



File Code: 1950
Date: 12/23/2008

Dear Sir or Madam,

I would like to invite your comments regarding the enclosed Proposed Action for the Big Blue Project on the McKenzie River Ranger District of the Willamette National Forest. This proposal includes activities for timber harvesting, road maintenance, road closure, and road decommissioning. This proposed action will be analyzed and considered in an Environmental Assessment (EA) and is designed to meet Forest Plan objectives, standards, and guidelines.

Input for this project would be most useful if it is received by January 28, 2009. Your comments on the proposed actions will be considered and will help in identifying issues and developing alternatives.

Information

To focus your comments on this Proposed Action, please consider the following questions:

1. Are there alternative ways to meet the purpose of the project other than the proposed action we offer, which you would like the Forest Service to consider and analyze?
2. Is there any information about the project area, which you believe is important in the context of the proposed activities, which the Forest Service might have overlooked?
3. For you or the group you represent, what are the potential effects of this proposal that you are particularly concerned about?

The interdisciplinary team for the project will analyze the effects of project activities on forest and stand structure, soils, water quality, aquatic resources, federally listed threatened and endangered species, sensitive species, management indicator species, fire and fuels, air quality, invasive plants, roads and access, recreation, scenic quality, economics, and heritage resources.



Please include the following information with your comments: name, address, telephone number, title of the document or project on which the comment is being submitted.

Comments would be most helpful if received by January 28, 2009, so they can be considered in the planning process. Please send any comments to Kevin Bruce (Project Team Leader). He may be reached by mail at the McKenzie River Ranger District, 57600 McKenzie Hwy, McKenzie Bridge, OR 97413; by phone at (541) 822-7260; or by e-mail at kbruce@fs.fed.us.

Later in the process, those that respond to this letter or request a copy of the EA will have an opportunity to comment on the EA. If you have any questions regarding this project, please contact the Project Team Leader.

Sincerely,

A handwritten signature in cursive script that reads "Mary Allison". The signature is written in dark ink and is positioned above a horizontal line.

Mary Allison
McKenzie River District Ranger
Willamette National Forest

Enclosures (1)

**Proposed Action for the Big Blue Project
McKenzie River Ranger District
Willamette National Forest**

BACKGROUND

The project would commercially harvest approximately 1,450 acres of 35-80 year-old managed stands/plantations, maintain 70 miles of road, decommission 1 mile of road, and restore 4.4 miles of road. The project area is represented by the Upper Blue River subwatershed, which is approximately 29,500 acres. This action will be analyzed and considered in an Environmental Assessment (EA) and designed to meet Forest Plan Objectives and Standards & Guidelines.

The project area is located approximately 4 miles northeast of the Blue River community and is almost entirely comprised of Forest Service land (Figure 1). The Forest Service ownership within the project area is roughly 28,500 acres, about 97% of the area, while private lands total to approximately 1,000 acres.

MANAGEMENT DIRECTION & GUIDANCE

There are four existing planning documents that direct and/or guide the project:

Direction and Guidance

- Willamette National Forest Land and Resource Management Plan (**LRMP**) -1990
- Northwest Forest Plan (**NWFP**) -1994

Guidance

- Blue River Watershed Analysis - 1996
- The Blue River Landscape Strategy (**BRLS**) - 1997, 2001, 2002, 2008

Table 1 displays the LRMP Management Area acres as designated and amended in the NWFP. The NWFP supersedes any direction in the LRMP, unless the LRMP management area and or standards and guidelines are more restrictive.

Table 1. Management Areas within Proposed Action Units.

Willamette LRMP Management Areas	Acres
5A - Special Interest Areas	70
9D - Special Habitat Area	33
11C - Scenic Partial Retention Middleground	12
11D - Scenic Partial Retention Foreground	406
14 - General Forest	929
Total Acres	1,450
Overlying Northwest Forest Plan Management Area	Acres
17 - Adaptive Management	1,450

The table also presents the landscape management categories from the BRLS for proposed action units. The overlying land allocation from the NWFP, within the proposed units and project area, is entirely

Adaptive Management Area (AMA). To be specific, the project area is part of the Central Cascades Adaptive Management Area (NWFP, USDA USDI 1994, 2001).

Objectives for the Central Cascades Adaptive Management Area are listed in the NWFP (pages D12-13):

1. "Intensive research on ecosystem and landscape processes and its application to forest management in experiments and demonstrations at the stand and watershed level,
2. approaches for integrating forest and stream management objectives and implications of natural disturbance regimes, and
3. management of young and mature stands to accelerate development of late-successional conditions."

The Blue River Landscape Strategy (BRLS, USDA 1997, 2001, 2002, 2008) is a formally approved Administrative Study that was developed to respond to direction contained within the NWFP for the Central Cascades Adaptive Management Area. The Strategy consists of a recommended landscape management and watershed restoration plan; an administrative study designed to measure effects on the ground; and a series of analyses of landscape effects over time. The BRLS has been used to guide project-level implementation and monitoring efforts in the watershed since 1997 (see the following link for more information on the BRLS - http://www.reo.gov/ecoshare/ccamp/blue_river/strategy/brls-strat-v2-addendum-a.pdf).

