

Mississippi Record of Decision and Approved Resource Management Plan

January 2009



Eastern States, Jackson Field Office



**Record of Decision
for the
Approved Resource Management Plan/Final
Environmental Impact Statement
for
Public Lands and Minerals Administered in Alabama
by the
Bureau of Land Management
Eastern States
Jackson Field Office**

Prepared by
**U.S. Department of Interior
Bureau of Land Management
Jackson Field Office**

Bruce Dawson 1/20/09
Bruce Dawson Date
Recommended
Bureau of Land Management
Field Manager, Jackson Field Office

Juan Palma 3/3/2009
Juan Palma Date
Approved
Bureau of Land Management
Eastern States Director

**Record of Decision
for the
Approved Resource Management Plan/Final
Environmental Impact Statement
for
Public Lands and Minerals Administered in
Mississippi
by the
Bureau of Land Management
Eastern States
Jackson Field Office**

**United States Department of the Interior
Bureau of Land Management
Eastern States
Jackson Field Office**

In cooperation with

The State of Mississippi

February 2009

Table of Contents

1.0 Record of Decision..... 1

 1.1 Alternatives Considered..... 1

 1.2 Management Consideration for Selection of the RMP 2

 1.3 Mitigation Measures 2

 1.4 Plan Monitoring 3

 1.5 Public Involvement..... 3

2.0 Approved Resource Management Plan 4

 2.1 Introduction 4

 2.1.1 Purpose and Need for the Plan 4

 Purpose 4

 Need..... 4

 2.1.2 Planning Area..... 5

 2.1.3 Planning Issues..... 5

 Issues Addressed..... 5

 2.1.4 Planning Criteria 5

 2.1.5 Planning Process Summary 6

 2.1.6 Related Plans..... 7

 2.2 Management Decisions..... 7

 2.2.1 Standard Management..... 7

 2.2.1.1 Air Quality..... 7

 2.2.1.2 Soil Resources 8

 Unique and Prime Farmland 8

 2.2.1.3 Water Resources 8

 2.2.1.4 Vegetative Communities..... 8

 2.2.1.5 Fish and Wildlife 9

 2.2.1.6 Special Status Species..... 9

 2.2.1.7 Wildland Fire Ecology and Management..... 9

 2.2.1.8 Cultural Resources..... 9

 2.2.1.9 Paleontological Resources 10

 2.2.1.10 Visual Resources..... 10

 2.2.1.11 Minerals 10

 2.2.1.12 Recreation and Travel Management 11

 2.2.1.13 Lands and Realty 11

 2.2.1.14 Hazardous Materials 12

 2.2.2 Management of Non-USFS FMO 12

 2.2.2.1 Reasonably Foreseeable Development Scenario for Minerals 13

 2.2.2.2 Proposed Stipulations..... 14

 Bald Eagle 14

 Red-Cockaded Woodpecker..... 15

 Sea Turtles..... 15

 Gopher Tortoise, Eastern Indigo Snake, Gopher Frog, and Black Pine Snake 16

 Indiana Bat 16

 Aquatic Habitats 17

 Louisiana Black Bear 18

 Piping Plover, Least Tern 18

 Sensitive Plant Species 18

 Hancock County Marshes..... 19

 Best Management Practices 19

 Disposal of Produced Water 20

 Invasive and Non-Native Species..... 21

 Migratory Birds and Federally Listed Wildlife..... 21

 Perching and Nesting Birds and Bats 22

 Pesticide Application..... 22

 2.2.3 Management of the Surface Tract 23

 Hancock County Tract, Mississippi (Map 2-1) 24

 Vegetative Communities..... 24

 Fish and Wildlife Habitat 24

 Minerals 24

 Recreation and Travel Management..... 24

Lands and Realty..... 25
2.3 Management Plan Implementation27
2.4 Plan Evaluation/Adaptive Management27
References **Error! Bookmark not defined.**28
List of Preparers28
Acronyms28

1.0 RECORD OF DECISION

The decision is hereby made to approve the Resource Management Plan (RMP) for BLM-administered lands and minerals in the State of Mississippi and select Alternative 3 as presented in the Final Environmental Impact Statement (EIS). The Record of Decision and Approved RMP (ROD/Approved RMP) was prepared under the authority of the Federal Land Policy and Management Act (FLPMA) (43 United States Code [U.S.C.] §§ 1701, et seq.) and other applicable laws (43 Code of Federal Regulations [CFR] Part 1600) and includes broad land use plan decisions that provide overall direction for management of resources and resource uses for BLM-administered lands and minerals. An EIS was prepared for the RMP in compliance with the National Environmental Policy Act (NEPA) of 1969. Following publication of the Alabama and Mississippi Proposed RMP/Final EIS in August 2008, the BLM carried forward text for the Proposed RMP to incorporate in the ROD/Approved RMP. This ROD/Approved RMP serves as the final decision for management of BLM-administered lands and minerals in Mississippi, which is effective on the date this ROD/Approved RMP is signed.

