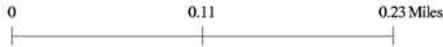


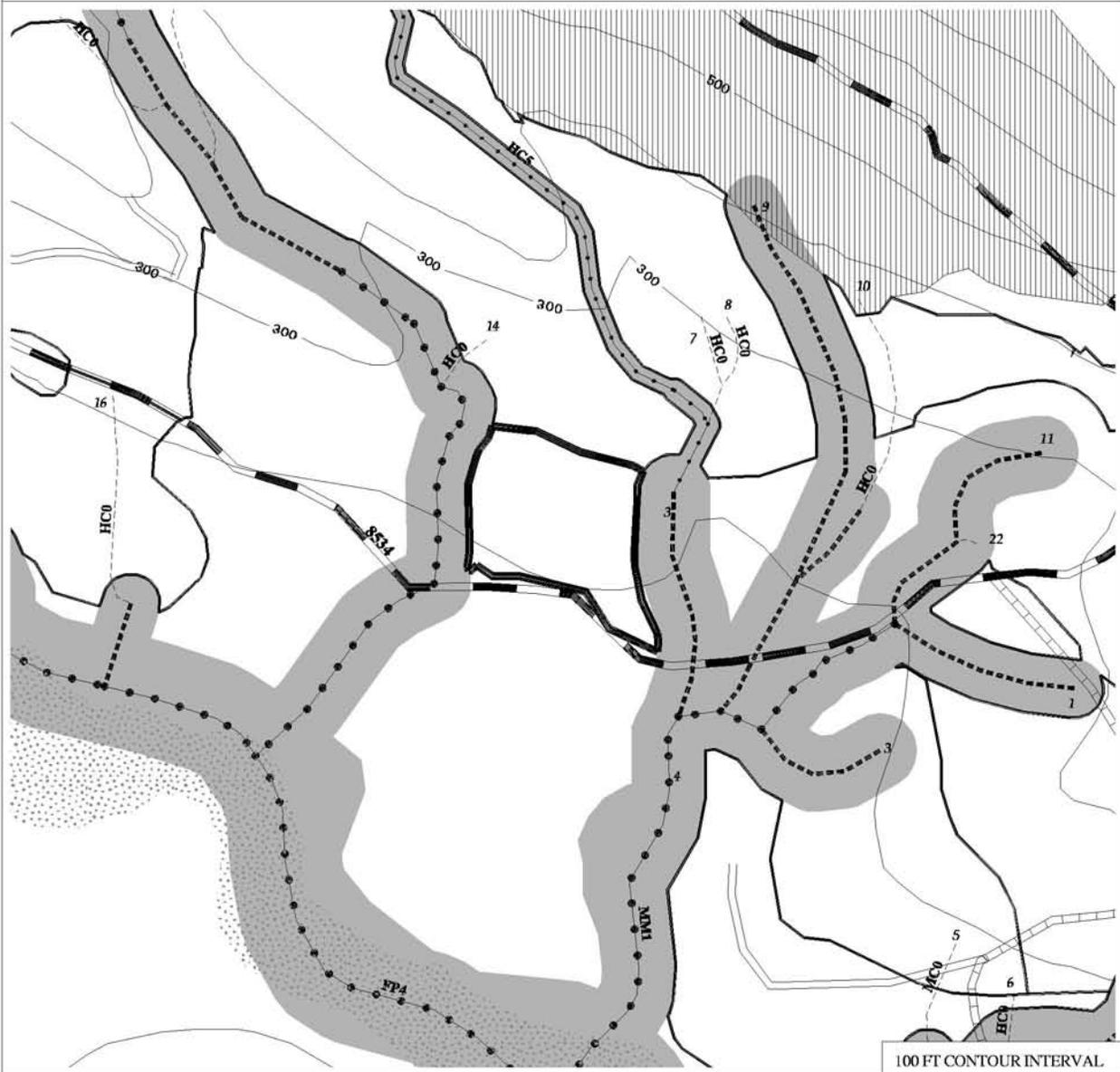
IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 109 VCU: 2100 HARVEST SYSTEM: Cable

UNIT 109 OCCURS IN ALTERNATIVE(S): 2 3 4 5



MAPSCALE 1:7200

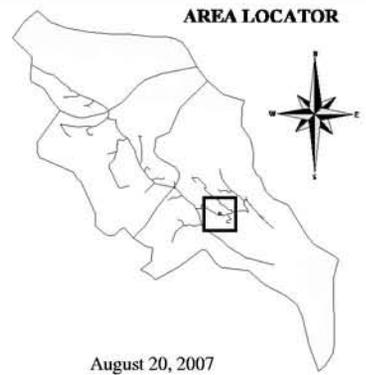


100 FT CONTOUR INTERVAL

- 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
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August 20, 2007

Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	109	In Alternatives:	2, 3, 4, 5	Total Unit Acres:	7.0	Vol Strata Acres:	High: 0 Med: 0 Low: 7.0
VCU Number:	2100	Harvest System:	C	Net Estimated Harvest Volume (MBF):	101	Prescription /Percent Retention:	CC

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

<p>Existing Stand Condition/Vegetation: Stand is comprised of 9-30" DBH western hemlock (70% BA) and scattered 24-40" DBH spruce (30% BA). There is an area of older windthrow in the southeast corner with dense regeneration. Wind risk is estimated to be high.</p>

<p>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.</p>
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<p>Silvicultural Prescription: Even-aged management – clearcut: The unit is bounded on the east and west by buffered streams that require RAW zones (refer to fish/watershed section). 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.</p>

<p>TIMBER/LOGGING: This unit is comprised of one cable setting.</p>
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<p>ENGINEERING/ROADS: N/A</p>

<p>BOTANY RESOURCES: No concerns</p>

<p>FISH/WATERSHED: The western portion of the unit is bounded by a Class II, HC channel type stream. The unit begins at the edge of the required 100-foot no-cut buffer and side-slope break. Concern: Stream 3 is Class II MM channel type. Response: Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III).</p>

<p>GEOLOGY/KARST: No carbonate bedrock found within unit. No karst resource concerns identified.</p>

