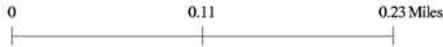


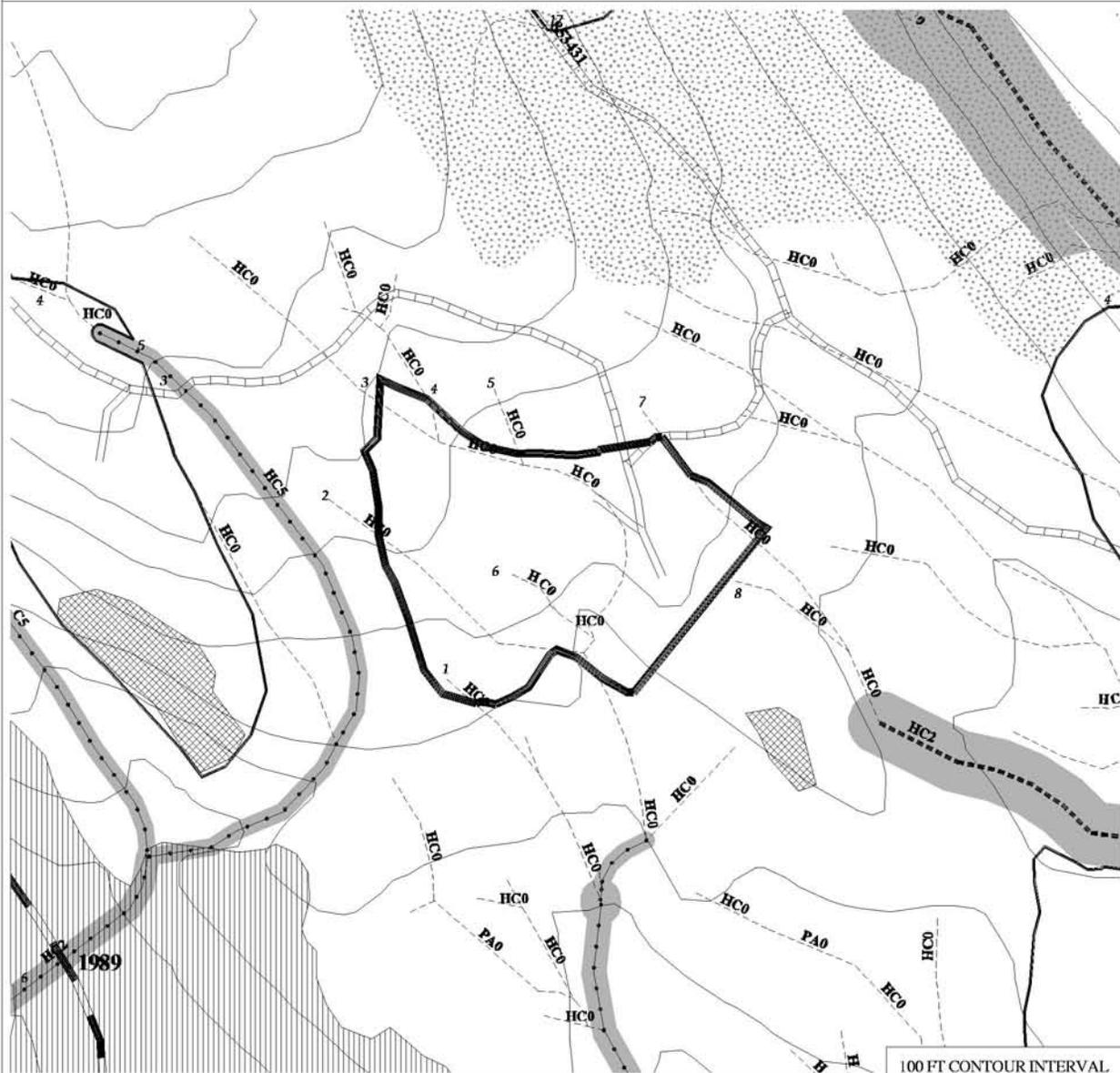
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 197      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 197 OCCURS IN ALTERNATIVE(S): 2



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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**AREA LOCATOR**



