



FOREST SERVICE HANDBOOK ALASKA REGION (R10) JUNEAU, ALASKA

TIMBER APPRAISAL HANDBOOK CHAPTER 10 - RESIDUAL VALUE APPRAISALS

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(For) Regional Forester

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Digest:

10 – Changes sale size for residual value (RV) sales to 500 net MBF. Moves direction for standard rate sales to new chapter 30 (R10 FSH 2409.22_30). Cites handbook reference for minimum utilization standards and formalizes requests for utilization changes. Removes annual review of export policy and removes lump sum appraisal of utility wood. Requires established market for all products being sold.

11 – Adds Appraisal Group and Young Growth Spruce. Clarifies MBF-Log Scale is unit of measure for all 2400-17 items. Clarifies end-product selling values and manufacturing cost center. Removes delivered log value. Combines conventional fell and buck with conventional yard and load. Clarifies camp cost and references R10 logging cost calculator. Simplifies direction on Profit and Risk. Explains two minimum rates for Sitka Spruce.

12 – Provides strategies for deficit sales and no-bid sales

13 – Cites manual reference for delegated authority for Appraisal of Record (AOR) completion and approval. Clarifies AOR items and review process. Requires documented rationale and approval for policy departures. Requires Official AOR for all RV sales to be emailed within 10 days after advertisement to Regional Valuation Staff.

15 – Adds instructions for calculating spruce young growth rebate amount when purchaser elects to domestically process spruce young growth (appraised for export).

16 – Changes source of updates to indices and forecast formulas produced from statistical time-series modeling program.

17 – Removes cost collection, combines scaled sales and footage divisors, and adds appraisal performance reports to Appraisal Program Maintenance.

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10 – RESIDUAL VALUE APPRAISALS (RV)

The Region 10 Residual Value (R10-RV) appraisal spreadsheet is approved for timber sales, contract extensions, and rate redeterminations on the Tongass National Forest. R10-RV values and costs are also incorporated into the NEPA financial analysis spreadsheet tool (FASTR).

All Tongass timber sales greater than or equal to 500 net MBF shall utilize the current R10-RV appraisal and logging cost calculators posted on the public Region 10 timber valuation programs website, <https://www.fs.usda.gov/detail/r10/landmanagement/resourcemanagement>.

Small sales (less than 500 net MBF) that do not justify a detailed RV appraisal may be advertised using standard rates (Forest or Regional). Refer to R10 FSH 2409.22_30 for direction on standard rate sales.

Minimum utilization standards are found in R10 FSH 2409.12_20. The Regional Forester reserves the authority to determine minimum utilization standards for Region 10 timber sales. The Regional Forester has delegated sale-specific utilization changes to Regional Office Forest Management Director. Requests for sale-specific utilization changes shall include justification in letter from Forest Supervisor.

Established market is required for all products being sold from a timber sale or project. For example, if there is no established market for utility (pulpwood) or domestic young growth, then they should not be included as products or values in the sale.

11 – Residual Value Appraisal – 2400-17 Line Item Definitions

Line 1. Appraisal Group. Five appraisal groups: Old Growth Spruce; Young Growth Spruce; Hemlock, Western Red Cedar, Alaska Yellow Cedar.

Line 3. Product- Unit of Measure. MBF Log Scale (MLS) is the unit of measure for all line items listed in 2400-17.

Line 6. End-Product Selling Values (SV). The starting point in RV appraisals is the net selling price of end-products expected to be produced from six log diameter (broad) categories. Region 10 domestic values include residual chips and by-products. The point of sale for all selling values is FOB (Free on Board) or FAS (Free Alongside Ship) Alaska which means the price does not include freight outside of Alaska.

Line 7. Manufacturing Costs. All allowable costs associated with processing logs into the end-product sold to customers. Manufacturing costs must be coordinated with the end-product selling value.