The BRLS proposes to “restore” the pattern of the landscape over a period of many decades while meeting the objectives of the NWFP, including 1) providing timber products; 2) sustaining native habitats, species, and ecological processes; and 3) meeting Aquatic Conservation Objectives.

Revisions to the BRLS have occurred as new information becomes available and more experience is gained through implementing this management approach. This is the foundation of an “adaptive management” approach. Numerous monitoring activities are underway as part of the study. The most recent update to the BRLS was incorporated as an addendum in 2008.

The BRLS , including the 2008 Addendum A, can be found at the following website:

http://www.reo.gov/ecoshare/ccamp/blue_river.shtml

PURPOSE & NEED

The purpose of the Big Blue Project is to: **1)** Improve stand conditions in terms of species composition, density, and structure within the project area; **2)** Close or decommission roads not required for current and/or future management; **3)** Restore deteriorating roads that are required for current and future management; **4)** Provide a supply of wood products to the public.

Meeting the defined project purpose will address specific needs in the project area. Needs identified by the district IDT are described below in terms of the existing condition and the desired condition for the project area.

1. Improvement of stand conditions in terms of species composition, density, and structure to address the following needs →

A. Increase the resiliency of stands.

- **Existing Condition:** A number of stands in the Big Blue Project Area are dense young forests under 80 years old. Dense young forests are generally more stressed, increasing their susceptibility to insect and disease outbreaks and forest fires of high severity that may remove resources of value.
- **Desired Condition:** Fewer dense stands which are less susceptible to insect and disease outbreaks and high severity forest fires.

B. Increase the potential for stands to function as late successional forest habitat.

- **Existing Condition:** Canopies in many stands within the Big Blue Project Area are generally closed, resulting in decreased annual growth as competition increases and crowns are receding. These stands do not currently provide late successional forest habitat, and will be slow to attain features important for high quality habitat in the future.
- **Desired Condition:** More stands within this landscape with increased canopy structural diversity, which will result in increased tree growth, greater diversity in understory species, and faster development of late successional forest characteristics of value to species like the northern spotted owl.

C. Increase the amount of early seral forest habitat.

- **Existing Condition:** A reduction in stand-replacing fires on this landscape over the past 80 years, coupled with in-growth of openings created from historic timber harvesting has resulted in a lack of high quality early seral forest on this landscape. The project area contains four different elk emphasis areas, three of which are managed as moderate quality and one of which is managed as low quality. Two of these (Cook and Blue River) do not currently meet the LRMP Standards and Guidelines for elk forage values (FW-151). Although the other two elk emphasis areas (Tidbits and Quentin) currently do meet the required values for elk forage, these are minimum requirements.
- **Desired Condition:** Increase the availability of early seral forest with components that benefit elk and other wildlife species that benefit from this type of habitat. These components include live and dead overstory trees, down woody material, and a diversity of shrub and forb species.

D. Restore riparian function in stands in corridor and headwater aquatic reserves and to develop additional large wood to stream reaches that currently lack adequate amounts.

- **Existing Condition:** Extensive clearcut harvest pre-dating the Willamette Forest Plan frequently extended into riparian habitat adjacent to streams within the project area. Resulting plantations within

these riparian areas consist of dense, overstocked stands of small diameter trees with little stand structural diversity, and almost no large trees that can provide coarse wood to the streams. In addition, the conifer dominated overstory in these plantations has shaded out much of the hardwoods, reducing an important nutrient component of the aquatic ecosystem.

- **Desired Condition:** Riparian stands that provide accelerated development of 1) late successional connectivity, 2) large diameter trees as large wood sources in aquatic corridor reserves, 3) more complex habitat structures representative of those that would result from natural disturbance patterns, 4) accelerated contribution of large wood to streams.

2. Close or decommission roads not required for current and/or future management to address the following need →

A. *Reduce resource impacts caused by degrading roads not needed for future and/or current resource management.*

- **Existing Condition:** Portions of the road system within the project area are showing signs of deterioration due to hill slope processes, fill failure, improper drainage design, and inadequate maintenance. These degraded roads have the potential to adversely impact surrounding natural resources, especially water quality, where failure could result in excessive sediment delivery to streams.
- **Desired Condition:** The removal or storage and rehabilitation of degraded Forest Service system roads that are not required for current or future management; thereby, reducing or eliminating existing or potential impacts to natural resources. Deteriorated road segments that will be needed for future management will be stabilized to a self maintaining condition and stored until needed.

3. Restore deteriorating roads that are required for current and future management to address the following need →

A. *Decrease maintenance cost, improve safety, and reduce potential for resource damage related to degraded roads that will be needed for current and future resource management.*

- **Existing Condition:** Portions of the road system within the project area are showing signs of deterioration due to hill slope processes, fill failure, improper drainage design, and inadequate maintenance. These degraded roads have the potential to adversely impact surrounding natural resources, especially water quality, where failure could result in excessive sediment delivery to streams. They may also be potentially hazardous to traffic, where deterioration has resulted in narrowed roadways and degraded surfacing.
- **Desired Condition:** Deteriorated road segments that are currently needed for management will be restored through maintenance or reconstruction to permit safe use and eliminate the potential for damage to resources. Where possible, restoration treatments will result in roadway conditions that will require less maintenance cost over time.

