

SUBJECT: SUMMARY OF MODIFICATIONS TO LITTLE ROCK MONUMENT SINCE APPROVAL OF ANNUAL OPERATIONS PLAN (FY 2009 AOP)

FROM: Scott Wilbrecht, Forest Unit Supervisor

TO: Gregg Cline, District Forester, North Cascade District

DATE: March 30, 2009

CC: Operation file, Russ Lane

ATTACHMENTS: Little Rock Monument / Monumental Pole Pre-operation Plan

A portion of the Little Rock Monument Sale will be auctioned as a pole sale to capitalize on a high demand market niche. Areas II and III from the original Little Rock Monument Sale will be combined into one area and will be offered for sale in FY 2009 as Monumental Pole. Area I will be offered for sale as Little Rock Monument in FY 2009. The prescription for the Little Rock Monument Sale, a moderate partial cut, will not change from the original pre-operation plan. The prescription for Monumental Pole is to remove approximately 15 to 20 percent of the trees within the stand in a pre-poling initial harvest to be sold in FY 2009. The residual stand will remain in an Understory (UDS) condition. The remaining volume in the Monumental Pole sale area will be sold again as a modified clearcut as soon as it is available for re-sale.

The change of Area II and Area III to a pole sale essentially delays the clearcut harvest on 91 acres and reduces the volume of timber harvested for the 2009 AOP by about 3.8 MMBF. To make up for this volume, one of the alternate timber sales (Taylor Creek) will be added into the FY 2009 sale plan. The resultant total volume change from these changes will move the total estimated harvest volume from 15.2 MMBF to 13.8 MMBF. This new total is still within the IP range of 13 to 15 MMBF.

The changes described above have been reviewed and approved:



(Name), District Forester

3-30-2009

Date

Pre-Operations Report

Operation Name: Little Rock Monument / Monumental Pole
County: Linn
Management Basin: Mad Creek, Rock Creek

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
Little Rock Monument	PC-M	247	228
Monumental Pole	PC-L	135	116
Total		382	344

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Both operations are located within a temperate climate area. Typically the fall and winter seasons are wet and receive approximately 70 to 90 inches of rainfall per year. The operations are located within the *Tsuga heterophylla* Zone (Natural Vegetation of Oregon and Washington, Franklin & Dyrness, 1973). The elevations range from 2100 to 2700 feet with moderate slopes of 15 to 60%. Aspects are variable with several small streams dissecting the operation areas.

The Akerson and Pechuck soil series are found within the operation areas. The Akerson series is comprised of deep, well-drained, fine-textured colluvial soils developing from Miocene age andesite. Characteristically, these soils are granular to gravelly, dark brown clays with A to C horizons totaling about 50 inches. Rock volume ranges from 10 to 50 percent, depending on depth. This soil occurs on gentle to moderate slopes at elevations from 1000 to 2600 feet where annual precipitation ranges from 70 to 85 inches.

The Pechuck soil is a deep, well-drained, moderately fine-textured colluvial soil that developed from Miocene age andesite. In general, this soil is a gravelly loam to gravelly clay loam with varying amounts of rock from 10 percent in the A horizon to 80 percent in the C Horizon. It lies over Andesite bedrock which is at a depth generally greater than 50 inches. It occurs on moderate to precipitous slopes at elevations between 1500 to 3200 feet where annual precipitation ranges from 70 to 95 inches.

II. CURRENT STAND CONDITION:

Little Rock Monument is currently classified as Understory (UDS). The overstory consists mainly of Douglas-fir with some western hemlock. Most of this area has been thinned previously. This thinning opened the stand enough to enable an

understory of western hemlock to seed in. Other tree species in the understory are western red cedar along with a few hardwoods. The remaining understory includes sword fern, vine maple, salal, Oregon grape, and other shrub and herbs/forbs species. Several root rot pockets are evident throughout the stand. In decay classes 1 and 2, there are 3 snags per acre in the 15-23 inch category and 1 snag that is at least 24 inches. In decay classes 3 through 5 there are 4 snags per acre in the 15-23 inch category and 9 that are 24 inches and larger. There are 280 cubic feet per acre of sound down wood all less than 24 inches. In decay classes 3 through 5 there are 6 pieces totaling 1,400 cubic feet larger than 24 inches and 1,320 cubic feet per acre of down wood 24 inches and smaller. (SLI, 2007)

