UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT

SUPPLEMENTAL NEPA DOCUMENTATION
COVER SHEET

RESOURCE AREA: Grants Pass Resource Area EA# OR-110-99-18
ACTION/TITLE: Pickett Snake Landscape Management Project
LOCATION: T35S, R6W, Willamette Meridian (WM), portions of section 31.
T35S, R7W, WM, portions of sections 6, 7, 8, 9, 10, 11, 14, 15, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36.
T36S, R6W, WM, portions of sections 5, 18, 19, 30, 31.
T36S, R7W, WM. portions of sections 1, 2, 3, 10, 11, 12, 14, 23, 25, 27, 35.

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INTRODUCTION / BACKGROUND

The Pickett Snake Landscape Management Project Environmental Assessment was prepared in 1999. An addendum to the EA was prepared in 2002. The Decision Record / FONSI addressing a portion of the proposed action / project area were completed in June 2002. The Pickett Snake timber sale, which was a part of the larger project addressed in the EA, was sold in July 2002. This timber sale decision was administratively protested and appealed.

The Pickett Snake timber sale was also the subject of a lawsuit. In June 2004, the District Court of Oregon enjoined the timber sale until the BLM completed supplemental NEPA analysis / documentation that further addressed three issues: 1) the range of alternatives should have included an alternative proposed by the interdisciplinary team's wildlife biologist regarding deferral of harvesting in some older seral stage stands. If the interdisciplinary team determined that the alternative should not be fully analyzed, they should have provided an explanation as to why such an alternative was eliminated from detailed consideration; 2) an evaluation of project impacts on the visual resources for the Wild and Scenic Rogue River should have been included; and 3) other actions in the same 5th field watershed should have been included in the cumulative effects analysis for soils and water.

The purpose of this supplemental EA / NEPA documentation is to address each of these issues, and incorporate supplemental documentation that further explains and supports the BLM's analysis and findings into the EA and project record.

The Pickett Snake Landscape Management Project EA anticipated two commercial timber sales: the Pickett Snake and Pickett Charge timber sales. For the purposes of analysis, the acres and effects of both timber sales were included in the Pickett Snake EA. Therefore, this supplement also incorporates potential effects of the Pickett Charge timber sale.

I. Proposed Action Alternatives for Stand Harvest Treatments in Older Seral Stage Stands (EA pp. 8-11)

The EA presented two action alternatives for "Stand harvest treatments in older seral stages". Alternative 2 focused on stand treatments that would increase stand health and tree growth (EA p.8). The objective for Alternative 3 was to "maintain a greater level of late-successional forest in the project area" than Alternative 2, and "to manage *more* acres for habitat and connectivity of late-successional forest dependent species" (EA p.11). Alternative 3 proposed lighter harvest treatments on 580 acres with the goal of maintaining 50+% canopy closure in these stands.

The interdisciplinary team (IDT) developed Alternative 3 due to a concern about the potential impacts of Alternative 2 on late-successional forest habitat and the wildlife biologist's suggestion to defer harvest in Section 21 (IDT meeting 1/21/99). As a result, Alternative 3 was designed to have less impact on 580 acres of the best, most strategically located late-successional habitat than Alternative 2 while at the same time meeting the project's purpose of providing timber, creating more vigorous and sustainable stands, and maintaining late-successional forest habitat.

Alternative 3 was developed prior to delineation of Survey & Manage (S&M) species buffers on the ground. These buffers proved to have an unusually high concentration throughout much of Section 21 due primarily to an abundance of red tree vole sites. Consequently, the majority of Section 21 was excluded from the Pickett Snake timber sale under alternatives 2 and 3. In effect, both action alternatives essentially adopted the wildlife biologist's initial suggestion to defer harvest in Section 21.

Only 40-45 acres around the perimeter of Section 21 were carried forward into the Pickett Snake timber sale (See TS prospectus). The high density of S&M buffers in Section 21 was noted in the Decision Record (DR) (p. 9), which points out that the objective of Alternative 3 for older seral stage stands was essentially met even with the final selection of Alternative 2 for implementation.

II. Environmental Consequences: Visual Resources (EA p. 61)

Visual resource considerations were a priority in designing the Pickett Snake project. The project area is adjacent to the boundary of the congressionally designated Rogue National Wild and Scenic River (inside the boundaries lands are in VRM I). Part of the project area is potentially visible to a recreationist on the river and is, therefore, within a VRM II area.

The Medford District Resource Management Plan (RMP) directs the use of the BLM's Visual Contrast Rating Sheet when evaluating effects on visual resources. A Visual Contrast Rating Sheet evaluating the project's potential impacts documents that implementation of the proposed actions would not result in changes that would be visible to the casual observer (Appendix S-1 of this EA Supplement). This is due to topographic screening, careful selection of treatment prescriptions in areas that may be visible, and due to the existing highly variable characteristic landscape of the project area. The Visual Contrast Rating Sheet concludes that the standards for Visual Resource Management (VRM) II areas would be met (RMP pp. 70, 211, 240).

