
RECORD OF DECISION AND APPROVED CASPER
RESOURCE MANAGEMENT PLAN

APPENDIX M

Surface Disturbance and Reasonable Foreseeable
Actions

Appendix M Surface Disturbance and Reasonable Foreseeable Actions

This appendix includes two tables that provide information on surface disturbance and reasonable foreseeable actions within the planning area. Table M-1 provides projected acres of surface disturbance by resource. Table M-2 provides foreseeable development projects by resource.

Table M-1. Surface Disturbance

Type of Disturbance	Approved RMP
Fire Management and Ecology	
<i>Management Ignited Prescribed Fire</i>	
Acres Short-Term Disturbance from BLM Actions	20,000
Acres Reclaimed from BLM Actions	20,000
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	105,000
Acres Reclaimed from Non-BLM Actions	105,000
Acres Long-Term Disturbance from Non-BLM Actions	0
<i>Fuels Management - Mechanical Treatments (Hand Work)</i>	
Acres Short-Term Disturbance from BLM Actions	600
Acres Reclaimed from BLM Actions	600
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	3,150
Acres Reclaimed from Non-BLM Actions	3,150
Acres Long-Term Disturbance from Non-BLM Actions	0
Forest and Woodlands	
<i>Silviculture Treatments, Forest Products, and Insect Control</i>	
Acres Short-Term Disturbance from BLM Actions	1,600
Acres Reclaimed from BLM Actions	1,600
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	8,400
Acres Reclaimed from Non-BLM Actions	8,400
Acres Long-Term Disturbance from Non-BLM Actions	0
Livestock Grazing	
<i>Spring Development</i>	
Acres Short-Term Disturbance from BLM Actions	32

Table M-1. Surface Disturbance (Continued)

Type of Disturbance	Approved RMP
Acres Reclaimed from BLM Actions	32
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	168
Acres Reclaimed from Non-BLM Actions	168
Acres Long-Term Disturbance from Non-BLM Actions	0
<i>Pipeline Development</i>	
Acres Short-Term Disturbance from BLM Actions	36
Acres Reclaimed from BLM Actions	36
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	189
Acres Reclaimed from Non-BLM Actions	189
Acres Long-Term Disturbance from Non-BLM Actions	0
<i>Reservoir/Pit Development</i>	
Acres Short-Term Disturbance from BLM Actions	80
Acres Reclaimed from BLM Actions	0
Acres Long-Term Disturbance from BLM Actions	80
Acres Short-Term Disturbance from Non-BLM Actions	420
Acres Reclaimed from Non-BLM Actions	0
Acres Long-Term Disturbance from Non-BLM Actions	420
<i>Fence Development</i>	
Acres Short-Term Disturbance from BLM Actions	432
Acres Reclaimed from BLM Actions	432
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	2,268
Acres Reclaimed from Non-BLM Actions	2,268
Acres Long-Term Disturbance from Non-BLM Actions	0
<i>Well Development</i>	
Acres Short-Term Disturbance from BLM Actions	13
Acres Reclaimed from BLM Actions	0
Acres Long-Term Disturbance from BLM Actions	13

Table M-1. Surface Disturbance (Continued)

Type of Disturbance	Approved RMP
Acres Short-Term Disturbance from Non-BLM Actions	68
Acres Reclaimed from Non-BLM Actions	0
Acres Long-Term Disturbance from Non-BLM Actions	68
<i>Reservoir Maintenance Development</i>	
Acres Short-Term Disturbance from BLM Actions	40
Acres Reclaimed from BLM Actions	40
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	210
Acres Reclaimed from Non-BLM Actions	210
Acres Long-Term Disturbance from Non-BLM Actions	0
Mineral Resources - Locatable	
Acres Short-Term Disturbance from BLM Actions	620
Acres Reclaimed from BLM Actions	310
Acres Long-Term Disturbance from BLM Actions	310
Acres Short-Term Disturbance from Non-BLM Actions	498
Acres Reclaimed from Non-BLM Actions	249
Acres Long-Term Disturbance from Non-BLM Actions	249
Mineral Resources - Coal	
Acres Short-Term Disturbance from BLM Actions	8,694
Acres Reclaimed from BLM Actions	0
Acres Long-Term Disturbance from BLM Actions	8,694
Acres Short-Term Disturbance from Non-BLM Actions	800
Acres Reclaimed from Non-BLM Actions	0
Acres Long-Term Disturbance from Non-BLM Actions	800
Mineral Resources - Oil and Gas	
Acres Short-Term Disturbance from BLM Actions	16,285
Acres Reclaimed from BLM Actions	11,289
Acres Long-Term Disturbance from BLM Actions	4,996
Acres Short-Term Disturbance from Non-BLM Actions	7,344
Acres Reclaimed from Non-BLM Actions	5,084

