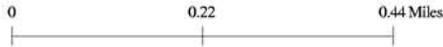


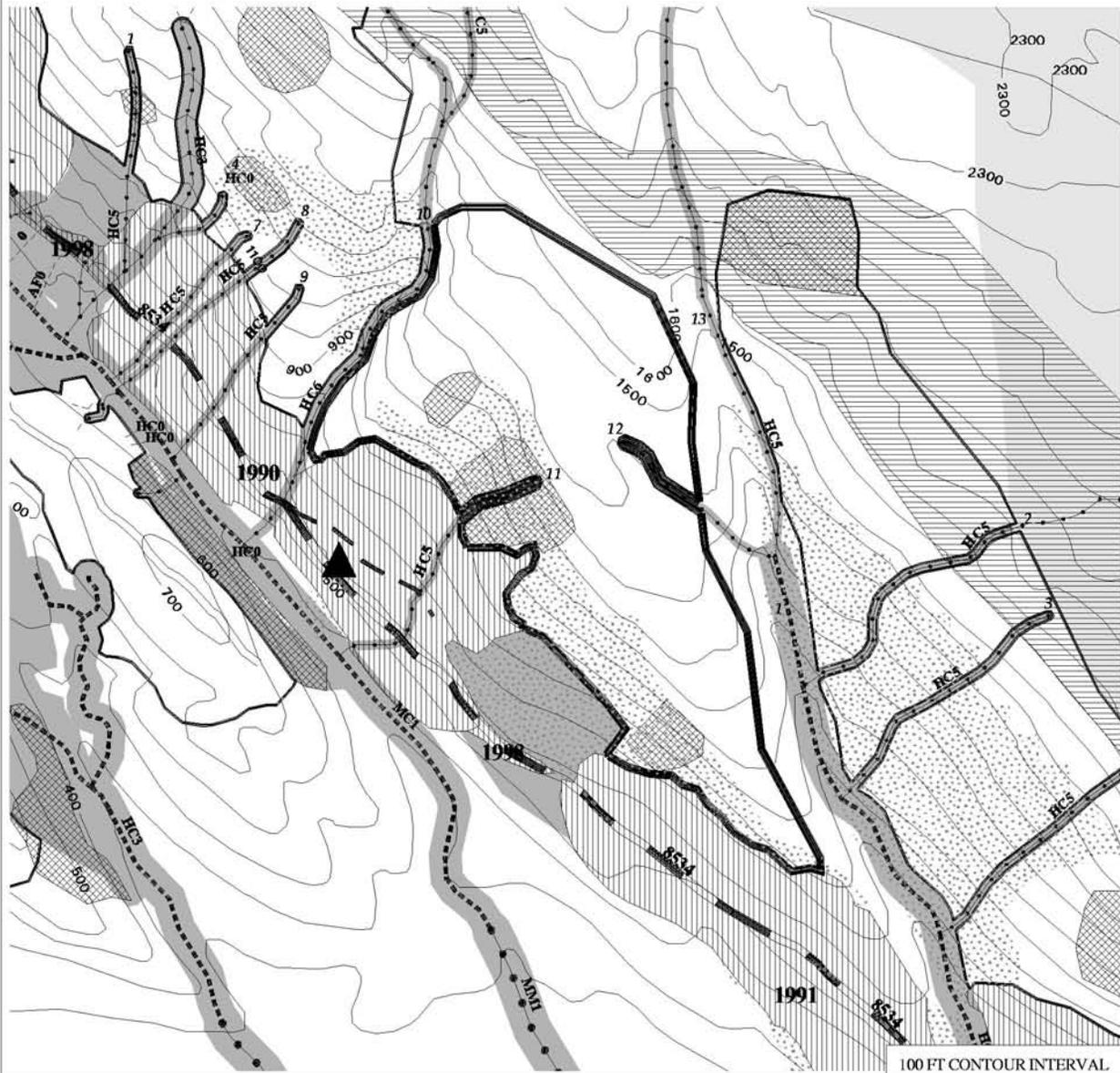
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 185      VCU: 2100      HARVEST SYSTEM: Helicopter

UNIT 185 OCCURS IN ALTERNATIVE(S): 2 3



MAPSCALE 1:14000



100 FT CONTOUR INTERVAL

- Existing Harvest Unit with Year Harvested 1990
- 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>	185	<b>In Alternatives:</b>	2, 3	<b>Total Unit Acres:</b>	136.8	<b>Vol Strata Acres:</b>	High: 44.0 Med: 49.3 Low: 43.5
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	1,557	<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 is comprised predominantly of 9-20" DBH western hemlock (61% BA) and 9-27" DBH mountain hemlock (12% BA) with some larger diameter 12-39" DBH spruce (27% BA). The southern portion of the unit contains a sizeable area of windthrow with significant regeneration among the residuals. 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 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 (311 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. This unit contains stream buffers with RAW zones. For RAW zone retain trees less than 16" DBH within specified distance (refer to fish/watershed section) from windward (southeasterly) edge of stream buffers to minimize windthrow in buffer. 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> GIS-mapped streams 10,11, and 12 are Class III HC channels.</p>
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<p><b>Response:</b> No harvest within 100 feet and side-slope break (RIP III). Manage 120 feet beyond no-cut buffer for windfirmness.</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 20-80% in Unit 185. The soils are generally well drained and moderately deep. There is one 20-acre forested wetland in the middle of the unit, where soils are poorly drained and slopes are generally less than 30% (BMP 12.5). There are about 15 acres of slopes greater than 72%. Most of these areas occur along the backline of the previous harvest. 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 the RAW zone. Slopes up to 80% may be harvested with the proposed helicopter prescription and full suspension. Avoid slopes greater than 80% in Unit 185. (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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**Summary of Concerns, Responses, BMPs and Mitigation**

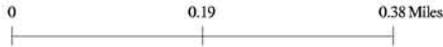
**WILDLIFE: Concern:** Unit contains high value marten habitat. High deer use was observed in the west portion of the unit. **Response:** Proposed harvest system will not create openings greater than 2 acres in size within this habitat. Retention of 60% of the basal area will meet marten standards and guidelines and help maintain deer habitat. **Concern:** Goshawk observed around 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. **Concern:** Red-tailed hawk observed adjacent to unit. **Response:** Maintain a 600-foot no-harvest buffer that is windfirm around active raptor nest sites if identified and restrict harvest and road building activities from March 1 to July 31 within the buffer.