<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	197	<b>In Alternatives:</b>	2	<b>Total Unit Acres:</b>	21.2	<b>Vol Strata Acres:</b>	High: 0 Med: 21.2 Low: 0
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	472	<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 9-24" DBH mountain hemlock (62% BA), 9-24" DBH western hemlock (15% BA) with 20-24" DBH spruce (8% BA) and 12-20" DBH yellow-cedar (15% DBH). Yellow-cedar advanced regeneration is moderately abundant with hemlock and 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 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 does not contain stream buffers.</p>
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<p><b>TIMBER/LOGGING:</b> This unit is comprised of two cable settings. The western-most setting accesses the area west of stream #3, a class IV stream that requires split yarding. The eastern-most setting accesses the area east of stream #3.</p>
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<p><b>ENGINEERING/ROADS:</b> Temporary roads 85343 and 2130 access unit from existing Road 8534 via planned NFSRs 8534311 and 853431. Road locations have 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 1-8 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> Lower part of Stream 3 is a Class IV HC channel with steep, unstable side-slopes. <b>Response:</b> Category B protection with split yard to protect side-slopes. <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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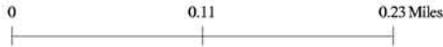
<p><b>SOILS/WETLANDS:</b> Slopes range from 20-60% slope in Unit 197. The Northwest quarter of Unit 197 is forested wetland. A minimum of partial suspension is required to meet soil and wetland standards. (BMPs 12.5, 13.9) <b>Concern:</b> The proposed temporary road is located in the wetland portion of the unit. No high-value wetlands exist in this area. <b>Response:</b> Provide adequate cross drainage to maintain groundwater flow. Remove structures and close road after unit is harvested. (BMP 14.9) (33 CFR BMPs 4, 5, 6)</p>
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<p><b>WILDLIFE:</b> No concerns</p>
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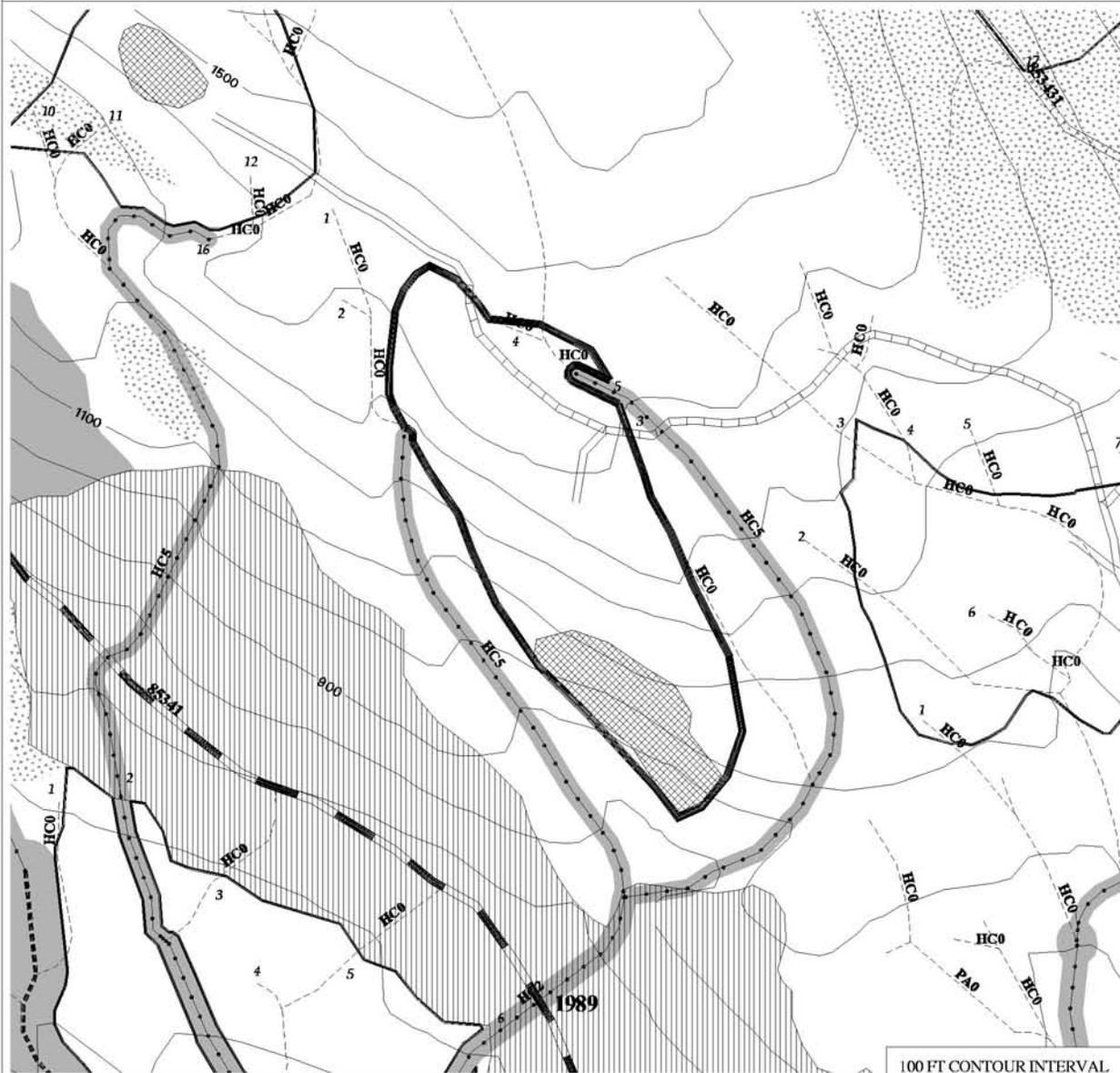
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 202      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 202 OCCURS IN ALTERNATIVE(S): 2



MAPSCALE 1:7200



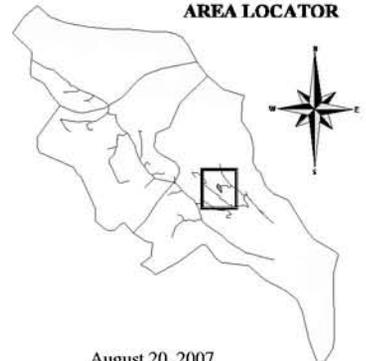
100 FT CONTOUR INTERVAL

- 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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**AREA LOCATOR**



<b>Unit Data Card – Iyouktug Timber Sale Draft EIS</b>
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<b>Unit Number:</b>	202	<b>In Alternatives:</b>	2	<b>Total Unit Acres:</b>	24.8	<b>Vol Strata Acres:</b>	High: 0 Med: 18.3 Low: 6.5
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	502	<b>Prescription /Percent Retention:</b>	CC

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
--

**SILVICULTURE:**

**Existing Stand Condition/Vegetation:** Stand consists of 12-40" DBH western hemlock (41% BA) with larger 16-55" DBH spruce (56% BA) with some 20-24" DBH mountain hemlock (4% BA). Western hemlock advanced regeneration is moderately abundant with mountain hemlock and some spruce also present. Wind risk is 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 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 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.

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

**ENGINEERING/ROADS:** Temporary road 202A and NFSR 85343 access unit from existing Road 8534 via planned NFSRs 8534311 and 853431. Road location will be flagged by USFS prior to harvest.

**BOTANY RESOURCES:** No concerns

**FISH/WATERSHED: Concern:** Stream 1 (upper), 2, 3, and 4 are Class IV HC channels. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). **Concern:** Lower part of Stream 3 is a Class IV HC channel with steep, unstable side-slopes. **Response:** Maintain current unit boundary west of stream 3 if feasible. Category B protection with split yard to maintain channel stability. **Concern:** Stream 1 (lower) and 5 are Class III HC channels that form west, south, and east unit boundaries. **Response:** Locate unit between channels if feasible. Category B protection and no harvest within v-notch (RIP III, BMP 13.16). Manage for windfirmness 120 feet beyond no-cut buffers.

