

# **Big Thorne Stewardship Integrated Resource Timber Contract**

## **Steelhead Subdivision 1**

Contract  
Report

Thorne Bay Ranger District

08/15/2013

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## I. Introduction

### A. Planning, History and NEPA Document

The Big Thorne Stewardship Contract (IRTC) was analyzed and cleared by the Big Thorne Timber Sale FEIS. Forrest Cole, Forest Supervisor, signed the Record of Decision on [June 28, 2013](#). The Record of Decision and other relevant NEPA documents are available at the Thorne Bay Ranger District, Thorne Bay, Alaska and online at <http://www.fs.usda.gov/tongass/>.

## II. Description of Timber Contract

### A. Location

The Big Thorne Stewardship Contract –**Steelhead Subdivision 1** is located on Prince of Wales, within the boundaries of the Thorne Bay Ranger District of the Tongass National Forest. It is approximately 15 air miles west of the City of Thorne Bay, Alaska. The USGS quadrangle coverage is [Craig C-3](#). The short legal description of the project area is [T71S, R81E, Sections 11, 12, 13, 14, 23, 24, 25, 26, 35 and 36; T72S, R81E, Sections 1, 2, 3, 10, 11, 12, 13, 14 and 24; T71S, R82E, Sections 7, 8, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34 and 35; T72S, R82E, Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33 and 34; T73S, R83E, Section 6; and T73S, R82E, Section 1; Copper River Meridian](#).

### B. Size of Sale and Cutting Units

The Big Thorne Stewardship contract- **Steelhead Subdivision 1** consists of 43 harvest units totaling approximately 898 acres; 638 acres are identified for Even Aged Harvest/Clearcutting and identified on the Contract Area Map as CC, 29 acres are identified for Individual Tree Marking/Cut Tree Mark and are identified on the Contract Area Map as CTM and 231 acres are identified for Uneven Aged Harvest/Designation and are identified on the Contract Map as DxPRE. Cutting Unit boundaries are marked with vertical stripe orange paint, orange tags and pink flagging. Sample Trees within the units were marked with white paint and red and white flagging during the cruise process.

### Planned Harvest Units

### C. Timber Specifics

#### 1. Timber Cruise

The volume estimates for the Clearcut units and Uneven Aged Harvest units were derived from a PNT Variable Plot cruise. The cruise was calculated in MBF using FS Cruiser and the Cruise Processor. The Net Sawlog combined sampling error for the **Steelhead Subdivision 1** is 12.38 % which meets the Forest Service sampling error requirement for scaled sales. The minimum merchantable tree and piece size specification is 9.0 inches DBH, containing a 12-foot long log, and 6-inch top minimum diameter log.

The Individual Tree Marked/Cut Tree Marked Units were identified to allow for Reasonable Assurance of Wind Firmness (RAW). The volume estimates for the Individual Tree Marked/Cut

Tree Marked Units in this contract were derived from a Sample Tree Cruise. The cruise was calculated in MBF using FS Cruiser and the Cruise Processor. 50% of the RAW units are in the *Steelhead Subdivision 1*. The Net Sawlog combined sampling error for all of the RAW units is 19.19% which meets the Forest Service sampling error requirement for scaled sales. The minimum merchantable tree and piece size specification is 9.0 inches DBH, containing a 12-foot long log, and 6-inch top minimum diameter log.

*\*For Cruise Report Information and Cruise Plot Maps, please contact Stanley McCoy; TMA, at the Thorne Bay Ranger District at (907) 828-3244.*

## 2. Volumes and Grade Distribution:

**Weighted Average Grade Distribution by Species - SAWLOG**

Species	P/S	1	2	3	5	6	Weighted Average Estimated Sawlog
Hemlock	76.54	517.23	4562.12	5167.58	0.00	0.00	10323.47
Sitka Spruce	247.71	680.99	2226.50	1301.96	0.00	0.00	4458.17
Alaska Cedar	11.20	183.61	712.28	581.24	0.00	124.36	1612.69
Western Red Cedar	0.00	0.00	0.00	0.00	3428.83	0.00	3428.83
<b>Total</b>	<b>335.45</b>	<b>1381.83</b>	<b>7500.90</b>	<b>7050.79</b>	<b>3428.83</b>	<b>124.36</b>	<b>19823.20</b>

Includes RAWs volume, units numbered 800 series.

