

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

## **North Thorne Subdivision 3**

Contract Report

Thorne Bay Ranger District

08/14/2013

## Table of Contents

	<u>Page</u>
<b>I. Introduction</b>	3
A. Planning History and NEPA Document	3
<b>II. Description of Timber Contract</b>	3
A. Location	3
B. Size of Contract and Cutting Units	3
C. Timber Specifics	3
1. Timber Cruise	3-4
2. Volume and Grade	4
3. Sale Characteristics	4
<b>III. Contract Management Aspects</b>	4
A. Operating Period	4
B. Contract Type	4
C. Appraisal Point	5
D. Appraised Rate	5
E. Performance Bond	5
F. Bid Guarantee	5
G. Mobilization	5
H. Fire Liability Calculations	5
<b>IV. Silvicultural Aspects</b>	5-6
<b>V. Logging Systems</b>	6 - 8
<b>VI. Harvest Designations</b>	7
<b>VII. Transportation Facilities</b>	8
A. Specified Roads	8
B. Temporary Roads	9
C. MAF (Marine Access Facility)	9
D. Right-of-Way	9
<b>VIII. Other Land Management Aspects and Special Conditions</b>	9
<b>IX. Summary of Constructed Costs</b>	9-10
A. Road Maintenance Deposits	10-11
B. Surface Rock Replacement Deposits	11
C. Mandatory / Optional Stewardship Items	11
<b>X. Slash Disposal</b>	11
<b>XI. Unit Summaries</b>	11-15
<b>XII. Quality Control Certification</b>	16
<b>Appendix A: Timber Appraisal (See Attachments)</b>	

## 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- *North Thorne Subdivision 3* is located on Prince of Wales Island within the boundaries of the Thorne Bay Ranger District of the Tongass National Forest. It is approximately 13 air miles northwest of the City of Thorne Bay, Alaska. The USGS quadrangle coverage is [Craig C-2, C-3, D-2, D-3](#). The short legal description of the project area is T69S, R82E, Section 36; T69S, R83E, Sections 28, 29, 30, 31, 32 and 33; T70S, R83E, Section 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35 and 36; T71S, R83E; Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23 and 24; T71S, R84E, Sections 5, 6, 7, 8, 16, 17, 18, 19, 20, 21, 28 and 29; T70S, 82E, Section 1; and T70S, R84E, Sections 29, 30, 31 and 32; Copper River Meridian.

### B. Size of Sale and Cutting Units

The Big Thorne Stewardship contract- *North Thorne Subdivision 3* consists of 44 harvest units totaling approximately 854 acres; 275 acres are identified for Even Aged Harvest/Clearcutting and identified on the Contract Area Map as CC, 3 acres are identified for Individual Tree Marking/Cut Tree Mark and are identified on the Contract Area Map as CTM and 576 acres are identified for Uneven Aged Harvest/Designation by Prescription and are identified on the Contract Map as DXPRES. 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 Cruise Processor. The Net Sawlog combined sampling error for the *North Thorne Subdivision 3* is 11.92 % 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. 13% of the RAW units are in the *North Thorne Subdivision 3*. 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	67.35	455.16	4014.66	4547.47	0.00	0.00	9084.64
Sitka Spruce	218.86	599.27	1959.32	1145.73	0.00	0.00	3923.18
Alaska Cedar	9.85	161.57	626.81	511.49	0.00	109.44	1419.16
Western Red Cedar	0.00	0.00	0.00	0.00	3017.37	0.00	3017.37
<b>Total</b>	<b>296.07</b>	<b>1216.01</b>	<b>6600.79</b>	<b>6204.69</b>	<b>3017.37</b>	<b>109.44</b>	<b>17444.35</b>

*Derived from Cruise Report R003 Log Grade Summary.*

**3. Sale Characteristics**

North Thorne Subdivision 3
<b>Sale Characteristics</b>
32 ft. Logs/MBF Gross = 3.47
Ave. MBF Gross Removed/Acre = 17.81
% Woods Defect (with utility) = 32.02
% Scaling Defect (without utility) = 17.79
Weighted Average DBH = 19.92

*\*Number 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 **North Thorne Subdivision 3** to Klawock is approximately **39** miles one-way.

#### D. Appraised Rates.

The value of the timber removed will be used as payment for the service portion of the contract.