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

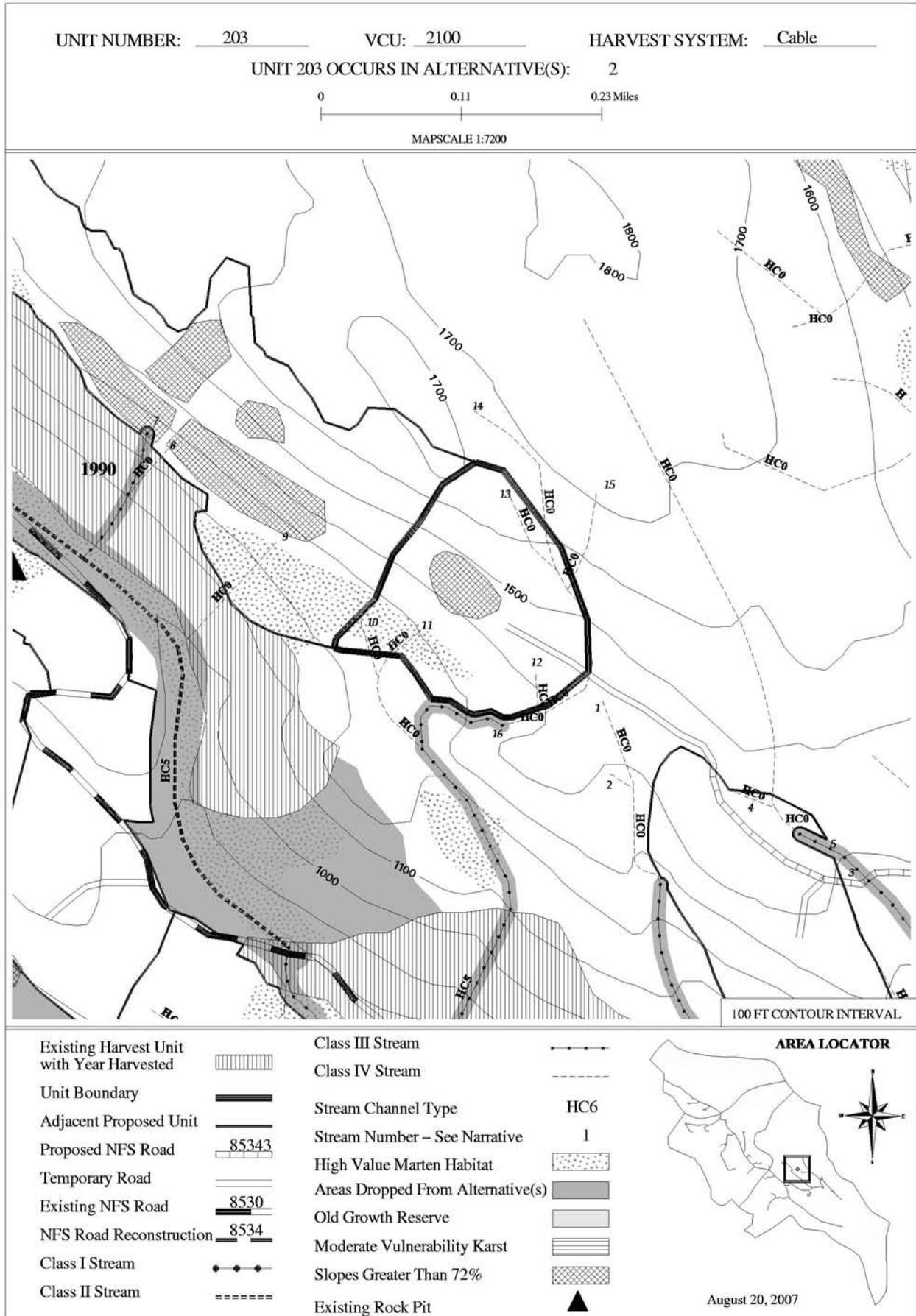
**HERITAGE RESOURCES:** No concerns

**SCENERY/RECREATION:** No concerns

**SOILS/WETLANDS:** Slopes range from 20-40% in the northern end of Unit 202 and 40-90% in the southern end. There are about 4 acres of slopes over 72% in this unit with evidence of past landslide activity. **Concern:** Timber harvest may accelerate landsliding on slopes over 72% gradient. **Response:** Locate unit boundary above this area. (BMP 13.5) The rest of the unit is suitable with a minimum of partial suspension to meet soil quality standards. (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).

**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>	203	<b>In Alternatives:</b>	2	<b>Total Unit Acres:</b>	16.2	<b>Vol Strata Acres:</b>	High: 1.6 Med: 13.3 Low: 1.3
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	359	<b>Prescription /Percent Retention:</b>	CC