1.1 Alternatives Considered

Section 2.4 of the Proposed RMP/Final EIS, *Alternatives Considered in Detail*, summarizes the four alternatives. Chapter 4 of the Proposed RMP/Final EIS analyzes the impacts to natural resources, cultural resources, and social and economic conditions that are associated with each of the alternatives considered. The alternatives are summarized below:

- Alternative 1 represented the No Action Alternative or continuation of current management. Under this alternative, the BLM would have retained the Hancock County Marsh Tract and employed custodial management. There would be 454,930 acres of BLM-administered, non-U.S. Forest Service (USFS) Federal Mineral Ownership (FMO) that would be open to oil and gas leasing. An estimated 63,004 acres of BLM-administered, non-USFS FMO would be closed to leasing. Management of oil and gas leasing, exploration, and development would be subject to the standard lease terms and conditions that are included on the lease form.
- Alternative 2 proposed that the BLM retain specific BLM-administered surface tracts. The BLM would have investigated opportunities to manage the tract in partnership with other agencies or organizations and the use of the tracts would have been consistent with management objectives and other land use decisions. Tract-specific constraints for resource uses, such as Rights-of-Way (ROW) access, would have been based on the presence of sensitive resources (e.g., special status species habitat). There would be 454,930 acres of BLM-administered, non-USFS FMO that would be open to oil and gas leasing. An estimated 63,004 acres of BLM-administered, non-USFS FMO would be closed to leasing. In addition to standard terms and conditions, conservation measures would be applied as stipulations to oil and gas leases and Best Management Practices (BMPs) would be used to reduce adverse effects caused by surface-disturbing or disruptive activities associated with oil and gas operations on BLM-administered, non-USFS FMO. Conservation measures, including no surface occupancy (NSO), controlled surface use (CSU), seasonal stipulations, and BMPs are presented in Appendix D of the Proposed RMP/Final EIS. Under this alternative, lease stipulations would include a 1,000-foot NSO buffer from aquatic habitats. The stipulations in Appendix D of the Proposed RMP/Final EIS would be applied in addition to the standard lease terms and conditions on the lease form. For each stipulation, there are provisions for waiver, modification, and exception provided in Appendix D of the Proposed RMP/Final EIS,

which could be applied as appropriate. The BMPs would be considered mandatory to reduce adverse impacts to specific resources and would be applied to oil and gas operations on new and existing leases. There would be some flexibility in implementation of each BMP, depending on site-specific conditions. Where there is potential to affect Federally listed, proposed, or candidate species or designated critical habitat, application of BMPs and/or waiver, modification, and exception to stipulations would normally require coordination and possible formal consultation with the U.S. Fish and Wildlife Service (USFWS).

- Alternative 3 is the Proposed Alternative. Under Alternative 3, there would be 454,930 acres of BLM-administered, non-USFS FMO that would be open to oil and gas leasing. An estimated 63,004 acres of BLM-administered, non-USFS FMO would be closed to leasing. Similar to Alternative 2, Alternative 3 uses conservation measures that would be applied as lease stipulations and BMPs to reduce adverse effects caused by surface-disturbing or disruptive activities associated with oil and gas operations on BLM-administered, non-USFS FMO. The stipulations in Alternative 3 are different from Alternative 2 in that the buffer from aquatic habitats would be reduced to 250 feet.
- Alternative 4 proposed that the Hancock County Marsh tract be made available for disposal from Federal ownership with no specific condition on use after disposal. Valid existing rights and other valid authorizations would have been protected in the event of disposal. Under this alternative, management of BLM-administered, non-USFS FMO would have been the same as Alternative 3.

1.2 Management Consideration for Selection of the RMP

Based on input received during the planning process, there was both support and opposition to certain components of the Proposed RMP/Final EIS. BLM considered one protest letter and all comments received on the Proposed RMP/Final EIS. The only protest received was from the Environmental Protection Agency (EPA) regarding the impacts of oil and gas brine-waste injection into ground waters. One comment from the Governor of Mississippi was received which supported the Proposed RMP/Final EIS.

