scenery requirements.</p>
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<p><b>Silvicultural Prescription:</b> Uneven-aged management – Single tree selection. Designate up to 25 percent of existing basal (260 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. Refer to the intro to unit cards, marking guidelines and detailed RX for more information.</p>
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<p><b>TIMBER/LOGGING:</b> Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate helicopter yarding.</p>
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<p><b>ENGINEERING/ROADS:</b> N/A</p>
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<p><b>BOTANY RESOURCES:</b> No concerns</p>
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<p><b>FISH/WATERSHED: Concern:</b> Stream 7 is Class III HC channel. <b>Response:</b> Category B protection. Locate unit boundary south of v-notch. Maintain 120-foot RAW zone south of no-harvest buffer.</p>
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<p><b>Concern:</b> Streams 8, 9, 10, 11 are Class IV HC channels. <b>Response:</b> Category C protection. Fell away from stream if feasible and remove logging debris from channel. <b>Concern:</b> Stream 12 is Class III HC5.</p>
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<p><b>Response:</b> Category B protection. Locate unit boundary north of v-notch boundary. Maintain 120-foot RAW zone north of v-notch (BMP 12.6, RIPII).</p>
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<p><b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.</p>
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<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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<p><b>SOILS/WETLANDS:</b> Slopes range from 30-65% in Unit 909. Unit suitable for proposed helicopter harvest. (BMP 13.9) Area to the south of Unit 909 dropped for stability concerns (BMP 13.5)</p>
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<p><b>WILDLIFE:</b> No concerns</p>
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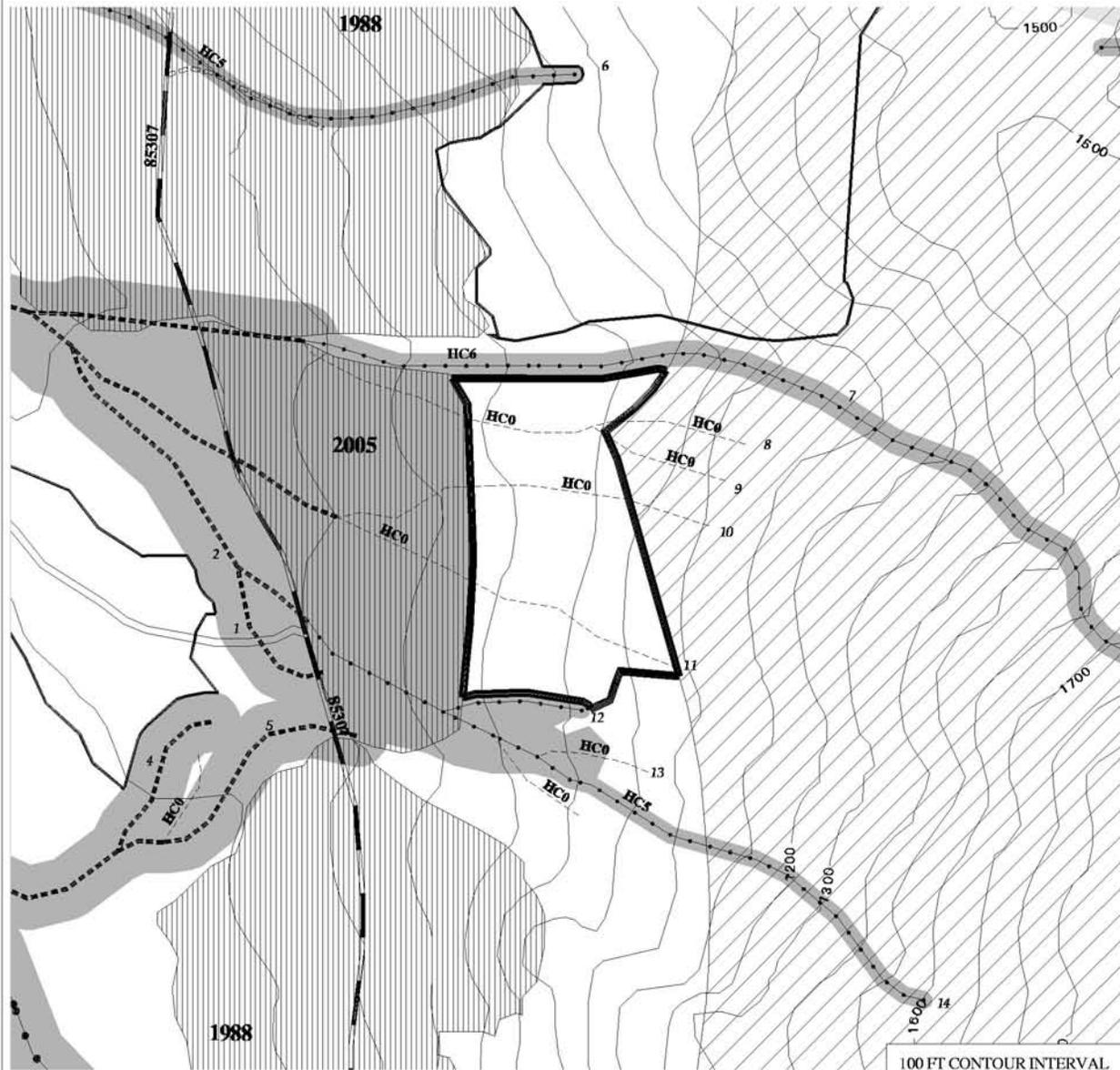
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 909      VCU: 2090      HARVEST SYSTEM: Helicopter