*Variance in Numbers is due to rounding; Derived from Cruise Report R003 Log Grade Summary.*

## 3. Sale Characteristics

<b>Steelhead Subdivision 1</b>
<b>Sale Characteristics</b>
32 ft. Logs/MBF Gross = 4.41
Ave. MBF Gross Removed/Acre = 23.14
% Woods Defect (with utility) = 41.17
% Scaling Defect (without utility) = 10.75
Weighted Average DBH = 18.8

*\*Numbers derived from Cruise Report R001 Appraisal Summary Report.*

### III. Contract Management Aspects

#### A. Operating Period.

The Big Thorne Stewardship Contract is planned for operations to be completed in **ten (10)** normal operating seasons. The normal operating season runs from May 1st through October 31st. Termination date will be **September 25, 2023**.

**B. Contract Type** - This is an Integrated Resource Timber Contract (IRTC), FS-2400-13 Scaled.

#### C. Appraisal Point

The timber has been appraised for haul to **Klawock, Alaska**. The weighted average truck haul from the **Steelhead Subdivision 1** to Klawock is approximately 22 miles one-way.

#### D. Appraised Rates.

<b>Steelhead Subdivision 1</b>	
<b>Species</b>	<b>Species Volume by %</b>
Western Hemlock Sawlogs	<b>50%</b>
Sitka Spruce Sawlogs	<b>22%</b>
Alaska Yellow Cedar Sawlogs	<b>8%</b>
Western Red Cedar Sawlogs	<b>17%</b>
<b>Utility</b>	
Western Hemlock Utility	<b>86%</b>
Sitka Spruce Utility	<b>14%</b>

**E. Performance Bond** – The Performance Bond for the Big Thorne Stewardship Contract is \$250,000.00.

**F. Bid Guarantee.** – No Bid Guarantee is required for this contract.

**G. Mobilization** - Cost of mobilization is included in the appraisal.

**H. Fire Liability Costs** for the contract are \$71,000.

### IV. Silvicultural Aspects

The harvest unit prescriptions in this project are identified for Even Aged Clearcut (CC), Individual Tree Marking/Cut Tree Mark (CTM), and Uneven Aged Harvest/ Designation by Prescription

(DxPre). Refer to contract Special Provision, K-C.3.5.5#, Designation by Prescription for individual unit prescriptions and more detailed information on the silvicultural aspects of this contract.

**V. Total Acres by Logging Systems and Estimated Sawlog Volume per Unit**

*\*For cable units, lift trees may be within unit boundaries and should be designated before felling.*

**Steelhead Subdivision 1**

**Acres by Logging System**

Unit Number	Appraised Logging Systems and Acres						Estimated Sawlog Volume per Unit
	Total Acres	Appraised Logging System Acres					
		Shovel Clearcut	Cable Clearcut	CTM 25% Removal	Helicopter 25% Removal	Helicopter 50% Removal	
1	27	27					627.41
2	14	14					325.32
3	10					10	173.40
4	41	27	14				952.73
5	22	11	11				534.46
6	82	54	28				1905.45
7	14	14					325.32
8	49	16	33				1138.62
11	20	17	3				487.98
12	15	15					348.56
13	7		7				162.66
14	68	68					1580.13
15	70	38	32				1626.61
16	16	10	6				185.90
17	31	10	21				720.35
18	21					21	364.13

<b>19</b>	23	16	7				534.46
<b>20</b>	34	34					790.07
<b>22</b>	22	22					1022.44
<b>24</b>	75					75	1300.48
<b>25</b>	13		13				302.08
<b>26</b>	29	25	4				673.88
<b>360</b>	25	16	9				580.93
<b>361</b>	19					19	329.45
<b>401</b>	5	5					116.19
<b>402</b>	7					7	121.38
<b>403</b>	8	8					185.90
<b>404</b>	3	3					69.71
<b>405</b>	3					3	52.02
<b>407</b>	32					32	572.21
<b>760</b>	13					13	225.42
<b>802</b>	2			2			47.96
<b>804</b>	3			3			57.56
<b>805</b>	5			5			203.17
<b>806</b>	5			5			127.89
<b>808</b>	6			6			121.65
<b>816</b>	4			4			73.96
<b>817</b>	3			3			45.65
<b>820</b>	1			1			36.31