North Thorne Subdivision 3	
Species	Species Volume by %
Western Hemlock Sawlogs	52%
Sitka Spruce Sawlogs	23%
Alaska Yellow Cedar Sawlogs	8%
Western Red Cedar Sawlogs	17%
Utility	
Western Hemlock Utility	58%
Sitka Spruce Utility	42%

**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. Logging Systems**

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

<b>North Thorne Subdivision 3</b>							
<b>Acres by Logging System</b>							
<b>Unit Number</b>	<b>Appraised Logging Systems and Acres</b>						<b>Estimated Sawlog Volume per Unit</b>
	<b>Total Acres</b>	<b>Appraised Logging System Acres</b>					
		<b>Shovel Clearcut</b>	<b>Cable Clearcut</b>	<b>CTM 25% Removal</b>	<b>Helicopter 25% Removal</b>	<b>Helicopter 50% Removal</b>	
<b>62</b>	17	17					409.2
<b>63</b>	7	7					168.49
<b>89</b>	7	7					124.53
<b>90</b>	18					18	320.22
<b>91</b>	19					19	338.01
<b>92</b>	4	4					96.28
<b>93</b>	6					6	106.74
<b>94</b>	13					13	231.27
<b>95</b>	18	7	11				433.27
<b>96</b>	4					4	71.16
<b>98</b>	5	2	3				120.35
<b>100</b>	17					17	302.43
<b>104</b>	54					54	978.46
<b>105</b>	26					26	462.54
<b>106</b>	16					16	284.64
<b>107</b>	11					11	264.78
<b>108</b>	34					34	622.66
<b>109</b>	19					19	338.01

<b>110</b>	3					3	53.37
<b>111</b>	20					20	355.8
<b>112</b>	4					4	71.16
<b>114</b>	30					30	533.7
<b>120</b>	19	19					457.34
<b>121</b>	30		30				722.12
<b>123</b>	15	5	10				361.06
<b>124</b>	7	7					168.49
<b>125</b>	3					3	53.37
<b>126</b>	1					1	17.79
<b>127</b>	82	41	41				1,973.79
<b>129</b>	12	12					288.85
<b>363</b>	103					103	1,832.39
<b>365</b>	15	15					361.06
<b>368</b>	17	17					409.2
<b>369</b>	15	10	5				361.06
<b>395</b>	58					58	1,031.83
<b>444</b>	41					41	729.4
<b>447</b>	5	5					120.35
<b>823</b>	1			1			19.57
<b>895</b>	2			2			46.78
<b>921</b>	24					24	426.96
<b>940</b>	36					36	640.45
<b>968</b>	5					5	88.95
<b>989</b>	5					5	88.95

<b>995</b>	6					6	124.53
<b>Totals</b>	<b>854</b>	<b>175</b>	<b>100</b>	<b>3</b>		<b>576</b>	
<b>Estimated Sawlog Volume 17,011</b>							

<b>North Thorne Subdivision 3</b>		
<b>Volume by Logging System</b>		
<b>Logging System</b>	<b>Sawlog Volume (MBF)</b>	<b>% by Volume</b>
Shovel	4,933	29%
Cable	2,722	16%
Helicopter	9,356	55%
<b>Total</b>	<b>17,011</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 North Thorne Subdivision are \$174,239.95.

Pre and Post Haul maintenance costs have been included in the RV Appraisal. Estimated costs for the North Thorne Subdivision 4 are \$38,035.69.

## B. Temporary Roads

In the *North Thorne Subdivision 3* construction of approximately 3.36 miles of temporary road is included by the Forest Service in the appraisal. Additionally, approximately 0.21 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 \$569,114.03.

*\*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

North Thorne Subdivision 3		
<i>Unit Number</i>	<i>Length of Proposed Temporary Road</i>	<i>Length of Conditioned Road</i>
62	0.24	0.00
63	0.14	0.00
95	0.23	0.00
120	0.11	0.00
121	0.22	0.00
123	0.32	0.00
124	0.07	0.00
127	1.16	0.21
129	0.23	0.00
365	0.08	0.00
368	0.11	0.00
369	0.45	0.00
<b>Total</b>	<b>3.36</b>	<b>0.21</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.

