



United States  
Department of  
Agriculture

Forest  
Service

Pacific  
Northwest  
Region

November 2008



# Environmental Assessment for Bear Creek Saddle Olympic National Forest



(West Twin River watershed, May 1966)



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TTY).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TTY). USDA is an equal opportunity provider and employer.

## **Contents**

<b>Chapter 1 – Purpose and Need.....</b>	1
Document Structure.....	1
Project Location.....	1
Purpose and Need for Action.....	3
Proposed Action.....	6
Decision Framework.....	6
Management Direction.....	6
Public Involvement.....	11
Issues.....	11
<b>Chapter 2 – Alternatives.....</b>	14
Process Used to Develop Alternatives.....	14
Alternatives not considered in detail.....	14
Alternatives.....	15
Project Design Criteria and Management Requirements, Best Management Practices, and Mitigation.....	30
Potential KV Opportunities.....	39
Summary Comparison of Alternatives.....	43
<b>Chapter 3 – Affected Environment &amp; Environmental Consequences.....</b>	48
Silviculture and Forest Stand Development.....	52
Wildlife.....	57
Soils.....	84
Fisheries.....	96
Botanical Resources.....	108
Economic Viability.....	117
Heritage Resources.....	119
Other Effects.....	125
Analysis File.....	140
<b>Chapter 4 – List of Preparers and Agencies Consulted.....</b>	141
List of Agencies and Persons Consulted.....	141
<b>Chapter 5 – Appendices.....</b>	144
A. Acronyms.....	144
B. Riparian Buffer Guidelines.....	146
C. Summary Table of Roads Proposed for Use.....	150
D. Road Definitions.....	156
E. References.....	159

## **List of Tables**

Table 1. Forest Strategic Plan ratings for planning area 6th field watersheds.....	10
Table 2. Alternative B treatment units.....	16
Table 3. Alternative C treatment units.....	27
Table 4. Monitoring and Adaptive Management Actions Common to Action Alternatives. ....	38
Table 5. KV Road decommissioning opportunities. ....	40
Table 6. KV opportunities for road closure/stabilization/drainage improvements. ....	41
Table 7. Federally listed wildlife species. ....	59
Table 8. Regional Forester's Sensitive Wildlife Species with habitat in the project area. ....	69
Table 9. Sensitive and other rare or uncommon mollusks with potential habitat in the project area. .....	74
Table 10. Forest Management Indicator Species. ....	78
Table 11. Amount of snags across three subwatersheds. ....	83
Table 12. Salmonid Stock Status in Analysis Area Watersheds (SASSI 2002) .....	96
Table 13. Existing Road Densities by Sub Watershed in Bear Saddle Planning Area.....	97
Table 14. Summary of Potential Impacts to Habitat Indicators by Alternative .....	98
Table 15. Regional Forester's Sensitive and other rare or uncommon plants with potential habitat in the project area. ....	109
Table 16. Fungi on Regional Forester's Sensitive Species List and other rare or uncommon species documented or suspected to occur on the Olympic National Forest. ....	111
Table 17. Sensitive and other rare or uncommon lichen species documented or suspected to occur on the Olympic National Forest. ....	114
Table 18. Financial Analysis Results.....	118

## **List of Figures**

Figure 1. Vicinity map/map of project area.....	2
Figure 2. Picture of forest stands in project area. ....	3
Figure 3. Picture of a BPA road in project area. ....	23
Figure 4. Picture of an unclassified, abandoned rd in project area.....	24
Figure 5. Pictures of temporary roads during use.....	25
Figure 6. Pictures of temporary roads after decommissioning and surrounding thinned forest....	25