901	10					10	190.74	
903	10					10	173.40	
907	4					4	69.36	
915	27				27		468.17	
<b>Totals Acres/Logging System</b>	<b>898</b>	<b>450</b>	<b>188</b>	<b>29</b>	<b>27</b>	<b>204</b>		
<b>Estimated Sawlog Volume</b>								<b>19,951</b>
<b>RAWS Volume included in table</b>								

<b>Steelhead Subdivision 1</b>		
<b>Volume by Logging System</b>		
<b>Logging System</b>	<b>Sawlog Volume (MBF)</b>	<b>% by Volume</b>
Shovel	10,973	55%
Cable	4,788	24%
Helicopter	4,190	21%
<b>Total</b>	<b>19,951</b>	<b>100 %</b>

*\*The above listed logging systems were used by the Forest Service in calculating the stump-to-truck cost in the appraisal. These logging systems are not required by the contract. However, the contractor is to include logging systems and yarding methods that will meet the end results as part of their technical proposal.*

## **VI. Harvest Designations:**

Cutting Unit boundaries are marked with vertical orange stripes, orange tags and pink flagging. Sample Trees within the units are marked with white paint and red and white flagging during the cruise process.

Units that are identified as Individual Tree Marking/Cut Tree Marking (CTM), as designated on the Contract Area Map, are marked with blue paint bands and stump marks and designated for harvest.

Units that are identified for Uneven Aged Harvest/Designation by Prescription (DxPRE), as designated on the Contract Area Map, are required to meet the diameter by prescription requirements, DxPRE that are designated for harvest Units that are identified as Even Aged Harvest/ Clearcut (CC) are designated on the Contract Area Map.

## VII. Transportation Facilities

### A. Specified Roads

Refer to the Engineering Road package for road specifications. Specified road costs for the Steelhead Subdivision are: \$75,321.51.

Pre and Post Haul maintenance costs have been included in the RV Appraisal. Estimated costs for the Steelhead Subdivision 1 are \$42,845.77.

### B. Temporary Roads

In the *Steelhead Subdivision 1* construction of approximately 3.24 miles of temporary road is included by the Forest Service in the appraisal. Additionally, approximately 0.48 miles of temporary road reconditioning costs have been included in the appraisal. Landings of approximately 500 square feet have been appraised for shovel and small yarder landings, and landings of approximately 1500 square feet have been appraised for large yarder landings. Cost included in the appraisal is \$560,488.75.

*\*Construction of these roads is not required by the contract. However, the contractor is to include any proposed temporary road construction that will meet the end results as part of their technical proposal.*

#### TEMPORARY ROAD ESTIMATES USED FOR APPRAISAL PURPOSES ONLY

Steelhead Subdivision 1		
<i>Unit Number</i>	<i>Length of Proposed Temporary Road</i>	<i>Length of Reconditioned Road</i>
1	0.15	0.00
2	0.08	0.00
4	0.5	0.00
5	0.5	0.00
6	0.39	0.00
8	0.11	0.00
11	0.24	0.00
14	0.00	0.48
15	0.27	0.00
16	0.12	0.00
19	0.13	0.00
20	0.33	0.00
26	0.02	0.00
360	0.40	0.00
<b>Total</b>	<b>3.24</b>	<b>0.48</b>

**C. Marine Access Facility (MAF) – N/A**

**D. Right-of-Way- N/A**

**VIII. Other Land Management Aspects and Special Considerations –** Refer to the Big Thorne Stewardship Summary – All Subdivisions report for information.

**Timing of Operations - -** There are the following special timing requirements included in the contract. Refer to **Special Provision, K-G.3.1.4#** for further information.