4. Provide a supply of wood products to the public to address the following need →

A. Provide Product to the Local and Regional Economy.

- **Existing Condition:** The stands within the project area are high site forestland located in an Adaptive Management Area as designated in the 1990 Willamette Forest Land and Resource Management Plan (Forest Plan) as amended. The Forest Plan shows a need to provide multiple-use benefits which include a goal to meet timber outputs at IV-227 and sets forth Standards and Guidelines for harvest scheduling at FS 176 and 177. The Northwest Forest Plan Final Environmental Impact Analysis (USDA Forest Service and USDI Bureau of Land Management, 1994) amended the Forest Plan and recognized “the need for a sustainable supply of timber and other forest products that will help maintain the stability of local and regional economies on a predictable and long-term basis” (p. 1-4).
- **Desired Condition:** Provide a supply of forest products in a cost effective manner.

PROPOSED ACTION

The McKenzie River Ranger District proposes commercially thinning and group selection harvest for 35- to 80-year-old timber stands in the Upper Blue River sub-watershed. The timber sales are planned to be sold over a period of about 3 to 5 years starting in 2010. Location maps for the proposed action are attached (Figures 2-4), as well as table detailing activities proposed for each unit (Table 3).

This proposed action would conduct a variety of resource management activities directly addressing the purpose and need as identified in Table 2. Description of the proposed silvicultural prescriptions is presented in the following section to clearly identify the actions and expected results associated with each prescription.

The following activities are proposed to help achieve the purpose and need within the project area:

Table 2. Big Blue Project Proposed Actions.

Proposed Activity	Unit of Measure	Proposed Action	Purpose-Need Addressed
Harvest ⁽¹⁾			
Low-Severity Fire Effect Thinning (LFE)	Acres	1,278	1-A, 1-B, 1-C, 1-D,4-A
Group Select	Acres	115	1-C, 4-A
Dominant Tree Release	Acres	57	1-A, 1-B, 4-A
Total Amount of Harvest	Acres	1,450	4-A
Estimated Volume	MMBF	17.9	4-A
Logging Systems			
Ground	Acres	142	=====
Skyline	Acres	1,105	=====
Helicopter	Acres	203	=====

Table 2. Big Blue Project Proposed Actions.

Proposed Activity	Unit of Measure	Proposed Action	Purpose-Need Addressed
Fuels ⁽²⁾			
Hand Pile-Pile Burn or Underburn	Acres	76 or 308	1-A
Grapple Pile-Pile Burn or Underburn	Acres	42	1-A
Hand Pile-Pile Burn or Jackpot Burn	Acres	234 or 1,007	1-A
Grapple Pile-Pile Burn or Jackpot Burn	Acres	93	1-A
Transportation System ⁽³⁾			
Temp Roads	Miles	2.8	
Roads Rehabilitated and Stored after Harvest	Miles	4.4	2-A
Road Decommissioning	Miles	1.0	2-A
Road Maintenance/Haul Route	Miles	70	3-A

⁽¹⁾: Harvest treatments are described in the following “Proposed Silvicultural Prescriptions” section.

⁽²⁾: Each fuels prescription is identified with two potential treatments. Hand Pile and Burning acres are based on a 100’ treatment buffer along permanent roads in harvest units. The potential effect of all treatments will be analyzed in the Environmental Assessment.

⁽³⁾: *Temporary roads* will be removed after harvest is completed. *Roads stored after harvest* will receive needed maintenance and restoration work, and then be closed after harvest is completed. *Road decommissioning* will remove roads from current and future use. *Road maintenance* will insure that standards for safety and haul suitability are met.

DESCRIPTION OF THE PROPOSED SILVICULTURE PRESCRIPTIONS

Silvicultural treatments prescribed for the selected units include Low-Severity Fire Effect (LFE) thinning, group selects (GS), and dominant tree release (DTR). LFE is based on Alan Tepley’s *Non-Stand-Replacing Fire in the Blue River Area* attachment which is part of the *Blue River Landscape Strategy, Version #2 Addendum A*¹, Appendix 7, Attachment #1 which was updated April 25, 2008.

Low-Severity Fire Effect (LFE) Thinning

The LFE thinning prescription is an effort to utilize sideboards established in the 2008 update to the Blue River Landscape Strategy, while maintaining feasibility of the project. This prescription would thin stands to maintain a 30-45% canopy closure. Trees removed would primarily be the smaller diameter Douglas fir trees in the stands.

The goal is to increase overall growth and vigor of the remaining trees and reduce the future mortality and susceptibility to insects, disease, fire, and wind, which meets the identified needs of *increasing the resiliency of stands and the potential for stands to function as late successional forest habitat*.

Emphasis would be on maintaining non-Douglas fir species. This prescription would maintain or increase vegetative diversity by opening the canopy to allow for in-growth of seedlings and development of some understory shrubs. Large wood on the forest floor would be maintained or increased. Snags would be maintained on site if not a hazard to logging operations, and/or increased through snag creation techniques. Thinning the younger stands would also increase individual tree stability making them more resistant to wind-throw as they mature.