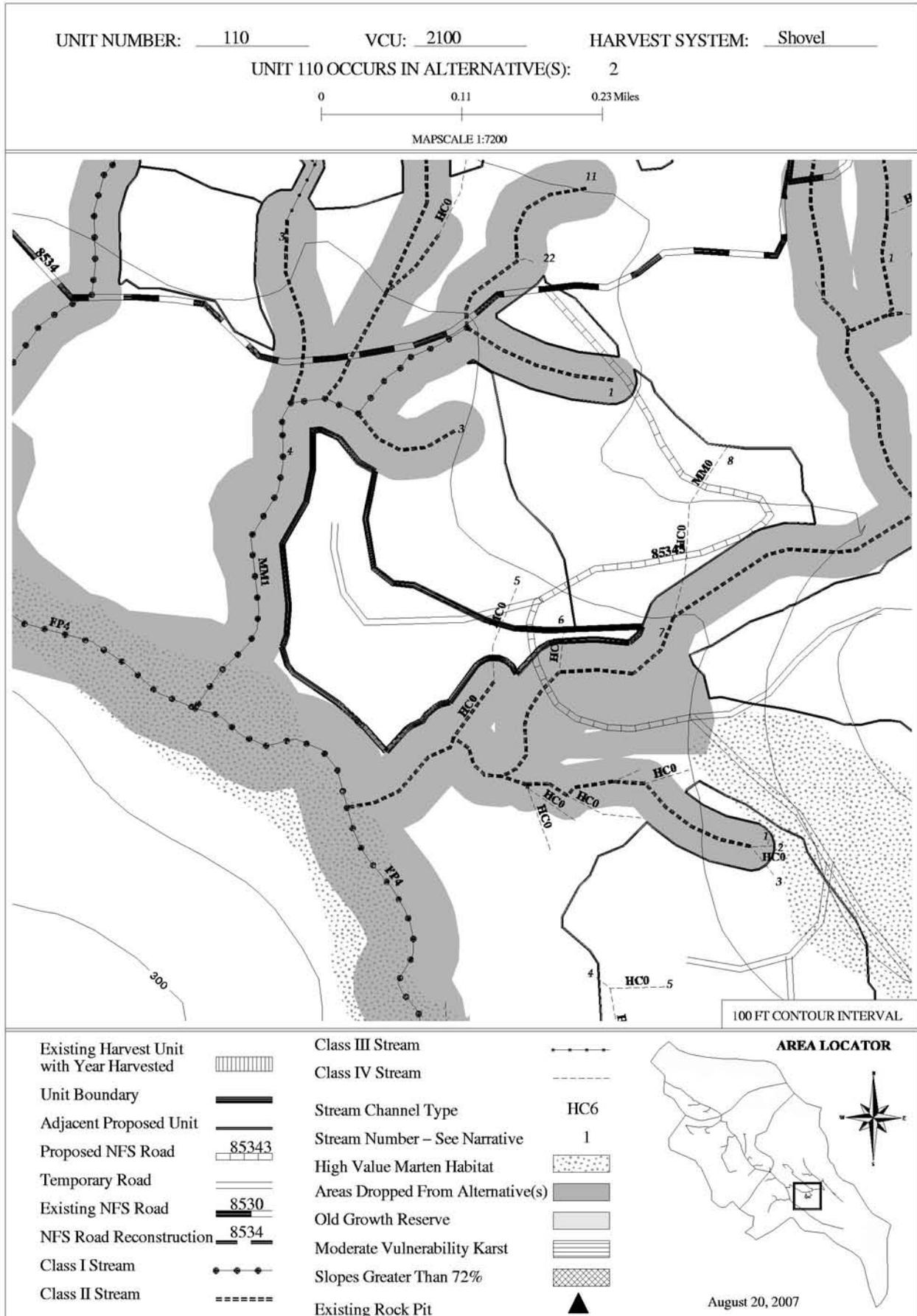
<p>HERITAGE RESOURCES: No concerns</p>

<p>SCENERY/RECREATION: No concerns</p>

<p>SOILS/WETLANDS: slopes range from 25-45% in Unit 109. Most of the unit is forested wetland. A minimum of partial suspension is required to meet soil and wetland standards. (BMPs 12.5, 13.9)</p>

<p>WILDLIFE: No concerns</p>

IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	110	In Alternatives:	2	Total Unit Acres:	14.9	Vol Strata Acres:	High: 0 Med: 0 Low: 14.9
VCU Number:	2100	Harvest System:	SH	Net Estimated Harvest Volume (MBF):	131	Prescription /Percent Retention:	ST50

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

<p>Existing Stand Condition/Vegetation: Stand is comprised of relatively stunted western hemlock (54% BA) and mountain hemlock (8% BA) and spruce (40% BA) with some scattered yellow-cedar. Hemlock advanced regeneration is abundant. The stand is flat and generally wet. Wind risk is estimated to be low.</p>

<p>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.</p>

<p>Silvicultural Prescription: Uneven-aged management – Single tree selection. Designate up to 50 percent of existing basal (107 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>TIMBER/LOGGING: Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate shovel yarding.</p>

<p>ENGINEERING/ROADS: Temporary road 110A accesses unit from existing Road 8534 via planned NFSR 85345. Road location will be flagged by USFS prior to harvest.</p>
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<p>BOTANY RESOURCES: No concerns</p>

<p>FISH/WATERSHED: Concern: Stream 3 is a Class II MM channel type and Stream 4 is a Class I MM channel type. Response: Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III). Concern: The upper part of stream 5 and all of stream 6 are Class IV HC channel types. Response: 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). The lower portion of stream 5 is class II HC and AF channel types. Response: Category A protection (BMP 12.6, 13.14). For HC: No harvest within 100 feet and side-slope break (RIP III). For AF: No harvest within 140 feet and active portion of the fan (RIP III). 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)</p>

<p>GEOLOGY/KARST: No carbonate bedrock found within unit. No karst resource concerns identified.</p>