UNIT 909 OCCURS IN ALTERNATIVE(S): 4



MAPSCALE 1:7200



100 FT CONTOUR INTERVAL

- Existing Harvest Unit with Year Harvested Unit Boundary
- Adjacent Proposed Unit
- Proposed NFS Road
- Temporary Road
- Existing NFS Road
- NFS Road Reconstruction
- Class I Stream
- Class II Stream
- Class III Stream

- Class IV Stream
- Stream Channel Type
- Stream Number – See Narrative
- High Value Marten Habitat
- Areas Dropped From Alternative(s)
- Inventoried Roadless
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes > 72%
- Existing Rock Pit

- HC6
- 1



August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	909	<b>In Alternatives:</b>	4	<b>Total Unit Acres:</b>	14.9	<b>Vol Strata Acres:</b>	High: 0 Med: 14.9 Low: 0
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	120	<b>Prescription /Percent Retention:</b>	ST25

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand consists of primarily of 12-36" DBH western hemlock (44% BA), 12-48" DBH mountain hemlock (42% BA), and 24-44" DBH spruce (15% BA). There are windthrown trees scattered throughout the stand. Wind risk is moderate to high.</p>
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<p><b>Silvicultural Objective/Desired Future Condition:</b> Maintain or create a stand with three or more distinct age (size) classes of trees that maintains species diversity, provides for a high degree of structural diversity and meets Forest Plan scenery requirements.</p>
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<p><b>Silvicultural Prescription:</b> Uneven-aged management – Single tree selection. Designate up to 25 percent of existing basal (260 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. Refer to the intro to unit cards, marking guidelines and detailed RX for more information.</p>