Table M-1. Surface Disturbance (Continued)

Type of Disturbance	Approved RMP
Acres Long-Term Disturbance from Non-BLM Actions	2,260
Mineral Resources – Other Solid Leasables	
Acres Short-Term Disturbance from BLM Actions	0
Acres Reclaimed from BLM Actions	0
Acres Long-Term Disturbance from BLM Actions	0
Acres Short-Term Disturbance from Non-BLM Actions	0
Acres Reclaimed from Non-BLM Actions	0
Acres Long-Term Disturbance from Non-BLM Actions	0
Mineral Resources - Salables	
Acres Short-Term Disturbance from BLM Actions	1,360
Acres Reclaimed from BLM Actions	680
Acres Long-Term Disturbance from BLM Actions	680
Acres Short-Term Disturbance from Non-BLM Actions	884
Acres Reclaimed at Non-BLM Actions	442
Acres Long-Term Disturbance from Non-BLM Actions	442
Off-Highway Vehicles	
Acres Short-Term Disturbance from BLM Actions	680
Acres Reclaimed from BLM Actions	0
Acres Long-Term Disturbance from BLM Actions	680
Acres Short-Term Disturbance from Non-BLM Actions	3,570
Acres Reclaimed from Non-BLM Actions	0
Acres Long-Term Disturbance from Non-BLM Actions	3,570
Recreation	
Acres Short-Term Disturbance from BLM Actions	6
Acres Reclaimed from BLM Actions	0
Acres Long-Term Disturbance from BLM Actions	6
Acres Short-Term Disturbance from Non-BLM Actions	0
Acres Reclaimed from Non-BLM Actions	0
Acres Long-Term Disturbance from Non-BLM Actions	0
Renewable Energy - Wind Energy Development	

Table M-1. Surface Disturbance (Continued)

Type of Disturbance	Approved RMP
Acres of Short-Term Disturbance from BLM Actions	281
Acres Reclaimed from BLM Actions	126
Acres of Long-Term Disturbance from BLM Actions	155
Acres of Short-Term Disturbance from Non-BLM Actions	1,475
Acres Reclaimed from Non-BLM Actions	664
Acres of Long-Term Disturbance from Non-BLM Actions	811
Rights-of-Way (ROW)	
<i>Telephone and Fiber Optics</i>	
Acres of Short-Term Disturbance from BLM Actions	203
Acres Reclaimed from BLM Actions	203
Acres of Long-Term Disturbance from BLM Actions	0
Acres of Short-Term Disturbance from Non-BLM Actions	1,066
Acres Reclaimed from Non-BLM Actions	1,066
Acres of Long-Term Disturbance from Non-BLM Actions	0
<i>Pipelines (Mineral and Water)</i>	
Acres of Short-Term Disturbance from BLM Actions	3,754
Acres Reclaimed from BLM Actions	3,754
Acres of Long-Term Disturbance from BLM Actions	0
Acres of Short-Term Disturbance from Non-BLM Actions	19,709
Acres Reclaimed from Non-BLM Actions	19,709
Acres of Long-Term Disturbance from Non-BLM Actions	0
<i>Roads</i>	
Acres of Short-Term Disturbance from BLM Actions	3,966
Acres Reclaimed from BLM Actions	0
Acres of Long-Term Disturbance from BLM Actions	3,966
Acres of Short-Term Disturbance from Non-BLM Actions	20,822
Acres Reclaimed from Non-BLM Actions	0
Acres of Long-Term Disturbance from Non-BLM Actions	20,822
<i>Powerlines</i>	
Acres of Short-Term Disturbance from BLM Actions	1,835
Acres Reclaimed from BLM Actions	0