Monumental Pole is currently classified as a UDS stand. Douglas-fir is the main overstory tree species with scattered western hemlock and a few western red cedar and red alder. Understory species include western hemlock with a shrub and herbs/forbs component of vine maple, sword fern, oxalis, Oregon grape, and others. Tree crowns in this stand were damaged by a severe wind storm about 40 years ago and a portion was thinned about 18-20 years ago. Monumental Pole has 9 snags per acre in decay classes 1 and 2 in the 15-23 inch category. In decay classes 3 through 5 there are 4 snags per acre in the 15-23 inch category and 12 that are 24 inches and larger. There are 550 cubic feet per acre of sound down wood all less than 24 inches. In decay classes 3 through 5 there are 9 pieces totaling 1,600 cubic feet larger than 24 inches and 3,650 cubic feet per acre of down wood 24 inches and smaller. (SLI, 2005)

Table 2. Stand Inventory Information

Area	Prescription	StandID ¹	Sp	Age	DBH	BA	TPA	SDI	Ac ²
Little Rock Monument	PC-M	12618	DF	75	18	235	122	55	228
		Target ³			18	145	76	32	
Monumental Pole	PC-L	12680	DF	80	16	267	174	66	116

1 The source of stand inventory information for stand 12618 is 2007 SLI and for stand 12680, 2005 SLI for trees 8 inches or greater DBH.

2 The acres are based on GIS and exclude roads, streams buffers, reserve areas, etc.

3 The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED STAND CONDITION/VISION:

The Desired Future Condition (DFC) for Little Rock Monument is Layered (LYR). The vision for Little Rock Monument is an overstory of large Douglas-fir and western hemlock with a second story of smaller trees (western hemlock, western red cedar and hardwood). The third story will be saplings and brush. The ground layer will be composed of herbs with a substantial number of large, down logs. Currently several root rot pockets are evident throughout the stand. These will be maintained for down wood and snag recruitment areas. Snags and down

wood of various sizes and decay classes will increase over time due to natural conditions or through recruitment during harvesting activities.

Monumental Pole does not have a designated complex desired future condition. This area will be targeted for a pole harvest. The residual stand after pole harvest will be similar to a light to moderate thinning. Monumental Pole is planned to be a part of the 2012 Fiscal Year Annual Operating Plan (AOP) and will be harvested as a modified clearcut.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
Little Rock Monument	12618	UDS	UDS	LYR	228
Monumental Pole	12680	UDS	UDS	General	116

¹ The stand is expected to develop into this condition immediately after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

The primary objective for the proposed operation in Little Rock Monument is to improve and enhance the layering of the stand. This will be accomplished by thinning out the overstory, allowing sunlight to stimulate the understory vegetation and maintain the vigor of mid-story hardwoods. Existing down wood will be supplemented with cull logs and logging debris.

The primary objective for the proposed operation in Monumental Pole is to enhance stand volume, production, and value. This area will be pre-poled to capitalize on a high demand market niche.

In the short term both timber sales will maintain an Understory (UDS) structure.

The proposed management prescription for Little Rock Monument is:

- Thin all trees greater than 8 inches DBH to: basal area of 145; TPA 76; ave DBH 18 inches; and SDI 32%.
- Reserve all hemlock, western red cedar and hardwoods from cutting.
- Western hemlock and western red cedar trees larger than 16 inches may be counted toward the overall basal area leave trees.
- Retain existing snags and down wood.
- In the years to come, this stand will receive further operations designed to continue enhancement of layering through recruitment of down wood and snags, creation of horizontal diversity through alternative thinning prescriptions, addition of understory cohorts, and promotion of continued growth of the overstory through periodic thinning.

The proposed management prescription for Monumental Pole is:

- Approximately 15 to 20 percent of the trees within the stand will be removed in a pre-poling initial harvest.
- The residual stand will be left immediately after pole harvest in a UDS condition.
- Retain all down wood and existing snags.