<b>Units</b>	<b>Operation Conditions</b>	<b>Purpose</b>
All Steelhead (Subdivision 1) Units	In 2015 up to 151 acres may be harvested;	In order to minimize the effects of harvest on stream flow in the North Big Salt Lake (Steelhead Creek) sub-watershed;
All Steelhead (Subdivision 1) Units	In 2016 up to an additional 226 acres may be harvested;	In order to minimize the effects of harvest on stream flow in the North Big Salt Lake (Steelhead Creek) sub-watershed;
<b>Units</b>	<b>Operation Conditions</b>	<b>Purpose</b>
All Steelhead (Subdivision 1) Units	In 2017 up to an additional 114 acres may be harvested;	In order to minimize the effects of harvest on stream flow in the North Big Salt Lake (Steelhead Creek) sub-watershed;
All Steelhead (Subdivision 1) Units	In 2018 up to an additional 171 acres may be harvested;	In order to minimize the effects of harvest on stream flow in the North Big Salt Lake (Steelhead Creek) sub-watershed;
All Steelhead (Subdivision 1) Units	No harvest limitations after the year 2019;	In order to minimize the effects of harvest on stream flow in the North Big Salt Lake (Steelhead Creek) sub-watershed;

**IX. Summary of Constructed Costs**

**A. Deferred Road Maintenance Deposit:** No deposit will be required for **Steelhead Subdivision 1**.

**B. Surface Rock Replacement Deposits:** No Surface Rock Replacement Deposit is required for the **Steelhead Subdivision 1**.

**C. Stewardship Items**

Item #	Mandatory Stewardship Items - Description
M1	Balls Lake Trail – Renovation of the 2.3 mile Balls Lake Trail; Trail connects to Eagle Nest’s Campground. Project will place step and run boardwalk in the remaining eroding sections of trail (4,250 feet).
M2	Boy Scout Trail – Renovation of a portion of the Boy Scout Lake area, All Terrain Vehicle (ATV) trail.
M3 - 49	Wildlife Habitat Improvement – Pre-commercial thinning of 16’ X16’ Spacing

Item #	Optional Stewardship Items Description
O50- O91	Wildlife Habitat Improvement – Pre-commercial thinning of 14’ X14’ Spacing
O92	Luck Creek Restoration Haul logs, rootwads, and harvest young growth for future instream spacing.

**X. Slash Disposal**

All logging debris shall be removed from road surfaces, cut banks, area ditches, and out of protected streams as directed by the Forest Service.

**X1. UNIT SUMMARIES** – *The information in the following unit summaries was used for Forest Service appraisal purposes only. Offerors are to make their own technical proposals on units.*

Steelhead Subdivision 1								
Unit Number	Appraised Logging Systems and Acres						Appraised Access	
	Total Acres	Appraised Logging System Acres					Access Road Number	Estimated Temporary Road Length
		Shovel Clearcut	Cable Clearcut	RAW 25% Removal	Helicopter 25% Removal	Helicopter 50% Removal		
1	27	27					FS Road 2030000	.15 Miles
2	14	14					State Highway 929	.08 Miles
3	10					10	State Highway 929	N/A
4	41	27	14				FS Road 2030000	.50 Miles

<b>5</b>	22	11	11				FS Road 203110 , FS Road 2030100 and FS Road 2030000	.50 Miles
<b>6</b>	82	54	28				FS Road 2030110 , FS Road 2030100 and FS Road 2030000.	.39 Miles
<b>7</b>	14	14					FS Road 2030120 , FS Road 2030100 and FS Road 2030000	N/A
<b>8</b>	49	16	33				FS Road 2030120 , FS Road 2030100 and FS Road 2030000.	.11 Miles
<b>11</b>	20	17	3				FS Road 2030200 and FS Road 2030000	.24 Miles
<b>12</b>	15	15					FS Road 2030205 and FS Road 2030000	N/A
<b>13</b>	7		7				FS Road 2030000	N/A
<b>14</b>	68	68					FS Road 2030120 , FS Road 2030120 , FS Road 2030100 and FS Road 2030000.	.48 Miles Reconstruction
<b>15</b>	70	38	32				FS Road 2030120 , FS Road 2030100 and FS Road 2030000	.27 Miles
<b>16</b>	16	10	6				FS Road 2030100 and FS Road 2030000	.12 Miles
<b>17</b>	31	10	21				FS Road 2030120 , FS Road 2030100 and FS Road 2030000	N/A
<b>18</b>	21					21	FS Road 2030206 and FS	N/A