Table M-1. Surface Disturbance (Continued)

Type of Disturbance	Approved RMP
Acres of Long-Term Disturbance from BLM Actions	1,835
Acres of Short-Term Disturbance from Non-BLM Actions	9,634
Acres Reclaimed from Non-BLM Actions	0
Acres of Long-Term Disturbance from Non-BLM Actions	9,634
<i>Communication Sites</i>	
Acres of Short-Term Disturbance from BLM Actions	24
Acres Reclaimed from BLM Actions	0
Acres of Long-Term Disturbance from BLM Actions	24
Acres of Short-Term Disturbance from Non-BLM Actions	126
Acres Reclaimed from Non-BLM Actions	0
Acres of Long-Term Disturbance from Non-BLM Actions	126
<i>Other Facilities</i>	
Acres of Short-Term Disturbance from BLM Actions	172
Acres Reclaimed from BLM Actions	0
Acres of Long-Term Disturbance from BLM Actions	172
Acres of Short-Term Disturbance from Non-BLM Actions	903
Acres Reclaimed from Non-BLM Actions	0
Acres of Long-Term Disturbance from Non-BLM Actions	903
Transportation	
<i>Road Maintenance</i>	
Acres of Short-Term Disturbance from BLM Actions	61
Acres Reclaimed from BLM Actions	0
Acres of Long-Term Disturbance from BLM Actions	61
Acres of Short-Term Disturbance from Non-BLM Actions	320
Acres Reclaimed from Non-BLM Actions	0
Acres of Long-Term Disturbance from Non-BLM Actions	320
Vegetation - Mechanical Treatments (Excluding Hand Work)	
Acres of Short-Term Disturbance from BLM Actions	500
Acres Reclaimed from BLM Actions	500
Acres of Long-Term Disturbance from BLM Actions	0
Acres of Short-Term Disturbance from Non-BLM Actions	2,625

Table M-1. Surface Disturbance (Continued)

Type of Disturbance	Approved RMP
Acres Reclaimed from Non-BLM Actions	2,625
Acres of Long-Term Disturbance from Non-BLM Actions	0
Cumulative Disturbance	
Total Acres Short-Term Disturbance from BLM Actions	61,274
Total Acres Reclaimed from BLM Actions	39,602
Total Acres Long-Term Disturbance from BLM Actions	21,672
Total Acres Short-Term Disturbance from Non-BLM Actions	189,649
Total Acres Reclaimed from Non-BLM Actions	149,224
Total Acres Long-Term Disturbance from Non-BLM Actions	40,425
Cumulative Long-Term Acres of Disturbance	62,097

Assumptions for Non-BLM Actions:

1. Calculation of surface disturbance for non-BLM oil and gas actions is based on the following percent federal and non-federal wells from Wyoming Reservoir Management Group's Oil and Gas Reasonable Foreseeable Development (BLM 2005d):
 - Baseline – 71% federal and 29% non-federal
 - Approved RMP – 69% federal and 31% non-federal.
2. Calculation of surface disturbance for non-BLM coal development is based on the following actual mineral ownership within the coal development potential area:
 - 92% BLM-administered mineral estate and 8% non-BLM-administered mineral estate
3. The amount of surface development for the remaining activities (excluding oil, gas, and coal) projected to occur within the planning area is assumed the same for BLM and non-BLM actions, regardless of land ownership.
 - a. Calculation of surface disturbance for non-BLM other mineral actions (i.e., non-oil and gas) is based on the following:
 - 55% BLM-administered mineral estate and 45% non-BLM-administered mineral estate in the planning area
 - b. Calculation of surface disturbance for non-BLM other activities (i.e., non-mineral) is based on the following:
 - 16% BLM-administered surface and 84% non-BLM-administered surface in the planning area.