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<p><b>TIMBER/LOGGING:</b> Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate helicopter yarding.</p>
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<p><b>ENGINEERING/ROADS:</b> N/A</p>
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<p><b>BOTANY RESOURCES:</b> No concerns</p>
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<p><b>FISH/WATERSHED: Concern:</b> Stream 7 is Class III HC. <b>Response:</b> Category B protection. Locate unit boundary south of v-notch. Maintain 120-foot RAW zone south of no-harvest buffer. <b>Concern:</b> Streams 8, 9, 10, 11 are Class IV HC channels. <b>Response:</b> Category C protection. Fell away from stream if feasible and remove logging debris from channel. <b>Concern:</b> Stream 12 is Class III HC5. <b>Response:</b> Category B protection. Locate unit boundary north of v-notch boundary. Maintain 120-foot windfirm zone north of v-notch. (BMP 12.6, 13.9, RIPII)</p>
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<p><b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.</p>
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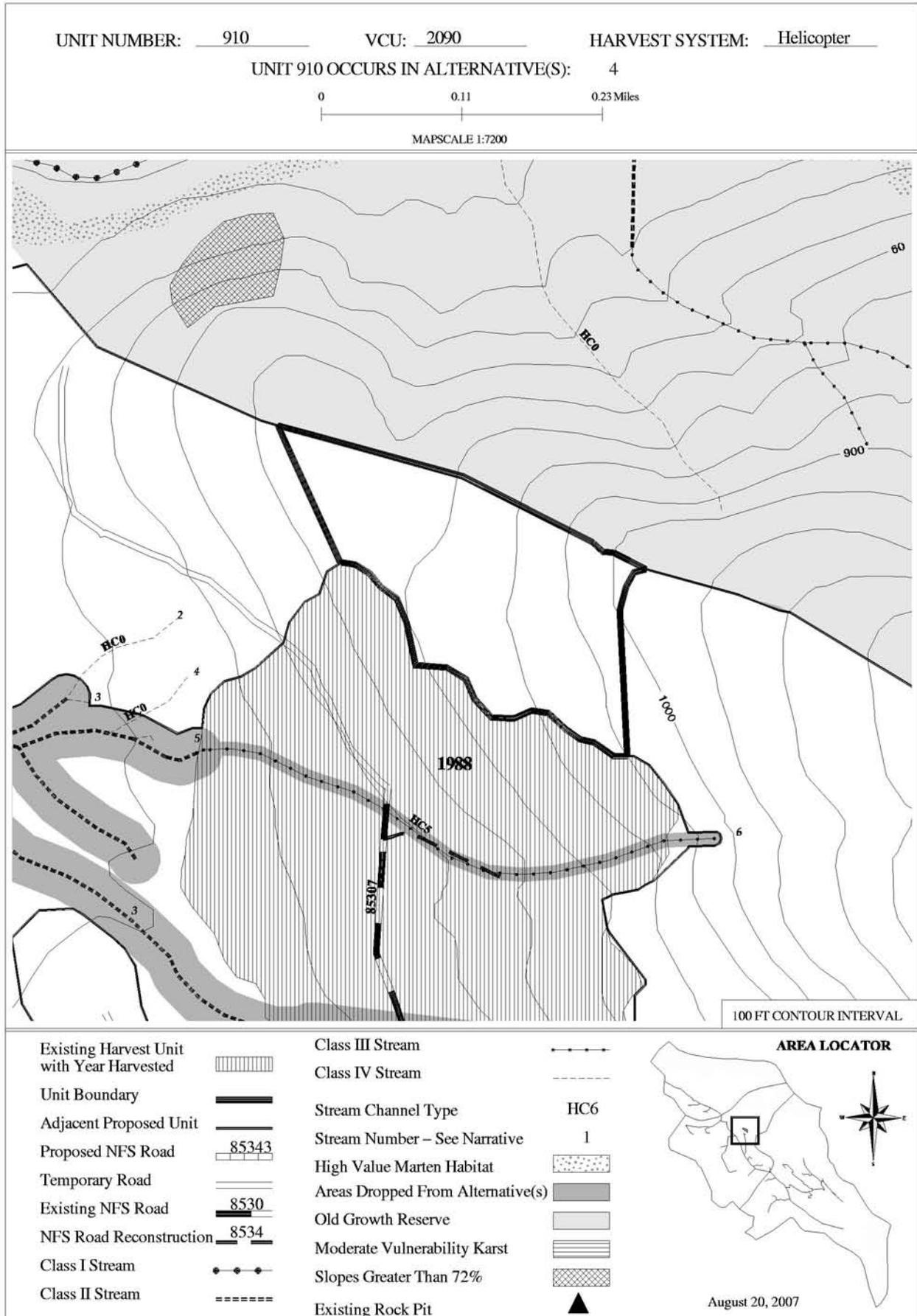
<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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<p><b>SOILS/WETLANDS:</b> Slopes range from 30-65% in Unit 909. Unit suitable for proposed helicopter harvest. (BMP 13.9) Area to the south of Unit 909 dropped for stability concerns (BMP 13.5)</p>
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<p><b>WILDLIFE:</b> No concerns</p>
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### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	910	<b>In Alternatives:</b>	4	<b>Total Unit Acres:</b>	23.5	<b>Vol Strata Acres:</b>	High: 0 Med: 23.5 Low: 0
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	523	<b>Prescription /Percent Retention:</b>	ST25