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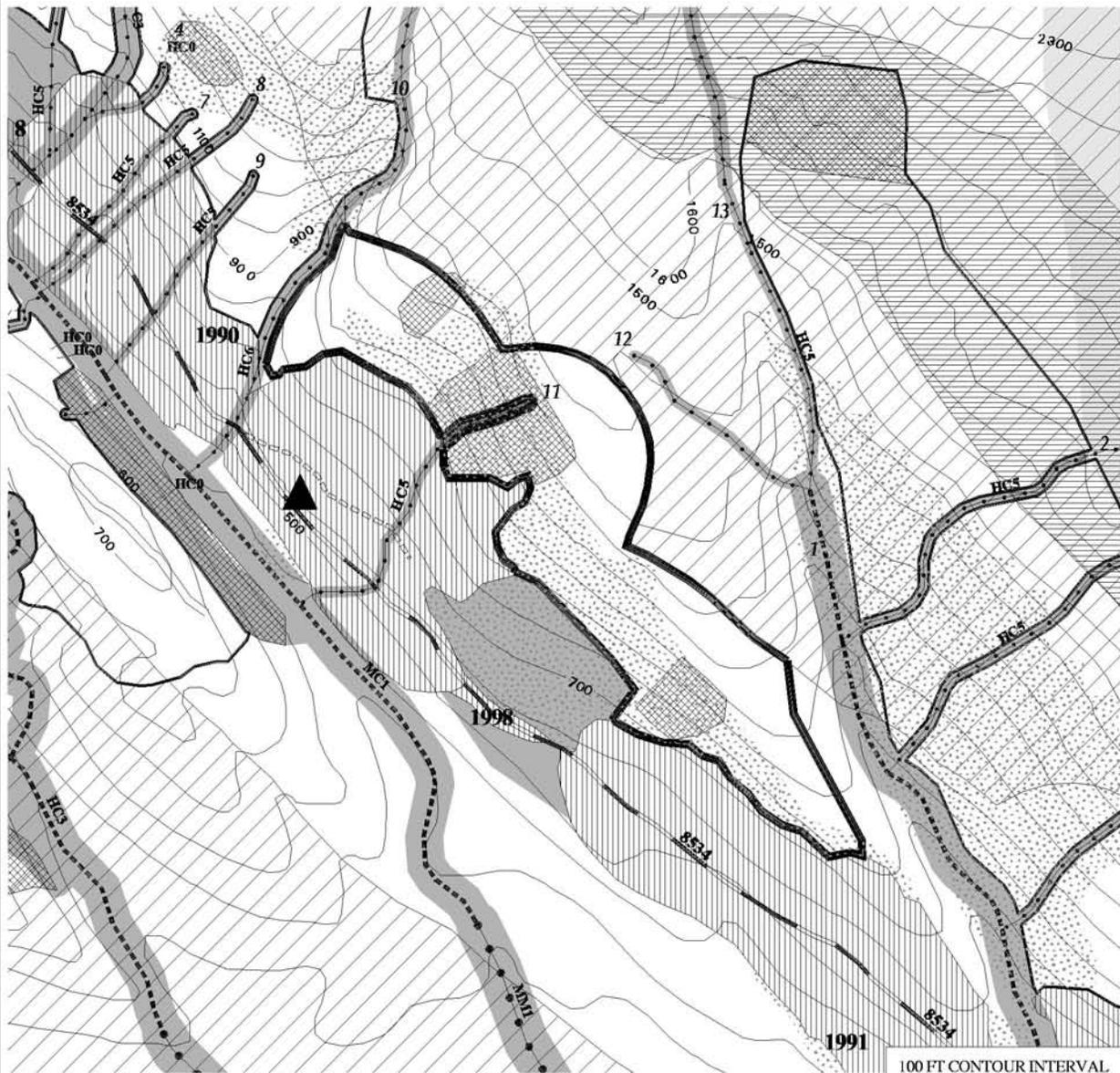
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 185      VCU: 2100      HARVEST SYSTEM: Helicopter

