

SUMMARY

This Proposed North Dakota Resource Management Plan (RMP) addresses future management for approximately 67,571 acres of public land and 4.8 million acres of federal mineral estate administered by the Bureau of Land Management (BLM) through its Dickinson District Office in Dickinson, North Dakota. This RMP has been revised to incorporate comments on the Draft RMP/EIS received during the public review period of December 22, 1986 through March 25, 1987. Comments were received from 43 persons attending four public meetings and from 36 letters.

Some of the major comments on the draft included:

- there should be a greater range of alternatives
- the document overstates reclaimability of mined lands
- there should be more detailed air quality analyses performed
- there should be no protective stipulations placed on split estate
- the Lynch Knife River Flint Quarry area should not be excluded from further consideration for leasing or exchange of coal
- the Lynch Knife River Flint Quarry area should be excluded from further consideration for leasing or exchange of coal
- management decisions should provide protection for rare plants and animals and exemplary communities
- the draft plan does not propose "multiple use" consistent with law
- the plan should provide more protection to the visual qualities of National Park Service units
- there is presently inconclusive evidence regarding the historical significance of the A.C. Townley homestead.

Significant changes made to the plan and environmental analysis as a result of public comment include:

- rare plants and animals, and exemplary communities will be given special attention in all future management actions
- mitigation measures necessary for protection of visual qualities relating to National Park Service units will be considered in all future management plans
- the A.C. Townley homestead in the Golden Valley Coal Study Area has been returned to the area acceptable for further consideration for the leasing or exchange of coal in Alternatives B, C, and D
- approximately 2,320 acres were returned to the area acceptable for further consideration for coal leasing or exchange in the Dunn Center Coal Study Area as a result of corrections made to areas excluded under surface owner opposition and multiple-use tradeoffs
- more detailed management guidance was added for water and soil resources under all alternatives
- more detail and explanation of rationale has been provided for multiple-use tradeoffs in respect to coal.

Alternative C of the Draft RMP/EIS has become the Proposed RMP. The discussion of issues below is essentially the same as that appearing in the Draft RMP/EIS. However, most acreage figures have changed slightly.

PLANNING ISSUES

The BLM planning process is issue driven. Four issues were identified through public input, resource monitoring, and policy mandate during the scoping process for this RMP. These issues are areas of controversy, requiring resolution in the planning process.

(1) *Coal Leasing* — Areas of federal coal administered by BLM must be screened for potential for coal development, unacceptable environmental conflicts, and significant surface owner opposition to mining according to the four coal screens (43 CFR 3420.1-4). The application of the screens include consideration of all resources in the unsuitability criteria (43 CFR 3461) as well as other resources not specifically addressed by the criteria.

(2) *Land Pattern Adjustment* — Small, scattered, and isolated tracts of public land in North Dakota are often difficult or uneconomical to manage. Land pattern adjustments need to be made to improve multiple-use management and to increase resource values for the public.

(3) *Oil and Gas Leasing* — The uncertain timing, location, and resource impacts of oil and gas development require that potential impacts be analyzed during the planning process and that appropriate measures be prescribed to protect other significant resources. Lease stipulations need to be developed to avoid or mitigate impacts to other resources. Efficient development of oil and gas requires that stipulations are not more restrictive than necessary to accomplish multiple-use objectives.

(4) *Off-Road Vehicle Use Designations* — BLM has been mandated by executive order (EO 11644) to study and designate public lands as open, limited, or closed to off-road vehicle (ORV) use. Areas where ORV use may cause significant adverse environmental impacts need to be protected by appropriate use designations.

THE ALTERNATIVES

The formulation and analysis of alternatives is required by the Council of Environmental Quality regulations implementing the National Environmental Policy Act (40 CFR 1500.2(e)) and BLM resource management planning regulations (43 CFR 1610.4-5). The goal of each alternative is the resolution of the issues. Each alternative presents a complete and reasonable guide to future management of public lands and resources. Current management of non-issue resources and programs will continue under all alternatives considered.