Establishment of a second cohort is promoted by allowing additional light hit the forest floor. Both shade-tolerant and intolerant species will establish, however shade-tolerant species should maintain their growth longer as the crown of the overstory closes in and shades the new cohort which should take 10-20 years as the crowns closure increases 2% per year. This second cohort will add horizontal and species diversity.

Group Select

This prescription will address the need to *increase early seral forest habitat* by providing more diversity and forage through gap creation in stands. Group selects will be randomly placed openings within stands that range in size from 1-3 acres. A diversity of gap sizes will be included within stands to emulate natural openings caused by intermediate fire. When a root rot pocket is identified, the Group Select will be a buffer of 50 foot outside the root rot pocket. All but the four largest trees per acre would be removed in these gaps. Within the stand, a LFE thin prescription will be applied to the area outside the group select. Large downed wood on the forest floor would be maintained or increased. Snags would be maintained on site, if not a hazard to logging operations.

Dominant Tree Release (DTR)

This prescription will provide for growth of dominant trees to promote larger trees scattered throughout the stands, meeting the purpose of *improving of stand conditions in terms of species composition, density, and structure*. The radius around the dominant tree will be one chain (66 foot) from the bole of the dominant tree to nearest bole of another tree, with the exception of Sugar Pine, White Pine, and Western Red Cedar which will not be cut. The one chain radius will result in an approximately ¼ acre hole in the canopy. DTR trees will be randomly placed throughout stands including riparian areas when the objective within the riparian area includes treatment. Trees selected for DTR will be the largest tree that best represents site potential in a given area. When all trees in an area are homogeneous, Sugar Pine, White Pine, or Western Red Cedar, if present, will be the tree selected; otherwise a tree representative of the area will be selected. The canopy closure of the stand will be adjusted based on the ¼ acre DTR having a canopy closure of 4% (estimated average canopy of 25 foot diameter for the selected DTR tree). Large downed wood on the forest floor would be maintained or increased. Snags would be maintained on site if not a hazard to logging operations.

Sugar Pine Release (SPR)

Within all units, an SPR prescription will be used in an effort to help promote Sugar Pine regeneration, addressing part of the purpose of *improving of stand conditions in terms of species composition*. All trees within a radius of one chain from the bole of the Sugar Pine are to be cut and removed, with the exception of legacy trees (>200 years old). The one chain radius will result in an approximately ¼ acre hole in the canopy. When the treatments for a unit include DTR, the SPR will substitute for the DTR. SPR will be applied to Sugar Pine that are 24” and larger. This prescription will provide for growth of dominant trees to promote larger trees scattered throughout the stands, meeting the purpose of improving of stand conditions in terms of species composition, density, and structure.

Planting

Planting in Group Select will be used as necessary to add under represented species into the stands, meeting part of the purpose to *improve stand conditions in terms of species composition*. Sugar Pine, White Pine, and Western Red Cedar will be planted at a 15’ x 15’ spacing (194 Trees per acre) to augment natural regeneration. Planting success will be defined as 50% survivorship due to browse by ungulate. Yarding of tops in the Group Selects will be utilized to minimize the residual fuel loading so that planting can happen with out further site preparation. Slash and other debris in the Group Select will be utilized as shade and as a deterrent to browse by ungulates.