IX. Summary of Constructed Costs

A. **Deferred Road Maintenance Deposit:** Refer to the Big Thorne Stewardship Summary Report.

**B. Surface Rock Replacement Deposits:** Refer to the Big Thorne Stewardship Summary Report.

**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- M49	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.

North Thorne Subdivision 3								
Unit Number	Appraised Logging Systems and Acres						Appraised Access	
	Total Acres	Appraised Logging System Acres					Access Road Number	Temporary Road Length
		Shovel Clearcut	Cable Clearcut	CTM25 % Removal	Helicopter 25% Removal	Helicopter 50% Removal		
62	17	17					FS Road 3015000 and FS Road 3015050	.24 Miles
63	7	7					FS Road 3015000 and FS Road 3015050	.14 Miles
89	7	7					FS Road 3015000, FS Road 3016010 and FS Road 3016000	N/A
90	18					18	FS Road 3016010, FS Road 3016000 and FS Road 3105000	N/A
91	19					19	FS Road 3016010, FS Road 3016000 and FS Road 3105000	N/A
92	4	4					FS Road 3015000, FS Road 3016010 and FS Road 3016000	N/A
93	6					6	FS Road 3016010, FS Road 3016000	N/A

							and FS Road 3105000	
<b>94</b>	13					13	FS Road 3015000	N/A
<b>95</b>	18	7	11				FS Road 3015000	.23 Miles
<b>96</b>	4					4	FS Road 3015000	N/A
<b>98</b>	5	2	3				FS Road 3015000	N/A
<b>100</b>	17					17	FS Road 3015000	N/A
<b>104</b>	54					54	FS Road 3015000	N/A
<b>105</b>	26					26	FS Road 3015000	N/A
<b>106</b>	16					16	FS Road 3015700 and FS Road 3015000	N/A
<b>107</b>	11					11	FS Road 3015700 and FS Road 3015000	N/A
<b>108</b>	34					34	FS Road 3015000	N/A
<b>109</b>	19					19	FS Road 3015000	N/A
<b>110</b>	3					3	FS Road 3015630, FS Road 3015600 and FS Road 3015000	N/A
<b>111</b>	20					20	FS Road 3015600 and FS	N/A

							Road 3015000	
<b>112</b>	4					4	FS Road 3015600 and FS Road 3015000	N/A
<b>114</b>	30					30	FS Road 3015000 and FS Road 3015000	N/A
<b>120</b>	19	19					FS Road 3017000 and FS Road 3017100	.11 Miles
<b>121</b>	30		30				FS Road 3015000, FS Road 3015600 and FS Road 3015635	.22 Miles
<b>123</b>	15	5	10				FS Road 3000120 and FS Road 3000124	.32 Miles
<b>124</b>	7	7					FS Road 3000120	.07 Miles
<b>125</b>	3					3	FS Road 3000120	N/A
<b>126</b>	1					1	FS Road 3000120	N/A
<b>127</b>	82	41	41				FS Road 3000120, FS Road 3000127, FS Road 3018050, FS Road 3018000 and FS Road 3000000	1.16 Miles and 0.21 Miles Reconstruction
<b>129</b>	12	12					FS Road 3000120	.23 Miles

<b>363</b>	103					103	FS Road 3015000	N/A
<b>365</b>	15	15					FS Road 3017000 and FS Road 3017100	.08 Miles
<b>368</b>	17	17					FS Road 3017000 and FS Road 3017200	.11 Miles
<b>369</b>	15	10	5				FS Road 3017000 and FS Road 3017200	.45 Miles
<b>395</b>	58					58	FS Road 3015000	N/A
<b>444</b>	41					41	FS Road 3015000	N/A
<b>447</b>	5	5					FS Road 3015000 and FS Road 3015600	N/A
<b>823</b>	1			1			FS Road 3000120 and FS Road 3000124	Refer to Unit 123
<b>895</b>	2			2			FS Road 3015000	Refer to Unit 95
<b>921</b>	24					24	FS Road 3015635, FS Road 3015600 and FS Road 3015000	N/A
<b>940</b>	36					36	FS Road 3015000	N/A
<b>968</b>	5					5	FS Road 3017200, FS Road 3017000 and FS Road	N/A

							3105000	
<b>989</b>	5					5	FS Road 3016010, FS Road 3016000 and FS Road 3105000	N/A
<b>995</b>	6					6	FS Road 3105000	N/A
<b>Totals</b>	<b>854</b>	<b>175</b>	<b>100</b>	<b>3</b>		<b>576</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: 07/31/2013

Updated by: /s/ Nancy Soriano  
Timber Resource Specialist

Date: 08/14/2013

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

Date: 8/15/2013

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

Date: 8/16/2013