UNIT 185 OCCURS IN ALTERNATIVE(S): 4



MAPSCALE 1:12000



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)
- 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>	185	<b>In Alternatives:</b>	4	<b>Total Unit Acres:</b>	71.2	<b>Vol Strata Acres:</b>	High: 36.9 Med: 27.3 Low: 7.0
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	953	<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 is comprised predominantly of 9-20" DBH western hemlock (61% BA) and 9-27" DBH mountain hemlock (12% BA) with some larger diameter 12-39" DBH spruce (27% BA). The southern portion of the unit contains a sizeable area of windthrow with significant regeneration among the residuals. 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 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 (311 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. This unit contains stream buffers with RAW zones. For RAW zone retain trees less than 16" DBH within specified distance (refer to fish/watershed section) from windward (southeasterly) edge of stream buffers to minimize windthrow in buffer. 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> GIS-mapped streams 10,11, and 12 are Class III HC channels.</p>
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<p><b>Response:</b> No harvest within 100 feet and side-slope break (RIP III). Manage 120 feet beyond no-cut buffer for windfirmness.</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 20-80% in Unit 185. The soils are generally well drained and moderately deep. There are about 15 acres of slopes greater than 72%. Most of these areas occur along the backline of the previous harvest. 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.</p>
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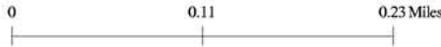
<p><b>Response:</b> Do not harvest any slopes greater than 72% within the RAW zone. Slopes up to 80% may be harvested with the proposed helicopter prescription and full suspension. Avoid slopes greater than 80% in Unit 185. (BMP 13.5, 13.9). An onsite analysis for suitability on slopes over 72% was conducted 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. High deer use was observed in the west portion of the unit. <b>Response:</b> Proposed harvest system 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 and help maintain deer habitat. <b>Concern:</b> Goshawk observed around the unit. Surveys did not identify a nest site. <b>Response:</b> 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. <b>Concern:</b> Red-tailed hawk observed adjacent to unit. <b>Response:</b> Maintain a 600-foot no-harvest buffer that is windfirm around active raptor nest sites if identified and restrict harvest and road building activities from March 1 to July 31 within the buffer.</p>
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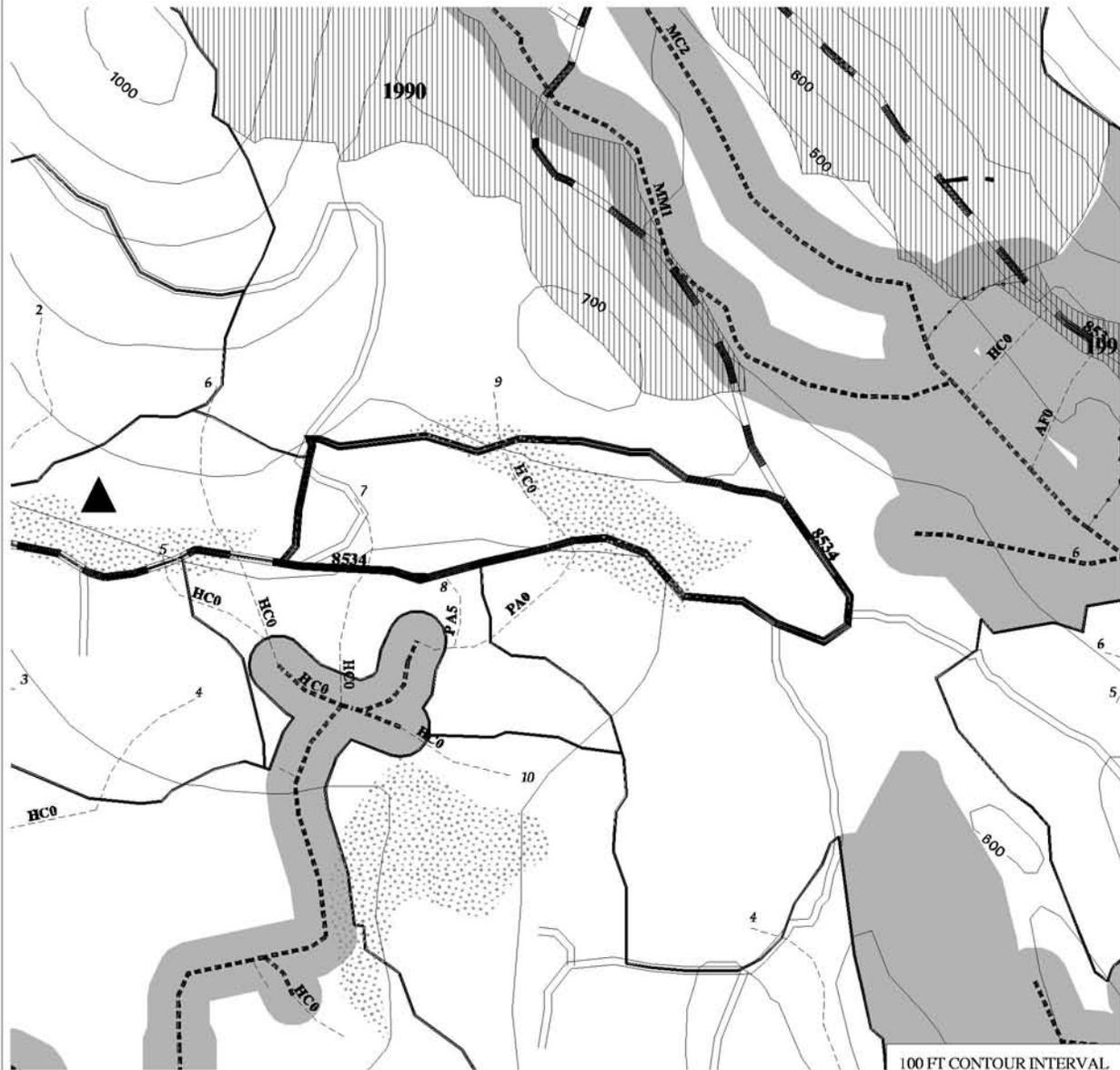
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 189      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 189 OCCURS IN ALTERNATIVE(S): 2 4 5



