

Nickelplate Stew Integrated Resources Contract Report

I. Location

The sale area is 1,520 acres in size and is located in sections 9, 11, 14, 15, 16, 21, 22, 23, 28, 29, T.61N., R.5W., Boise Meridian, Bonner County, Idaho. The timber stand atlas compartment numbers are 838, 839, 840, Priest Lake Ranger District, Idaho Panhandle National Forests. Harvest is planned on 826 acres. The sale lies in the Reeder and Kalispell Creek drainages. The sale area is centered in the community of Nordman.

II. Relationship to the Environmental Document and Other Uses

This sale is prepared under the direction of the Lakeview-Reeder Fuels Reduction Project Record of Decision for the Final Supplemental EIS approved by the Forest Supervisor on May 9, 2012. The purpose of the sale is to reduce hazardous forest fuels within the project area to decrease the risk of a wildfire negatively impacting communities, and to restore, enhance, and protect forest ecosystem components to improve forest health and biological diversity. This sale lies in the Bonner County Wildland Urban Interface Fire Mitigation Plan, and was analyzed under the authority of the Healthy Forests Restoration Act (HFRA). Alternative 2 has been chosen as the preferred alternative (proposed action) that best meets the purpose and needs of the project.

Most of the sale lies in Forest Plan Management Area 1 (TIMBR) – To provide for the long-term growth and production of commercially valuable wood products on those lands that are suitable for timber production.

Units 40, 40a, 86, 112, 114, 115, 116, and a portion of 45 lie in Forest Plan Management Area 4 (TMEKW) - Provide winter forage to support existing and projected big game populations through scheduled timber harvest and permanent forage areas.

- A. Private Land/Right-of-Way:** Private land lies adjacent to most cutting units on this sale. Private property boundaries are marked with signs and some blazed trees and are clearly visible on the ground. There are no new right-of-ways needed to log this sale. Fell trees away from private property boundaries and protect survey monuments.
- B. Threatened, Endangered, (T&E) and Sensitive Species:** This contract area lies in the Kalispell –Granite and/or Lakeshore Bear Management Unit (BMU). All timber harvest activities would be restricted to the timeframe when grizzly bears are denning between November 15 and April 1(K-G.2.4#). Bismark Meadows has been buffered during unit layout to provide at least 756 feet of no harvest activities to protect grizzly bears that use the meadows in the spring (units 81, 82, 86), and 656 feet of a no harvest buffer along the west side of unit 83. Vegetative screening along Hwy 57, Reeder Creek county road and Forest Service road 2242 & 2242A has been accomplished through unit layout (buffers) and silvicultural prescription (designations). Post-harvest monitoring of these vegetative screenings will be used to determine effectiveness. If it is determined the screenings are ineffective than gates will be installed to be closed during the spring grizzly bear season, until screening has become effective. Closure

devices will be used to secure the access point of the private spur off road 2242 in NW1/4 Section 11. Boulders placement will occur on roads 2231 & 2516 to block illegal motorized use.

Slash disposal activities in all units, including grapple piling & burning, and road maintenance on restricted roads 2516 and 2231A, will not occur during the spring grizzly period from April 1 to June 30. Any currently undriveable roads open for this sale shall be returned to the pre-haul condition or obliterated, and be kept unavailable to the public during sale implementation. Strict food handling and trash storage will be required by all personnel and contractors during sale implementation, according to the Food Storage Order F-11-002 and outlined in the ROD. Clover will be not be included in erosion control seed mixes.

Any temporary roads to be utilized will be kept unavailable to the public during use and will be obliterated or restored to an undriveable condition upon completion of post harvest activities.

Sensitive plants have been found adjacent to units 45, 75, 86, 110, and 126, that require protection under the contract. They have all been omitted from cutting units. Fell trees away from these plant sites and keep equipment out.