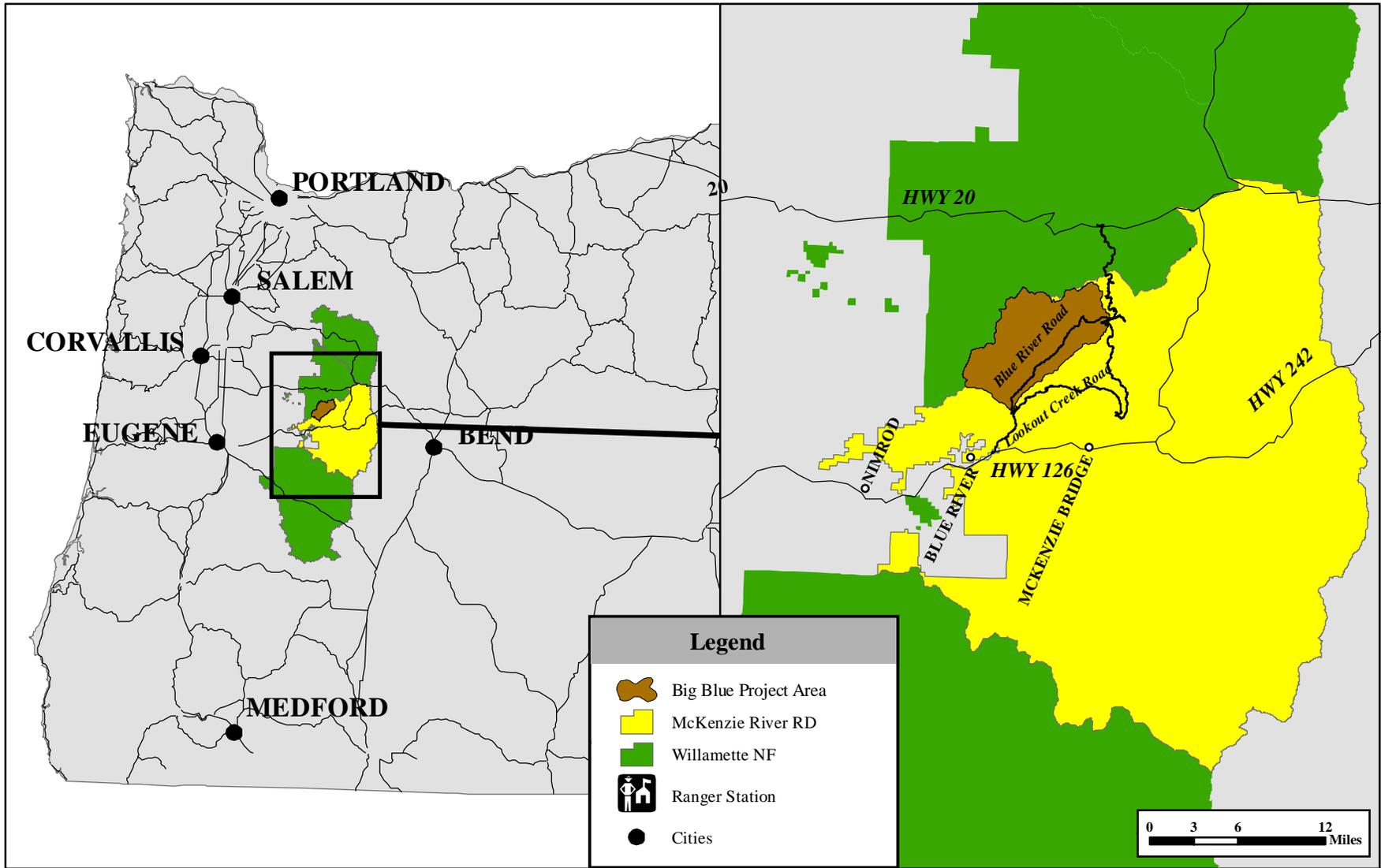


Figure 1. Big Blue Project location map.

Figure 2. Big Blue Proposed Action - Southwest Section.

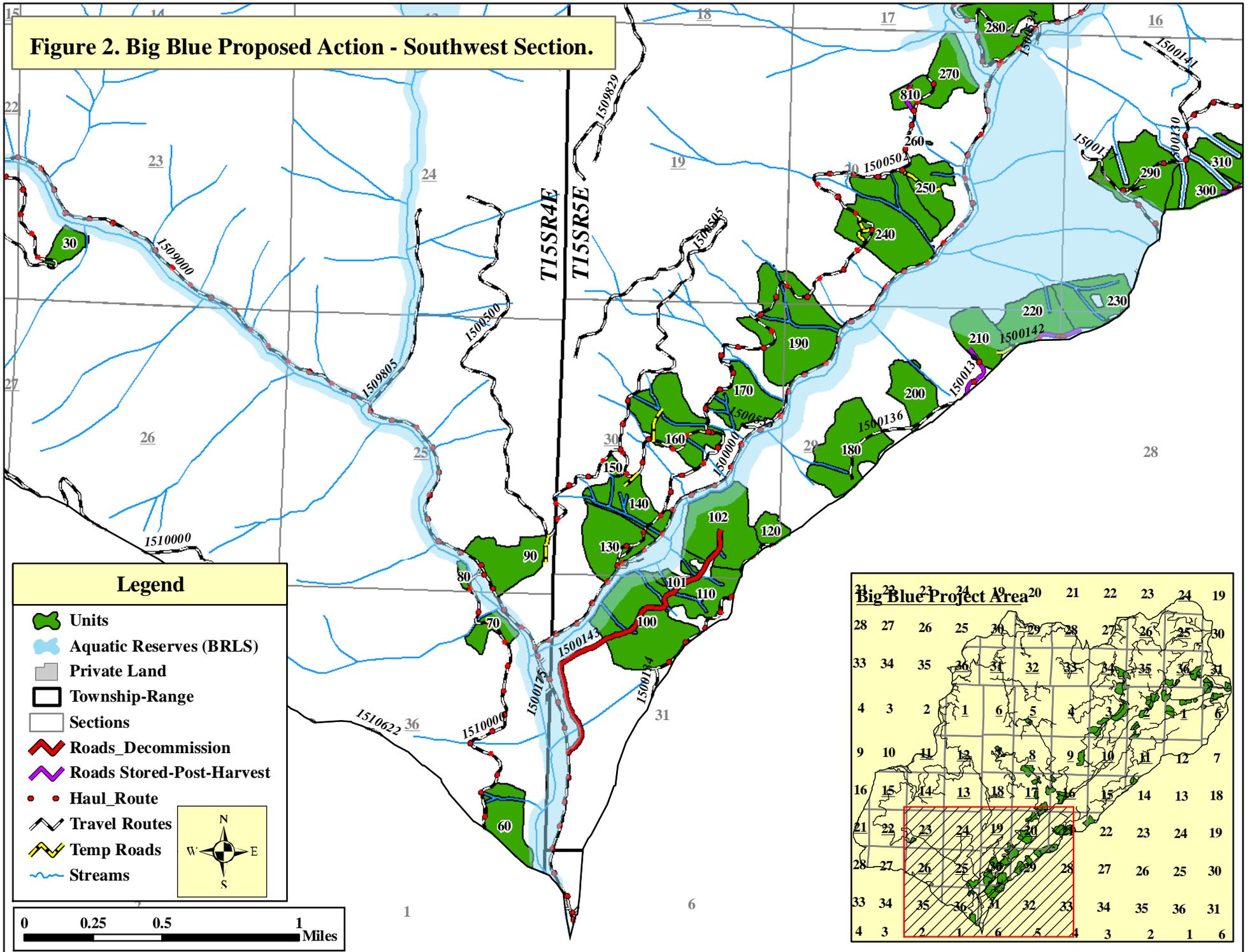


Figure 3. Big Blue Proposed Action - Central Section.

