

TABLE OF CONTENTS

CHAPTER 1 - PURPOSE AND NEED FOR ACTION.....

1.1	Introduction and Project Location	1-1
1.2	Background Information.....	1-3
1.3	Purpose and Need For Action	1-5
1.4	Description of the Proposed Action.....	1-6
	Table 1-1 Treatment Units	1-8
1.5	Scope of the Proposed Action	1-10
1.6	Relationship to the Forest Plan and Other Administrative Direction	1-11
	Gallatin Forest Plan.....	1-11
	Gallatin National Forest Travel Management Plan	1-13
	National Fire Plan Direction.....	1-14
	Other Administrative Direction	1-15
1.7	Decision to be Made	1-17
1.8	Document Organization	1-18

CHAPTER 2 – ISSUES AND ALTERNATIVES.....

2.1	Introduction.....	2-1
2.2	Public Involvement and Scoping Process.....	2-1
2.3	Identification of Issues -.....	2-4
2.4	Significant Issues	2-4
	1. Water Quality.....	2-5
	2. Fisheries	2-6
	3. Fuels.....	2-7
	4. Wildlife Habitat Diversity.....	2-8
	5. Insect and Disease.....	2-8
	6. Soil Quality/Productivity	2-9
2.5.	Other Analysis Issues.....	2-9
	A. Noxious Weeds	2-10
	B. Livestock Grazing	2-10
	C. Recreation.....	2-10
	D. Visuals.....	2-11
	E. Wildlife Issues (TES, Sensitive< MIS Species)	2-12
	F. Sensitive Plants.....	2-13
	G. Old Growth/Vegetative Diversity	2-13
	H. Heritage Resources	2-14
	I. Smoke Emissions.....	2-14
	J. Economic Analysis.....	2-15
	K. Roads.....	2-16
2.6.	Alternative Development Process.....	2-16
2.7	Alternatives Considered In Detailed Study.....	2-18

Alternative 1 (No Action)	2-18
Alternative 2 (Proposed Action)).....	2-19
Table 2-2 Treatment Unit Descriptions	2-20
Alternative 3 (Proposed Action & Meadow Creek Burn)	2-25
Table 2-3 Treatment Unit Descriptions	2-25
Road Maintenance Treatments (Alts 2 & 3).....	2-26
Detailed Stand Treatments Common to All Units (Alts 2 & 3).....	2-26
2.8 Comparison of Alternatives	2-27
Table 2.4 Comparison of Alternatives by Significant Issue	2-27
2.9 Design Criteria and Mitigation (Alts 2 & 3).....	2-30
2.10 Project Monitoring.....	2-40
2.11 Alternatives Considered but Eliminated from Detailed Study	2-43

CHAPTER 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES.....

3.1 Introduction.....	3-1
3.2 Past, Present, & Reasonably Foreseeable Activities.....	3-1
General Description of the Area	3-2
Historical Activity.....	3-3
Table 3-1 Acres of Past Harvest Activity	3-4
Current Activity	3-4
Potential Future Activity.....	3-5
3.3 Gallatin Forest Plan Forest-Wide Goals, Objectives, and Standards.....	3-7
Forest Plan Management Direction	3-7
Recreation Summary.....	3-7
Wildlife Summary.....	3-8
Sensitive Plant Species	3-9
Fisheries Summary.....	3-9
Water Quality Summary	3-11
Forest Plan Management Areas	3-11
3.4 Other Disclosures.....	3-14
3.5 Applicable Laws and Regulations	3-17
3-6 Direct, Indirect, and Cumulative Effects	3-18
1. Water Quality.....	3-19
Table 3-2 Substrate and Sediment Delivery	3-21
Table 3-3 Smith Creek at EF Confluence (Alt 1)	3-23
Table 3-4 EF Smith Creek at Smith Creek Confluence (Alt 1)	3-23
Table 3-5 Smith Creek at Shields River (Alt 1).....	3-23
Table 3-6 Smith Creek at EF Confluence (Alt 2 w/ Road Option A).....	3-25
Table 3-7 Smith Creek at EF Confluence (Alt 2 w/Road Option B/C)	3-25
Table 3-8 EF Smith Crk,Smith Crk Confluence (Alt 2 w/Road Option A)....	3-26
Table 3-9 EF Smith Crk,Smith Crk Confluence (Alt 2 w/Road Opt B/C)	3-26
Table 3-10 Smith Creek at Shields River (Alt 2 w/Road Option A)	3-26
Table 3-11 Smith Creek at Shields River (Alt 2 w/Road Option B/C).....	3-27