- C. Wetlands/Streamside Habitats:** Protected streamcourses and wet areas have been identified on the sale area map. Units have been laid out with proper INFISH buffers in place and have been painted out of cutting units. Protected streamcourses are adjacent to units 40, 45, 47, 49, 50, 72, 75 and 126. Wet areas have been identified adjacent to units 40, 45, 47, 50, 75, 81, 83, 112, and 139. Equipment is prohibited from protected stream courses and wet areas.
 - D. Special Uses, Mining Claims, Range Allotments:** There are no mining claims or range allotments in the sale area. Several domestic water sources are adjacent to cutting units that require protection. Fell trees away from these sites and keep equipment out.
 - E. Noxious Weeds:** In order to prevent the spread of noxious weeds into the contract area, contractor shall be required to clean off-road logging and construction equipment prior to entry on to the contract area (K-G.3.5.1#). Contractor shall clean equipment again prior to leaving cutting unit 75. In addition, weed-free seed will be used where seeding is necessary for erosion control. Contractor shall treat haul roads with herbicides prehaul and posthaul (K-G.2.7#)
 - F. Cultural Resources and Recreation:** Archaeological sites have been found adjacent to units 50, 72, and 86. They have all been buffered with appropriate unit buffers of no activities to protect these sites. A historic trail runs through unit 72. The contractor shall clean off any debris after logging, restoring the trail to its pre-logging condition, and limit skid trail crossings. In addition, keep slash piles off of the trail (K-G.2.4#). Any skid trails or fuels treatment adjacent to any system trail will require barriers (logs & debris) to prevent shortcuts by OHVs.
- Coordinate with the Bonner County Groomer Advisory Board for any activities that may disrupt the use of groomed snowmobile routes, in order to provide alternate routes if needed.
- G. Wildlife:** Large woody debris shall be retained in all units to meet wildlife objectives. Snags and replacement snags will be maintained by appropriate harvest prescriptions in all units, for wildlife purposes. Slash would be pulled back from veteran or relic ponderosa pine and western larch live trees and snags to protect them from the adverse effects of prescribed burning in unit

72. Leave dead trees >14.0" dbh standing, except for safety reasons. Any of these large diameter snags felled for safety reasons shall remain on the site, for large woody debris and long-term site productivity (K-C.3.0.3#).

If a Flammulated Owl nest, Goshawk nest or Gray Wolf den or site is found in the sale area it will be protected under the contract with adequate buffers and timing restrictions, as outlined in the ROD. Presently there are no known nests. Where units are grapple piled, keep them small (average 6-8 ft diameter), and leave 1 slash pile/acre unburned for small animal habitat.

- H. Soils:** Specific soil and water conservation BMPs for units, roads, and landings are designed to meet or surpass the level of Idaho State Best Management Practices for Watershed Protection. Trees would be limbed, lopped and scattered in the woods. The purpose of the measure is to avoid removing important soil nutrients from the harvested site. Existing skid trails and landings would be used when possible. Harvester trips off of main skid trails will be limited to three passes, preferably on a slash mat. Strive to maintain narrow trails 10 feet wide or less. Harvester/forwarders are limited to slopes of 45% except for short pitches (<200 ft). Logging shall only be allowed when the soil is dry, frozen, or snow packed. Slash piling machines should operate on existing trails, a slash mat, and slopes <35%. (K-G.9#).

A minimum 17 and a maximum 33 tons per acre of woody material at least 6" diameter or greater would be required to be evenly distributed on each acre. If excavated trails are constructed, they would be kept to a minimum and must be obliterated by the contractor following completion of the logging activities. Optimally, the slash, except for landing slash would be allowed to cure for at least six months or over winter, prior to any mechanical disposal activities, to allow enough time for the bulk of nutrients to leach from the foliage into the soil, except in high fire risk areas. To protect soil quality, broadcast burning would be conducted when soil moistures exceed 25%. Grapple piling would be limited to the dry season July 1 to November 1.

All cutting units meet Region 1 soil standards, except units 49, 116, and 138. Skid trails utilized shall be ripped and scarified (implement with ripper teeth every 12 inches) to a depth of approximately 12-20 inches, as a stewardship project in these units. Winter logging is required in Units 40,40a,45,49,81,86,88,110,112, 114, 115, 116, 126 & 138, to protect soils.

- I. Visuals:** In visually sensitive areas adjacent to residences, Reeder Creek County Road, Road 302, and Highway 57 stand treatments have been designed to protect the scenery. Stump heights shall be a maximum of 6" adjacent to Highway 57, Reeder Creek County Road, and residences for a distance of 100-200 feet depending on topography in units 40, 47, 49, 50, 81, 83, 86, 88, 126, 139, and in all of units 40a, 110, 112, 114, 115, 116, 138 (G.4.1.2). Skid/forwarder trails would parallel the travel route where feasible. Landings and slash piles shall be placed to use natural and vegetative screens, and to limit damage to residual trees while burning piles, where possible. Slash piles shall be 8 to 10 feet in height and width, and slash shall not be cut in these visually sensitive areas. Fell trees away from roads and private property. Leave some small trees for visual diversity. Leave scattered small uncut leave islands in areas of unit 50 predominately covered with small diameter trees. A main skid trail will come out of unit 83 at an angle to a landing on the county road to minimize visual affects.