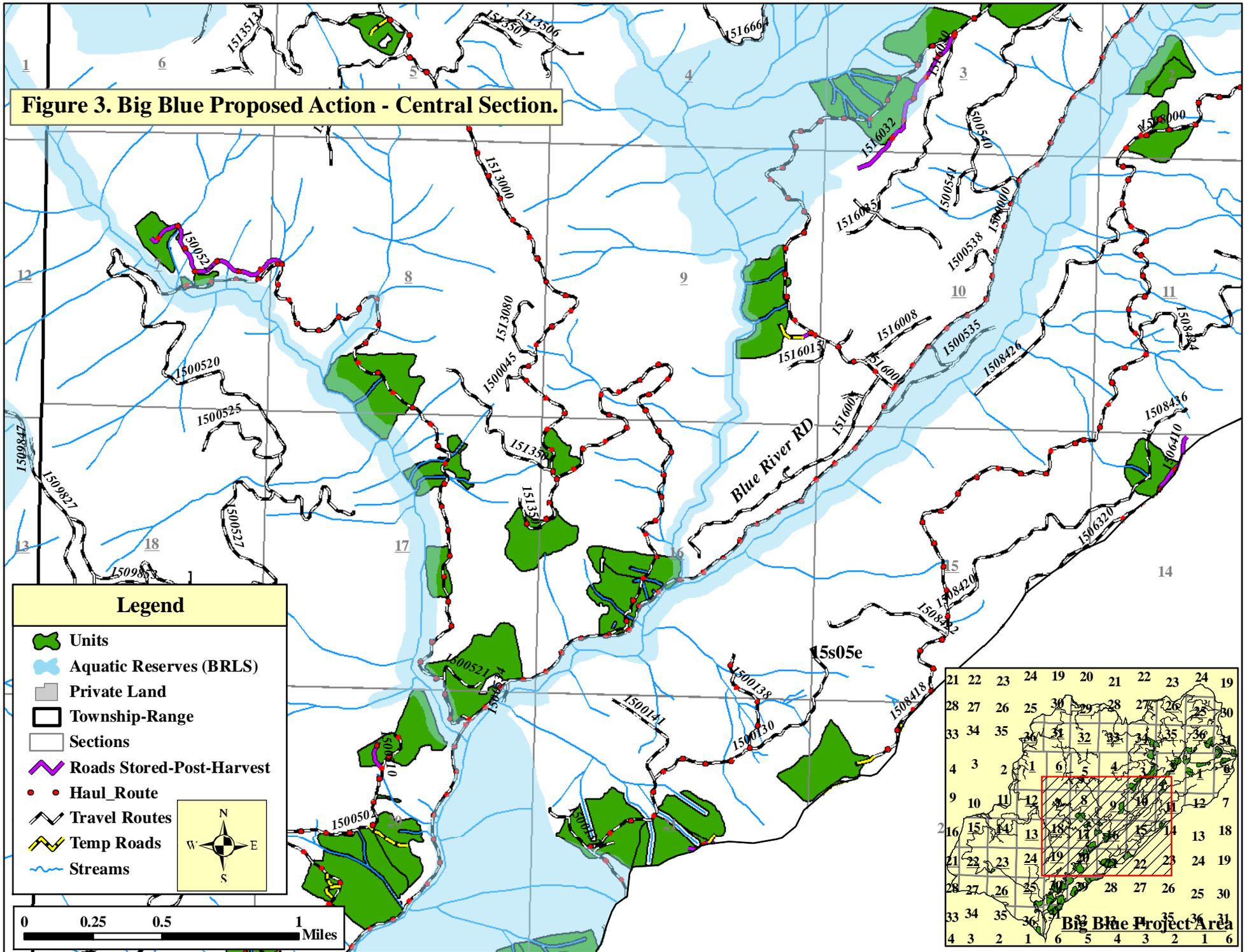


Figure 4. Big Blue Proposed Action - Northeast Section.