Table 3-12 Smith Creek at Shields River (Alt 3 w/Road Option A)	3-28
Table 3-13 Smith Creek at Shields River (Alt 3 w/Road Option B/C).....	3-28
2. Fisheries	3-31
Table 3-14 Management Interpretations of Channel Types	3-32
Table 3-15 Percent of Fine Sediment.....	3-36
Table 3-16 Habitat Management Objectives and Sediment Guidelines	3-38
3. Fuels.....	3-52
Table 3-17 Fire Habitat Groups for Smith Creek	3-53
Table 3-18 Typical August Fire Weather Conditions.....	3-56
4. Wildlife Habitat Diversity.....	3-63
5. Insect & Disease	3-79
6. Soils.....	3-85
Table 3-19 Soil Descriptions and Interpretations	3-86
Table 3-20 Past Soil Disturbance by Unit.....	3-87

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1. Public Involvement and Scoping Process.....	4-1
Public Notice and Outreach	4-1
Chronology of Public Participation	4-1
4.2. Agencies, Organizations, and Individuals Contacted	4-2
4.3 List of Preparers.....	4-4
4.4. Distribution and Review of this EA.....	4-5

APPENDIX A – OTHER ISSUES

Introduction.....	A-1
A. Weeds	A-1
Table A-1 Current Weed Populations.....	A-2
Table A-2 Summary of Weed Risk by Unit.....	A-6
B. Livestock Grazing.....	A-11
C. Recreation	A-14
Table A-3 Description of NFS Trails/Roads Used for Recreation	A-15
Table A-4 Recreational Facilities Within Treatment Units	A-21
D. Visuals.....	A-24
Table A-5 VQOs for Smith Creek Proposed Units.....	A-26
E. General Wildlife Species	A-30
Table A-6 Determinations for T&E, Sensitive & MIS Species.....	A-31
F.1 Threatened and Endangered Species	A-35
Table A-7 LAU Habitat Baseline for the Project Area.....	A-38
Table A-8 LAU Habitat Attributes Associated with Alternative 2.....	A-39
Table A-9 LAU Habitat Attributes Associated with Alternative 3.....	A-43
Table A-10 Relationship of Alternatives to Conservation Measures	A-43
F.2 Sensitive Wildlife, Fish & Amphibian Species	A-48

F.3	MIS Species.....	A-54
	Table A-11 Habitat Relationship Model for Goshawk Nesting.....	A-56
F.4	Migratory Birds	A-63
F.	Sensitive Plants	A-70
	Table A-12 Sensitive Plant Species for the Gallatin National Forest.....	A-71
G.	Old Growth/Vegetative Diversity.....	A-75
	Table A-13 Forested Successional Stages in Compartment 221	A-77
	Table A-14 Structural Stage Changes After Treatments (Alt 2).....	A-79
	Table A-15 Structural Stage Amounts After Treatments (Alt 2).....	A-79
	Table A-16 Structural Stage Treatments After Treatments (Alt 3)	A-80
	Table A-17 Structural Stage Amounts After Treatment (Alt 3)	A-80
	Table A-18 Vegetative Response for Plant Species in Analysis Area.....	A-81
H.	Heritage Resources	A-82
I.	Smoke Emission.....	A-84
	Table A-19 Modeling Results for Burn Piles (Alternatives 2 & 3)	A-86
	Table A-20 Modeling Results for Meadow Creek Prescribed Burn	A-88
J.	Project & Financial Feasibility and Economic Effects	A-90
	Table A-21 Project & Financial Feasibility Summary (2006 dollars)	A-94
	Table A-22 Restoration Activity Expenditures (5 years)	A-96
	Table A-23 Labor & Income for the Entire Project.....	A-96
K.	Roads.....	A-100
	Table A-24 Road Management & Treatments by Road	A-103
	Table A-25 Trail Management & Treatments by Trail.....	A-110

APPENDIX B – BEST MANAGEMENT PRACTICES.....

Introduction.....	B-1
BMP Implementation Process.....	B-2
Definitions.....	B-3
Streamside Management.....	B-4
Roads	B-4
Timber Harvesting and Site Preparation.....	B-8
Stream Crossings	B-12
Winter Logging.....	B-14
Hazardous Substances.....	B-15

LIST OF MAPS

Vicinity and Project Area Map	M-1
Treatment Unit Overview Map.....	M-2
Alternative 2 (Proposed Action) Map.....	M-3
Alternative 3 (Proposed Action & Meadow Creek Burn) Map	M-4
2007 Pre-Activity Road Maintenance Treatments.....	M-5
Project Road Treatments A, B, & C Map	M-6
Landtype Map	M-7
Structural Stages Map	M-8
Past Harvest Map	M-9
Management Area Map.....	M-10

GLOSSARY/ACRONYMS	G-1
--------------------------------	------------

LITERATURE CITED	L-1
-------------------------------	------------

..