The BLM is tasked with the mandate of multiple-use management as provided under the FLPMA and other laws and regulations governing management of public land. The Approved RMP provides a balance between those reasonable measures necessary to protect existing resource values and continued public need to make beneficial use of the planning area. Therefore, implementation of the Approved RMP is the alternative best able to comply with all applicable laws, regulations, policy, and agency direction.

1.3 Mitigation Measures

Mitigation measures are incorporated into the Approved RMP. Sensitive resources are protected through resource allocations and limitations and restrictions on developments and other activities. All practicable means to avoid or minimize environmental harm are carried forth in the Approved RMP. During implementation and, in some cases, the next tier of planning, additional measures may be taken, as necessary, to mitigate potential impacts on the environment. Monitoring will determine how effective these measures are in minimizing environmental impacts.

1.4 Plan Monitoring

The BLM planning regulations (43 CFR Part 1610.4-9) call for the monitoring of resource management plans on a continual basis with a formal evaluation done at periodic intervals. Implementation of the Approved RMP will be monitored over time and plan evaluations conducted periodically. Management actions arising from activity plan decisions will be evaluated to ensure consistency with RMP objectives. Monitoring and the evaluation process are described in more detail in Appendix K of the Proposed RMP/Final EIS.

1.5 Public Involvement

Public participation in the Proposed RMP/Final EIS process included a variety of efforts to identify and address public concerns and needs. The public involvement process assisted the BLM in broadening the information base for decisionmaking, informed the public about the Proposed RMP/Final EIS and the potential impacts associated with various management decisions, and ensured that public needs and viewpoints were understood by the BLM.

The official scoping period started with publication of the notice of intent (NOI) in the *Federal Register* on July 12, 2002, and ran through September 2002. The NOI announced the BLM's intent to prepare an RMP for Alabama and Mississippi, called for coal information, and invited the public to participate in identification of issues and review of planning criteria. Letters were sent to Alabama and Mississippi State agencies, county supervisors and commissioners, and the governors of both States to inform them of the planning process. Letters were also sent to several coal companies to inform them of the planning process and solicit coal data. Individuals were encouraged to submit e-mail or hardcopy comments to the BLM Jackson Field Office. One e-mail with comments was submitted during the scoping period. Comments addressed a variety of issues, such as the need to have adequate, site-specific data on threatened, endangered, and candidate species in the planning area; data on soils and aquatic species; and an accurate impact assessment of minerals development on recreation.

The BLM provided the public with 90 days from the date of publication of the BLM's Notice of Availability (NOA) for the Alabama and Mississippi Draft RMP-EIS to review and submit comments. The EPA filed the NOA in the *Federal Register* on August 31, 2007. The 90-day public comment period officially ended on November 29, 2007. During this comment period, the BLM held three public meetings in October 2007 to give the public an opportunity to comment on the Alabama and Mississippi Draft RMP-EIS. During the three meetings, nine people registered their attendance. These public meetings featured an open house format with the BLM specialists available to provide information. The public was also instructed on how to submit comments on the Draft RMP-EIS.

The BLM received comments on the Draft RMP-EIS from members of the public; Federal, State, and local agencies; and private and public organizations. These comments were sent by mail or e-mail or submitted at the public meetings. A total of 24 letters were received: 14 were sent by e-mail, and 10 were submitted in hard copy or sent by mail. Of the 24 letters received, 6 were identified as being form letters, while the remaining 18 were considered unique letters. Form letters are described as letters containing identical text submitted by more than five individuals. From the 24 letters received, 97 unique comments were identified, of which 32 were considered nonsubstantive and 65 were considered substantive.

A 30-day protest period, which began on August 29, 2008 and ended on September 29, 2008, was provided on the land use plan decisions contained in the Proposed RMP/Final EIS in accordance with 43 CFR 1610.5-2 (*Federal Register*, Volume 73, Number 169, August 29, 2008). As stated earlier in this report, BLM received one protest letter from the EPA. The EPA commented that the Alabama-Mississippi Proposed Resource Management Plan and Final Environmental Impact Statement insufficiently addressed

the impacts of oil and gas brine waste injection into aquifers beneath Federal and in adjacent non-Federal lands, particularly in regards to the federally designated sole source aquifers. They further said that there was no discussion of the geologic formations where the wastes will be injected and their proximity to potential drinking-water sources. After careful consideration of all points raised in those protests, the BLM Director concluded that the responsible planning team and decisionmakers followed all applicable laws, regulations, policies, and pertinent resource considerations in developing the proposed plan. A response to the protest letter has been sent to EPA.