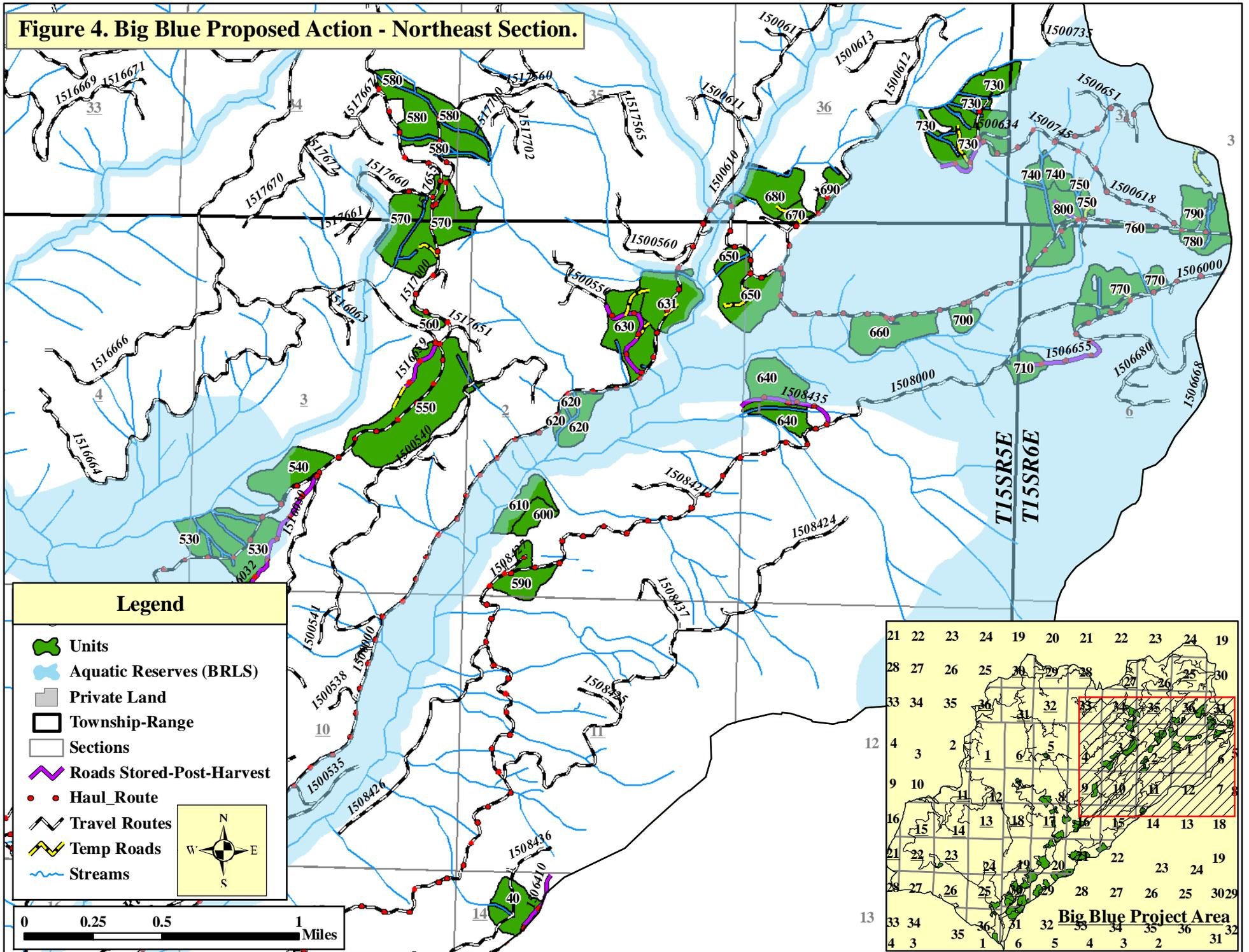


Table 3. Treatment Information for Proposed Action Units in the Big Blue Project.

Unit	Harvest (Acres)			Canopy Closure (%)		Logging Systems (Acres)			Fuels Treatments (Acres) ¹			
	Commercial Thin	Group Select	Dominant Tree Release	Existing Condition	Post Treatment - Proposed Action	Skyline	Helicopter	Ground	Hand Pile & Burn <u>OR</u> Jackpot Burn	Machine Pile & Burn <u>OR</u> Jackpot Burn	<u>OR</u> Hand Pile & Burn	<u>OR</u> Machine Pile & Burn
30	6	---	2	61	36	8	---	---	1 or 8	---	---	---
40	13	3	0	47	36	16	---	---	7 or 16	---	---	---
60	20	---	2	82	45	21	---	---	3 or 21	---	---	---
70	8	---	1	86	71	9	---	---	3 or 9	---	---	---
80	3	---	---	71	39	2	---	---	1 or 2	---	---	---
90	21	3	1	71	47	25	---	---	3 or 25	---	---	---
100	42	10	1	67	36	53	---	---	12 or 53	---	---	---
101	6	---	---	56	33	---	6	---	4 or 6	---	---	---
102	35	4	2	60	45	---	40	---	6 or 40	---	---	---
110	14	4	1	56	37	18	---	---	8 or 18	---	---	---
120	7	---	---	58	30	7	---	---	1 or 7	---	---	---
130	28	---	---	54	40	4	24	---	8 or 28	---	---	---
140	19	---	---	54	40	3	16	---	6 or 19	---	---	---
150	2	---	---	55	40	---	2	---	1 or 2	---	---	---
160	28	6	1	71	47	35	---	---	9 or 35	---	---	---
170	17	2	3	50	36	21	---	---	4 or 21	---	---	---
180	37	---	1	58	40	29	8	---	6 or 37	---	---	---
190	49	6	1	69	40	41	14	---	---	---	14 or 56	---
200	18	---	---	57	40	18	---	---	2 or 18	---	---	---
210	19	---	---	71	40	13	---	5	3 or 13	5	---	---
220	19	---	---	55	40	23	---	---	3 or 23	---	---	---
230	24	---	---	73	40	24	---	---	4 or 24	---	---	---
240	50	---	4	76	43	54	---	---	9 or 54	---	---	---
270	14	4	2	62	50	---	---	19	---	19	---	---
280	32	8	---	73	41	---	40	---	11 or 40	---	---	---
290	27	4	2	81	40	33	---	---	12 or 33	---	---	---
300	23	---	---	69	40	18	---	---	3 or 18	---	---	---
310	14	---	---	69	40	14	---	---	1 or 14.4	---	---	---
320	27	---	---	61	34	27	---	---	1 or 27	---	---	---
330	10	---	---	54	40	10	---	---	4 or 10	---	---	---
340	18	4	2	62	38	24	---	---	4 or 24	---	---	---
350	21	---	3	55	43	5	19	---	9 or 23	---	---	---