Monumental Pole will be a part of a modified clearcut in FY 2012. After that sale the stand structure will become regeneration (REG). In the following years, the stand will receive a series of thinnings designed to maximize volume and value, and promote stand health and vigor. It is expected that the stand structure will shift between CSC and UDS as the cutting cycles are implemented over time. Structural development to something more complex is not anticipated. This balance between CSC and UDS will persist until the stand again receives a regeneration harvest.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue – Little Rock Monument

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	X
Planned Quarter: 2			

	Conifer	Hardwood	Total
Net Volume (MBF)	2,200		
Stumpage Value (\$/MBF)	\$200		
Estimated Gross Value	\$440,000		\$440,000
		Project Costs:	\$24,000
		Estimated Net Value:	\$416,000

Table 4. Timber and Revenue – Monumental Pole

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	X
Planned Quarter: 2			

	Conifer	Hardwood	Total
Net Volume (MBF)	900		
Stumpage Value (\$/MBF)	\$520		
Estimated Gross Value	\$468,000		\$468,000
		Project Costs:	\$16,000
		Estimated Net Value:	\$452,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Little Rock Monument

Access to Little Rock Monument will be via Highway 22, County Road 813 (Kingwood Street), Rock Creek Road, North Rock Creek Road and the NRC 600. These are currently all weather roads.

Approximately 0.29 miles of road will be constructed to facilitate cable yarding. These spurs will be surfaced with pit run rock. 0.47 miles of legacy road will be vacated, which includes the removal of five culverts, water barring and blocking to vehicular traffic. 4.79 miles of road will be mechanically brushed.

New road construction is limited to ridgetops and gentle to moderate sideslopes. There will be no stream crossings associated with the new road construction. Roads will provide access to all timber within the sale area and allow for logging methods and hauling, which will minimize impacts to soil, residual timber, streams and riparian areas.

Following harvest, roads and skid trails within the sale area will be evaluated for closure.

Project work and their estimated costs are \$24,000.

This sale is 25% cable yarding and 75% ground yarding.

Monumental Pole

Access to Monumental Pole will be via Highway 22, County Road 813 (Kingwood Street), County Road 820, Monument Peak Road, Wagon Road, WGN 200 and the WGN 250. These are currently all weather roads.

Approximately 0.26 miles of road will be constructed to facilitate cable yarding. One spur will be surfaced with pit run rock and the other spur will be unsurfaced and outsloped.

New road construction is limited to ridgetops and gentle to moderate sideslopes. One small Type N and two seasonal streams will be crossed with the surfaced spur.

Roads will provide access to all timber within the sale area and allow for logging methods and hauling, which will minimize impacts to soil, residual timber, streams and riparian areas.

Following harvest, roads and skid trails within the sale area will be evaluated for closure.

Project work and their estimated costs are \$16,000.

This sale is 45% cable yarding and 55% ground yarding.

Table 5. Transportation Planning Summary (Miles) - Both Sales

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0.50	0.05
Improve	0	0	0	0
Maintain	0	9.03	0.91	0
Close/Block	0	0	0	0.05
Vacate	0	0	0	0.47

VII. AQUATIC RESOURCES AND WATER QUALITY:

No listed fish streams are within or in close proximity to this operation. Several small perennial non-fish bearing tributaries of Little Rock Creek flow south to north through much of the sale areas. The overstory vegetation along these streams consists of Douglas-fir, western hemlock and red alder. The understory vegetation includes vine maple, Oregon grape and ferns.

A buffer of at least 25 feet horizontal distance will be posted on either side of these streams. In the remaining portion of the Riparian Management Areas (RMAs) sufficient trees will be retained to comply with current standards.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

While the sale is not located within any Northern Spotted Owl circles, the sale area was determined to be suitable habitat for this species. Surveys were completed six times during the 2007 survey season. A response from the Mad Creek owl occurred on the third visit in July. Three more surveys in August yielded no additional responses. The operation will be surveyed again in 2008.

The operation area was checked against District knowledge for any listed plant location. The operation area was also checked against the Oregon Natural Heritage Program's database of known listed plant locations. No listed plant records were identified within the operation area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

This assessment is based on analysis of USGS 1:24,000 topographic maps.