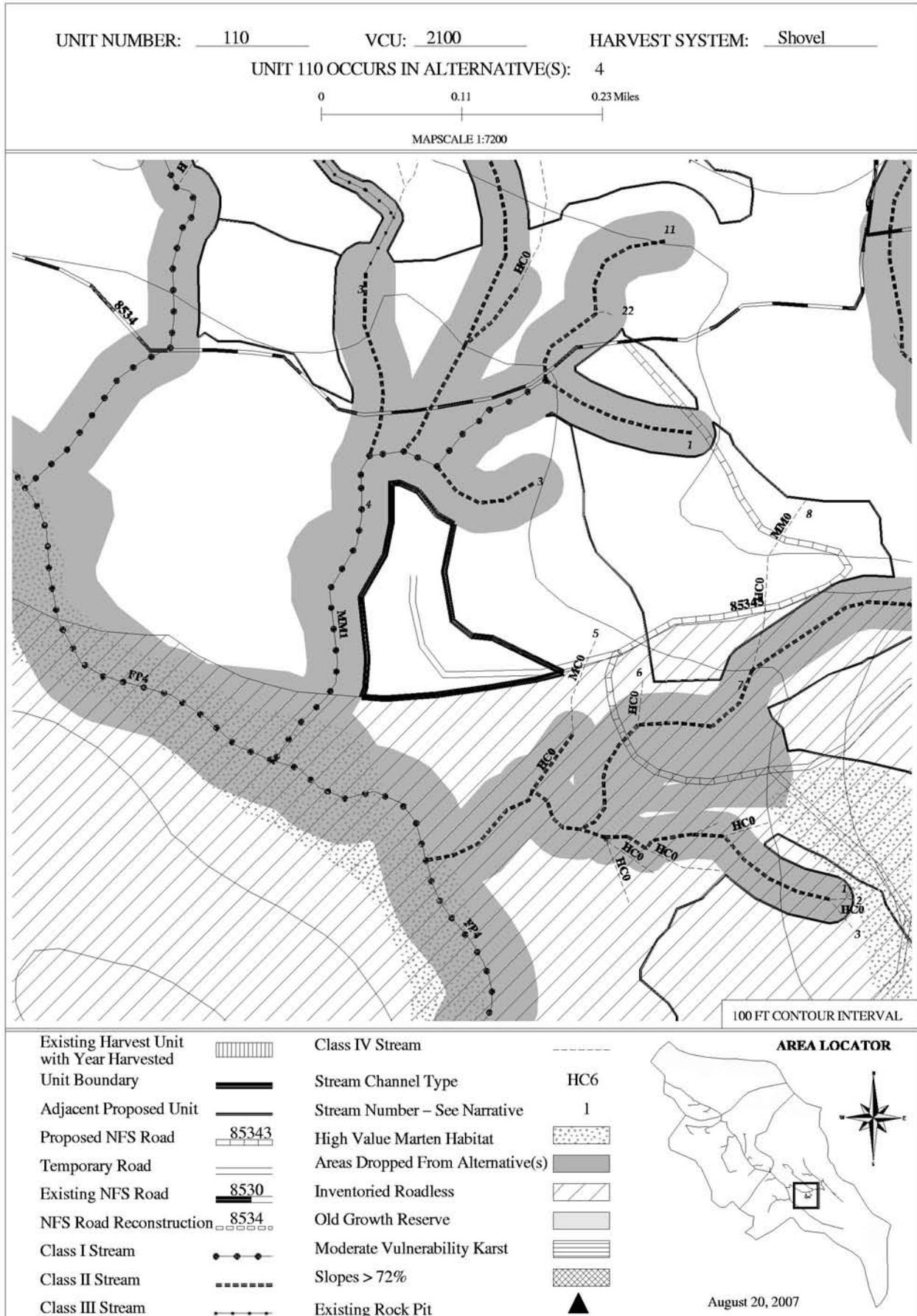
<p>HERITAGE RESOURCES: No concerns</p>

<p>SCENERY/RECREATION: No concerns</p>

<p>SOILS/WETLANDS: Slopes range from 10-35% in Unit 110. Most of the unit is forested wetland. (BMP 12.5) . Concern: Shovel yarding may cause rutting due to lack of bearing strength on poorly drained organic soils in Unit 110. Response: Operate on a puncheon or a slash mattress to provide adequate bearing strength. Do not operate the shovel in non-forested areas. (BMP 13.2 and 13.9) Concern: Proposed temporary road is entirely located on wetlands as the most of the unit and surrounding area is wetland. Response: Provide adequate cross drainage, remove structures and close the road after harvest. (BMP 14.9) (33 CFR BMPs 4, 5, 6) This unit should be visited fy07</p>

<p>WILDLIFE: No concerns</p>

IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	110	In Alternatives:	4	Total Unit Acres:	8.0	Vol Strata Acres:	High: 0 Med: 0 Low: 8.0
VCU Number:	2100	Harvest System:	SH	Net Estimated Harvest Volume (MBF):	70	Prescription /Percent Retention:	ST50

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

<p>Existing Stand Condition/Vegetation: Stand is comprised of relatively stunted western hemlock (54% BA) and mountain hemlock (8% BA) and spruce (40% BA) with some scattered yellow-cedar. Hemlock advanced regeneration is abundant. The stand is flat and generally wet. Wind risk is estimated to be low.</p>

<p>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.</p>

<p>Silvicultural Prescription: Uneven-aged management – Single tree selection. Designate up to 50 percent of existing basal (107 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>TIMBER/LOGGING: Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate shovel yarding.</p>

<p>ENGINEERING/ROADS: Temporary road 110A accesses unit from existing Road 8534 via planned NFSR 85345. Road location will be flagged by USFS prior to harvest.</p>
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<p>BOTANY RESOURCES: No concerns</p>

<p>FISH/WATERSHED: Concern: Stream 3 is a Class II MM channel type and Stream 4 is a Class I MM channel type. Response: Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III). Concern: The upper part of stream 5 and all of stream 6 are Class IV HC channel types. Response: 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). The lower portion of stream 5 is class II HC and AF channel types. Response: Category A protection (BMP 12.6, 13.14). For HC: No harvest within 100 feet and side-slope break (RIP III). For AF: No harvest within 140 feet and active portion of the fan (RIP III). 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)</p>

<p>GEOLOGY/KARST: No carbonate bedrock found within unit. No karst resource concerns identified.</p>

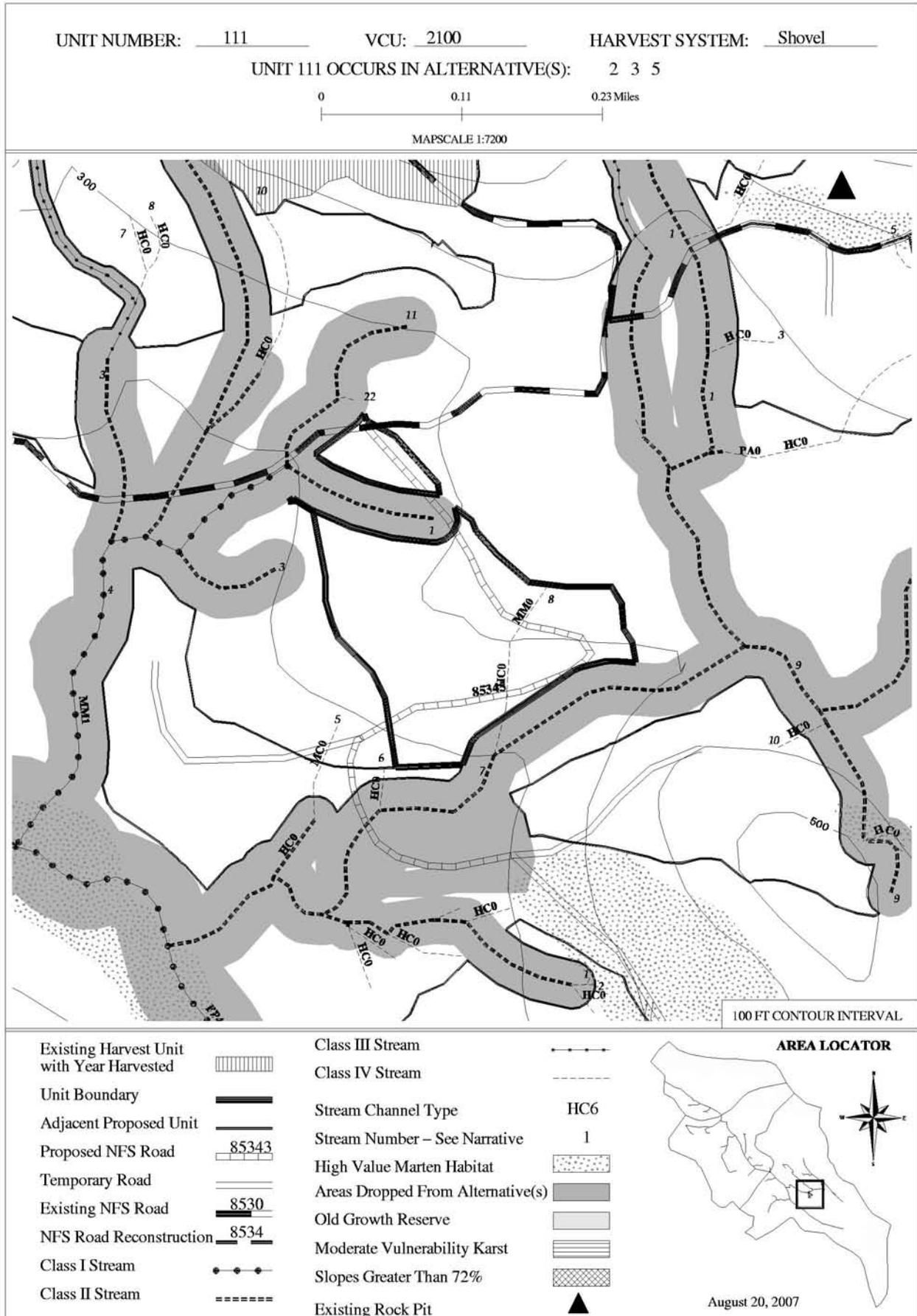
<p>HERITAGE RESOURCES: No concerns</p>

<p>SCENERY/RECREATION: No concerns</p>

<p>SOILS/WETLANDS: Slopes range from 10-35% in Unit 110. Most of the unit is forested wetland. (BMP 12.5) . Concern: Shovel yarding may cause rutting due to lack of bearing strength on poorly drained organic soils in Unit 110. Response: Operate on a puncheon or a slash mattress to provide adequate bearing strength. Do not operate the shovel in non-forested areas. (BMP 13.2 and 13.9) Concern: Proposed temporary road is entirely located on wetlands as the most of the unit and surrounding area is wetland. Response: Provide adequate cross drainage, remove structures and close the road after harvest. (BMP 14.9) (33 CFR BMPs 4, 5, 6) This unit should be visited fy07</p>