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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**SILVICULTURE:**

**Existing Stand Condition/Vegetation:** Stand consists of primarily of 12-24" DBH western hemlock (62% BA) and larger spruce 28-48" DBH (38% BA). There is an area of blowdown in the SW portion of the unit associated with the existing harvest unit. Wind risk is moderate to high.

**Silvicultural Objective/Desired Future Condition:** Maintain or create a stand with three or more distinct age (size) classes of trees that maintains species diversity, provides for a high degree of structural diversity and meets Forest Plan scenery requirements.

**Silvicultural Prescription:** Uneven-aged management – Single tree selection. Designate up to 25 percent of existing basal (200 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. Refer to the intro to unit cards, marking guidelines and detailed RX for more information.

**TIMBER/LOGGING:** Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate helicopter yarding.

**ENGINEERING/ROADS:** N/A

**BOTANY RESOURCES:** No concerns

**FISH/WATERSHED:** No GIS-mapped streams.

**GEOLOGY/KARST:** No carbonate bedrock found within unit. No karst resource concerns identified.

**HERITAGE RESOURCES:** No concerns

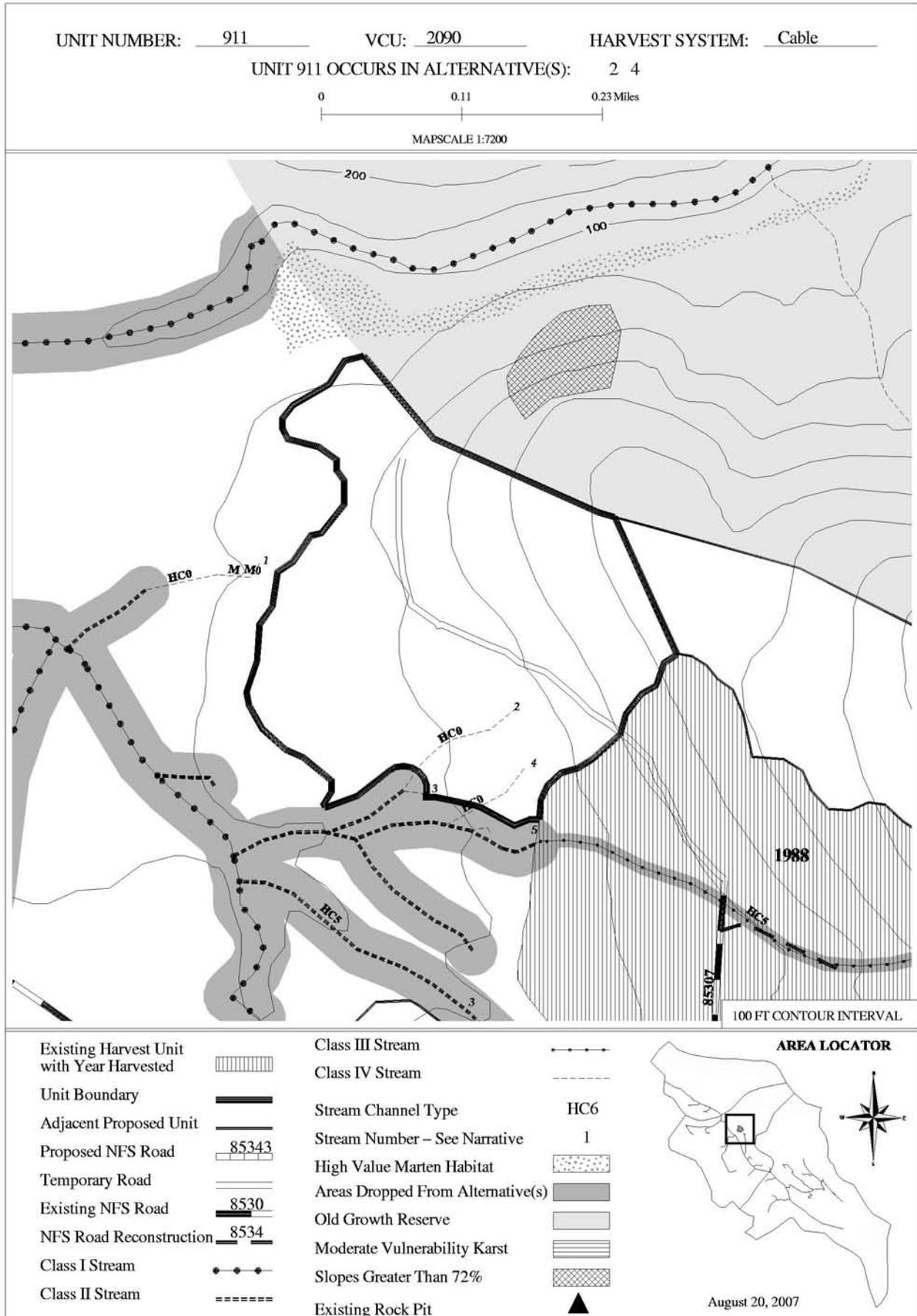
**SCENERY/RECREATION: Concern:** Unit design does not leave scalped appearance against brushfields