There are isolated high landslide hazard locations in both sale areas. The sale drains into Rock Creek and Little Rock Creek. The risk of landslides delivering directly from the sales to Little Rock Creek is low and to Rock Creek is low to moderate. Portions of the sale appear to be located on a large, deep-seated landslide landform. The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

X. RECREATION RESOURCES:

There are no developed recreation facilities inside the timber sale boundary. Known recreational activities in the area are dispersed in nature and include: hunting, site seeing, mushroom gathering and horseback riding. The Santiam Horse Camp and Monument Peak Designated Trail System are to the north of the timber sale. While there are no developed trails in the sale boundary, horseback riders commonly ride the Wagon Road. Where the haul route and recreation access roads merge, informational and caution signs will be posted. Vehicles towing horse trailers commonly use the Monument Peak Mainline. Because of possible conflict, both operators and the visiting public will need to use caution on the Monument Peak Mainline and when using other roads in the sale area. Skid roads/spurs will be closed in order to deter illegal motorized off-road use, illegal fires and garbage dumping in this area.

XI. CULTURAL RESOURCES:

The District cultural resource inventory and pre-operation reconnaissance revealed no visible cultural resource features or artifacts. If discovery is made, the cultural resource will be protected and field staff will consult with the Cultural Resource Specialist in Salem.

XII. SCENIC RESOURCES:

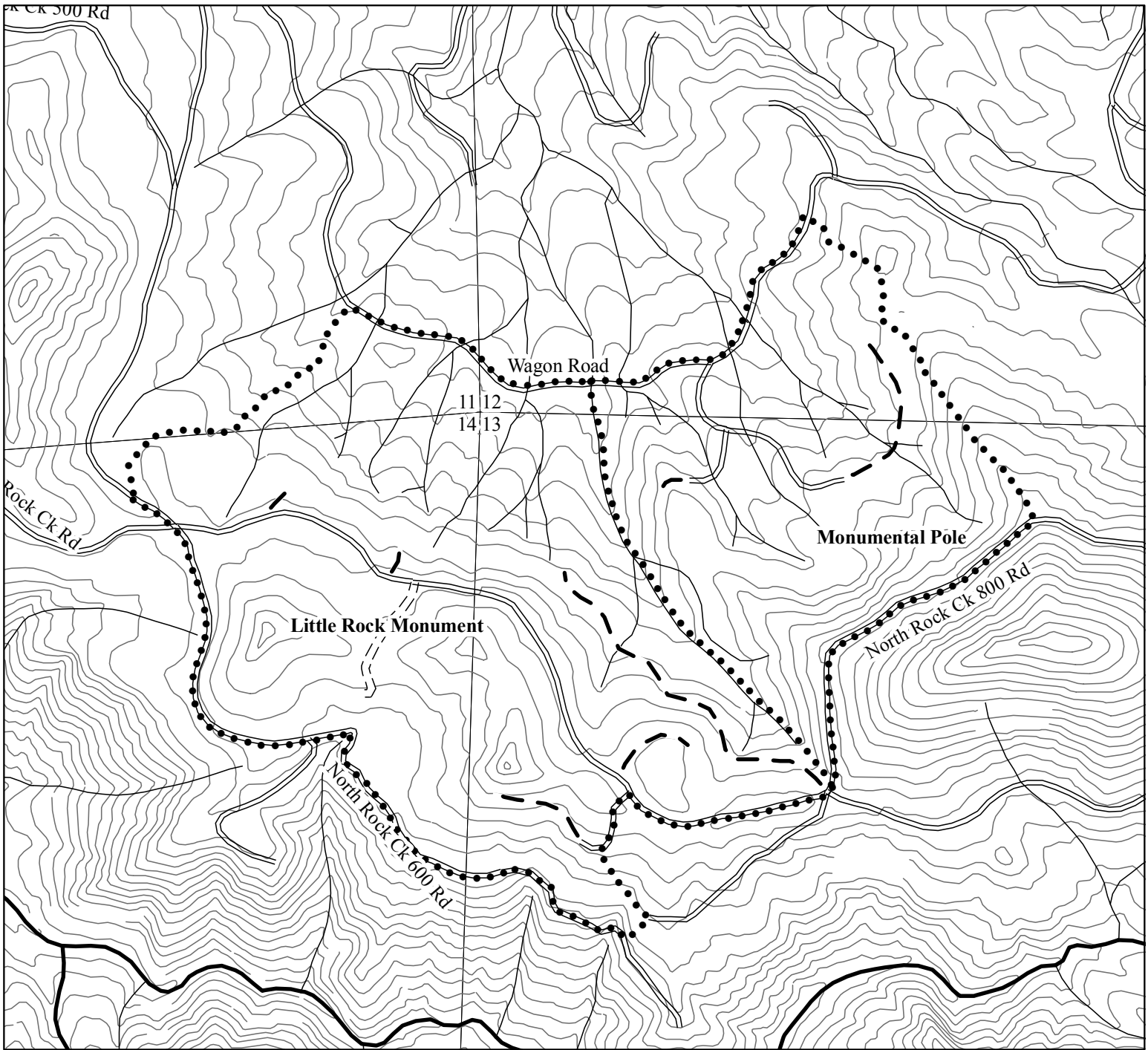
Monumental Pole and a portion of Little Rock Monument are over 3 miles away but visible from Highway 22. The Visual Classification is moderate sensitivity. No harvesting restrictions will be imposed.