<p>WILDLIFE: No concerns</p>

IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	111	In Alternatives:	2, 3, 5	Total Unit Acres:	20.8	Vol Strata Acres:	High: 0 Med: 0 Low: 20.8
VCU Number:	2100	Harvest System:	SH	Net Estimated Harvest Volume (MBF):	182	Prescription /Percent Retention:	ST50

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

<p>Existing Stand Condition/Vegetation: Stand is comprised of 9-35" DBH western hemlock (47% BA), 9-20" DBH mountain hemlock (24% BA) and 9-20" DBH yellow-cedar (30% BA). Hemlock advanced regeneration is abundant. Yellow-cedar regeneration is less abundant but common. The stand is flat and relatively wet. Wind risk is estimated to be high over the entire unit.</p>

<p>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.</p>

<p>Silvicultural Prescription: Uneven-aged management – Single tree selection. Designate up to 50 percent of existing basal (213 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate shovel 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>TIMBER/LOGGING: Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate shovel yarding.</p>

<p>ENGINEERING/ROADS: NFSR 85345 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>BOTANY RESOURCES: No concerns</p>

<p>FISH/WATERSHED: Concern: Streams 1 and 7 are Class II HC channel types. Response: Category A protection (BMP 12.6, 13.14). No harvest within 100 feet and side-slope break (RIP III). Concern: Streams 2, 6 and the lower portion of stream 8 are Class IV HC channel types. Response: 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). Stream 3 is a Class II MM channel type. Response: Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III). Concern: Stream 7 is class II HC and MM channel types. Response: Category A protection (BMP 12.6, 13.14). For HC: No harvest within 100 feet and side-slope break (RIP III). For MM: No harvest within 120 feet of channel (RIP III). Concern: Windthrow risk is high over entire unit. Response: Manage for windfirmness 120 feet beyond all no-cut buffers on the windward side.</p>
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<p>GEOLOGY/KARST: No carbonate bedrock found within unit. No karst resource concerns identified.</p>

<p>HERITAGE RESOURCES: No concerns</p>

<p>SCENERY/RECREATION: No concerns</p>

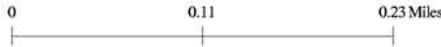
<p>SOILS/WETLANDS: Slopes range from 10-35% in Unit 111. There are about 4 acres of wetland in the unit. (BMP 12.5) There are about 2 acres of slopes greater than 25% along the eastern boundary of Unit 111. Concern: Shovel yarding may cause rutting due to lack of bearing strength on poorly drained organic soils in Unit 111. Response: Operate on a puncheon or a slash mattress to provide adequate bearing strength. Do not operate the shovel in non-forested areas. (BMP 13.2 and 13.9) Concern: Shovel yarding may cause rutting due to slopes greater than 25%. Response: 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>

<p>WILDLIFE: No concerns</p>

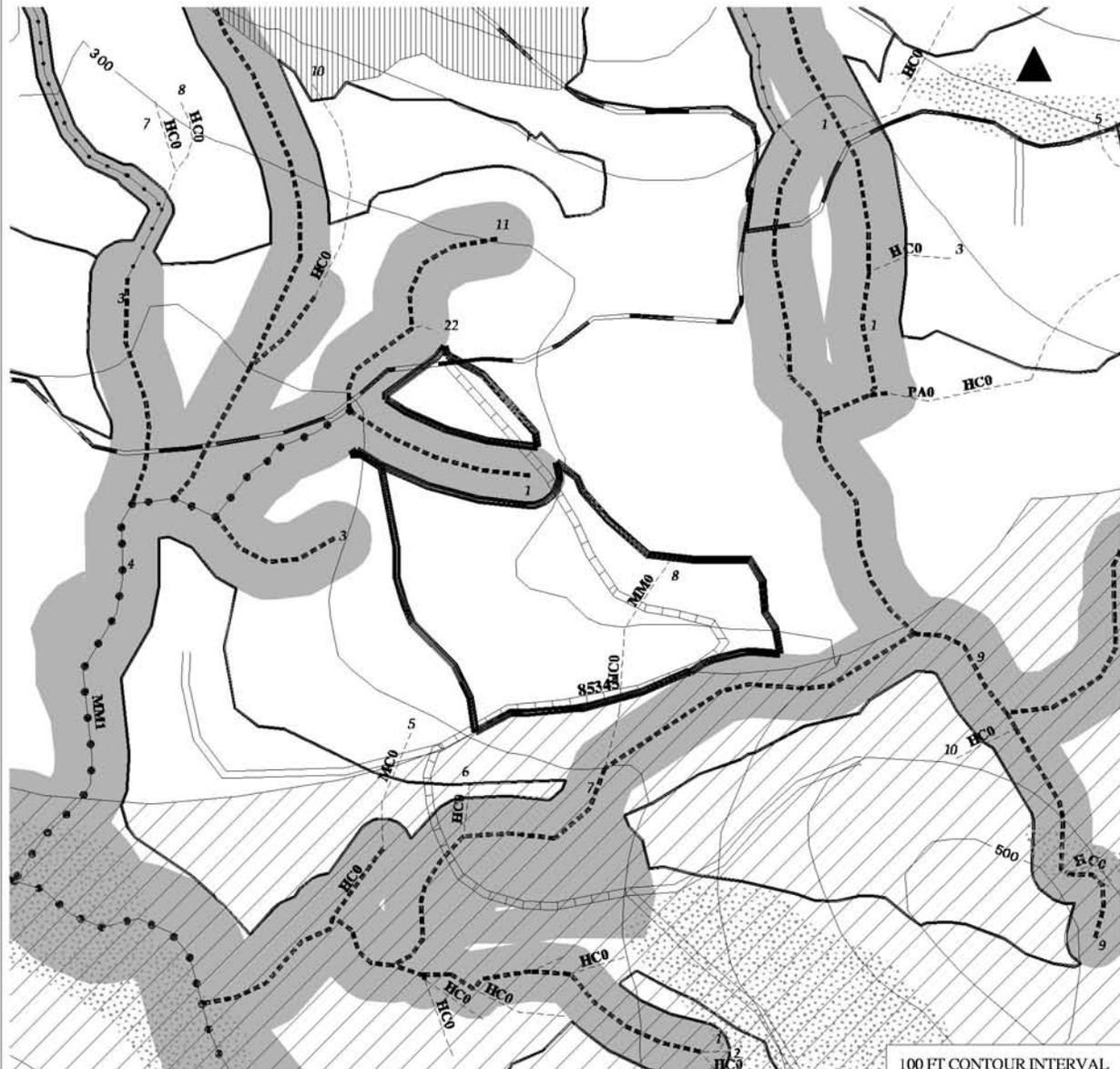
IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 111 VCU: 2100 HARVEST SYSTEM: Shovel

UNIT 111 OCCURS IN ALTERNATIVE(S): 4



MAPSCALE 1:7200



100 FT CONTOUR INTERVAL

Existing Harvest Unit with Year Harvested		Class IV Stream		AREA LOCATOR
Unit Boundary		Stream Channel Type	HC6	
Adjacent Proposed Unit		Stream Number – See Narrative	1	
Proposed NFS Road		High Value Marten Habitat		
Temporary Road		Areas Dropped From Alternative(s)		
Existing NFS Road		Inventoried Roadless		
NFS Road Reconstruction		Old Growth Reserve		
Class I Stream		Moderate Vulnerability Karst		
Class II Stream		Slopes > 72%		
Class III Stream		Existing Rock Pit		