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
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<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	189	<b>In Alternatives:</b>	2, 4, 5	<b>Total Unit Acres:</b>	16.8	<b>Vol Strata Acres:</b>	High: 4.2 Med: 8.9 Low: 3.7
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	362	<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 smaller diameter 12-22" DBH western hemlock (83% BA), and 16-22" DBH spruce (17% BA) and possibly some yellow-cedar. Western hemlock advanced regeneration is abundant with some spruce also present. 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 4 acres of high value marten habitat in the NW corner. Designate reserve trees of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees as specified under wildlife section. High</p>
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<p><b>TIMBER/LOGGING:</b> This unit is comprised of two cable settings that are defined by a logical setting break based on topography and lateral yarding capabilities.</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 7, 8, 9 are Class IV HC channels. <b>Response:</b> Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). <b>Concern:</b> Temporary road may cross Stream 7. <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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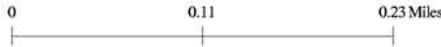
<p><b>SOILS/WETLANDS:</b> slopes range from 25-55% slope in Unit 189. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9)</p>
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<p><b>WILDLIFE: Concern:</b> Unit contains high value marten habitat. <b>Response:</b> 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. <b>Concern:</b> High deer use observed throughout unit. <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: 190      VCU: 2100      HARVEST SYSTEM: Shovel

UNIT 190 OCCURS IN ALTERNATIVE(S): 2 3 4 5



MAPSCALE 1:7200

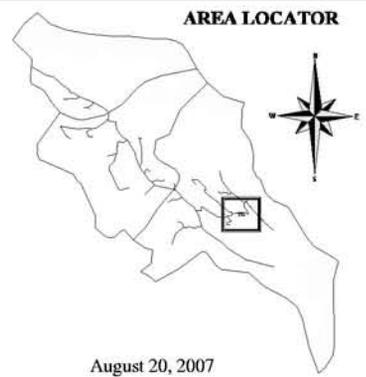


100 FT CONTOUR INTERVAL

- 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)
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes Greater Than 72%
- Existing Rock Pit

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- HC6
- 1



August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	190	<b>In Alternatives:</b>	2, 3, 4, 5	<b>Total Unit Acres:</b>	10.5	<b>Vol Strata Acres:</b>	High: 0.3 Med: 10.2 Low: 0
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	SH	<b>Net Estimated Harvest Volume (MBF):</b>	153	<b>Prescription /Retention:</b>	ST50

<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 smaller diameter 9-20" western hemlock (67% BA), a few large diameter 40-42" DBH spruce (17% BA) and some small diameter 9-11" DBH yellow-cedar (17% BA). Western hemlock advanced regeneration is abundant with some spruce and yellow-cedar also present. Wind 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, 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 50 percent of existing basal (100 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate shovel 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 shovel 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 5 (upper), 6, 7, 8, and 9 (upper) are Class IV HC channels. <b>Response:</b> Category C protection (BMP 12.6, 13.14). Equipment will not operate in streamcourses and will not cross streams without a temporary structure (BMP 13.9, 13.14). Temporary structures for crossing streams 8 and 9 will be agreed upon by USFS. Remove logging debris from channel (BMP 13.16). <b>Concern:</b> Stream 6 (lower) and 9 (lower) are Class II HC channels that enter MM channels. <b>Response:</b> Locate unit boundaries north of stream buffers if feasible. Category A protection (BMP 12.6, 13.14). No harvest within 100 feet and side-slope break (RIP III) for HC channels, no harvest within 120 feet of MM channels.</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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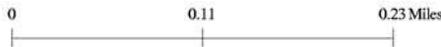
<p><b>SOILS/WETLANDS:</b> Slopes range from 15-50% in Unit 190. About half of the unit is forested wetland (BMP 12.5). The soils are poorly drained organic soils in the wetland and somewhat poorly drained, deep mineral soils on slopes greater than 25%. <b>Concern:</b> Shovel yarding may cause rutting due to lack of bearing strength on poorly drained organic soils in unit 806. <b>Response:</b> Operate on a puncheon or a slash mattress to provide adequate bearing strength. (BMP 13.2 and 13.9) <b>Concern:</b> Shovel yarding may cause rutting due to slopes greater than 25% in the western half of the unit. <b>Response:</b> Do not operate shovel on slopes greater than 25%. Utilize the boom, a short choker or cable to remove logs from steeper slopes or directionally fall the trees instead.</p>
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<p><b>WILDLIFE: Concern:</b> Unit contains less than 2 acres high value marten habitat. <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: 191      VCU: 2100      HARVEST SYSTEM: Shovel

UNIT 191 OCCURS IN ALTERNATIVE(S): 2 3 4 5



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

- HC6
- 1



August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	191	<b>In Alternatives:</b>	2, 3, 4, 5	<b>Total Unit Acres:</b>	16.1	<b>Vol Strata Acres:</b>	High: 0.3 Med: 15.8 Low: 0
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	SH	<b>Net Estimated Harvest Volume (MBF):</b>	235	<b>Prescription /Retention:</b>	ST50