Subsequent to the EA and decision record, the BLM conducted additional VRM review and assessment. A landscape architect with expertise in forest/wildland visual management reviewed the Pickett Snake project's potential impacts on landscape scenic quality and concluded that the Pickett Snake project complies with VRM standards. This document is available in our office as part of the project's administrative record.

The VRM Contrast Rating Sheet and the landscape architect's supplemental analysis both affirmed that the project is consistent with BLM's VRM standards, the Pickett Snake timber sale would not be visible to the casual observer, and the project would not adversely affect the Outstandingly Remarkable Value for scenery which was part of the reason for designation of the Rogue as a National Wild and Scenic river. No new potential visual impacts have been identified and the description of VRM impacts in the EA is accurate.

III. Soils and Water: Cumulative Effects (EA p. 27)

Introduction

Current conditions in the project area result from a multitude of natural events and human actions that have taken place over many decades. Cumulative effects are defined as the, "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR § 1508.7). A description of current conditions inherently includes the effects of past actions and serves as a more accurate and useful starting point for a cumulative effects analysis than by "adding up" the effects of individual past actions. "Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." (CEQ Memorandum 'Guidance on the Consideration of Past Actions in Cumulative Effects Analysis' June 24, 2005.) Cataloguing past projects and their individual effects would not be useful in discerning the contribution of the incremental impact of the project's action alternatives. However, cataloguing and

analyzing other present and reasonably foreseeable actions relevant to the effects of the proposed action *is* necessary and is described below. By comparing the "no action" alternative (current condition) to the action alternatives, we can discern the "cumulative impact" resulting from adding the "incremental impact" of the proposed action to the current environmental conditions and trends.

Scoping for this project did not identify a need to exhaustively list individual past actions or analyze their environmental effects in order to fully analyze the effects, including cumulative, of this project's action alternatives. No individual past actions have been identified that would have a cause-and-effect relationship with the Pickett Snake proposals.

The court found that the EA satisfactorily documented potential impacts on soils and water (Findings and Recommendations (F&R) p.36). However, documentation of cumulative impacts to soil and water at the 5th field watershed scale were found to be insufficient. Potential cumulative effects of the Pickett Snake timber sale in concert with other timber sales in the watershed are addressed below.

Methodology

EA Table 3-4 (EA p. 32) compares Alternative 2 and Alternative 3[1] with regard to their potential soils / water impacts. Alternative 2 proposes harvest treatments on 3,245 acres. Alternative 3 proposes harvest on 3,145 acres.

Additional analysis indicates that cumulative effects of all of the BLM timber sales (Maple Syrup, Cenoak, and Stratton Hog), would, at the most, produce negligible or immeasurable soil or hydrologic changes at the 5th field watershed level. The analysis provides no substantive change to the basis for the decision or FONSI.

In the preparation of the Pickett Snake EA, hydrologic cumulative effects analysis was undertaken at a small watershed or "Operational Drainage Area" (ODA) level due to the availability of ODA data. ODAs are small watersheds approximately 1,000 to 5,000 acres in size. Fifth field watersheds are typically 50,000 to 100,000 acres in size. For the Pickett Snake EA, eight ODAs encompassing approximately 34,000 acres (37% of the 5th field watershed) were analyzed for cumulative effects. The Pickett Snake proposal lies within the Rogue-Recreation 5th field Watershed which is comprised of 93,316 acres. The Pickett Snake EA included some 5th field watershed level analysis. This supplemental EA expands on that analysis.

Cumulative Effects

Background

The Northwest Forest Plan suggests that the 5th field watershed be the primary scale for planning and for evaluating cumulative impacts. Table S-1 summarizes acreages of contemporaneous and foreseeable future sales in the Rogue-Recreation 5th field Watershed, including their types of harvest and logging methods. Past management actions on non-BLM lands were evaluated using aerial photo coverage. Future projections for private forest lands were based on the assumption in the RMP that these lands would be managed for timber production on 60 year commercial rotations (RMP FEIS Chap. 4-5).

[1] EA Table 3-4 incorrectly states Alternative 1 and 2. It should state Alternative 2 and Alternative 3.

Another consideration in reaching conclusions about potential cumulative impacts on soils and hydrology at the 5th field watershed scale is watershed geography. The watershed is bisected by the Rogue River. The Maple Syrup, Cenoak and Stratton Hog timber sales are north of the Rogue River. The Pickett Snake and Pickett Charge timber sales (both are a part of the Pickett Snake Project) are south of the river. The tributaries north of the Rogue River do not contribute to the flows of the tributaries south of the Rogue River. Thus, even though these sales are in the same 5th field watershed, their hydrologic effects only accumulate in the Rogue River. The Rogue is a major river whose flow at all times of the year is substantially greater than the inflows from the north or south halves of the watershed. Any hydrologic changes in the tributary ODAs will be exponentially diluted to immeasurable and inconsequential levels concerning flows of the Rogue River.