Table 3. Treatment Information for Proposed Action Units in the Big Blue Project.

Unit	Harvest (Acres)			Canopy Closure (%)		Logging Systems (Acres)			Fuels Treatments (Acres) ¹			
	Commercial Thin	Group Select	Dominant Tree Release	Existing Condition	Post Treatment - Proposed Action	Skyline	Helicopter	Ground	Hand Pile & Burn OR Jackpot Burn	Machine Pile & Burn OR Jackpot Burn	Underburn OR Hand Pile & Burn	Underburn OR Machine Pile & Burn
360	13	---	3	55	45	7	9	---	5 or 16	---	---	---
370	6	---	1	67	44	7	---	---	2 or 7	---	---	---
380	4	---	---	67	40	---	4	---	2 or 4	---	---	---
390	2	---	---	67	40	---	2	---	1 or 2	---	---	---
400	9	---	---	59	40	---	---	9	---	9	---	---
410	34	8	1	71	42	27	16	---	---	---	7 or 43	---
420	29	3	2	71	45	33	---	---	3 or 33	---	---	---
430	1	---	---	55	40	---	---	1	---	1	---	---
440	3	---	---	55	40	3	---	---	2 or 3	---	---	---
450	11	---	---	55	40	5	5	---	3 or 10	---	---	---
460	1	---	---	55	40	0	---	---	1 or 1	---	---	---
470	8	---	2	71	40	---	---	10	---	10	---	---
530	31	4	2	69	45	36	---	---	10 or 36	---	---	---
540	19	---	---	67	36	19	---	---	3 or 19	---	---	---
550	49	5	2	62	45	64	---	---	---	---	20 or 64	---
560	3	---	---	53	40	---	---	3	---	3	---	---
570	45	---	2	52	42	34	---	13	---	---	11 or 47	---
580	31	4	1	70	45	36	---	---	8 or 36	---	---	---
590	13	---	2	58	35	---	---	15	---	15	---	---
600	5	1	1	58	40	---	---	7	---	7	---	---
610	7	2	2	58	45	11	---	---	0 or 11	---	---	---
620	9	3	1	71	40	13	---	---	---	---	3 or 13	---
630	27	---	---	64	30	27	---	---	13 or 27	---	---	---
631	24	---	---	75	40	24	---	---	8 or 24	---	---	---
640	27	---	1	66	38	29	---	---	7 or 29	---	---	---
650	26	4	---	74	45	20	---	11	6 or 20	11	---	---
660	15	2	---	61	45	22	---	---	---	---	4 or 24	---
670	4	---	---	66	40	---	---	4	---	4	---	---
680	19	---	---	66	40	19	---	---	0.3 or 19	---	---	---
690	6	---	---	66	40	---	---	6	---	6	---	---
700	5	1	---	55	35	6	---	---	2 or 6	---	---	---
710	8	---	---	64	35	8	---	---	2 or 8	---	---	---

Table 3. Treatment Information for Proposed Action Units in the Big Blue Project.

Unit	Harvest (Acres)			Canopy Closure (%)		Logging Systems (Acres)			Fuels Treatments (Acres) ¹			
	Commercial Thin	Group Select	Dominant Tree Release	Existing Condition	Post Treatment - Proposed Action	Skyline	Helicopter	Ground	Hand Pile & Burn <u>OR</u> Jackpot Burn	Machine Pile & Burn <u>OR</u> Jackpot Burn	<u>OR</u> Hand Pile & Burn	<u>OR</u> Machine Pile & Burn
730	35	6	2	77	47	42	---	---	---	---	10 or 42	---
740	8	---	1	50	35	7	---	2	---	---	0.4 or 9	---
750	3	---	---	50	35	3	---	---	---	---	0.4 or 3	---
760	2	---	1	80	40	---	---	2	---	2	---	---
770	21	6	1	72	35	27	---	---	12 or 27	---	---	---
780	6	---	2	82	40	---	---	8	---	---	---	8
790	15	2	---	82	35	17	---	---	---	---	7 or 17	---
800	23	6	1	50	37	6	---	24	---	---	---	30
810	6	---	2	64	37	3	---	4	---	---	1 or 3	4

¹: Hand-piling and burning would only include the treatment of a 100' buffer around FS system roads within the unit, which is reflected in the smaller estimated treatment acres .