<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 12-30" DBH western hemlock (61% BA) with some larger diameter 24-42" DBH spruce (17% BA), 9-18" DBH yellow-cedar (17% BA) and 12-30" DBH mountain hemlock (6% BA) . The southwest portion of the unit is the most productive with better drained soils. Slopes are relatively flat and poorly drained throughout the rest of the unit. Western hemlock advanced regeneration is abundant with considerable yellow-cedar regeneration and some spruce. Wind 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, 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 50 percent of existing basal (170 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate shovel 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> Single tree selection to be marked in and along corridors to facilitate shovel yarding.</p>
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<p><b>ENGINEERING/ROADS:</b> Temporary road 191A accesses unit from existing Road 8534. Road location will be flagged 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 II MM channel on western unit boundary.</p>
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<p><b>Response:</b> Locate unit boundary east of stream buffer. Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III). <b>Concern:</b> Stream 3, 4, and 5 are Class IV HC channels.</p>
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<p><b>Response:</b> Category C protection (BMP 12.6, 13.14). Equipment will not operate in streamcourses and will not cross streams without a temporary structure (BMP 13.9, 13.14). Remove logging debris from channel (BMP 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> Slopes range from 5-25% in Unit 191. The soils are a mosaic of poorly drained organic soils over till and somewhat poorly drained till soils. <b>Concern:</b> Shovel yarding may cause rutting due to lack of bearing strength on poorly drained organic soils in Unit 191. <b>Response:</b> Operate on a puncheon or a slash mattress to provide adequate bearing strength. (BMP 13.2 and 13.9) <b>Concern:</b> Proposed temporary road crosses forested wetlands. No high-value wetlands exist in this unit. <b>Response:</b> Avoid placing the road in non-forested areas. Provide adequate cross drainage, remove structures and close the road after harvest. (BMP 14.9) (33 CFR BMPs 4, 5, 6)</p>
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<p><b>WILDLIFE: Concern:</b> Unit contains less than 2 acres high value marten habitat. <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: 192      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 192 OCCURS IN ALTERNATIVE(S): 2 4



MAPSCALE 1:7200

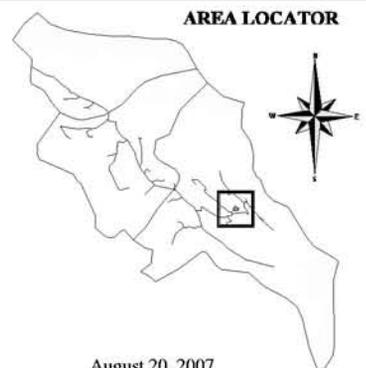


100 FT CONTOUR INTERVAL

- 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