Several alternatives were considered during the formulation process but were dropped from detailed study because they were unreasonable or did not adequately address the planning issues. Four alternatives were developed and analyzed in detail. Below are the major management actions and environmental impacts under each alternative. Further details are found in Tables 2-1 and 2-2.

Alternative A – No Action

Coal Leasing

A total of 391,179 acres are acceptable for further consideration for the leasing or exchange of coal. Leasing of this coal would support new mines and facilities in 13 coal study areas (CSAs). Mining and related facility operation would cause significant long-term decreases in air quality due to increased particulates and sulfur dioxide (SO₂) in the planning area. Short-term soil erosion, compaction, instability, and loss of productivity would occur on up to 391,179 acres. Long-term erosion would occur on up to 2,793 acres of steep slopes. Mining would cause a short-term decrease in recharge of ground water and could cause short- and long-term losses in the quality and quantity of ground water. A short-term loss of vegetative productivity would occur on all mined acreages. A long-term loss of vegetative diversity would occur on areas of native prairie. The mining of up to 47,373 acres of wooded draws would cause long-term losses in important wildlife habitat and associated populations. Agricultural production would have a short-term loss on up to 274,000 acres of cropland. An estimated 156,782 eligible cultural resource sites could be adversely affected. Construction of mines and facilities would cause long-term increases in local populations and income while creating short- and long-term social problems in areas surrounding the 13 CSAs able to support new mines and facilities.

Oil and Gas Leasing

Special stipulations in addition to Montana BLM Standard Stipulations are applied to new oil and gas leases on up to 29,136 acres. New leases on the remaining 431,258 acres would include only standard stipulations. Oil and gas development on up to 459,298 acres would cause long-term increases in odor and potential health problems due to increased amounts of hydrogen sulfide (H₂S) and SO₂ in the air. Special stipulations would cause long-term increases in oil and gas development costs on up to 29,136 acres. There may be long-term losses in the quality and quantity of ground water on all developed acreages. Special stipulations would protect wildlife habitats and species on 29,136 acres. Significant long-term losses of habitats and species are expected on up to 178,077 acres. Hunting and other recreational opportunities would experience a long-term loss of quality on up to 459,298 acres. Visual quality of the landscape would decrease similarly. Unhindered oil and gas development on 459,298 acres would continue to provide long-term local employment and severance tax income to the state.

Land Adjustment

A total of 9,539 acres of public land are identified for disposal or exchange. Preferred acquisition areas are lands adjacent to Big Gumbo and Lost Bridge areas. Disposal would complicate administration of oil and gas leases. Adjustment would improve manageability of public lands, thereby increasing the long-term quality of water resources, wildlife habitat, recreation, and range production. The possible disposal of up to 9,539 acres would be a long-term loss of these lands to the public land base. Adjustment could adversely affect up to 77 cultural resources.

Off-Road Vehicle Use Designations

No ORV designations have been made; all 67,571 acres of public lands are open to ORV use. Long-term soil erosion

and compaction problems would be perpetuated in local areas. Losses of vegetation, wildlife habitat, cultural resources and disturbance of wildlife would have long-term but minor impacts. Long-term ORV recreational opportunities would be maintained.

Alternative B

Coal Leasing

A total of 599,496 acres are acceptable for further consideration for the leasing or exchange of coal. Of these, 152,487 acres have special stipulations. Leasing of this coal would support new mines and facilities in 16 of 24 CSAs. Mining and facility construction would cause significant long-term decreases in air quality due to increased particulates and SO₂ in the planning area. Short-term soil erosion, compaction, instability, and loss of productivity would occur on up to 599,496 acres. Long-term erosion would occur on up to 79,478 acres of steep slopes. Mining would cause a short-term decrease in recharge of ground water and could cause short- and long-term losses in the quality and quantity of ground water. A short-term loss of vegetative productivity and long-term loss of vegetative diversity would occur on all mined acreages. The mining of up to 29,387 acres of wooded draws would cause long-term losses in wildlife populations. Special stipulations would ensure restoration of 152,487 acres of important wildlife habitats. Agricultural production would have a short-term loss on up to 384,000 acres. An estimated 239-1,194 eligible cultural resource sites could be adversely affected. Construction of mines and facilities would cause long-term increases in local populations and income while creating short- and long-term social problems in up to 16 of 24 CSAs.