**Response:** Incorporate landscape architect input during layout, tie unit into brushfields to blend edges

**SOILS/WETLANDS:** Slopes range from 20-50% in Unit 910. Unit suitable for proposed helicopter harvest. (BMP 13.9) Area to the north of Unit 910 dropped for stability concerns (BMP 13.5)

**WILDLIFE:** No concerns

### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	911	<b>In Alternatives:</b>	2, 4	<b>Total Unit Acres:</b>	49.6	<b>Vol Strata Acres:</b>	High: 0 Med: 26.7 Low: 22.9
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	927	<b>Prescription /Percent Retention:</b>	CC

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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**SILVICULTURE:**

**Existing Stand Condition/Vegetation:** Stand consists of primarily of 16-30" DBH western hemlock (53% BA) and 20-36" DBH spruce (43% BA) with a minor component of mountain hemlock. There is some windthrow associated with the edge of the existing harvest unit to the southeast as well as a larger area of windthrow in the center of the unit. Wind risk is moderate to high.

**Silvicultural Objective/Desired Future Condition:** Create an even-aged managed stand of the same species composition as the original stand that meets Forest Plan scenery and high value marten habitat requirements, uses an economical regeneration method, and is windfirm, free of mistletoe infection and growing at full site potential.

**Silvicultural Prescription:** Even-aged management – clearcut: This unit is bounded on the south by stream buffers and does not contain high value marten habitat. High wind risk area is along NW unit boundary. A high wind risk boundary may be created on this boundary by retaining trees less than 16" DBH within specified distance of one site tree height from boundary. Review during layout to determine if windfirming is warranted.

**TIMBER/LOGGING:** This unit is comprised of three cable settings that are defined by logical setting breaks based on topography and lateral yarding capabilities.

**ENGINEERING/ROADS:** Temporary road 9051 accesses unit from existing Road 85307. Road location will be flagged by USFS prior to harvest.

**BOTANY RESOURCES:** No concerns

**FISH/WATERSHED: Concern:** Stream 1 is a Class IV MM. **Response:** Category C protection.

**Concern:** Stream 2 and 3 (upper), 4 are Class IV HC. **Response:** Category C protection. **Concern:** Lower part of Stream 2 and Stream 5 are Class II HC. **Response:** Category 'A' protection. Locate unit at least 100 feet from channel and outside v-notch. **Concern:** Temporary road – stream crossings

**Response:** Crossing structures and locations will be approved by USFS prior to construction. Upon completion of unit harvest, restore natural drainage patterns by removing road fill from channels and installing water bars as necessary (BMP 13.16). Seed and fertilize disturbed soil adjacent to streams (BMP 12.17)

**GEOLOGY/KARST:** No carbonate bedrock found within unit. No karst resource concerns identified.

**HERITAGE RESOURCES:** No concerns

**SCENERY/RECREATION: Concern:** Unit design does not leave scalped appearance against brushfields **Response:** Incorporate landscape architect input during layout, tie unit into brushfields to blend edges

**SOILS/WETLANDS:** Slopes range from 10-50% in Unit 911. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9) The road should avoid side slopes greater than 50% and wetlands where practicable.