XIII. OTHER RESOURCE CONSIDERATIONS:

If no additional harvest costs are required, the rock pillar formation in Little Rock Monument will be protected during harvest activities.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The Land Management Classification System has indicated focused and special stewardship for aquatic and riparian resources, focused stewardship for visual resources, and focused stewardship for wildlife habitat for this operation. See Section VII, Aquatic Resources and Water Quality for explanation about riparian resources. See Section XII, Scenic Resources for detailed information about the visual impacts. In 2003 the sale area was within a 1.2 mile radius of the Little Rock Northern Spotted Owl site. The site status was changed to historic in 2005 after owl surveyors heard no response in 2003, 2004 and 2005. See Section VIII, Wildlife and T&E Species Considerations for information about the most recent owl surveys.

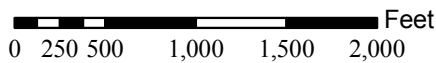


LITTLE ROCK MONUMENT / MONUMENTAL POLE

FY 09 AOP
 NORTH CASCADE DISTRICT
 ATTACHMENT A : TOPOGRAPHY

PORTIONS OF SECTIONS 11, 12, 13, & 14
 T10S, R3E, W.M.
 LINN COUNTY, OR

Scale
 1:12,000
 1 inch = 1000 feet

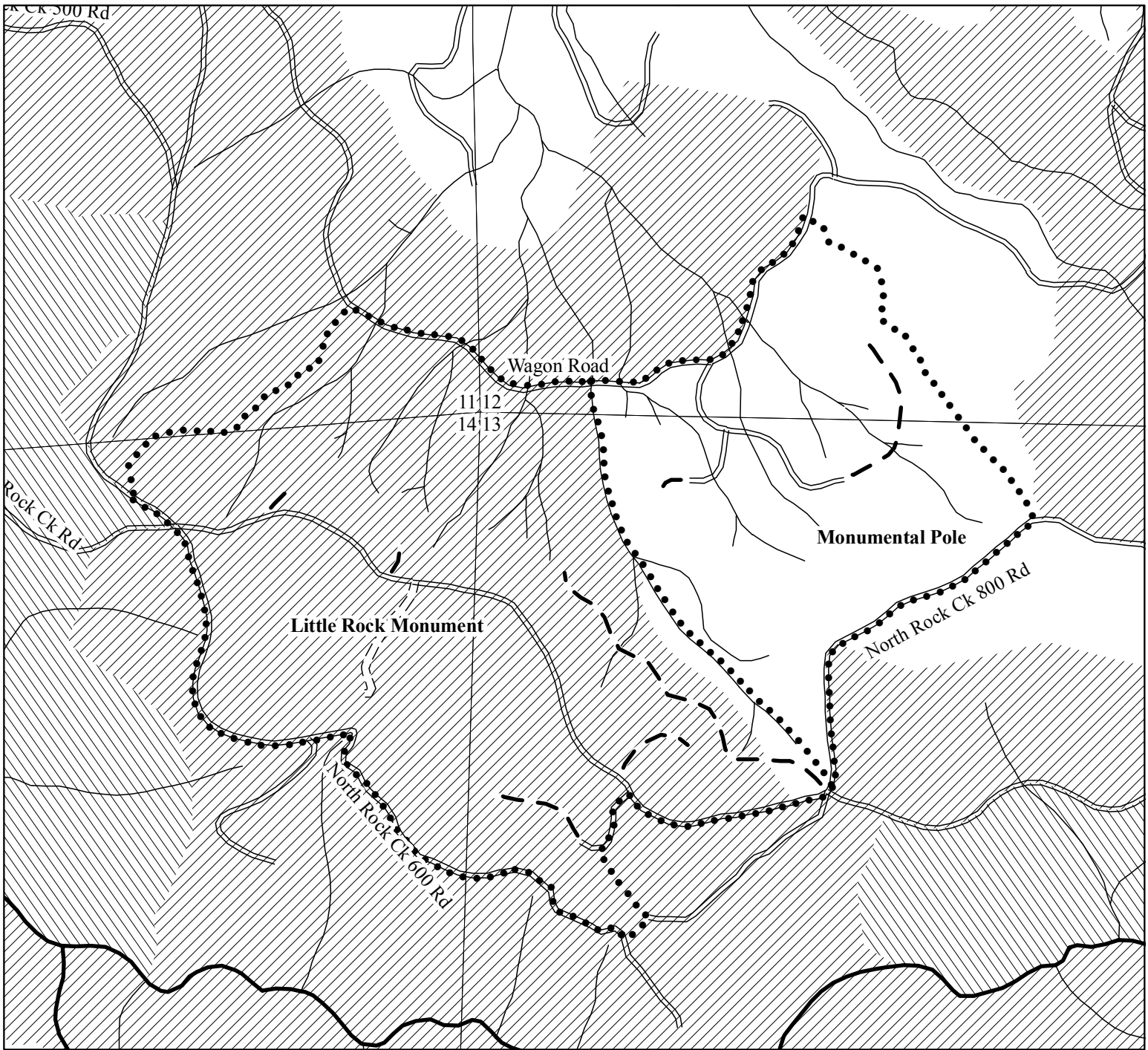


Legend

- Sale Boundaries
- Surfaced Road
- ==: Unsurfaced Road
- New Road Construction
- Type F Stream
- Type N Stream
- 40 Foot Contours
- - - State Forest Property Boundary

APPROXIMATE NET ACRES
 Little Rock Monument: 228 (PC)
 Monumental Pole: 116 (PC)

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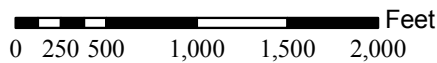