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
--

<b>SILVICULTURE:</b>
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<p><b>Existing Stand Condition/Vegetation:</b> Stand consists of 12-24" DBH mountain hemlock (52% BA), 9-44" DBH spruce (35% BA) and 9-24" DBH western hemlock (13% BA). There is some recent windthrow throughout the unit and is particularly heavy in the northern portion of the unit. Western hemlock and spruce advanced regeneration is moderately abundant. 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: A small portion of the unit is bounded on the south by a stream buffer (refer to fish/watershed section). This unit contains less than 2 acres of high value marten habitat. 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 2101 accesses unit from existing Road 8534 via planned NFSRs 8534311, 853431, and 85343. 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 10, 11, 12, 13, 14, and 15 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 16 is a Class III HC channel on southwestern unit boundary. <b>Response:</b> Locate unit boundary northeast of v-notch if feasible. Category B protection and no harvest within v-notch (RIP-III, BMP 13.16). Manage for windfirmness 120 feet beyond v-notch buffer. <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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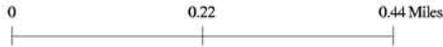
<p><b>SOILS/WETLANDS:</b> Slopes range from 45-80% in Unit 203. There is less than 1 acre of forested wetland in the unit. (BMP 12.5). There is 1 acre of slopes over 72%. The soils are well drained over bedrock and most of the steep area is rock outcrop without any signs of instability. A minimum of partial suspension is required to meet soil quality standards for most of Unit 203 (BMP 13.9); the acre of 72+% slopes could be harvested but must use full suspension.</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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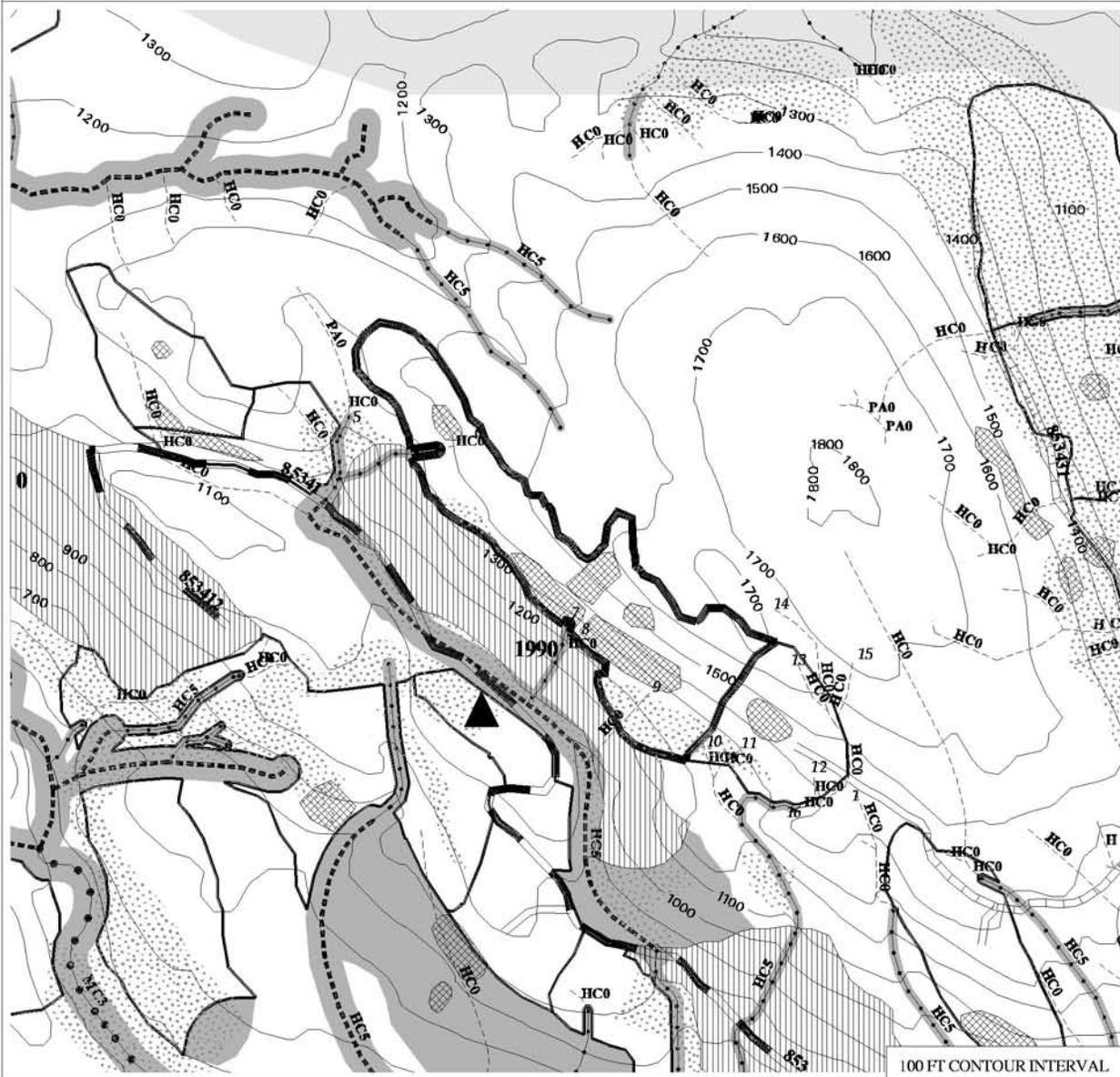
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 204      VCU: 2100      HARVEST SYSTEM: Helicopter

UNIT 204 OCCURS IN ALTERNATIVE(S): 2 3



MAPSCALE 1:14000



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>	204	<b>In Alternatives:</b>	2, 3	<b>Total Unit Acres:</b>	47.2	<b>Vol Strata Acres:</b>	High: 5.7 Med: 31.4 Low: 10.1
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	522	<b>Prescription /Percent Retention:</b>	ST40

<b>Summary of Concerns, Responses, BMPs and Mitigation</b>
--

**SILVICULTURE:**

**Existing Stand Condition/Vegetation:** Stand consists of 9-35" DBH mountain hemlock (41% BA), 9-35" DBH spruce (33% BA) and 16-43" DBH western hemlock (26% BA). There are areas of larger diameter trees scattered throughout unit, especially in the southern portion. Slopes are moderate to steep and the soils are well drained. Western and mountain hemlock advanced regeneration is moderately abundant with some spruce also present. 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 and high value marten habitat requirements.

**Silvicultural Prescription:** Uneven-aged management – Single tree selection. Designate up to 40 percent of existing basal (271 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. To offset the wind risk on the ridge top in the center of the unit decrease the basal area removed to 25% and target the tallest trees for removal. 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: Concern:** Streams 6 (upper), 7, 8, and 9 are Class IV HC channels. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). **Concern:** Stream 6 (lower) and 7 are Class III HC channels. **Response:** Category B protection and no harvest within v-notch (RIP-III, BMP 13.16). Manage for windfirmness 120 feet beyond v-notch buffer.

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

**HERITAGE RESOURCES:** No concerns

**SCENERY/RECREATION:** No concerns

**SOILS/WETLANDS:** Slopes range from 5-90% in Unit 204. The gentle slopes are on the summit and on top of benches. There are about 8 acres of slopes greater than 72% in the unit. Most of the soils are well drained over bedrock at steep slopes without any signs of instability. There is a low risk of landslides entering streams. **Concern:** Timber harvest may accelerate landsliding on slopes over 80% gradient.

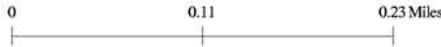
**Response:** Avoid slopes greater than 80% when choosing stands or trees for the proposed helicopter prescription. (BMP 13.5) The rest of the unit is suitable for the proposed helicopter with a minimum of partial suspension to meet soil quality standards. (BMP 13.9) **Concern:** here is about 1 acres of wetland in this unit. **Response:** Helicopter logging will protect wetlands and meet resource objectives (BMP 12.5). An onsite analysis for suitability on slopes over 72% was conducted on this unit as per Forest Plan Standards (soil resource report).

**WILDLIFE: Concern:** Unit contains high value marten habitat. **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. **Concern:** Bear den located in unit. **Response:** Maintain a 200-foot forested buffer around den sites.