							Road 2030000	
<b>19</b>	23	16	7				FS Road 2030121 , FS Road 2030120 , FS Road 2030100 and FS Road 2030000	.13 Miles
<b>20</b>	34	34					FS Road 2030121 , FS Road 2030120 , FS Road 2030100 and FS Road 2030000	.33 Miles
<b>22</b>	22	22					FS Road 2000300	N/A
<b>24</b>	75					75	FS Road 2000400	N/A
<b>25</b>	13		13				FS Road 2000400	N/A
<b>26</b>	29	25	4				FS Road 2000400	.02 Miles
<b>360</b>	25	16	9				FS Road 2000400	.40 Miles
<b>361</b>	19					19	FS Road 2000300	N/A
<b>401</b>	5	5					FS Road 2000440 and FS Road 2000441	N/A
<b>402</b>	7					7	FS Road 2000440 and FS Road 2000441	N/A
<b>403</b>	8	8					FS Road 2000440 and FS Road 2000441	N/A
<b>404</b>	3	3					FS Road 2000440	N/A
<b>405</b>	3					3	FS Road 2000440 and FS Road 2000441	N/A
<b>407</b>	32					32	FS Road 2000440 and FS Road 2000441	N/A
<b>760</b>	13					13	FS Road 2000300	N/A
<b>802</b>	2			2			State Highway 929	Refer to Unit 2
<b>804</b>	3			3			FS Road 2030000	Refer to Unit 4

<b>805</b>	5			5			FS Road 203110 and FS Road 2030000	Refer to Unit 5
<b>806</b>	5			5			FS Road 2030100	Refer to Unit 6
<b>808</b>	6			6			FS Road 2030110 , FS Road 2030100 and FS Road 2030000	Refer to Unit 8
<b>816</b>	4			4			FS Road 2030120 , FS Road 2030100 and FS Road 2030000	Refer to Unit 16
<b>817</b>	3			3			FS Road 2030120 , FS Road 2030100 and FS Road 2030000	N/A
<b>820</b>	1			1			FS Road 2030121	Refer to Unit 20
<b>901</b>	10					10	FS Road 2000440 and FS Road 2000441	N/A
<b>903</b>	10					10	FS Road 2000440 and FS Road 2000441	N/A
<b>907</b>	4					4	FS Road 2030120 and FS Road 20301000	N/A
<b>915</b>	27				27		FS Road 2030120 , FS Road 2030100 and FS Road 2030100	N/A
<b>Totals</b>	<b>898</b>	<b>450</b>	<b>188</b>	<b>29</b>	<b>27</b>	<b>204</b>		

## IX. Quality control Certification

The District Ranger certifies that contract preparation and layout meet the specifications of the environmental document authorizing this project, and that:

- a. Silvicultural treatments, prescribed by a qualified silviculturist, are appropriate to the management objectives of the contract.
- b. Designated trees and harvest units represent proper silvicultural prescriptions.
- c. Considering quality land management objectives, the most economical logging systems were chosen.
- d. Resources other than timber were considered in the layout, and the contract. Adverse effects were avoided by careful layout.
- e. Fire protection, prescriptions, erosion control, and other phases of environmental protection were included in the field layout, and in the contract.
- f. The timber cruise for this contract meets all regional standards and guidelines.

Prepared by: /s/ Katherine J.D. O'Hagan  
Forester

Date: 07/27/2013

Updated by: /s/Nancy Soriano  
Timber Resource Specialist

Date: 08/15/2013

Reviewed by: /s/ Craig Anderson  
Timber Sale Preparation Program Manager

Date: 08/15/2013

Approved by: /s/ Charles Streuli  
Ecology, Fire and Forest  
Management Staff Officer

Date: 08/16/2013