Oil and Gas Leasing

New oil and gas leases on up to 460,394 acres are subject only to Montana BLM Standard Stipulations. Oil and gas development on these acreages would cause long-term increases in odor and potential health problems due to increased amounts of H₂ and SO₂ in the air. There may be long-term losses in the quality and quantity of ground water on all developed acreages. Significant long-term losses of wildlife habitats and species are expected on up to 206,117 acres. Hunting and other recreational opportunities would experience a long-term loss of quality on up to 460,394 acres. Visual quality of the landscape would decrease similarly. Unhindered oil and gas development on 460,394 acres would continue to provide long-term local employment and severance tax income to the state.

Land Adjustment

A total of 38,680 acres of public land are identified for disposal or exchange. Exchanges would be made to acquire lands adjacent to Big Gumbo and Lost Bridge areas. Disposal would complicate administration of oil and gas leases. Adjustment would improve manageability of public lands, thereby increasing the long-term quality of water resources, wildlife habitat, recreation, and range production. The possible disposal of up to 38,680 acres would be a long-term loss of these lands to the public land base. Adjustment could adversely affect up to 311 cultural resources.

Off-Road Vehicle Use Designations

All 67,571 acres of public lands are designated open to ORV use. Long-term soil erosion and compaction problems

would be perpetuated in local areas. Losses of vegetation, wildlife habitat, cultural resources and disturbance of wildlife would have long-term but minor impacts. Long-term ORV recreational opportunities would be maintained.

Alternative C – Proposed

Coal Leasing

A total of 573,868 acres are acceptable for further consideration for the leasing or exchange of coal. Of these, 198,923 acres have special stipulations. Leasing of this coal would support new mines and facilities in 15 of 24 CSAs. Mining and facility construction would cause significant long-term decreases in air quality due to increased particulates and SO₂ in the planning area. Short-term soil erosion, compaction, instability, and loss of productivity would occur on up to 573,868 acres. Steep slopes would be protected from erosion. Mining would cause a short-term decrease in recharge of ground water and could cause short- and long-term losses in the quality and quantity of ground water. A short-term loss of vegetative productivity would occur on all mined acreages. A long-term loss of vegetative diversity would occur on areas of native prairie. The mining of up to 16,771 acres of wooded draws would cause long-term losses in wildlife populations. Special stipulations would ensure restoration of up to 149,470 acres of important wildlife habitats and protect up to 12,318 acres of buried-valley aquifers, and up to 36,225 acres of National Park unit viewsheds. Agricultural production would have a short-term loss on up to 381,000 acres. An estimated 229-1,143 eligible cultural resource sites could be adversely affected. Construction of mines and facilities would cause long-term increases in local populations and income while creating short- and long-term social problems in up to 15 of 24 CSAs.

Oil and Gas Leasing

New oil and gas leases on up to 206,811 acres have special stipulations in addition to Montana BLM Standard Stipulations. Leases on the remaining 253,583 acres would have standard stipulations only. Oil and gas development on these acreages would cause long-term increases in odor and potential health problems due to increased amounts of H₂S and SO₂ in the air. Special stipulations would cause long-term increases in oil and gas development costs on up to 206,811 acres. There may be long-term losses in the quality and quantity of ground water on all development acreages. Special stipulations would protect key wildlife species and habitats. Hunting and other recreational opportunities would experience a long-term loss of quality on up to 460,394 acres. Visual quality of the landscape would decrease similarly. Unhindered oil and gas development on up to 253,583 acres would continue to provide long-term local employment and severance tax income to the state.