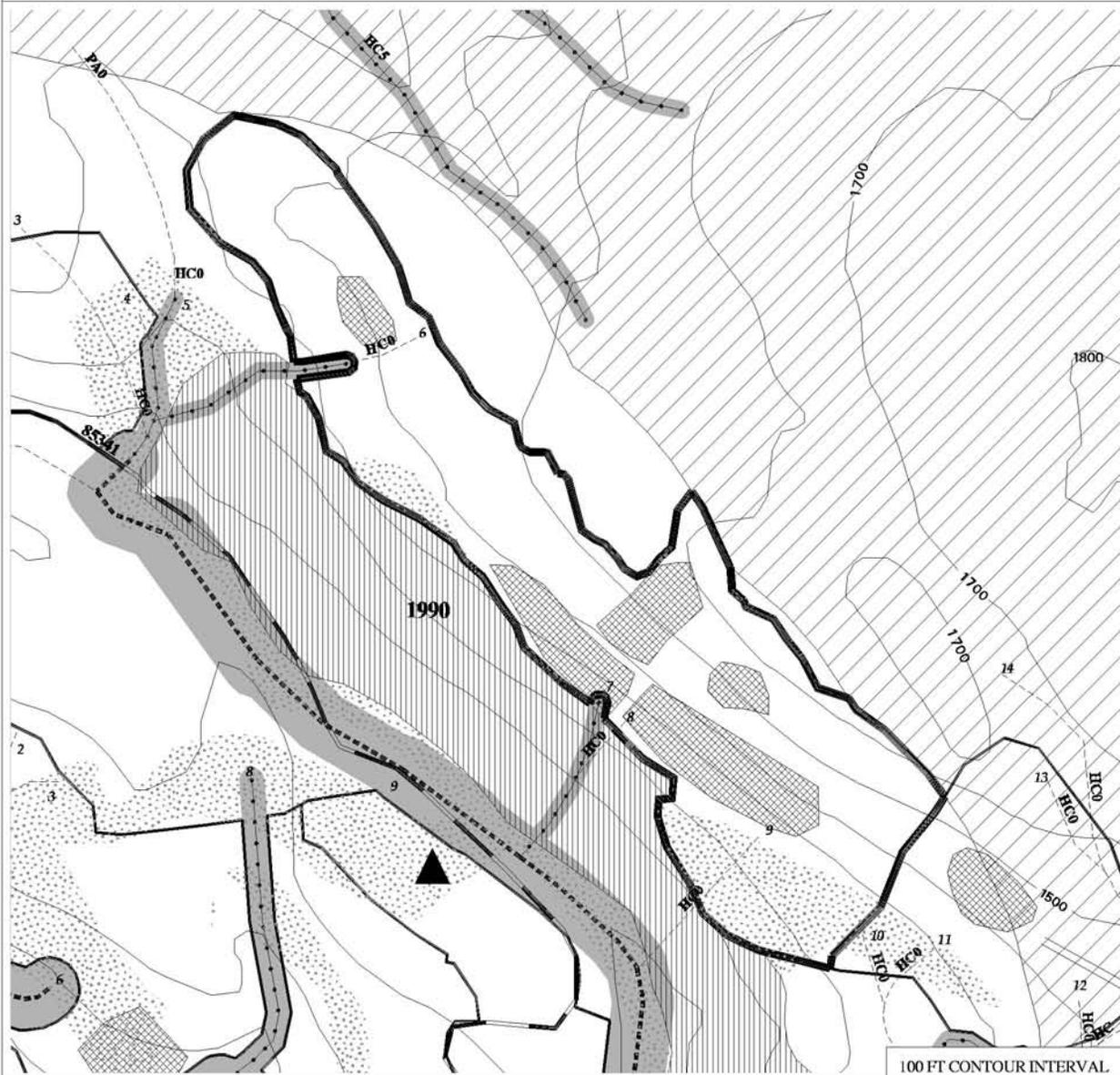
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 204      VCU: 2100      HARVEST SYSTEM: Helicopter

UNIT 204 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 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



### Unit Data Card – Iyouktug Timber Sale Draft EIS

<b>Unit Number:</b>	204	<b>In Alternatives:</b>	4	<b>Total Unit Acres:</b>	44.7	<b>Vol Strata Acres:</b>	High: 5.7 Med:30.1 Low: 8.9
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	HE	<b>Net Estimated Harvest Volume (MBF):</b>	502	<b>Prescription /Percent Retention:</b>	ST40

#### Summary of Concerns, Responses, BMPs and Mitigation

##### SILVICULTURE:

**Existing Stand Condition/Vegetation:** Stand consists of 9-35" DBH mountain hemlock (41% BA), 9-35" DBH spruce (33% BA) and 16-43" DBH western hemlock (26% BA). There are areas of larger diameter trees scattered throughout unit, especially in the southern portion. Slopes are moderate to steep and the soils are well drained. Western and mountain hemlock advanced regeneration is moderately abundant with some spruce also present. 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 and high value marten habitat requirements.

**Silvicultural Prescription:** Uneven-aged management – Single tree selection. Designate up to 40 percent of existing basal (271 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate helicopter yarding. To offset the wind risk on the ridge top in the center of the unit decrease the basal area removed to 25% and target the tallest trees for removal. 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: Concern:** Streams 6 (upper), 7, 8 ,and 9 are Class IV HC channels. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). **Concern:** Stream 6 (lower) and 7 are Class III HC channels. **Response:** Category B protection and no harvest within v-notch (RIP-III, BMP 13.16). Manage for windfirmness 120 feet beyond v-notch buffer.