BLM Bureau of Land Management

Table M-2. Reasonable Foreseeable Development

Type of Development	Approved RMP
Mineral Resources – Oil and Gas	
Federal Well Projections	
Existing Productive Federal Wells	
Number of Existing Federal Wells	3,373
Projected Number of Abandoned Existing Federal Wells	256
Remaining Number of Existing Productive Federal Wells	3,117
Projected New Federal Wells	
Number of Projected New Federal Wells	1,813
Projected Number of Abandoned New Federal Wells	281
Projected Productive New Federal Wells	1,532
Projected Total Productive Federal Wells	
Remaining Number of Existing Productive Federal Wells	3,117
Projected Productive New Federal Wells	1,532
Total Number Productive Federal Wells	4,649
Non-federal Well Projections (State and Fee Minerals)	
Existing Productive Non-federal Wells	
Number of Existing Non-federal Wells	1,377
Projected Number of Abandoned Non-federal Wells	104
Remaining Number of Existing Productive Non-federal Wells	1,273
Projected New Non-federal Wells	
Number of Projected New Non-federal Wells	815
Projected Number of Abandoned New Non-federal Wells	127
Projected Productive New Non-federal Wells	688
Projected Total Productive Non-Federal Wells	
Remaining Number of Existing Productive Non-Federal Wells	1,273
Projected Productive New Non-Federal Wells	688
Total Number Productive Non-federal Wells	1,961
Cumulative Productive Wells	
Total Number Productive Federal Wells	4,649
Total Number Productive Non-federal Wells	1,961
Total Productive Wells	6,610

Appendix M – Surface Disturbance and Reasonable Foreseeable Actions

Table M-2. Reasonable Foreseeable Development (Continued)

Type of Development	Approved RMP
Mineral Resources - Coal	
Coal Development	There is one producing mine that produced 24.6-million tons in 2001. Coal production at this mine cannot exceed 30-million tons annually.
Mineral Resources - Locatable	
Exploration for locatable minerals	All BLM administered mineral estate, except in areas specifically withdrawn from mineral location, would remain open for prospecting for and development of locatable minerals.
Fire Management and Ecology	
Management Ignited Prescribed Fire	1,000 acres/year
Fuels Management	75 acres/year
Fish and Wildlife	
Restore The Water Table of Incised Streams by Using Various Methods Including In-stream Structures	At least 4 streams may be restored.
Forest and Woodlands	
Silviculture Treatments, Forest Products, and Insect Control Total Disturbed Area for Life of Plan	1,600 acres
Invasive Nonnative Plant Species	
Control of Noxious Weeds and Nonnative Plants, Unrelated to Surface Disturbance Projects	Treat 850 acres /year
Range Improvement Projects: Assumes 5 percent requires treatment	32 acres/year disturbed = 2 acres/year treated
Prescribed Fire: Assumes 10 percent requires BLM treatment	1,000 acres/year disturbed = 100 acres/year treated
Chemical Treatments (Spike): Assumes 0 percent requires BLM treatment	500 acres/year disturbed = 0 acres/year treated
Mechanical Treatments: Assumes 5 percent requires BLM treatment	25 acres/year disturbed = 2 acres/year treated
BLM Road Maintenance: Assumes 10 percent requires BLM treatment	128 acres/year disturbed = 13 acres/year treated
Forests and Woodland	100 acres/year treated
Federal Oil and Gas Well Activities: Assumes 40 percent requires treatment on short-term disturbance and 15 percent requires treatment on long-term disturbance	325 acres short-term 134 acres long-term 459 acres total
Renewable Energy Projects: Assumes 10 percent requires treatment	14 acres/year disturbed = 2 acres/year treated
ROW: Assumes 10 percent requires treatment	488 acres/year disturbed = 49 acres/year treated
Lands and Realty	
The demand for disposal of public land will average about 5,000 acres per year.	11,252 acres
Livestock Grazing	
Spring Development – Total Number of Projects	25
Reservoir/Pit Development – Total Number of Projects	40
Well Development – Total Number of Projects	50
Pipeline Development – Total Number of Projects	15
Fence Development – Total Number of Projects	90
Reservoir Maintenance Development – Total Number of Projects	20

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