Land Adjustment

A total of 22,739 acres of public land are identified for disposal or exchange. An additional 11,715 acres are identified for exchange only. Exchanges would be made to acquire lands within the Big Gumbo and Lost Bridge consolidation areas and lands adjacent to isolated retention tracts. Disposal would complicate administration of oil and gas leases. Adjustment would improve manageability of public lands, thereby increasing the long-term quality of water resources, wildlife habitat, recreation, and range production. The possible disposal of up to 22,739 acres

would be a long-term loss of these lands to the public land base. Adjustment would adversely affect up to 183 cultural resources.

Off-Road Vehicle Use Designations

ORV use on 22,164 acres in the Big Gumbo area is limited to maintained roads from March 1 to June 1 and open the remainder of the year. All other public lands are designated open to ORV use. Long-term soil erosion and compaction problems would be perpetuated in local areas. Losses of vegetation, wildlife habitat, cultural resources, and disturbance of wildlife would have long-term but minor impacts on 45,407 acres. Long-term ORV recreational opportunities would be maintained in this acreage.

Alternative D

Coal Leasing

A total of 487,072 acres are acceptable for further consideration for the leasing or exchange of coal. Of these, 143,725 acres have special stipulations. Leasing of this coal would support new mines and facilities in 14 of 24 CSAs. Mining and facility construction would cause significant long-term decreases in air quality due to increased particulates and SO₂ in the planning area. Short-term soil erosion, compaction, instability, and loss of productivity would occur on up to 487,072 acres. Losses would be minimized because no slopes over 15 percent are included. Mining would cause a short-term decrease in recharge of ground water and could cause short- and long-term losses in the quality and quantity of ground water. A short-term loss of vegetative productivity would occur on all mined acreages. A long-term loss of vegetative diversity would occur on areas of native prairie. The mining of up to 6,117 acres of wooded draws would cause long-term losses of wildlife populations. Special stipulations would ensure restoration of up to 111,030 acres of important wildlife habitats, and would help to protect visual qualities on up to 32,695 acres within National Park unit viewsheds. Agricultural production would have a short-term loss on up to 332,000 acres. An estimated 194-969 eligible cultural resource sites could be affected. Construction of mines and facilities would cause long-term increases in local populations and income while creating short- and long-term social problems in up to 14 of 24 CSAs.

Oil and Gas Leasing

New oil and gas leases on up to 107,314 acres would have special stipulations in addition to Montana BLM Standard Stipulations. Only standard stipulations apply to another 253,583 acres while up to 99,497 acres are closed to new leases. Oil and gas development would cause long-term increases in odor and potential health problems due to increased amounts of H₂S and SO₂ in the air. Closure of 99,497 acres would cause a long-term loss of potential production on these acreages. Special stipulations would cause long-term increases in oil and gas development costs on up to 107,314 acres. There may be long-term losses in the quality and quantity of ground water on all developed acreages. Special stipulations and closures would protect key wildlife species and habitats. Hunting and other recreational opportunities would experience a long-term loss of quality on up to 360,897 acres. Visual quality of the landscape would decrease similarly. Unhindered oil and gas development on 253,583 acres would continue to provide long-term local employment and severance tax income to the state.

Land Adjustment

No public lands are identified for exchange or disposal. Outside applications for exchange or disposal would be reviewed on a case-by-case basis. Lack of an adjustment program may forego the opportunity to consolidate lands for better resource management.

Off-Road Vehicle Use Designations

ORV use on 22,164 acres in the Big Gumbo area is limited to maintained roads from March 1 to June 1 and limited to roads and trails the remainder of the year. All other public lands are designated open to ORV use. Long-term soil erosion and compaction problems would be perpetuated in local areas. Losses of vegetation, wildlife habitat, cultural resources and disturbance of wildlife would have long-term but minor impacts on 45,407 acres. Long-term ORV recreational opportunities would be maintained in this acreage.