III. Timber Volumes

This sale was cruised in the fall of 2008 and 2009, and finished up in the early spring of 2010 using sample tree, variable plot and fixed plot cruising methods. Most sawlogs were cruised with variable plots using a 20 BAF, except for units 112, 126, 138 where 1/50th acre fixed plots were used to determine sawlog volume. Additional trees were later marked using sample tree cruising with a 1:200 frequencies for all species in units 45, 47, 49, 50, 81, and 83. Non-sawlog volume was determined by taking 1/50th acre fixed plots in all units.

Cutting unit acreage was determined with GPS.

This is a weight scale sale with a designed sale error of 20%. Refer to Nickelplate cruise number 81201, run on 05-07-2012. The INGY 2 point volume equations were used with a 5.6" top diameter for sawtimber and a 4.0" top for non-sawtimber. The sale-as-a-whole error was 10.61% at the 95% confidence level, based on net volume, and can be found in Table DS1. Strata errors < 50% were attained for all strata. Table UC5 was used for volumes. Table R101 was used for appraisal group statistics. Table UC11 was used to determine the number of trees. Non-sawtimber (topwood and small trees) requires mandatory removal in all units. The sale conversion factor is .5286 mbf/ccf. The average weight conversion factor is 3.185 ton/ccf. The following table summarizes sale acreage and estimated timber volumes by species and unit:

Volumes (CCF)

Unit	Acre	AF	C	DF	GF	H	L	LP	S	Sawlog Total	Non- Saw	Sale Total
40	124	46	298	19	312	859	22	611	60	2,227	301	2,528
40a	10	4	0	0	0	0	0	128	0	132	25	157
45	151	50	242	200	250	291	31	558	104	1,726	337	2,063
47	199	0	376	114	386	306	21	664	174	2,041	458	2,499
49	17	0	36	6	22	30	3	57	12	166	39	205
50	73	27	181	14	187	510	14	360	42	1,335	178	1,513
72	76	46	154	304	148	790	58	120	0	1620	209	1,829
75	23	0	73	0	0	54	0	70	15	212	52	264
81	11	0	37	5	2	28	1	34	13	120	25	145
83	16	0	17	3	8	174	6	135	6	349	69	418
86	21	0	16	0	6	224	7	178	0	431	90	521
88	12	5	0	0	0	0	0	153	0	158	29	187
110	5	2	5	5	6	6	0	18	0	42	11	53
112	15	0	0	0	0	0	0	80	0	80	53	133
114	5	2	5	5	6	6	0	18	0	42	11	53
115	3	1	3	3	4	4	0	11	0	26	6	32
116	3	1	3	3	4	4	0	11	0	26	6	32
126	48	0	18	0	0	122	8	29	0	177	127	304
138	5	0	1	0	0	13	1	3	0	18	13	31
139	9	3	8	9	12	12	0	33	0	77	19	96
Total	826	187	1,473	690	1,353	3,433	172	3,271	426	11,005	2,058	13,063
MBF		92	631	372	740	1,681	93	1,731	218	5,558	1,347	6,905
Tons		499	3,401	2,278	4,556	12,276	588	10,257	1,221	35,076	6,523	41,599

IV. Marking Plan

- A. **Unit Boundaries:** All cutting unit boundaries have been marked on three sides of cutting unit boundary trees with streaks of orange paint extending from near ground level to a height of 6 feet or more and orange stump marks. The middle streak faces the cutting unit. Where a cutting unit is adjacent to a system road, the road is the boundary and no paint was used. Portions of units 40a, 81, 83, 110, 112, 114, 115, 116, and 138 boundaries seen from the Hwy 57 corridor and adjacent to county roads and residences (within about 100 feet) have been marked with pink flashers and orange stump marks, for visual concerns.
- B. **Prescriptions:** Units 40, 50, 72, 75, 83, 86 and 139 are Shelterwood Cuts with Reserve Trees. Unit 81 is a Seed Tree Cut with Reserves. Units 40a, 88, 110, 112, 114, 115, 116, 126 and 138 are Commercial Thinnings. Units 45, 47 and 49 are Improvement Cuts.