August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	192	<b>In Alternatives:</b>	2, 4	<b>Total Unit Acres:</b>	18.3	<b>Vol Strata Acres:</b>	High: 0 Med: 18.3 Low: 0
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	409	<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 predominantly of 12-36" DBH western hemlock (73% BA) and 16-47" DBH spruce (27% BA). There is an area of recent salvable windthrow in the southwest corner. Soils are well drained with slopes averaging 35%. Western hemlock advanced regeneration is abundant with some spruce also present. Wind risk is 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 is bounded on the west by a stream buffer with a RAW zone. For RAW zone retain trees less than 16" DBH within specified distance (refer to fish/watershed section) from windward (southeasterly) edge of stream buffer to minimize windthrow in buffers.</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 85343 accesses unit from existing Road 8534. 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> Streams 2 and 6 are Class IV HC channels. <b>Response:</b> Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). <b>Concern:</b> Stream 1 is a Class III HC channel that runs into a Class II MM channel along the western boundary of unit. <b>Response:</b> Maintain current unit boundary 200 feet from channel to provide windfirmness to riparian areas.</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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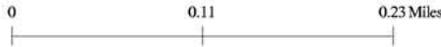
<p><b>SOILS/WETLANDS:</b> Slopes range from 10-45% in Unit 192. There is about 1 acre of forested wetland along the boundary between 192 and 194. (BMP 12.5) A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9) <b>Concern:</b> Proposed temporary road crosses about 300 feet of wetland. Some of these areas could be easily avoided by re-routing the proposed road around these areas. <b>Response:</b> Reroute road to avoid wetland where practicable. Otherwise, provide adequate cross drainage to allow proper groundwater flow. Pull Structures and close road after the unit has been harvested. (BMP 14.9) (33 CFR BMP 4, 5, 6) <b>Concern:</b> There is about 75 feet of road on slopes greater than 50%. <b>Response:</b> Reroute road to avoid this area where practicable. Otherwise, sidelaying is prohibited and endhaul is required. A soil scientist is required to approve layout prior to construction. (BMP 14.12 and 14.19)</p>
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<p><b>WILDLIFE:</b> No concerns</p>
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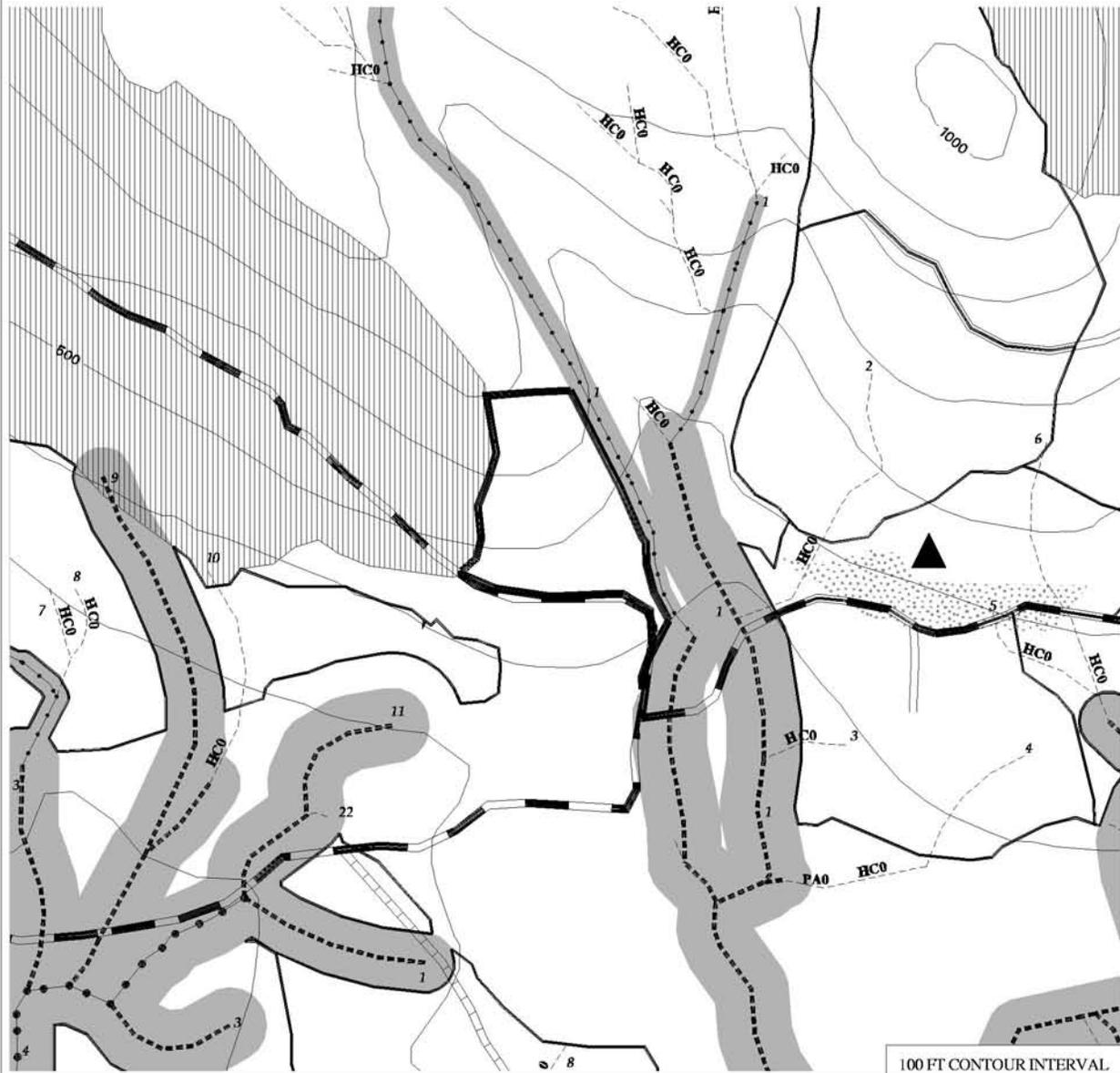
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 193      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 193 OCCURS IN ALTERNATIVE(S): 3 4 5