LITTLE ROCK MONUMENT / MONUMENTAL POLE

FY 09 AOP
 NORTH CASCADE DISTRICT
 ATTACHMENT B : DESIRED FUTURE CONDITIONS

PORTIONS OF SECTIONS 11, 12, 13, & 14
 T10S, R3E, W.M.
 LINN COUNTY, OR

Scale
 1:12,000
 1 inch = 1000 feet



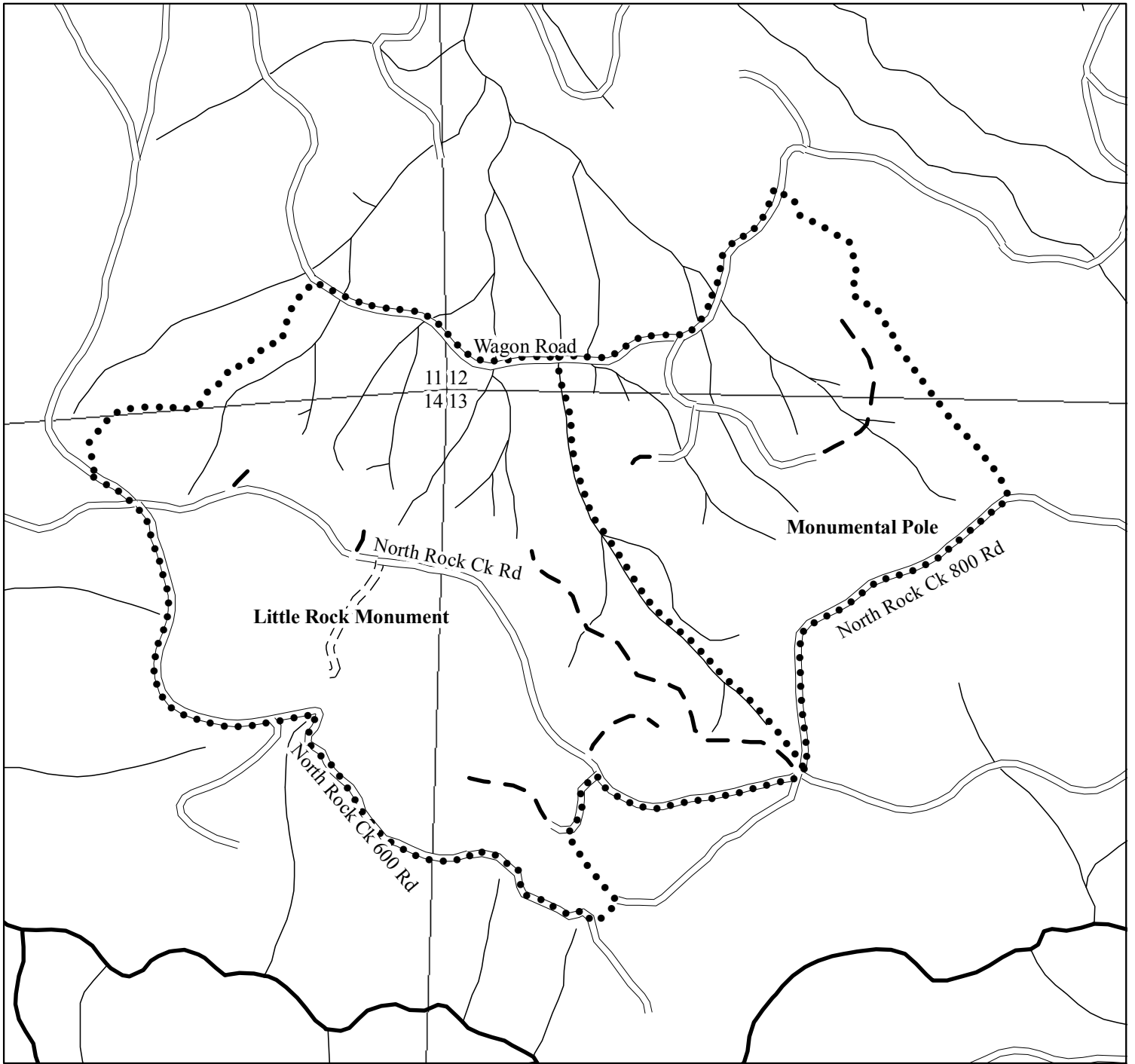
Legend

- Sale Boundaries
- Surfaced Road
- - - Unsurfaced Road
- • - New Road Construction
- Type F Stream
- Type N Stream
- /// LYR
- \\ \\ OFS
- - - State Forest Property Boundary



APPROXIMATE NET ACRES
 Little Rock Monument: 228 (PC)
 Monumental Pole: 116 (PC)

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Legend

- Sale Boundaries
- ==== Surfaced Road
- == = Unsurfaced Road
- • - New Road Construction
- Type F Stream
- Type N Stream

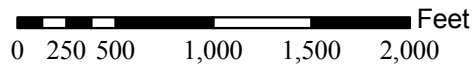
LITTLE ROCK MONUMENT / MONUMENTAL POLE

FY 09 AOP
 NORTH CASCADE DISTRICT
 ATTACHMENT C : KEY RESOURCES
 PORTIONS OF SECTIONS 11, 12, 13, & 14
 T10S, R3E, W.M.
 LINN COUNTY, OR



APPROXIMATE NET ACRES
 Little Rock Monument: 228 (PC)
 Monumental Pole: 116 (PC)

Scale
 1:12,000
 1 inch = 1000 feet



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