C. **Designations:** All units are Species Designation as follows:

Unit	Species Designation (SD)
40	Cut all GF, LP and AF meeting utilization standards. Cut all L, S, C and PP <12" dbh (S and PP <14" & C and L <16" stump dia) meeting utilization standards. Cut all DF and H <16" dbh (DF and H <19" stump dia) meeting utilization standards.
45	Cut all LP, GF, AF and DF meeting utilization standards. In addition cut all trees marked with blue paint.
47	Cut all LP and AF meeting utilization standards. Cut all C, PP, H, GF, S, DF and L <10" dbh (PP, H, GF, S and DF <12" & C and L < 14" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint.
49	Cut all LP and AF meeting utilization standards. Cut all C, H, GF, S, DF and L <10" dbh (H, GF, S and DF <12" & C and L < 14" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint.
50	Cut all LP, AF, H and GF meeting utilization standards. Cut all DF <16" dbh (DF <19" stump dia) meeting utilization standards. Cut all S and C <14" dbh (S <16" & C <18" stump dia) meeting utilization standards. Cut all trees marked with blue paint.
72	Cut all LP, AF, DF, GF and H meeting utilization standards. Cut all C and L <12" dbh (C and L <16" stump dia) meeting utilization standards.
75	Cut all DF, H, S, AF, LP, and GF meeting utilization standards. Cut all C <18" dbh (C <24" stump dia) meeting utilization standards.
81 and 83	Cut all LP meeting utilization standards. Cut all H, GF and C <12" dbh (H and GF <14" & C <16" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint. In unit 81 leave trees marked with orange paint.
86	Cut all LP, AF and GF meeting utilization standards. Cut all DF, L and C <12" dbh (DF <14" & L and C <16" stump dia) meeting utilization standards. Cut all H <14" dbh (H <16" stump dia) meeting utilization standards.
88, 40a	Cut all LP and AF meeting utilization standards.
110	Cut all AF meeting utilization standards. Cut all H <8" dbh (H <9" stump dia) meeting utilization standards. Cut all LP <7" dbh (LP <8" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint.
112	Cut all LP <8" dbh (LP <9" stump dia) meeting utilization standards.
114	Cut all LP and AF meeting utilization standards. Cut all H and C <9" dbh (H <11" & C <12" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint.
115	Cut all LP, GF and AF meeting utilization standards. Cut all H and C <9" dbh (H <11" & C <12" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint.
116	Cut all AF and LP meeting utilization standards. Cut all H <12" dbh (H <14" stump dia) meeting utilization standards. In addition cut all trees marked with blue paint.
126	Cut all LP, AF, H, C, GF, DF, L, S, and PP <9" dbh (LP, AF, H, GF, DF, S, and PP <11" & C and L <12" stump dia) meeting utilization standards. Leave trees marked with orange paint.
138	Cut all LP and AF meeting utilization standards. Cut all DF, GF and H <10" dbh (DF, GF and H <12" stump dia) meeting utilization standards.
139	Cut all LP, AF, GF and S meeting utilization standards. Cut all H <14" dbh (H <16" stump dia) and cut all C <12" dbh (C <16" stump dia) meeting utilization standards.

V. Logging Plan

A. **General:** See attached for more details.

Log Forwarding is required in all units.

Winter logging conditions are required in units 40, 40a, 45, 49, 81, 86, 88, 110, 112, 114, 115, 116, 126, and 138, to protect soils (K-G.4#). Winter logging conditions shall include one of the following:

- 0 inches of frozen soil with 10 inches of machine-packed snow
- 2 inches of frozen soil with 6 inches of machine-packed snow
- 24-inches of unsettled snow or 18 inches of settled snow
- 4 inches of frozen soil - no snow cover necessary.

Timber harvest activities including felling, skidding and hauling within all units are only allowed from November 16 to March 31, to protect grizzly bears (K-G.2.4#). Unless the soil is dry during the operating season, the above winter conditions shall be met for these units.

Protect all sensitive plants, archaeological sites, wet areas, streamcourses, survey monuments, utilities, existing plantations, other private improvements, gates, county roads and the highway. Keep roads open that access private residences. See sale area map for locations and provisions.