2.0 APPROVED RESOURCE MANAGEMENT PLAN

2.1 Introduction

This Approved RMP and resulting ROD for BLM-administered lands and minerals in Mississippi is intended to provide land use planning and management direction at a broad scale and to guide future actions. The regulations for making and modifying land use plan decisions, which comprise an RMP, are found in 43 CFR Part 1600. Land use plan decisions consist of (1) desired outcomes (goals and objectives) and (2) allowable uses and management actions.

2.1.1 Purpose and Need for the Plan

Purpose

Section 102 of FLPMA sets forth the policy for periodically projecting the present and future use of public lands and their resources through the use of a planning process. FLPMA Sections 201 and 202 are the statutory authorities for the land use plans prepared by BLM. The purpose of the land use plan is to ensure BLM-administered lands and resources are managed in accordance with FLPMA and the principles of multiple-use and sustained-yield.

In general, the Approved RMP serves two purposes: (1) provide an overview of goals, resource condition objectives, and needs associated with public lands management and (2) resolve multiple use conflicts or issues. The Mississippi Approved RMP enables the BLM to respond to mineral leasing proposals and deal efficiently with the long-term management of its scattered land. In addition, the Approved RMP includes decisions on a wide range of other resource management concerns, including air quality, soil resources, water resources, vegetative communities, fish and wildlife habitat, special status species, wildland fire ecology and management, cultural resources, visual resources, recreation and travel management, social and economic resources, and hazardous materials. The Approved RMP provides the Jackson Field Office (JFO) with a comprehensive framework for managing BLM-administered lands and minerals within Mississippi.

Need

BLM resource management in Mississippi has been governed by project-specific planning analyses and environmental assessments (EA). Preparing separate project-specific documents whenever BLM receives external proposals was inefficient, costly, and delayed decisionmaking on industry-driven requests to lease Federal minerals and land tenure adjustments where BLM retains surface management responsibilities. In responding to this need, the planning criteria, identified in Section 2.1.4, sets out BLM's primary responsibilities in Mississippi, which is to make minerals available for leasing, where appropriate, and to make land tenure adjustments according to the criteria set forth in the FLPMA.

2.1.2 Planning Area

This Approved RMP covers all the public lands resources administered by the BLM in the State of Mississippi. Within Mississippi, the BLM administers approximately 174 acres of public land surface and mineral estate (referred to as “surface tracts”) and 401,410 acres of Federal minerals where the surface estate is in non-Federal ownership. The BLM also has responsibility for 116,350 acres of mineral estate where the surface is managed by other Federal agencies (excluding BLM and the U.S. Forest Service [USFS]). On these lands, leasing of Federal minerals is subject to management as directed by the surface management agency, and the decisions of this RMP pertain only to the BLM’s role in administering the minerals. The BLM has the responsibility of 1,055,227 acres of mineral estate where the surface is managed by USFS. However, the RMP does not make decisions on oil and gas leasing of national forest acreage because, by regulation, USFS is responsible for land use planning decisions on oil and gas leasing. For the purposes of this document, RMP mineral leasing decisions apply to “BLM-administered, non-USFS FMO,” which refers to BLM-administered, Federal minerals where the surface estate is in non-Federal ownership and Federal agencies excluding USFS.

Within Mississippi, there are also 5,020 acres of lands with uncertain title. These are public domain lands, according to General Land Office records, but may have private claims of ownership. The RMP does not make management decisions on these lands per se; however, these lands, which are listed in Appendix B of the Proposed RMP/FEIS, are available for disposal to qualified applicants under the Color-of-Title Act.

2.1.3 Planning Issues

In its planning process, BLM uses, from the NEPA regulations, the concept of issues and unresolved conflicts. Planning issues are those identified through internal evaluations, scoping, and comment and information solicited from the public or gathered internally. Planning issues may include demands for resources, as well as concerns and conflicts, associated with balancing a mix of multiple uses or unresolved conflicts associated with past, present, and future management of public lands or resources. NEPA regulations require BLM to review the issues and determine which issues are significant and narrow the discussion of issues in the EIS prepared for the RMP.

Issues Addressed

There is a potential for continued mineral development of BLM-administered FMO in Mississippi. In some cases, there could be potential for impacts on sensitive resources or conflicts with other uses. These impacts and conflicts have been considered when making decisions on the availability of non-USFS FMO for development. The RMP addresses mineral leasing by offering a variety of alternative solutions, as described in Chapter 2 of the Proposed RMP/FEIS.

BLM-administered lands in Mississippi are relatively small, isolated parcels. Some of the parcels could have natural resources of significant value to the public and could be suitable for management by the BLM or other agencies. Other parcels could be suitable for disposal. The RMP addresses land ownership adjustments by offering a variety of alternative solutions, as described in Chapter 2 of the Proposed RMP/Final EIS.