A comparison of flow data is indicative of this condition. The Rogue River through the watershed typically flows at rates that are orders of magnitude greater than all the tributaries combined within the Rogue Recreation 5th Field Watershed. The Rogue River watershed area upstream from the Highway 99 Bridge is 2,459 square miles. Flow is also regulated at levels usually greater than 1,000 cubic feet per second (cfs) in the summer by the Lost Creek Dam. It can reach peak levels approaching 100,000 cfs when in flood stage. Therefore, the Rogue's flow, where it passes through the Rogue Recreation watershed, is primarily from far upstream of the Rogue Recreation 5th Field Watershed. All streams flowing into the Rogue River within the Rogue Recreation 5th Field Watershed constitute a very small fraction of the overall river flow where it exits the watershed. An example of a stream within this 5th Field Watershed is Taylor Creek. Flows in Taylor Creek from 1984 to 1989 ranged from a low of approximately 1 cfs to a high of approximately 61 cfs. This is compared to a peak flow in excess of 45,000 cfs in the Rogue during the same period. [2]

The Rogue River is the only common water body affected by stream inflow from the north (Stratton Creek and Hog Creek drainages) and from the south (Pickett Creek and Taylor Creek drainages). All of the other projects recently completed or planned (Maple Syrup, Stratton Hog, and Cenoak) in the Rogue-Rec watershed and which are referenced elsewhere in the EA are located in drainages to the north of the Rogue River and are thus essentially hydrologically split and separated from that portion of the 5th field watershed where the Pickett Snake project is located.

Considering the timber harvest acreages in the context of the full 5th field watershed, it is anticipated that the overall potential for other than negligible 5th field level impacts is very low. The Pickett Snake TS involves harvest stand treatments on only 1.2% of the total watershed acreage and 3% of the BLM administered land in the watershed (see Table S-1). The total of all BLM timber sale acres involves less than 4% of the watershed. The harvest and logging methods are low impact ones. All of these sales focus on small diameter thinning: 3,098 acres of commercial thinning with only 260 acres of structural retention prescription. The primary logging system on 62% of the harvest acres is helicopter yarding, which has the least soil and hydrologic impact of any logging system.

Hydrology

Hydrologic recovery has also been occurring on some of the sales included in Table S-1. Particularly, the Maple Syrup timber sale was completed in 2000. The harvest prescription was commercial thinning. Roughly 70% of the acres logged remained in a mature seral stage after logging while 30% dropped from mature to mid seral stage (Maple Syrup EA table 1-1, pp.12-20). Therefore, any differences between pre and post logging in surface water flow regimes that might have occurred due

[2] This estimate of peak flow is based on the Rogue River flow data gauged upstream of the project area in the town of Grants Pass at a level of 32,400 cfs in combination with the Applegate River flow which enters the Rogue a short distance upstream of the project area which was gauged to have a peak flow of 13,100 cfs during the same period. (Ref. USGS Water Watch Web page and USFS Upper Rogue Above Galice WA, 1995)

to Maple Syrup were very small and at the finest (7th field) watershed scale. A 20 to 30 year hydrologic recovery period is usually assumed for early seral stage or clearcut areas. Given that Maple Syrup remained mostly mature after treatment, the logged area (0.7% of the 5th field watershed area--see Table S-1) is estimated to be 50% hydrologically recovered. Minimal adverse effects immediately post-logging combined with 5 years (50%) recovery make it probable that any differences in surface water flow regime between pre logging conditions and now are not likely to be measurable at any scale. Stratton Hog timber sale (0.4% of the 5th field watershed area) is nearly completed. A small amount of hydrologic recovery has occurred following Stratton Hog logging, but less than for Maple Syrup. However, the Stratton Hog timber sale comprised about half of the acres of the Maple Syrup timber sale. The only permanent new road construction for either sale was 0.36 miles under the Maple Syrup timber sale.

The Pickett Snake EA (p.33) states that, at the 5th field watershed level, the Pickett Snake project would have little or no measurable effect on any of the hydrologic indicators. Each of the other cited projects in the 5th field were also determined to have immeasurable or minimal hydrologic impacts at both the project level and the 5th field watershed scale. When aggregated and, in light of the fact that the combined timber sales involve less than 4% of the watershed, and the substantial dilution of any water quality or hydrologic changes from any of the projects, there would be no measurable or meaningful changes to the overall hydrologic or water conditions at the 5th field watershed level. Any impact that these projects might cumulatively have on water would be negligible and would certainly be within the normal, highly variable, range of natural conditions.