MAPSCALE 1:7200

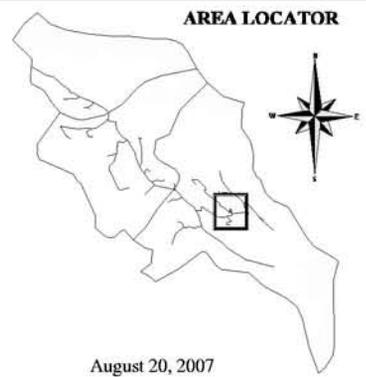


100 FT CONTOUR INTERVAL

- 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
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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>	193	<b>In Alternatives:</b>	3, 4, 5	<b>Total Unit Acres:</b>	7.6	<b>Vol Strata Acres:</b>	High: 0 Med: 6.3 Low: 1.2
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	159	<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 predominantly of 12-36" DBH western hemlock (73% BA) and 16-47" DBH spruce (27% BA). There is an area of recent salvable windthrow in the southwest corner. Soils are well drained with slopes averaging 35%. Western hemlock advanced regeneration is abundant with some spruce also present. 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 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 east by a stream buffer (refer to fish/watershed section).</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> 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 along eastern unit boundary. <b>Response:</b> Locate unit boundary west of v-notch. Manage for windfirmness 120 feet from buffer to provide windfirmness. <b>Concern:</b> Lower part of Stream 1 is a Class II HC channel. <b>Response:</b> Locate unit boundary northeast of 100-foot no-harvest buffer (RIP III). Manage for windfirmness 120 feet from buffer.</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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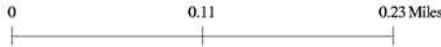
<p><b>SOILS/WETLANDS:</b> Slopes range from 20-42% in Unit 193. The soils are generally well drained and deep. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9)</p>
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<p><b>WILDLIFE: Concern:</b> High deer use observed throughout unit. <b>Response:</b> No design elements or mitigation required to meet Forest Plan standards and guidelines.</p>
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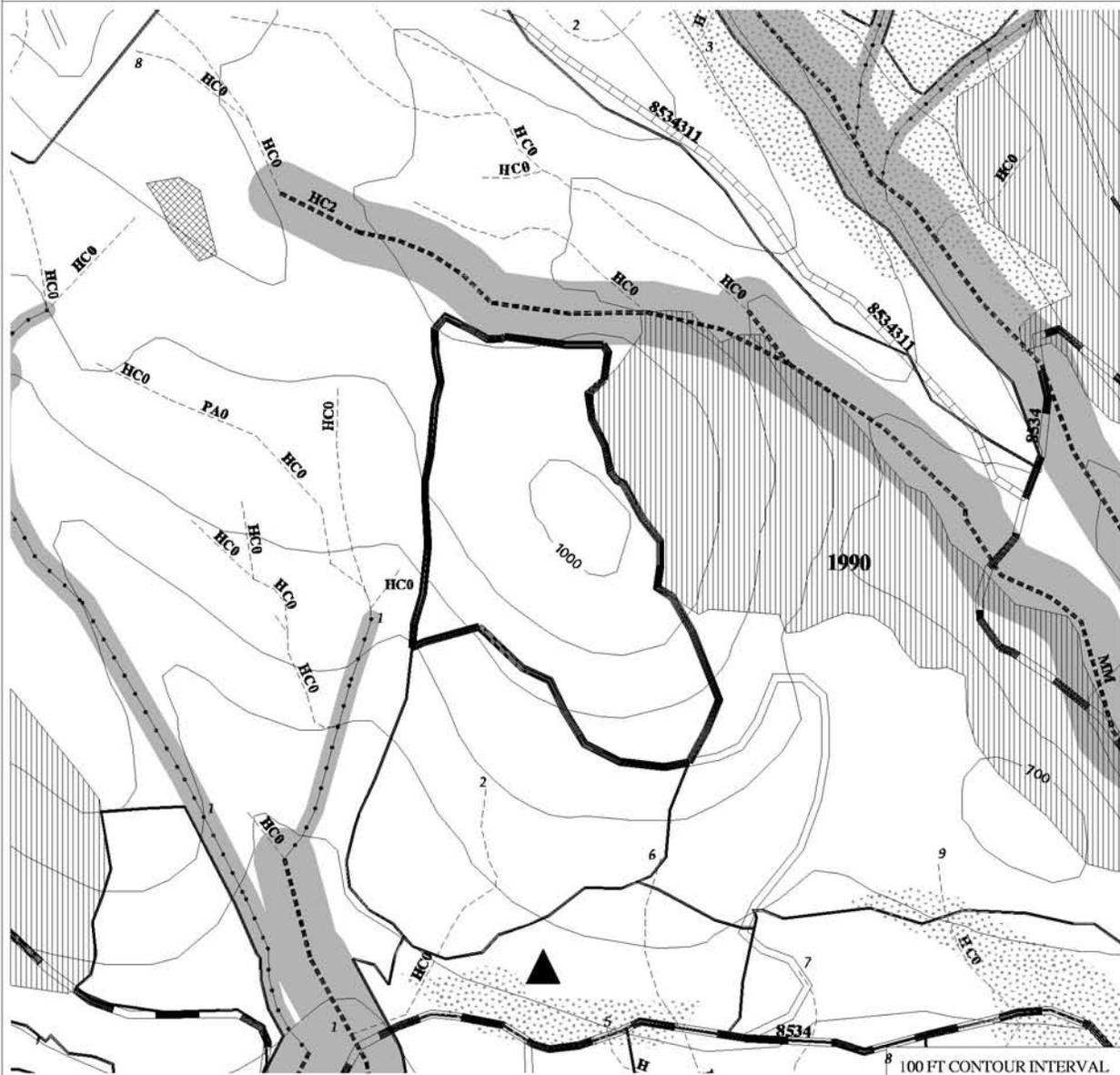
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 194      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 194 OCCURS IN ALTERNATIVE(S): 2