Manufacturing begins when logs arrive at manufacturing facility (domestic or export) and includes unloading, storing, scaling, processing, packaging, facility establishment (including ship moorage system), facility maintenance, loading sawn products for transport, ship tending and moorage, depreciation, and general overhead.

Line 8. Pond Log Value (PLV). Pond log value is the difference between the end-product selling value and manufacturing costs.

Line 9. Conventional Fall, Buck, Yard, & Load. Cost of felling and bucking trees, yarding and loading logs from cable, shovel, and other non-helicopter logging systems.

Line 10. Heli Fall, Buck, Yard, & Load. Cost of felling and bucking trees, yarding and loading logs from helicopter logging systems.

Line 11. All Stump-to-Truck. Sum of all felling, bucking, yarding, and truck loading costs.

Line 12. Haul. Cost of truck-hauling logs from landing to log transfer sortyard or mill.

Line 13. Total Rafting or Barging. Cost of sorting, loading (onto barge), dumping (logs into water for rafts), constructing and storing rafts, and towing from log transfer facility to appraisal point (mill or export port).

Line 14. Pre-Haul Road Maintenance. Engineer's estimate of necessary maintenance costs prior to haul.

Line 15. Post-Haul Road Maintenance. Engineer's estimate of necessary maintenance costs after haul, including surface replacement and normal temporary road closure.

Line 16. Temporary road and other development. Estimate from Temporary Road Costing spreadsheet.

Line 17. Other Logging Costs (including camp). Unusual adjustments and other logging costs including camp or lodging provided by company. Instructions are provided in R10 logging cost calculator.

Line 18. Stump-to-Mill. Sum of all logging and log transporting costs.

Line 19. Specified Road Construction & Development. Engineer's estimate.

Line 20. Specified Road Reconstruction. Engineer's estimate.

Line 21. Stump-to-Mill including roads. Sum of all logging, log transporting, and road costs.

Line 22. Total Production Costs. Sum of all manufacturing, logging, log transporting, and road costs, displayed in \$/MLS.

Line 23. Conversion. End product SV minus total production costs, displayed in \$/MLS.

Line 24. Effective Profit and Risk (P&R) %. The Regional Forester (per FSM 2420.43) has established a "Standard" 15% P&R based on standard profit allowance and risk factors common to SE Alaska timber sales. In addition, sale-specific risk adjustments will be auto-calculated (based on inputs from Appraisal Input Page) in RV appraisal's P&R calculator. The calculated P&R is adjusted to "Effective" P&R to prevent profit on profit calculation.

Line 25. Effective Profit and Risk Margin. The formula for calculating the Effective P&R Margin is $P\&R\% / (1 + P\&R\%)$ times species end-product selling value.

Line 26. Indicated Advertised Rates. Species SV minus total production costs minus effective P&R margin plus timber property value.

Line 27. Indicated Advertised Total. Indicated advertised rate times species volume.

Line 28. Minimum Rates. Minimum rates per species see FSM 2431.31b. Sitka Spruce has two minimum rates (old growth and young growth) due to the significantly higher value of domestic old growth spruce.

Line 29. Minimum Total. Minimum rate times species volume.

Line 30. Essential Regeneration. See FSH 2409.18, section 45.42.

Line 31. Essential Regeneration + NFF. See FSH 2409.18, section 45.42.

Line 32. Timber Property Value. See FSH 2409.18, section 45.42.

Line 33. Increase needed to minimum rates. See FSH 2409.18, section 45.42.

Line 34. Above/below minimum rates. See FSH 2409.18, section 45.42.

Line 35. Total deficit. See FSH 2409.18, section 45.42.

Line 36. Total surplus. See FSH 2409.18, section 45.42.

Line 37. Adjustment to base rates total. See FSH 2409.18, section 45.42.

Line 38. Adjustment to base rates. See FSH 2409.18, section 45.42.

Line 39. Base Rates. The lowest rate at which timber is advertised.