Soil

In fine soil, compaction reduces soil productivity by reducing porosity and increasing soil density. As a result, water availability and root penetration are also typically reduced. Therefore, surface runoff and associated erosion can occur due reduced infiltration and permeability. Tractor logging causes compaction by placing dynamic pressure on the soil through multiple passes. For the Pickett Snake timber sale, project design features (designated skid road location, limited width of machinery to smallest size needed, and bull lining requirements) would limit the amount of compaction in each tractor yarded unit to less than 12%.

A small amount of tractor logging is planned under Pickett Snake. Only 15% of the timber sale area would be tractor logged. Of that, no more than 12% of the tractor area would be compacted due to skid trails. Of the potentially compacted area, no more than 25% of the area would experience reduced productivity[3]. Therefore, less than 0.5% of the area to be logged would potentially experience reduced productivity.

Under Pickett Snake, additional compaction would occur in only two subwatersheds or ODAs: Dutcher Rogue where the areal extent of existing compaction is high (estimated at greater than 10%); and Pickett Rogue, where the areal extent of existing compaction is low (estimated at less than 5%). Even though some compaction would be added to a small subwatershed with existing high compaction, the added effect is miniscule at the 5th field scale where cumulative levels of compaction are estimated at 3-6% of the total watershed area. For each of these subwatersheds, the project would add less than 1% areal compaction to existing conditions (EA p. 32). At the 5th field scale, ground based systems (tractor and cable) of the other sales involve only 3.3% of the BLM land and only 1.3% when considering all ownerships. Therefore, at the 5th field watershed level, soil productivity would remain essentially unchanged.

[3] Froehlich, H.A., and D.H. McNabb. 1984. Minimizing Soil Compaction in Pacific Northwest Forests. pp.159–192. *In* E.L. Stone (ed.) Proc. Forest Soils and Treatment Impacts Conference 1983. Univ. of Tennessee, Knoxville, TN

Summary conclusion

Hydrologic response: Stream channel integrity (stability) would be maintained; summer stream flows would increase by no more than 5% (in Pickett Creek, annual peak flows may increase by no more than 5%); and water quality (temperature and sediment) would remain the same (Beschta, 2000). Overall, at the 5th field watershed level, hydrologic responses would be unchanged.

Soil quality / compaction response: The most impacting ground based system, tractor logging, would affect less than 12% of a tractor yarded unit with implementation of project design features (described above). This degree of compaction is in compliance with RMP standards that limit compaction to no more than 12% of a harvested area (RMP p.166). Tractor yarding would occur on 15% of the timber sale area, which is a typical amount for BLM timber sales in this 5th field watershed. The compacted area from all timber sales listed in Table S-1 comprises less than 2% of the BLM administered land. As a result, the incremental impact of Pickett Snake on productivity in the watershed would be miniscule.

Table S-1: Summary of Recent and Foreseeable BLM Timber Sales in the Rogue-Recreation Watershed

Timber Sale	Date Sold	TS Acres	Helicopter Log Acres	Ground-based Log acres	TS Road Construction (ft)	Date logging completed		CT Acres	SR Acres		Aver TS Tree DBH	TS % of Total Watershed (93,316 ac)	TS % of Total BLM in Watershed (37,678 ac)	TS % of BLM Matrix in Watershed (19,216 ac)
(Data is from TS prospectuses)														
Maple Syrup TS	4/30/1998	638	454	184	1,905	10/24/2000		638	0		13	0.7%	1.7%	3.3%
Cenoak TS	9/24/1998	333	259	74	0	Not yet started - start date unknown.		314	19		13	0.4%	0.9%	1.7%
Stratton Hog TS **	9/28/2000	379	285	94		started 5/03 and ongoing			0		12.9	0.4%	1.0%	2.0%
Pickett Snake TS	7/25/2002	1,116	716	400		Not yet started.	389	1,070	46		13.2	1.2%	3.0%	5.8%
Pickett Charge TS ***	-	882	378	504		Not yet sold.		687	195		unk	0.9%	2.3%	4.6%
TOTALS		3,348	2,092	1,256	1,905			3,098	260			3.6%	8.9%	17.4%
Percent of Total WA		**3.6%**	**2.2%**	**1.3%**										
% of BLM in WA		**8.9%**	**5.6%**	**3.3%**										
** A portion of Stratton Hog TS is located in the Berlin-Mummer WA, not the Rogue-Rec WA, only the acres in the Rogue Rec are included here.														
*** Pickett Charge acreage estimates are derived from the proposed action in T36S-R7W (EA table B-3). Expect that it overestimates the acres that will be in final TS.														
North of Rogue River		1,350	998	352	1,905									
South of Rogue River		1,998	1,094	904	0									