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

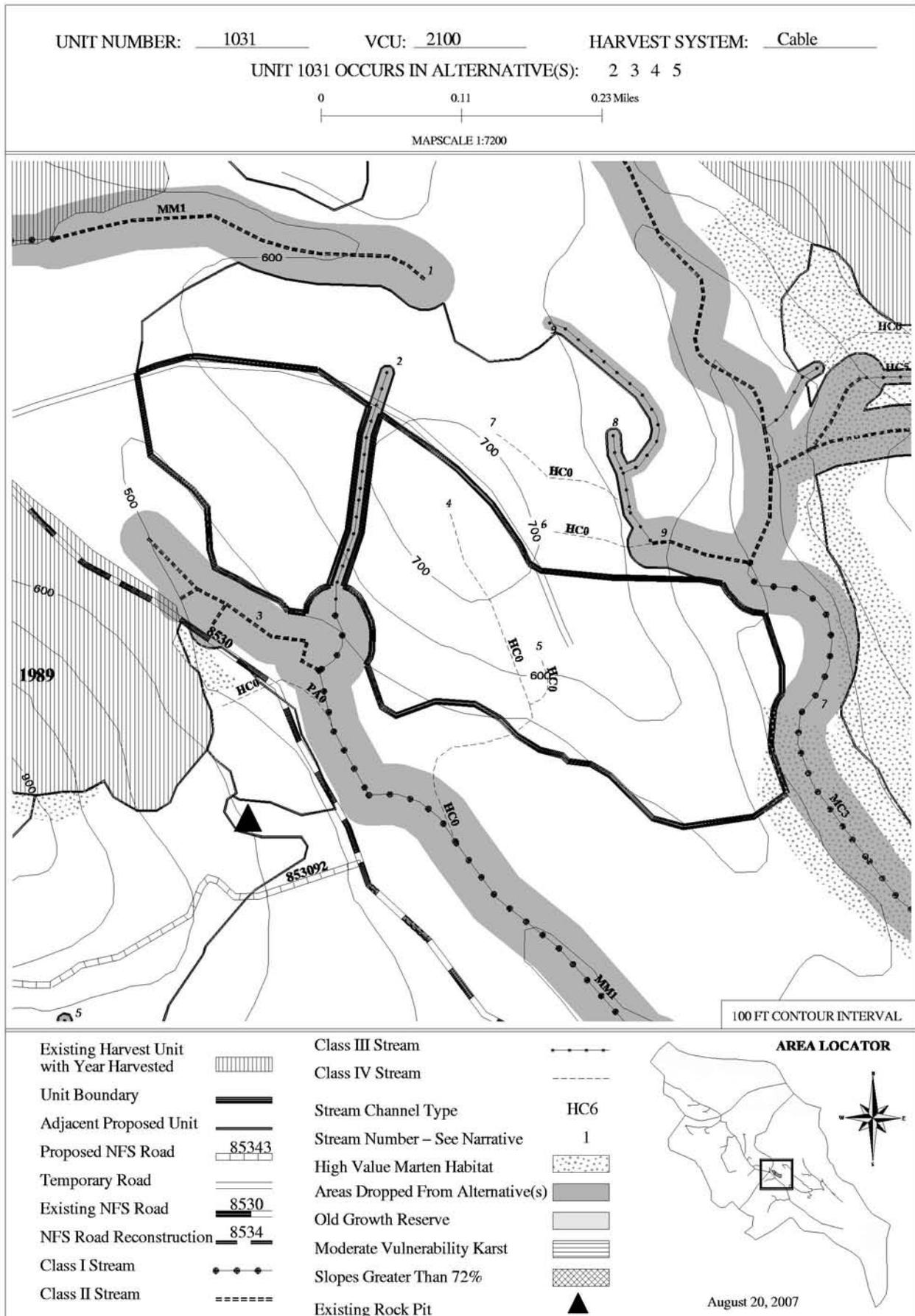
**HERITAGE RESOURCES:** No concerns

**SCENERY/RECREATION:** No concerns

**SOILS/WETLANDS:** Slopes range from 5-90% in Unit 204. The gentle slopes are on the summit and on top of benches. There are about 8 acres of slopes greater than 72% in the unit. Most of the soils are well drained over bedrock at steep slopes without any signs of instability. There is a low risk of landslides entering streams. **Concern:** Timber harvest may accelerate landsliding on slopes over 80% gradient. **Response:** Avoid slopes greater than 80% when choosing stands or trees for the proposed helicopter prescription. (BMP 13.5) The rest of the unit is suitable for the proposed helicopter with a minimum of partial suspension to meet soil quality standards. (BMP 13.9) **Concern:** here is about 1 acres of wetland in this unit. **Response:** Helicopter logging will protect wetlands and meet resource objectives (BMP 12.5). An onsite analysis for suitability on slopes over 72% was conducted on this unit as per Forest Plan Standards (soil resource report).

**WILDLIFE: Concern:** Unit contains high value marten habitat. **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. **Concern:** Bear den located in unit. **Response:** Maintain a 200-foot forested buffer around den sites.

### 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>	1031	<b>In Alternatives:</b>	2, 3, 4, 5	<b>Total Unit Acres:</b>	54.3	<b>Vol Strata Acres:</b>	High: 0.5 Med: 48.0 Low: 5.8
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	1,168	<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 is comprised of 9-30" DBH western hemlock (39% BA), 9-30" DBH mountain hemlock (33% BA) 9-20" DBH yellow-cedar (25% BA), and a minor component of spruce (3%). Much of the spruce is dead and non-salvable. The majority of trees are in the 9-16" diameter classes. There is significant advanced regeneration of western hemlock and yellow-cedar. Wind risk is estimated to be moderate to high over the entire unit.

**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 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 contains stream buffers with RAW zones (refer to fish/watershed section). For RAW zone retain trees less than 16" DBH within specified distance from windward (southeasterly) edge of stream buffers to minimize windthrow in buffer.

**TIMBER/LOGGING:** This unit is comprised of three cable settings. The western-most setting accesses the area west of stream #2, a class III stream that requires split yarding. The other two settings access the remaining area and are defined by a logical setting break based on topography and lateral yarding capabilities.

**ENGINEERING/ROADS:** Temporary road 103A accesses unit from existing Road 853091. Road location will be flagged by USFS prior to construction.

**BOTANY RESOURCES:** No concerns

**FISH/WATERSHED: Concern:** Stream 1 is Class II MM channel type. **Response:** Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III). **Concern:** Streams 2, 8 and the upper portion of 9 are Class II HC channel type. **Response:** Category B protection (BMP 12.6, 13.14). No harvest within v-notch (RIP III). **Concern:** Stream 3 is a Class II PA and HC channel types. **Response:** Category A protection for both (BMP 12.6, 13.14). For the PA channel type, No harvest within 100 feet of channel (RIP III). For the HC channel type, No harvest within 100 feet and side-slope break (RIP III). **Concern:** Streams 4, 5, 6 and 7 are class IV HC channel types. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16). **Concern:** The lower portion of stream 9 is Class II HC channel type. **Response:** Category A protection (BMP 12.6, 13.14). No harvest within 100 feet and side-slope break (RIP III). **Concern:** Windthrow risk is moderate to high. **Response:** Manage for windfirmness 120 feet beyond no-cut buffers. **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:** No concerns

**Summary of Concerns, Responses, BMPs and Mitigation**

**SOILS/WETLANDS:** Slopes range from 25-65%. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9) **Concern:** The proposed temporary road crosses open muskeg between the intersection with 853091 and the unit. Avoiding these wetland is not practicable. There are no high value wetlands in the area. **Response:** Provide adequate cross drainage to allow hillslope flow. Remove all structures after the unit is harvested. (BMP 14.9) (33 CFR BMPs 4, 5, 6)

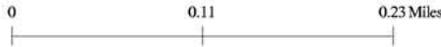
**WILDLIFE:** **Concern:** Unit contains less than 2 acres high value marten habitat. **Response:** No design elements or mitigation required to meet Forest Plan standards and guidelines. **Concern:** Vancouver Canada geese observed in units. **Response:** No design elements or mitigation required to meet Forest Plan standards and guidelines.