Line 40. Base Rate total. Base rate times species volume.

Line 41. Above/below base rates. See FSH 2409.18, section 45.43.

Line 42. Total Deficit. See FSH 2409.18, section 45.43.

Line 43. Total surplus. See FSH 2409.18, section 45.43.

Line 44. Adjusted surplus. See FSH 2409.18, section 45.43.

Line 45. Adjustment to advertised rates. See FSH 2409.18, section 45.43.

Line 46. Advertised Rates. Appraised fair market value for sale as a whole after adjusting for species deficits and meeting Essential KV, NFF, and minimum rate requirements.

Line 47. Indicated Advertised Total. Advertised rates multiplied by species volumes.

Line 48. Sale deficit amount. The amount that base rate total exceeds indicated total.

12 – Strategies for Deficit Appraisals and No Bid RV Sales

If Indicated Advertised Rates total is less than the Minimum Rates total on the RV Appraisal 2400-17, the sale is considered deficit and cannot be advertised. Follow the checklist sequence in Exhibit 01 for actions to improve sale value above minimum rates and allow for advertisement.

12 - Exhibit 01

1.	Verify the cruise to assure Regional cruising methods and procedures have been implemented correctly, the cruise meets standards, no input errors, and that the volume is accurate.
2.	Verify most current RV spreadsheet and cost calculators are being used.
3.	Check for accuracy of inputs into RV spreadsheet and cost calculators; look for transposed numbers.
4.	Check road cost calculations (temporary, specified, reconstruct, and maintenance) for accuracy.
5.	Where possible, change to a lower cost logging system.
6.	If possible, reduce proportion of uneconomical cutting units by offering them as Timber Subject to Agreement units.
7.	Determine whether specified road development can be accomplished using a Public Works road contract.
8.	Request RO approval for increased hemlock-spruce export above 50% total sale volume.

9.	Reprocess the cruise for 9" DIB utilization standards, rework the appraisal, and request RO approval for change in utilization standards.
10.	Evaluate alternative appraisal points (capable of processing product volumes within contract time period), rework the appraisal, and request RO approval for alternative appraisal points.
11.	Request RO approval for an increased Standard Risk Allowance on No Bid sales
12.	Postpone sale for later date when markets improve or additional NEPA cleared volume is available to produce a positive appraisal.

See FSM 2432.63 for direction on sales that receive no bids or no valid bids. Prior to reappraising and re-advertising, contact local timber purchasers to determine why the sale received no bids and refer to 12 Exhibit 01 for improving salability.

13 – Administrative Procedures

RV appraisals shall follow instructions in R10-RV appraisal spreadsheet, R10 logging cost calculator, and policies and instructions codified in Forest Service manuals and handbooks.

The Appraisal of Record (AOR) shall contain the following items:

1. R10 RV Appraisal.xlsx
2. Cruise of Record Output
3. Cruise of Record.cruise
4. Cruise of Record R009 Log Matrix Output
5. R10 Logging Cost Calculator.xlsx
6. Timber Sale Report
7. Other logging cost and unusual adjustment calculations

The lowest level of delegated authority (delegated officer) is responsible for completing and approving the AOR prior to advertisement. Refer to FSM 2404.28 for instructions on maximum size or value of sales and other disposals by type, region, and officer.

The draft appraisal for all RV sales shall undergo review at the next higher level of delegated authority described in FSM 2404.28. Within a minimum of ten business days prior to advertisement, the draft appraisal with all relevant files shall be transmitted via emailed zip file to primary reviewer and other personnel as determined by delegated officer. Review comments shall be transmitted in writing back to originating office identifying potential errors, volume discrepancies, policy departures, and potential remedies. Policy departures shall be supported

by compelling rationale and documented approval from policy originating office. The delegated officer shall ensure errors and inconsistencies identified during appraisal review are resolved prior to issuing the Official AOR for advertisement.