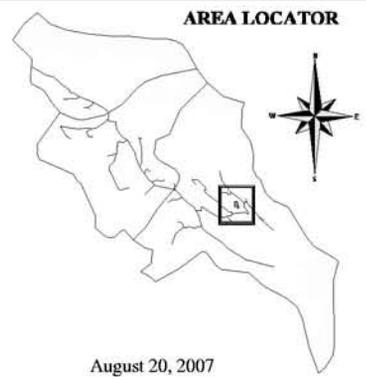
MAPSCALE 1:7200



- 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)
- Old Growth Reserve
- Moderate Vulnerability Karst
- Slopes Greater Than 72%
- Existing Rock Pit

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- HC6
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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>	194	<b>In Alternatives:</b>	2	<b>Total Unit Acres:</b>	21.7	<b>Vol Strata Acres:</b>	High: 0 Med: 20.1 Low: 1.6
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	471	<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 predominantly of larger 16-30" DBH western hemlock (50% BA) and 16-43" DBH spruce (50% BA). Slopes are moderate and soils are well drained. Western hemlock advanced regeneration is moderately abundant with some spruce also present. 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 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 north by a stream buffer (refer to fish/watershed section). High wind risk area is along northwestern 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 confirm 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 85343 accesses unit from existing Road 8534. 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> No streams mapped within unit. Northern boundary stream is a Class II MC channel. <b>Response:</b> Locate unit boundary south of 100-foot no-harvest buffer and manage for windfirmness within 120 feet of buffer (RIP III).</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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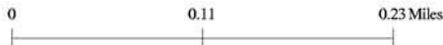
<p><b>SOILS/WETLANDS:</b> Slopes range from 15-30% on benches and from 45-65% between benches in Unit 194. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9) <b>Concern:</b> Proposed temporary road crosses about 300 feet of wetland. Some of these areas could be easily avoided by re-routing the proposed road around these areas. <b>Response:</b> Reroute road to avoid wetland where practicable. Otherwise, provide adequate cross drainage to allow proper groundwater flow. Pull Structures and close road after the unit has been harvested. (BMP 14.9) (33 CFR BMP 4, 5, 6) <b>Concern:</b> There is about 75 feet of road on slopes greater than 50%. <b>Response:</b> Reroute road to avoid this area where practicable. Otherwise, sidecasting is prohibited and endhaul is required. A soil scientist is required to approve layout prior to construction. (BMP 14.12 and 14.19)</p>
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<p><b>WILDLIFE:</b> No concerns</p>
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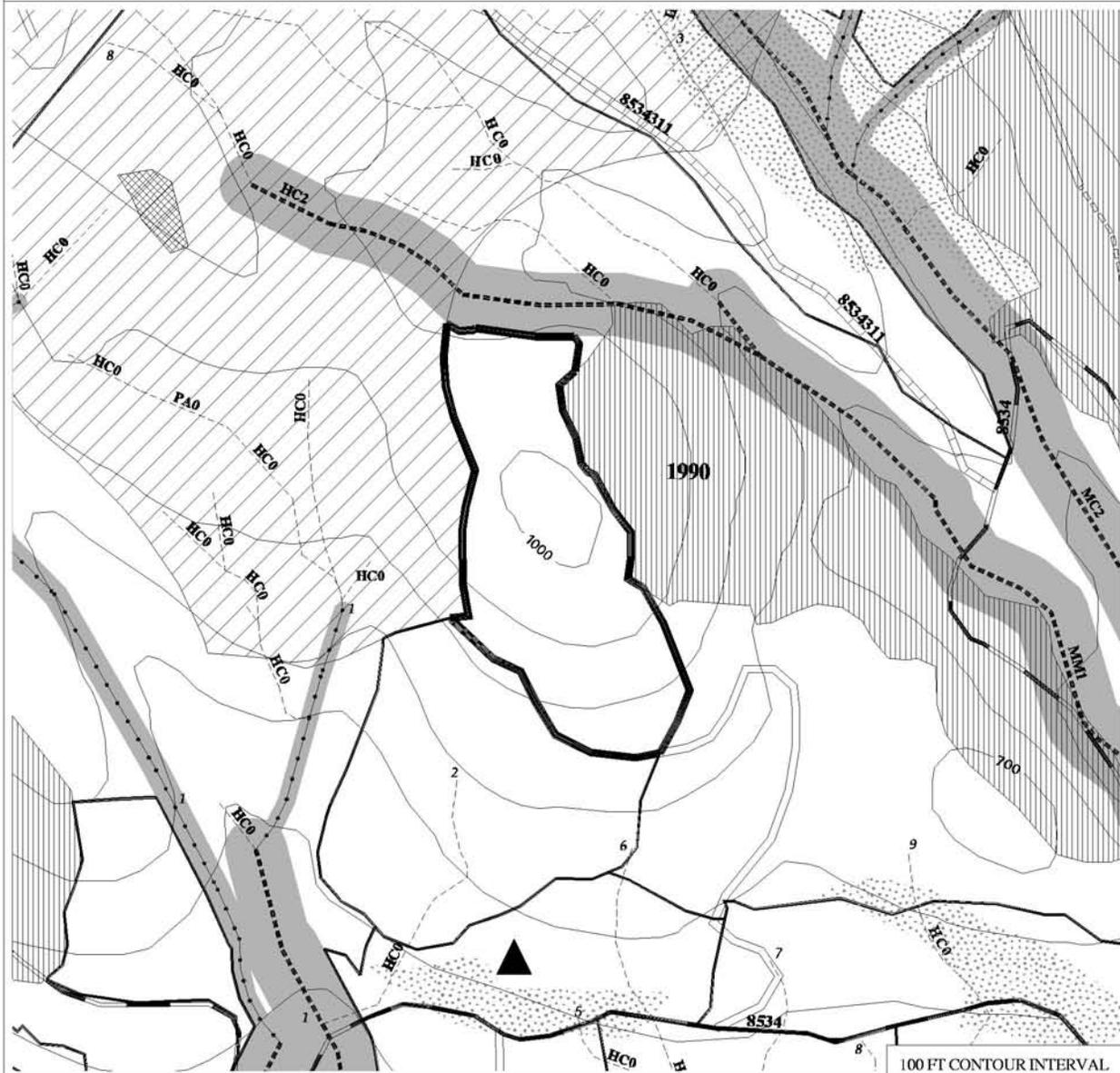
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 194      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 194 OCCURS IN ALTERNATIVE(S): 4



MAPSCALE 1:7200



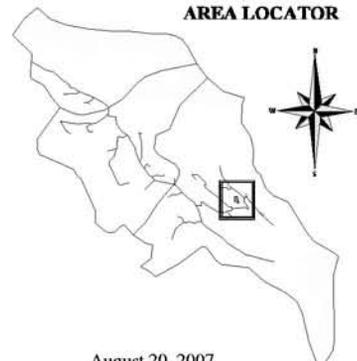
100 FT CONTOUR INTERVAL

- 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

**AREA LOCATOR**



August 20, 2007

<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	194	<b>In Alternatives:</b>	4	<b>Total Unit Acres:</b>	16.7	<b>Vol Strata Acres:</b>	High: 0 Med: 16.1 Low: 0.6
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	368	<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 predominantly of larger 16-30" DBH western hemlock (50% BA) and 16-43" DBH spruce (50% BA). Slopes are moderate and soils are well drained. Western hemlock advanced regeneration is moderately abundant with some spruce also present. 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 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 north by a stream buffer (refer to fish/watershed section). 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 confirm 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 85343 accesses unit from existing Road 8534. 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> No streams mapped within unit. Northern boundary stream is a Class II MC channel. <b>Response:</b> Locate unit boundary south of 100-foot no-harvest buffer and manage for windfirmness within 120 feet of buffer (RIP III).</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 15-30% on benches and from 45-65% between benches in Unit 194. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9) <b>Concern:</b> Proposed temporary road crosses about 300 feet of wetland. Some of these areas could be easily avoided by re-routing the proposed road around these areas. <b>Response:</b> Reroute road to avoid wetland where practicable. Otherwise, provide adequate cross drainage to allow proper groundwater flow. Pull Structures and close road after the unit has been harvested. (BMP 14.9) (33 CFR BMP 4, 5, 6) <b>Concern:</b> There is about 75 feet of road on slopes greater than 50%. <b>Response:</b> Reroute road to avoid this area where practicable. Otherwise, sidelaying is prohibited and endhaul is required. A soil scientist is required to approve layout prior to construction. (BMP 14.12 and 14.19)</p>
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<p><b>WILDLIFE:</b> No concerns</p>
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