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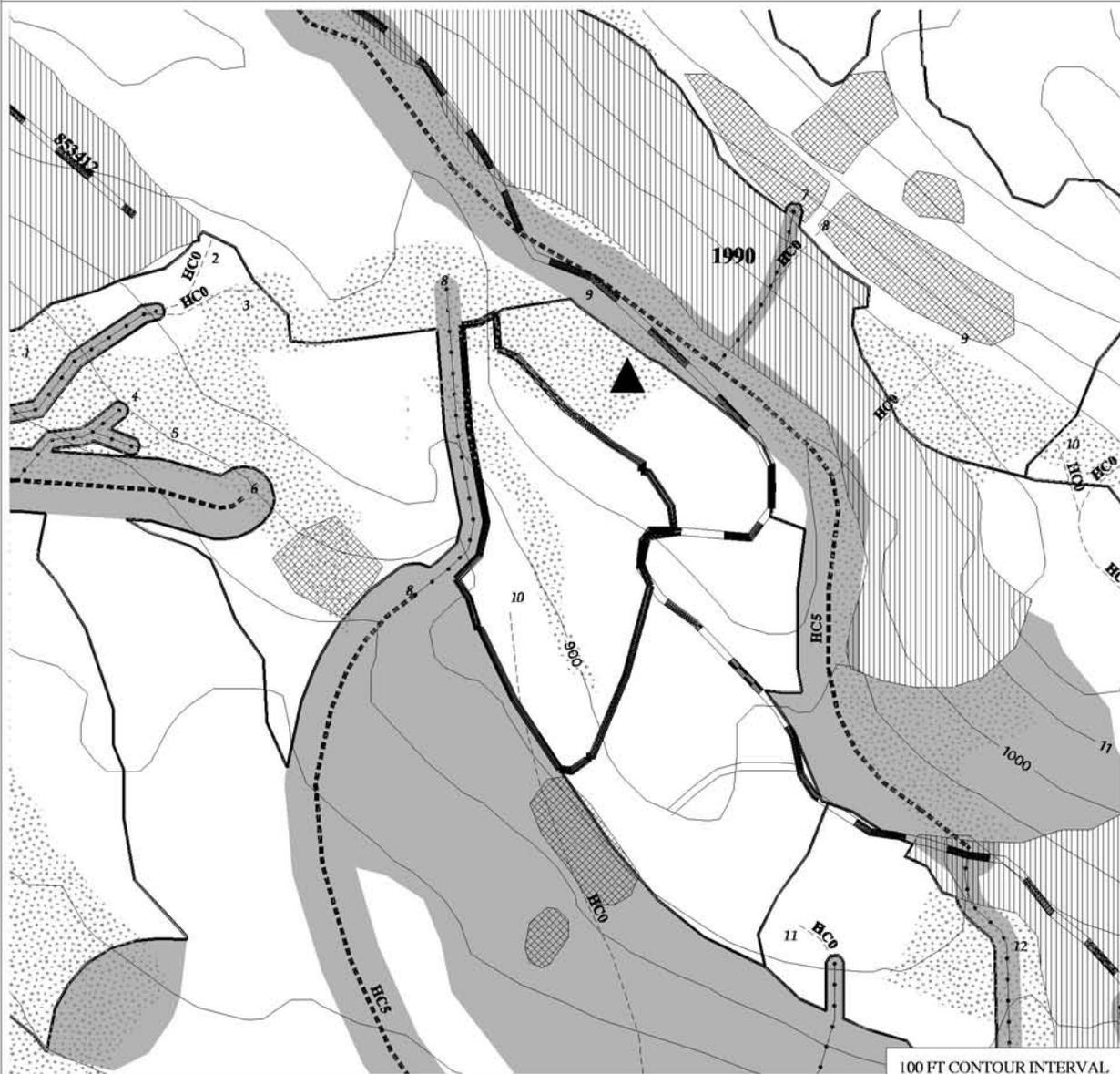
### IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 1051      VCU: 2100      HARVEST SYSTEM: Cable