The Official AOR for all RV sales shall be transmitted via emailed zip file to Regional Valuation Staff within ten business days after advertisement. Regional Valuation Staff shall archive all Official AOR's (consistent with policy and procedures) on Regional Office Forest Management share point site within 30 days after award.

An RV timber sale may be advertised within 30 days of the Official AOR date, even if a new RV Appraisal Update Bulletin is issued by the Regional Office. Otherwise, a new AOR is required on new sales and shelf (no-bid) sales when a new RV Appraisal Update Bulletin is posted on the Region 10 timber valuation program website.

14 – Western Red Cedar (WRC) Calculations for Changes in Appraised Market after Contract Award

1. Criteria for Western Red Cedar Export Permit Application Relating To C(T)4.132#. If price quotes (FOB Alaska selling party mill) are less than Base Year WRC Sawn SV minus Base Year WRC domestic manufacturing cost minus Base Year WRC Sawn effective P&R, then the purchaser may apply for an export permit for sale to the contiguous United States. These values are found in the current RV Appraisal Update Bulletin posted on the Region 10 timber valuation programs website.

2. Western Red Cedar Export Adjustment Rates to A5 Contract Rates. A rate redetermination is required if the timber sale was appraised for WRC domestic processing (within Alaska) and the purchaser requests an export permit (to ship round-logs outside Alaska). The current appraisal process in effect at time of rate redetermination is used to produce a before and after appraisal. For further details on all types of rate redeterminations, see FSH 2409.18, chapter 40, section 46.

3. Western Red Cedar rebate amount per C(T) 4.131#. If WRC was appraised for export and the purchaser elects to domestically process WRC, the rebate amount is Base Year WRC domestic manufacturing cost minus the Base Year WRC export manufacturing cost. These values are found in the current RV Appraisal Update Bulletin posted on the Region 10 timber valuation programs website.

15 – Alaska Yellow Cedar (AYC) and Sitka Spruce Young Growth (SS YG) Calculations for Changes in Appraised Market after Contract Award

1. Alaska Yellow Cedar Rebate Amount per C(T) 4.13#. If AYC was appraised for export and the purchaser elects to domestically process AYC, the rebate amount is Base Year average manufacturing cost minus Base Year AYC export manufacturing cost. These values

are found in the current RV Appraisal Update Bulletin posted on the Region 10 timber valuation programs website.

2. Sitka Spruce Young Growth Rebate Amount per C(T) 4.135#. If SS YG was appraised for export and the purchaser elects to domestically process SS YG, the rebate amount is Base Year average manufacturing cost minus Base Year SS YG export manufacturing cost. These values are found in the current RV Appraisal Update Bulletin posted on the Region 10 timber valuation programs website.

16 – Selling Value and Cost Updates

For decades, Region 10's RV appraisal was updated with purchaser values and costs collected per Contract Provision B(T)6.9 Records and FSH 6509.15. Beginning in 2018, Region 10's RV appraisal will be updated semi-annually with price and cost forecast formulas produced from indices and statistical time-series modeling program.

Update factors for each species end-product selling value (SV) are calculated by dividing the current SV (four-quarter average) by the Base Year SV.

Base Year Selling Values (SV), Base Year manufacturing costs, Base Year logging costs, and Base Year P&R percentages are posted annually in the RV Appraisal Update Bulletin posted on the Region 10 timber valuation programs webpage.

17 – Appraisal System Maintenance

Data from the following sources is needed for appraisal program maintenance:

1. Scaled Sales and Footage Divisors. Scaled sales (R10 FSH 2409.12_41), sale administration footage divisors (R10 FSH 2409.22_240), and logging production studies are essential sources of data for timber valuation program maintenance.
2. Appraisal Performance Reports. Timber Information Management Coordinator shall submit TIM 2400-17's for all sales (including standard rate and Chugach) via email at the end of each Quarter to Regional Valuation Staff for record keeping and appraisal performance reporting.