August 20, 2007

Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	111	In Alternatives:	4	Total Unit Acres:	18.5	Vol Strata Acres:	High: 0 Med: 0 Low: 18.5
VCU Number:	2100	Harvest System:	SH	Net Estimated Harvest Volume (MBF):	162	Prescription /Percent Retention:	ST50

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

<p>Existing Stand Condition/Vegetation: Stand is comprised of 9-35" DBH western hemlock (47% BA), 9-20" DBH mountain hemlock (24% BA) and 9-20" DBH yellow-cedar (30% BA). Hemlock advanced regeneration is abundant. Yellow-cedar regeneration is less abundant but common. The stand is flat and relatively wet. Wind risk is estimated to be high over the entire unit.</p>

<p>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.</p>

<p>Silvicultural Prescription: Uneven-aged management – Single tree selection. Designate up to 50 percent of existing basal (213 sq.ft.per acre) area singly and/or in small clumps or corridors to facilitate shovel 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>TIMBER/LOGGING: Refer to Silvicultural RX and marking guides for single tree selection guidelines to facilitate shovel yarding.</p>

<p>ENGINEERING/ROADS: NFSR 85345 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>BOTANY RESOURCES: No concerns</p>

<p>FISH/WATERSHED: Concern: Streams 1 and 7 are Class II HC channel types. Response: Category A protection (BMP 12.6, 13.14). No harvest within 100 feet and side-slope break (RIP III). Concern: Streams 2, 6 and the lower portion of stream 8 are Class IV HC channel types. Response: 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). Stream 3 is a Class II MM channel type. Response: Category A protection (BMP 12.6, 13.14). No harvest within 120 feet of channel (RIP III). Concern: Stream 7 is class II HC and MM channel types. Response: Category A protection (BMP 12.6, 13.14). For HC: No harvest within 100 feet and side-slope break (RIP III). For MM: No harvest within 120 feet of channel (RIP III). Concern: Windthrow risk is high over entire unit. Response: Manage for windfirmness 120 feet beyond all no-cut buffers on the windward side.</p>

<p>GEOLOGY/KARST: No carbonate bedrock found within unit. No karst resource concerns identified.</p>

<p>HERITAGE RESOURCES: No concerns</p>

<p>SCENERY/RECREATION: No concerns</p>

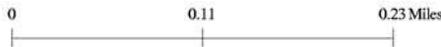
<p>SOILS/WETLANDS: Slopes range from 10-35% in Unit 111. There are about 4 acres of wetland in the unit. (BMP 12.5) There are about 2 acres of slopes greater than 25% along the eastern boundary of Unit 111. Concern: Shovel yarding may cause rutting due to lack of bearing strength on poorly drained organic soils in Unit 111. Response: Operate on a puncheon or a slash mattress to provide adequate bearing strength. Do not operate the shovel in non-forested areas. (BMP 13.2 and 13.9) Concern: Shovel yarding may cause rutting due to slopes greater than 25%. Response: 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>

<p>WILDLIFE: No concerns</p>

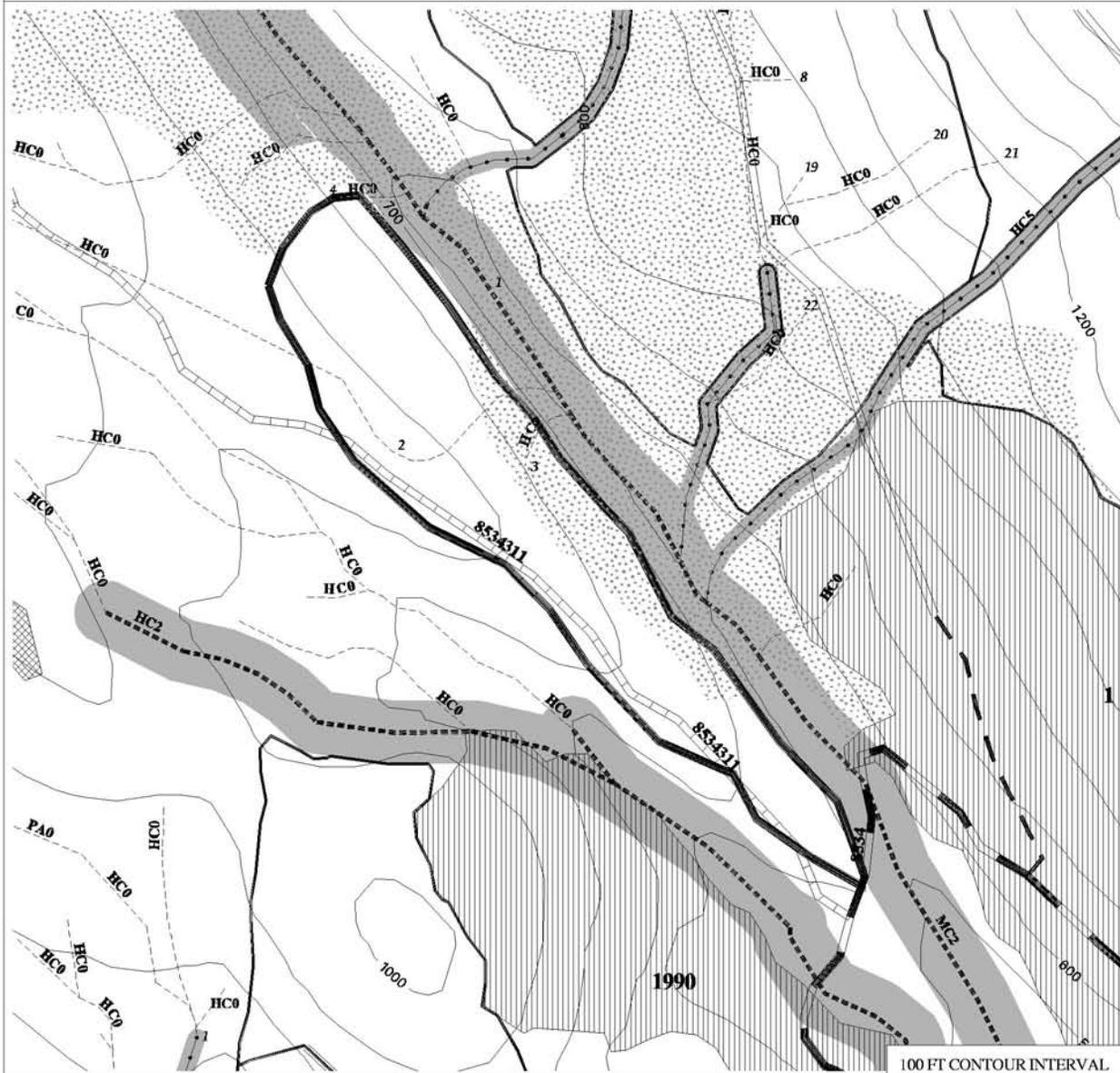
IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 114 VCU: 2100 HARVEST SYSTEM: Cable

UNIT 114 OCCURS IN ALTERNATIVE(S): 2 3 5



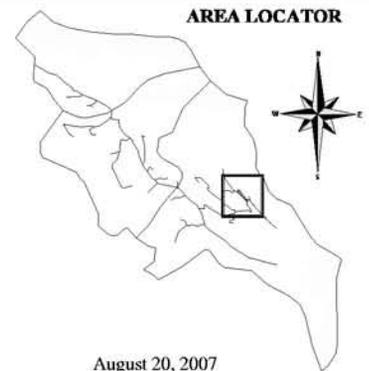
MAPSCALE 1:7200



- 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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August 20, 2007

Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	114	In Alternatives:	2, 3, 5	Total Unit Acres:	25.9	Vol Strata Acres:	High: 4.8 Med: 21.1 Low: 0
VCU Number:	2100	Harvest System:	C	Net Estimated Harvest Volume (MBF):	508	Prescription /Percent Retention:	CC

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

Existing Stand Condition/Vegetation: Stand is comprised of primarily even-aged 14-28" DBH spruce (48% BA) and hemlock (48% BA). This is a wind generated stand with a high stem count and low defect. Devil's club dominates understory. Wind risk is high throughout 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 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 contains a class 4 stream 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 buffers to minimize windthrow in buffer. A high wind risk boundary may be created in the NW corner using the RAW zone criteria above. Review during layout to determine if windfirming in warranted. This unit contains greater than 2 acres of high value marten habitat. Designate reserve trees of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees and locate in RAW zone where possible as specified under wildlife section.

TIMBER/LOGGING: This unit is comprised of three cable settings. The northern-most setting accesses the area north of stream #2, a class IV 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. There are some limited shovel yarding opportunities near the road.

ENGINEERING/ROADS: NFSR 8534311 accesses unit from existing Road 8534. Road location has been flagged. Deviations to flagged route must be approved by USFS prior to construction.

BOTANY RESOURCES: No concerns

FISH/WATERSHED: Concern: Stream 1 is Class II HC and MC channel types. **Response:** Category A protection (BMP 12.6, 13.14). For MC: No harvest within 100 feet of channel and side-slope break. (RIP III). For HC: No harvest within 100 feet and side-slope break (RIP III). **Concern:** Streams 2, 3, and 4 are Class IV HC channel types. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16)

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

HERITAGE RESOURCES: No concerns

SCENERY/RECREATION: No concerns

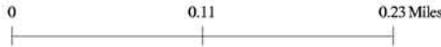
SOILS/WETLANDS: Slopes range from 40-61% in Unit 114. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9)

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. Recommend that this retention be maintained adjacent to the stream buffer to maintain travel corridor and wind firmness.

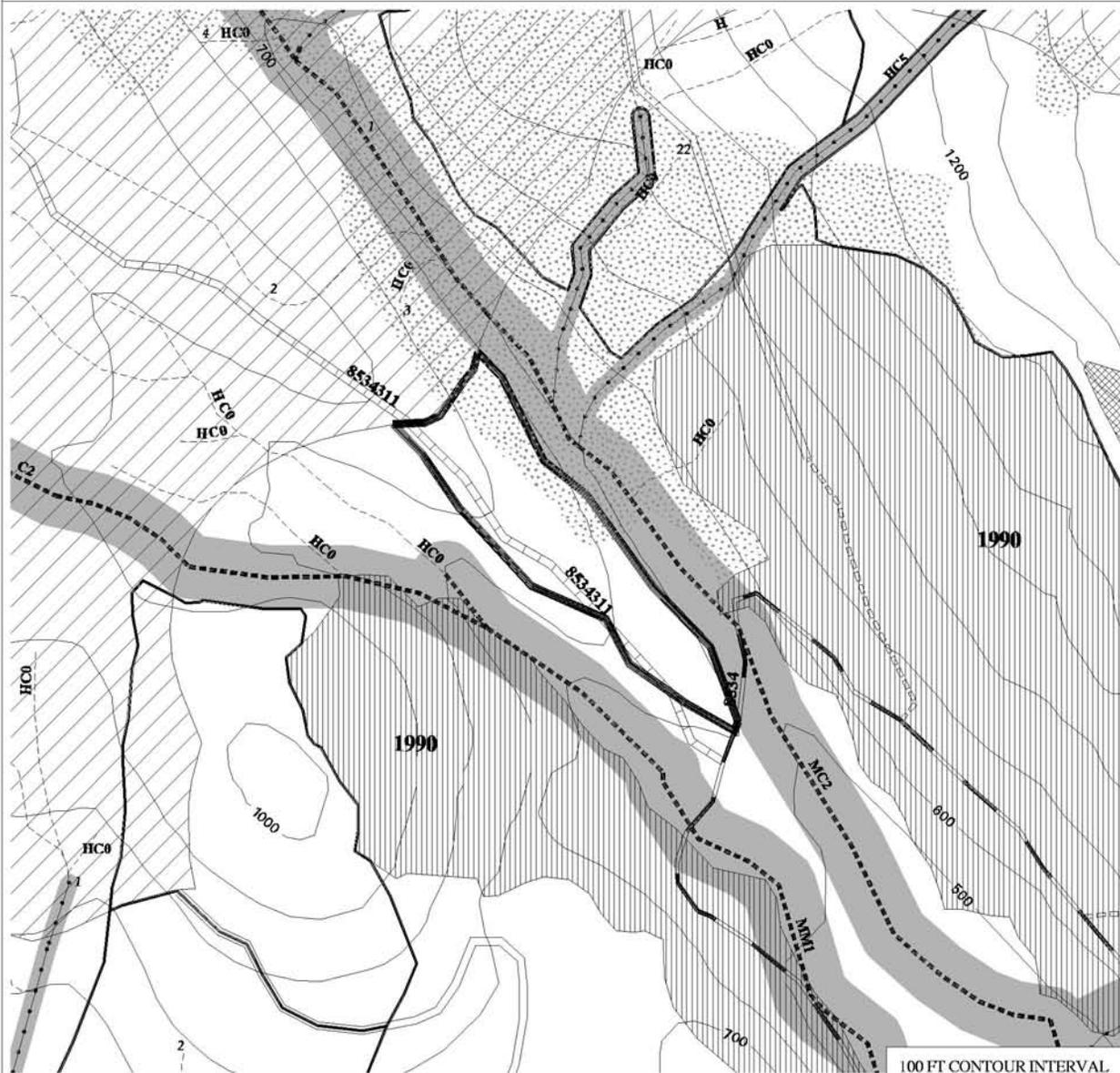
IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 114 VCU: 2100 HARVEST SYSTEM: Cable

UNIT 114 OCCURS IN ALTERNATIVE(S): 4



MAPSCALE 1:7200



100 FT CONTOUR INTERVAL

Existing Harvest Unit with Year Harvested		Class IV Stream	
Unit Boundary		Stream Channel Type	HC6
Adjacent Proposed Unit		Stream Number – See Narrative	1
Proposed NFS Road		High Value Marten Habitat	
Temporary Road		Areas Dropped From Alternative(s)	
Existing NFS Road		Inventoried Roadless	
NFS Road Reconstruction		Old Growth Reserve	
Class I Stream		Moderate Vulnerability Karst	
Class II Stream		Slopes > 72%	
Class III Stream		Existing Rock Pit	

AREA LOCATOR

August 20, 2007

Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	114	In Alternatives:	4	Total Unit Acres:	9.4	Vol Strata Acres:	High: 2.2 Med: 7.2 Low: 0
VCU Number:	2100	Harvest System:	C	Net Estimated Harvest Volume (MBF):	185	Prescription /Percent Retention:	CC

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

Existing Stand Condition/Vegetation: Stand is comprised of primarily even-aged 12-32" DBH spruce (48% BA) and hemlock (48% BA). This is a wind generated stand with a high stem count and low defect. Devil's club dominates understory. Wind risk is high throughout 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 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: A high wind risk boundary may be created in the NW corner of unit. Review during layout to determine if windfirming in warranted. This unit contains greater than 2 acres of high value marten habitat. 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.