UNIT 1051 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

- 
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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>	1051	<b>In Alternatives:</b>	2, 3, 4, 5	<b>Total Unit Acres:</b>	14.9	<b>Vol Strata Acres:</b>	High: 3.0 Med: 11.9 Low: 0
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	344	<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 of 16-28" DBH western hemlock, mountain hemlock and spruce each representing approximately 30% of the BA and small amount of 12-16" DBH yellow-cedar (10% BA). Western hemlock advanced regeneration is common with some spruce and yellow-cedar 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 includes 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. This unit contains 3 acres of high value marten habitat in the NW corner. Designate reserve trees (including yellow-cedar if possible) of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees adjacent to stream buffer if possible as specified under wildlife 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> The upper part of stream 9 is Class II HC channel type. <b>Response:</b> Category A protection (BMP 12.6, 13.14). No harvest within 100 feet and side-slope break (RIP III).</p>
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<p><b>Concern:</b> The lower part of stream 9 is class II PA channel Type. <b>Response:</b> Category A protection (BMP 12.6, 13.14). No harvest within 100 feet of channel (RIP III). <b>Concern:</b> Stream 10 is Class IV HC Channel Type. <b>Response:</b> Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16) <b>Concern:</b> Windthrow risk is moderate to high. <b>Response:</b> Manage for windfirmness 120 feet beyond no-cut buffers.</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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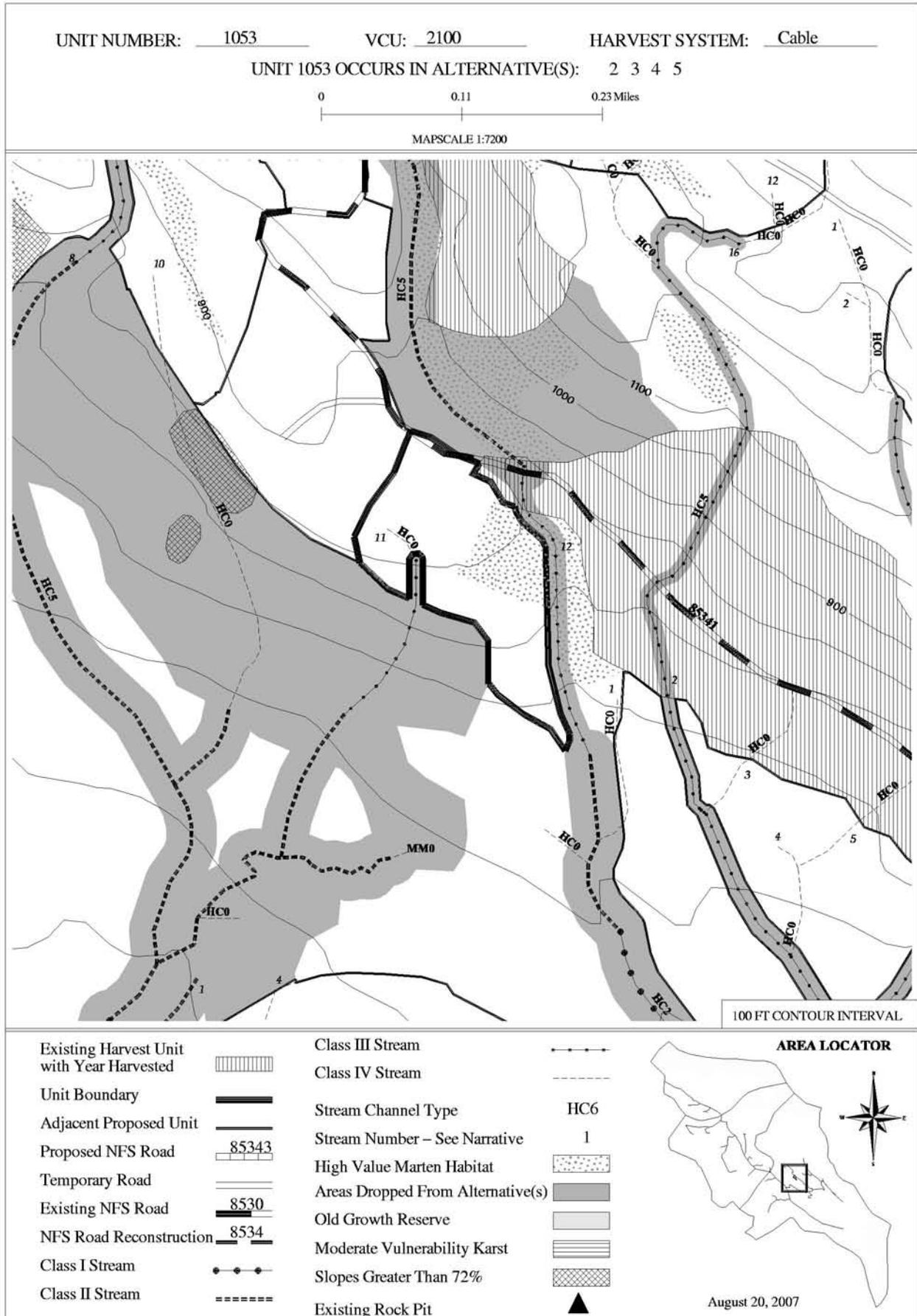
<p><b>HERITAGE RESOURCES:</b> No concerns</p>
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<p><b>SCENERY/RECREATION:</b> No concerns</p>
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<p><b>SOILS/WETLANDS:</b> Slopes range from 45-65% in Unit 1051. A minimum of partial suspension is required 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> Southwest boundary is adjacent to goshawk nest buffer. <b>Response:</b> Ensure unit boundary does not enter nest buffer. 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.</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>	1053	<b>In Alternatives:</b>	2, 3, 4, 5	<b>Total Unit Acres:</b>	12.3	<b>Vol Strata Acres:</b>	High: 2.4 Med: 8.6 Low: 1.3
<b>VCU Number:</b>	2100	<b>Harvest System:</b>	C	<b>Net Estimated Harvest Volume (MBF):</b>	273	<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 of 16-40 " DBH western hemlock (64% BA), 12-24" DBH mountain hemlock (27% BA), and 12-16" DBH yellow-cedar (9% BA). Western hemlock advanced regeneration is common with some spruce and yellow-cedar also present. Wind risk is moderate to high.</p>
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<b>Silvicultural Objective/Desired Future Condition:</b>
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<p><b>Silvicultural Prescription:</b> Even-aged management – clearcut: This unit includes 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. This unit contains high value marten habitat in eastern portion of unit. Designate reserve trees of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees if possible as specified under wildlife section.</p>
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<b>TIMBER/LOGGING:</b> This unit is comprised of one cable setting.
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<b>ENGINEERING/ROADS:</b> N/A
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<b>BOTANY RESOURCES:</b> No concerns
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<p><b>FISH/WATERSHED: Concern:</b> The upper part of stream 9 is Class II HC channel type. <b>Response:</b> Category A protection (BMP 12.6, 13.14). No harvest within 100 feet and side-slope break (RIP III). <b>Concern:</b> The lower part of stream 9 is class II PA channel Type. <b>Response:</b> Category A protection (BMP 12.6, 13.14). No harvest within 100 feet of channel (RIP III). <b>Concern:</b> The upper part of stream 11 is Class IV HC Channel Type. <b>Response:</b> Category C protection (BMP 12.6, 13.14) Remove logging debris from channel (BMP 13.16). <b>Concern:</b> The lower part of stream 11 and stream 12 are Class III HC channel types. <b>Response:</b> Category B protection (BMP 12.6, 13.14). No harvest within v-notch (RIP III). <b>Concern:</b> Windthrow risk is moderate to high. <b>Response:</b> Manage for windfirmness 120 feet beyond no-cut buffers.</p>
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<b>GEOLOGY/KARST:</b> No carbonate bedrock found within unit. No karst resource concerns identified.
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<b>HERITAGE RESOURCES:</b> No concerns
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<b>SCENERY/RECREATION:</b> No concerns
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<b>SOILS/WETLANDS:</b> Slopes range from 45-65% in Unit 1053. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9)
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**Summary of Concerns, Responses, BMPs and Mitigation**

**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:** Southwest boundary adjacent to goshawk nest buffer. **Response:** Ensure unit boundary does not enter nest buffer. 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:** Southwest portion of the unit lies within 600 feet of a goshawk nest. **Response:** Road construction and harvest activities are restricted between March 15 and August 15 within 600 feet of active goshawk nest sites. **Concern:** Red-tailed hawk was observed around unit. **Response:** Maintain a 600-foot no-harvest buffer that is windfirm around active raptor nests if identified and restrict harvest and road building activities from March 1 to July 31 within the buffer.