CONCLUSION

The impacts of the four alternatives tend to be similar in quality but substantially different in the numbers of acres affected by given management actions. Alternative C is the proposed RMP because it presents a reasonable balance between commodity production and protection of amenity resources.

HOW TO USE THIS DOCUMENT

The draft North Dakota Resource Management Plan and Environmental Impact Statement released in December, 1986 analyzed four alternative management plans and identified a preferred alternative. The draft was made available for public review and comment December 22, 1986 through March 25, 1987. All comments received during the review period were analyzed and used to develop the proposed plan presented in this document. This document includes reproductions of the written comments received and a summary of oral comments provided during four public meetings. Responses are provided to all comments received.

This document includes portions of the material presented in the draft, responses to comments, and changes or additions made as a result of public review. Chapter One — Introduction and Purpose and Need for Action, Chapter Two — Alternatives and Chapter Five — Consultation and Coordination have been reprinted entirely. Appendices critical to the explanation of the alternatives have also been reprinted here. These chapters and appendices include changes made following public review. All changes and additions are highlighted in bold print. Other sections, such as Glossary, Literature Cited, and List of Acronyms have also been reprinted here for your convenience.

Two chapters presented in the draft, Chapter Three — Affected Environment and Chapter Four — Environmental Consequences, are not reprinted in this document. Also, appendices and maps included in the draft which serve as support to these two chapters are not included here. Changes and additions to be made to those portions not reprinted are identified in this document under the heading of Errata and Changes To Text — Chapters Three and Four, Appendices H, I, J, L, M, and O, and Maps.

The material presented in this document and portions of the draft plan and environmental impact statement referred to under "Errata and Changes To Text" represent

the complete environmental impact statement for the North Dakota Resource Management Plan. Alternative C, as presented in Chapter Two of this document, is the proposed plan for Bureau of Land Management actions in North Dakota. The relationship between the draft plan and environmental impact statement and this final plan and environmental impact statement is depicted in Figure 1.

SUGGESTIONS FOR USE

This document is organized in a manner that allows several levels of review.

- (1) If you desire only a brief overview of the proposed resource management plan and final environmental impact statement, you should review the Summary. Substantial changes to the draft and key or frequent public comments are identified in the Summary.
- (2) If you wish to review a more detailed explanation of the alternative plans considered, including the proposed plan, and a summary of projected environmental consequences of each plan, see Chapter Two — Alternatives.
- (3) If you would like to review the public comments provided on the draft and our responses, see Public Comments and Responses. A list of persons, agencies, and organizations that provided written comments is presented at the start of Public Comments.
- (4) If you are interested in reviewing descriptions of the existing environment, detailed environmental consequences, and related supporting material (including maps), see the draft document. Changes and additions which have been made to these portions of the draft are presented under Errata and Changes To Text in this document.
- (5) If you have only specific concerns, see Index in this document.

Figure 1. Relationship between draft and final documents.

Portion of Draft		Portion of Final
Summary	→ revised and reprinted →	Summary
Chapter One	→ revised and reprinted →	Chapter One
Chapter Two	→ revised and reprinted →	Chapter Two
Chapter Three	→ revised →	Errata and Changes to Text
Chapter Four	→ revised →	Errata and Changes to Text
Chapter Five	→ revised and reprinted →	Chapter Five
Glossary	→ revised and reprinted →	Glossary
Index	→ revised and reprinted →	Index
Literature Cited	→ revised and reprinted →	Literature Cited
Appendix A	→ revised and reprinted →	Appendix A
Appendices B,C,D,E,F,& G	→ revised and combined →	Appendix B
Appendix H	→ revised →	Errata and Changes to Text
Appendix I	→ revised →	Errata and Changed to Text
Appendix K	→ revised →	Errata and Changes to Text
Appendix L	→ revised →	Errata and Changes to Text
Appendix M	→ revised →	Errata and Changes to Text
Appendix N	→ revised and reprinted →	Appendix D
Appendix O	→ revised →	Errata and Changes to Text