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. There are some limited shovel yarding opportunities near the road.

ENGINEERING/ROADS: NFSR 8534311 accesses unit from existing Road 8534. Road location has been flagged. Deviations to flagged route must be approved by USFS prior to construction.

BOTANY RESOURCES: No concerns

FISH/WATERSHED: Concern: Stream 1 is Class II HC and MC channel types. **Response:** Category A protection (BMP 12.6, 13.14). For MC: No harvest within 100 feet of channel and side-slope break. (RIP III). For HC: No harvest within 100 feet and side-slope break (RIP III). **Concern:** Streams 2, 3, and 4 are Class IV HC channel types. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16)

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

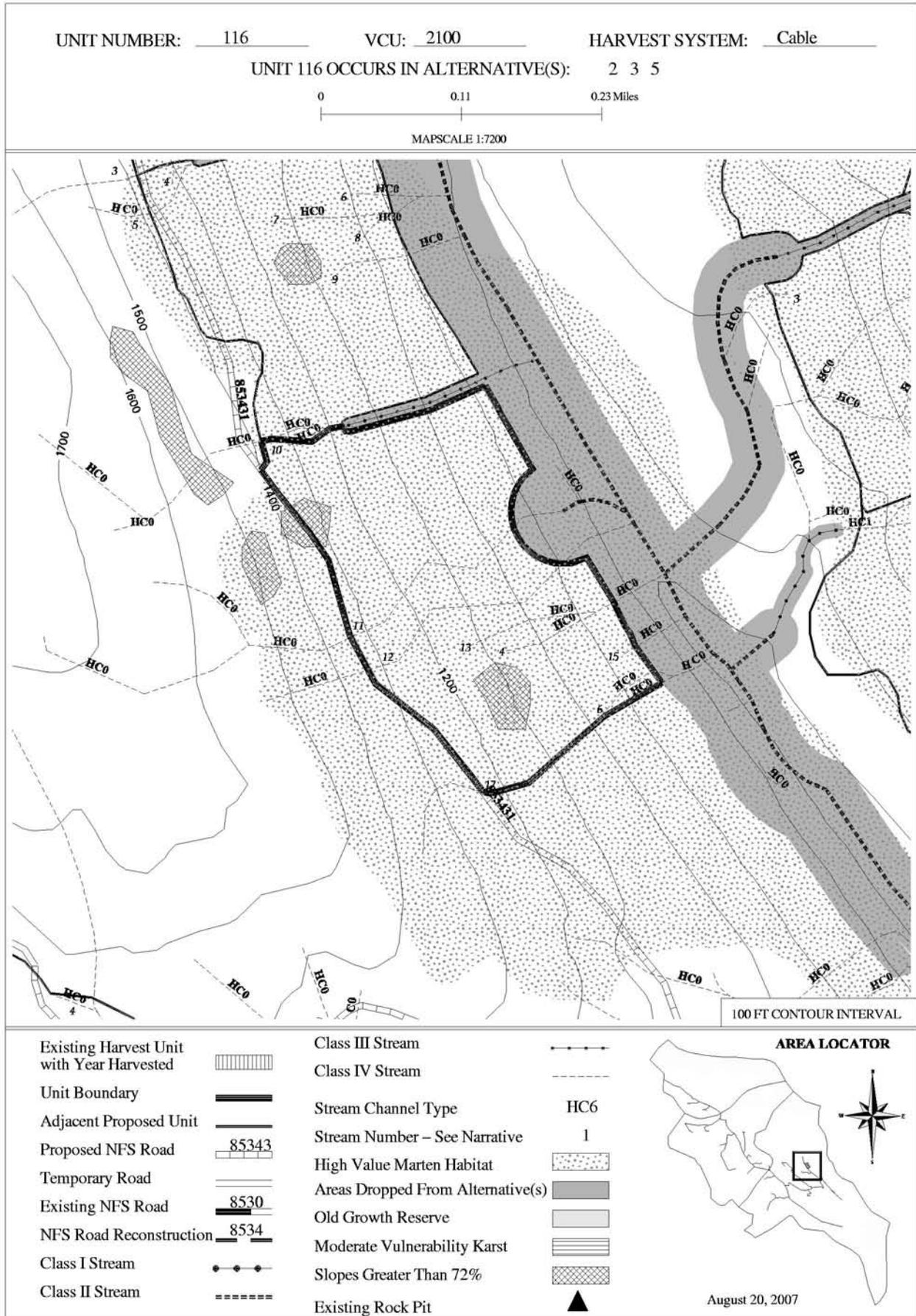
HERITAGE RESOURCES: No concerns

SCENERY/RECREATION: No concerns

SOILS/WETLANDS: Slopes range from 40-61% in Unit 114. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9)

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. Recommend that this retention be maintained adjacent to the stream buffer to maintain travel corridor and wind firmness.

IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	116	In Alternatives:	2, 3, 5	Total Unit Acres:	34.3	Vol Strata Acres:	High: 34.3 Med: 0 Low: 0
VCU Number:	2100	Harvest System:	C	Net Estimated Harvest Volume (MBF):	769	Prescription /Percent Retention:	CC

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

<p>Existing Stand Condition/Vegetation: Stand is comprised of primarily even-aged 12-43" DBH spruce (49% BA), 12-43" DBH western hemlock (36% BA) and 20-40" DBH mountain hemlock (36% BA). This is a wind generated stand with a high stem count and low defect. Devil's club dominates understory. Wind risk is high throughout unit.</p>
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<p>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.</p>

<p>Silvicultural Prescription: Even-aged management – clearcut: This unit contains stream buffers and RAW zones. For RAW zones 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 buffers. This entire unit is high value marten habitat. Designate reserve trees of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees and locate in RAW zones where possible as specified under wildlife section.</p>

<p>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.</p>
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<p>ENGINEERING/ROADS: NFSR 853431 accesses unit from existing Road 8534 via planned NFSR 8534311. Road location has been flagged. Deviations to flagged route must be approved by USFS prior to construction.</p>
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<p>BOTANY RESOURCES: No concerns</p>

<p>FISH/WATERSHED: Concern: Streams 11, 12, 13, 14, 15, 16, 17 and the upper portion of stream 10 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 10 is Class III HC channel type. Response: Category B protection (BMP 12.6, 13.14). No harvest within v-notch (RIP III).</p>

<p>GEOLOGY/KARST: No carbonate bedrock found within unit. No karst resource concerns identified.</p>

<p>HERITAGE RESOURCES: No concerns</p>

<p>SCENERY/RECREATION: No concerns</p>

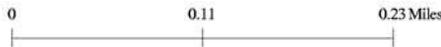
<p>SOILS/WETLANDS: Slopes range from 45-75% in Unit 116. There is less than 2 acres of slopes over 72% in the unit. The soils are shallow to bedrock and well-drained. The areas greater than 72% are small rock-outcrops that are very stable. There is no evidence of past landslides in this area. These small areas are suitable for the proposed cable harvest using full suspension (BMP 13.9). A minimum of partial suspension is required to meet soil quality standards in the rest of unit 116.</p>
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<p>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. Recommend that this retention be maintained adjacent to north stream buffer adjacent to Unit 117 to maintain wind firmness.</p>
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IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP

UNIT NUMBER: 117 VCU: 2100 HARVEST SYSTEM: Cable

UNIT 117 OCCURS IN ALTERNATIVE(S): 2 3 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
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-
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August 20, 2007

Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	117	In Alternatives:	2, 3, 5	Total Unit Acres:	25.3	Vol Strata Acres:	High: 25.3 Med: 0 Low: 0
VCU Number:	2100	Harvest System:	C	Net Estimated Harvest Volume (MBF):	568	Prescription /Percent Retention:	CC

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

Existing Stand Condition/Vegetation: Stand is comprised of primarily even-aged 9-40" DBH spruce (25% BA), 9-40" DBH western hemlock (53% BA) and 12-30" DBH mountain hemlock (21% BA). This is a wind generated stand with a high stem count and low defect. Devil's club dominates understory. Wind risk is high throughout 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 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 contains stream buffers and RAW zones. For RAW zones 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 buffers. This entire unit is high value marten habitat. Designate reserve trees of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees and locate in RAW zones where possible as specified under wildlife section.