**WILDLIFE: Concern:** Northern boundary adjacent to old growth (OG) LUD. **Response:** Ensure unit boundary does not enter OG LUD.



<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	914	<b>In Alternatives:</b>	2, 3, 4	<b>Total Unit Acres:</b>	243.4	<b>Vol Strata Acres:</b>	High: 200 Med: 20.7 Low: 22.7
<b>VCU Number:</b>	2090	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	2,437	<b>Prescription /Percent Retention:</b>	ST25

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
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<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand is comprised predominantly of 12-24" DBH mountain hemlock (51%), 12-36" DBH western hemlock (21% BA) and 12-40" DBH spruce (27% BA). This unit is situated on a hilltop and its flanks. The most productive areas are in the eastern portion where the slopes are moderate and well drained and in the western portion of the unit, where the slopes are steeper. There are several avalanche chutes in this area. The central portion of the unit is a hilltop with considerable small diameter mountain hemlock and less well drained soils including some muskeg areas. Windthrow risk is moderate.</p>
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<p><b>Silvicultural Objective/Desired Future Condition:</b> Maintain or create a stand with three or more distinct age (size) classes of trees that maintains species diversity and provides for a high degree of structural diversity.</p>
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<p><b>Silvicultural Prescription:</b> Uneven-aged management – Single tree selection. Designate up to 25 percent of existing basal (257 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. Refer to the intro to unit cards, marking guidelines and detailed RX for more information.</p>
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<p><b>TIMBER/LOGGING:</b> Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate helicopter yarding.</p>
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<p><b>ENGINEERING/ROADS:</b> N/A</p>
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<p><b>BOTANY RESOURCES:</b> No concerns</p>
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<p><b>FISH/WATERSHED: Concern:</b> Streams 1 (upper), 6, 7, 8, 9, 11, 14, and 15 are Class III HC channels. <b>Response:</b> Category B protection. No harvest within the v-notch (BMP 12.6). <b>Concern:</b> Lower portion of Stream 1 is a Class II HC on SE edge of the unit. <b>Response:</b> No harvest within 100 feet of the stream and within the v-notch (BMP 12.6, RIP). <b>Concern:</b> Streams 2, 3, 4, 5, 12, 13, and 17 are Class IV HC channels. <b>Response:</b> Category C protection. Directional felling if feasible. Remove logging debris from stream (BMP 13.9, 13.16)</p>
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<p><b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.</p>
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<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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<p><b>SOILS/WETLANDS:</b> The slopes range from 35 to 85% in Unit 914. There are about 22 acres of slopes greater than 72% in Unit 914. The soils are generally well-drained over bedrock. There are no signs of instability, hollow topography or past landslides in this area. <b>Concern:</b> Some landslides may initiate on the slopes greater than 72% and enter streams. <b>Response:</b> Do not harvest any slopes greater than 72% within 120 feet of any stream. Slopes up to 80% may be harvested with the proposed helicopter prescription. Avoid slopes greater than 80% in Unit 914. (BMP 13.5, 13.9). An onsite analysis for suitability on slopes over 72% was conducted on this unit as per Forest Plan Standards (soil resource report). <b>Concern:</b> The eastern quarter of the unit is subalpine forest and muskeg. <b>Response:</b> Helicopter logging will protect wetlands and meet resource objectives. (BMP 12.5). The rest of the unit is suitable for proposed helicopter harvest.</p>
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**Summary of Concerns, Responses, BMPs and Mitigation**

**WILDLIFE: Concern:** Unit contains high value marten habitat. High deer use was observed along the ridge in the unit. **Response:** Proposed timber management will not create openings greater than 2 acres in size within this habitat. Retention of 75% of the basal area will meet marten standards and guidelines and maintain habitat for deer.