An allowance will be made for the unusual condition of needing flaggers all day when working adjacent to the highway.

B. Sawtimber Characteristics:

	Log Forwarder
Net Volume (CCF)	11,005
Net Cut Vol/Ac (CCF)	13
Total Acres	826
Total Trees	78,909
Percentage by Volume	100%
Ave. External Yard Distance	1,850 ft
Mean DBH	10 in
Mean Height	69 ft

VI. Transportation System

A. Average haul route to sale center:

Road Name	Road Number	Mileage
Nickelplate A	2242A	1.04
Nickelplate	2242	1.26
Reeder Creek Rd	County Rd	0.75
Highway 57	State Hwy	37.00
Total		40.05

VII. Erosion Control

A. General: Application shall be during the period May 1 to June 15, and/or September 1 to September 30. Seed shall be applied evenly at the rate of 18 pounds per acre (dry site mix) and 200 pounds of fertilizer (16N-16P-16K or 10N-16P-10K) per acre (K-G.6.0.1#). Erosion control measures should be done by the end of the normal operating season to prepare for overwintering. Landings (9 ac), temporary road (1 ac), and skid trails (10 ac) shall be seeded, fertilized, and if needed waterbarred.

B. IPNF Standard Moist Site Seed Mix - appropriate for roadside application on low to middle elevation sites that have moderate moisture.

SPECIES	PLS LBS/AC
Slender wheatgrass "Pryor" or "Revenue" (<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>)	3.0
Sheep fescue "Durar" (<i>Festuca ovina</i>)	5.0
Mountain brome "Bromar" (<i>Bromus marginatus</i>)	5.0
Annual rye (<i>Lolium multiflorum</i>)	4.0
Streambank wheatgrass "Sodar"	1.0
TOTAL	18.0

Acceptable substitutes:

Blue wildrye "Arlington" or "Elkton" (*Elymus glaucus*) @ 3 PLS LBS/AC for slender wheatgrass.

Use of Alsike clover has been removed since it would conflict with other resource values (e.g. grizzly bear habitat).

C. Costs:

Seed: 18 lbs/ac x 20 acres x \$1.67/lb = \$ 601
 Fertilizer: 200 lbs/ac x 20 acres = 4,000 lbs x \$.37/lb = \$1,480
 Labor: 20 ac x 1/3 man-day/ac x \$ 218/man-day = \$1,453
 Transportation: 83 mi/trip x \$.50 /mile x 3 trips = \$ 125
 Total Erosion control needs = \$3,659
 Cost/CCF = \$.33/CCF

VIII. Sale Area Improvement

A. Reforestation Base rates KV: Unit 72 will be slashed to facilitate the burning, and underburned to prepare the unit for planting.

B. Reforestation KV Unfunded: Planting is planned for units 40, 50, 72, 75, 81, 83, 86, and 139. Although, these stands will regenerate well after cutting, control of species composition is critical in order to meet the desired stands conditions. This would require the planting of WL and WP due to the lack of an adequate or reliable seed source for either and an over-abundant seed source for undesirable, highly competitive shade tolerant species.

IX. Hazard Reduction and Site Preparation

A. Contractor requirements:

Limb, lop sawlogs in all units, and buck into 12 ft lengths in all units to facilitate grapple piling, except unit 72 which will be underburned.

Fell Damaged Residual trees in cutting units 40A, 88, 110, 112, 114, 115, 116, and 138.

Pile all landing slash.

B. Forest Service requirements:

Units 50 and 81 will require spot slashing, handpiling & pile burning by the Forest Service in visually sensitive areas along the county road.

Burn all grapple piles. Leave approximately 1 piles per acre unburned for wildlife habitat.

Burn all landing slash.

Note: Natural fuels in cutting units 40a, 45, 81, 47, 110, 112, 114, and 115, (CT/IC) will be treated with WFHF funding. Spot slash, spot hand or grapple pile, and burn piles in portions of these units.

C. Stewardship Projects: Much of the slash treatment of activity fuels will be accomplished as stewardship projects under K-G.9#. Slash piling equipment shall stay on existing skid trails, operate on slash mats where possible, and stay on slopes less than 45%.