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: NFSR 853431 accesses unit from existing Road 8534 via planned NFSR 8534311. Road location has been flagged. Deviations to flagged route must be approved by USFS prior to construction.

BOTANY RESOURCES: No concerns

FISH/WATERSHED: Concern: Streams 3, 5, 6, 7, 8, 9 and the upper portions of 4 and 10 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 portions of streams 4 and 10 is Class III HC channel type. **Response:** Category B protection (BMP 12.6, 13.14). No harvest within v-notch (RIP III). Manage 120 feet beyond v-notch for windfirmness on Class III portions of streams 4 and 10.

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

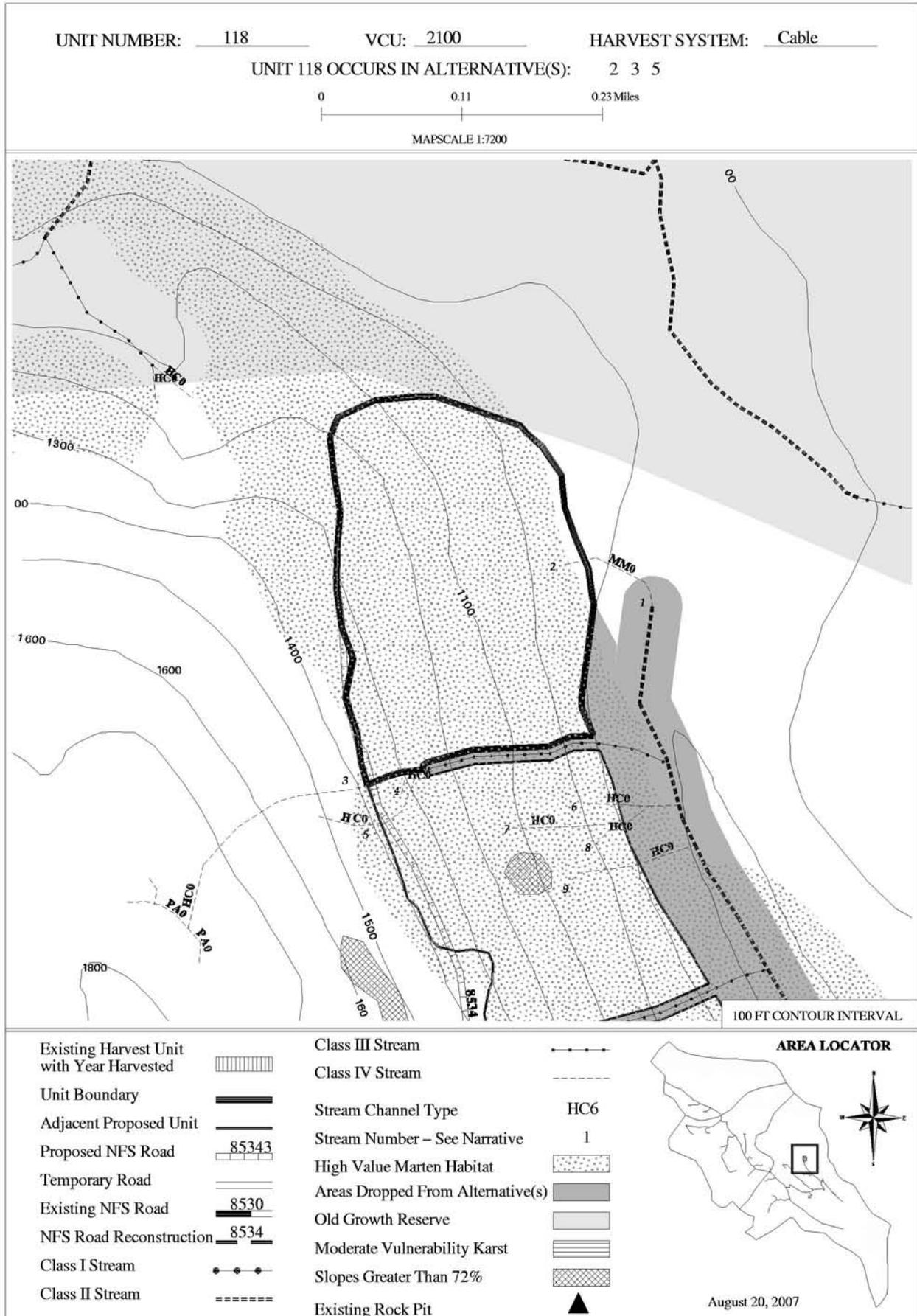
HERITAGE RESOURCES: No concerns

SCENERY/RECREATION: No concerns

SOILS/WETLANDS: Slopes range from 45-80% in Unit 117. There is less than 1/2 acre of slopes greater than 72% in a small rock outcrop. Full suspension is required in this area. A minimum of partial suspension is required in the rest of Unit 117 to meet soil quality standards (BMP 13.9).

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. Recommend that this retention be maintained adjacent to the north or south stream buffer adjacent to either or both Units 116 and 118 to maintain wind firmness.

IYOUKTUG TIMBER SALE UNIT CARD PLANNED HARVEST UNIT MAP



Unit Data Card – Iyouktug Timber Sale Draft EIS
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Unit Number:	118	In Alternatives:	2, 3, 5	Total Unit Acres:	33.5	Vol Strata Acres:	High:32.6 Med: 0.9 Low: 0
VCU Number:	2100	Harvest System:	C	Net Estimated Harvest Volume (MBF):	748	Prescription /Percent Retention:	CC

Summary of Concerns, Responses, BMPs and Mitigation
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SILVICULTURE:

Existing Stand Condition/Vegetation: Stand is comprised of primarily even-aged 9-40" DBH spruce (25% BA), 9-40" DBH western hemlock (53% BA) and 12-30" DBH mountain hemlock (21% BA). This is a wind generated stand with a high stem count and low defect. Devil's club dominates understory. Wind risk is high throughout 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 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 contains stream buffers and RAW zones. For RAW zones 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 buffers. The majority of this unit is high value marten habitat. Designate reserve trees of sufficient size and condition within high value marten habitat to meet marten standards and guidelines. Clump trees and locate in RAW zones where possible as specified under wildlife section.

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: NFSR 853431 accesses unit from existing Road 8534 via planned NFSR 8534311. Road location has been flagged. Deviations to flagged route must be approved 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). Manage 120 feet beyond RMA buffer for windfirmness. **Concern:** stream 2 is class IV HC channel type. **Response:** Category C protection (BMP 12.6, 13.14). Remove logging debris from channel (BMP 13.16).

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 35-60% in Unit 118. A minimum of partial suspension is required to meet soil quality standards. (BMP 13.9)

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. Recommend that this retention be maintained adjacent to the south stream buffer adjacent to Unit 117 to maintain wind firmness.