Treat slash by Grapple Piling in most units in the next summer season following harvest. In areas where appropriate, let slash overwinter to allow nutrients to leach into soils. Units 49, 116, and 138 will include skid trail decompaction.

Slashing the advanced regeneration will facilitate the fuels grapple piling and site prep for planting.

Fireline Construction on unit 72 perimeters to facilitate burning. Unit perimeters requiring fireline construction are identified on the Stewardship Projects Map. Waterbar firelines as needed to minimize the potential for erosion.

Item Number	Mandatory Items Work Activity Description
1	Grapple Piling and Skid Trail Decompaction units 49, 116, and 138.
2a	Grapple Piling units 40, 45, 47, 75, 83, 86, and 139.
3	Fireline Construction by excavator in unit 72.
4a	Slashing units 40, 45, 47, 49, 75, 83, 86, and 139.
5	Boulder Placement for road closure devices.

Item Number	Optional Items Work Activity Description
2b	Grapple Piling units 50 and 126.
4b	Slashing units 50 and 126.

X. Other Provisions

A. Period of contract:

1. Normal operating season:

- November 16 to March 31 for all logging.
- July 1 thru October 31 for all road & slash work.

2. Termination date: December 31, 2017.

3. Road Completion Date: October 31, 2013.

B. Purchaser fire liability:

Total number of personnel/crew	12
Number of hours/day	12
Total hours/crew day	144
Hourly rate AD-C firefighter	\$17.40
Average daily cost	2,506
Average fire length	5 days
Purchaser obligation for fire operation	12,528
Rounded up to the nearest \$100	12,600

XI. Sale Objective Code

Purpose	Activity	Percentage
FS -- Forest Stewardship Purpose	10 -- Forest and Ecosystem Health	100

Logging Plan

A. General:

Log Forwarding is required in all units.

Winter logging conditions are required in units 40, 40a, 45, 49, 81, 86, 88, 110, 112, 114, 115, 116, 126, and 138. Winter logging conditions include:

- 0 inches of frozen soil with 10 inches of machine-packed snow (24-inches of unsettled snow or 18 inches of settled snow)
- 2 inches of frozen soil with 6 inches of machine-packed snow (24-inches of unsettled snow or 18 inches of settled snow)
- 4 inches of frozen soil no snow cover necessary.

All units are within designated grizzly bear recovery areas. Timber harvest activities including felling, skidding and hauling within these units are restricted to November 30 to April 1.

B. Detailed Logging Plan for Specific Units:

Units 40A, 110, 112, 114, 115 and 116 are adjacent to Highway 57. These units were designed to have the skidding direction parallel to the highway. Volume in unit 40A was designed to be skidded to the road and decked at the old gravel pit. Volume in both sections of unit 110 was designed to be skidded to Road 238. Volume in sections of unit 112 on the west side of Highway 57 was designed to be skidded to the Reeder Creek road. Volume in sections of unit 112 on the east side of Highway 57 was designed to be skidded to the designated snowmobile route. The small units, 114, 115 and 116, require directional felling and have limited landing locations. These units were designed to have volume either decked near the road and removed by a self-loader or transported by a forwarder without chains to a larger landing location.

In unit 40, volume was designed to be skidded to the old gravel pit using old skid roads.

Volume in units 45, 47, 50 and 81 must be skidded to designated landing locations. A 50 foot vegetative buffer must be maintained along specific locations along the 2242 Road and the Reeder Creek Road.

Volume in the lower 2/3 of unit 72 was designed to be skidded to a designated landing location on Road 2231 using a designated jump-up trail into the unit. This trail will need to be constructed and may require some excavation. Volume in the upper 1/3 of the unit has the option of being skidded to Road 2516.

Volume in unit 83 must be skidded from the unit using one designated skid trail to a landing along the Reeder Creek Road.

Volume in the east side of unit 86 was designed to be skidded to the snowmobile trail. Volume in the west side of unit 86 was designed to be skidded to the entrance road of the Reeder Creek road.

In unit 88, the volume was designed to be skidded either through unit 45 or to the snowmobile trail at the southwest corner common with unit 45 to a landing location on Road 2242.

Volume in unit 126 was designed to be skidded to Road 1351 and cannot be skidded to Road 308.

Unit 139 is a bench that was designed to be accessed from designated skid trails on the north and south ends of the unit. Volume in the unit was designed to be skidded on these designated trails and through unit 138 to a designated landing on Road 308.