2.1.4 Planning Criteria

Planning criteria are constraints or ground rules that guide development of BLM land use plans. These criteria ensure that the planning team focuses on relevant uses and collects applicable data for analysis, and the criteria include applicable Federal laws, regulations, executive orders, and policies. The following criteria for Mississippi were developed and used to guide the preparation of the RMP—

1. Land use planning and environmental analysis will be conducted in accordance with laws, regulations, executive orders, and manuals. Planning will be conducted for BLM-administered lands (tracts) and minerals (BLM-administered, non-USFS FMO).
2. Surface tracts will be mapped and identified by legal description. Lands of uncertain title will be listed. These lands could potentially be available for disposal under the Color-of-Title Act.
3. A reasonably foreseeable development scenario (RFDS) will be prepared for the future leasing (and development) of oil and gas. The RFDS will be developed on a statewide basis. Areas of high, moderate, and low oil and gas potential will be identified (mapped).
4. Areas with the potential for non-energy solid mineral leasing (e.g., phosphates, sodium) were evaluated for inclusion in the RMP. No potential was identified for development of these minerals on non-USFS FMO; therefore, non-energy solid mineral leasing is not addressed.
5. Resource data needed to evaluate the impacts of future (foreseeable) mineral development will be collected on a statewide basis.
6. The planning team will work cooperatively with Federal, State, county, and local governments and agencies; tribal governments; groups and organizations; and individuals.

2.1.5 Planning Process Summary

The following list provides, in chronological order, the steps of the planning process used for development of the Approved RMP.

- **Preparation Plan.** The BLM developed a preparation plan to outline anticipated planning issues and management concerns, preliminary planning criteria, data needs, process participants, plan format, schedule, and public involvement.
- **Notice of Intent.** The BLM published a Notice of Intent (NOI) in the *Federal Register* on July 12, 2002, to announce its intention to prepare an RMP and EIS. The NOI also solicited coal information for BLM-administered coal and identified planning criteria to guide the preparation of the RMP.
- **Scoping Period.** Public scoping was conducted from June through September 2002. Scoping consisted of public notification through the *Federal Register* (i.e., publication of the NOI) and by letter and e-mail. Letters of invitation to participate as cooperating agencies were sent to government agencies in the State. The BLM also notified local, State, and Federal agencies and Native American tribes during this period.
- **Analysis of Management Situation.** As part of preparing the RMP-EIS, the BLM analyzed the resource conditions, capabilities, and effects of current management for use as a reference throughout the planning process. This analysis included a description of the physical and biological characteristics and condition of the resources within the planning area and how they are being used and/or protected.
- **Draft RMP-EIS.** The Draft RMP-EIS considers public and agency comments received during the scoping period, includes a description of alternatives and the affected environment, and offers an assessment of potential impacts from implementing the alternatives. An NOA for the Draft RMP-EIS was published in the *Federal Register* on August 31, 2007.
- **Comment Period and Public Meetings.** The public and local, State, and Federal agencies and Native American tribes had an opportunity to review and comment on the Draft RMP-EIS during

a 90-day comment period, beginning the date the EPA published their NOA in the *Federal Register* on August 31, 2007 and ended on November 29, 2007. The BLM held three public meetings in October 2007 to receive comments from the public.

- **Proposed RMP and Final EIS.** The purpose of the Proposed RMP and Final EIS is for the BLM to assess, consider, and respond to public and agency comments received on the Draft RMP-EIS. An NOA was published in the *Federal Register* by the BLM on August 29, 2008. A 30-day public protest period followed the release of the Proposed RMP-FEIS. A 60-day Governor's consistency review also occurred at this time.
- **Biological Assessment (BA).** A BA was prepared for each state to analyze the potential effects of the project on Federally listed species and critical habitat in order to establish and justify an "effect determination." The BAs were reviewed by the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA) Section 7 consultation requirements.
- **Record of Decision.** The Record of Decision (ROD) is a separate and concise public record that clearly identifies and describes the approved RMP and links the BLM's decision to the analysis presented in the EIS. The ROD addresses how environmental impacts and other factors were considered in the decisionmaking process.

2.1.6 Related Plans

There are multiple State plans and programs that address land and resources common to this RMP in Mississippi. In accordance with BLM policy, the RMP is consistent to the extent practical with officially approved or adopted plans for the following:

- Mississippi Coastal Zone Management Program
- Mississippi Comprehensive Wildlife Conservation Strategy
- Hancock Marshes Coastal Preserve

There are 517,934 acres of non-USFS FMO in Mississippi that underlie various surface ownership. Surface owners include the BLM, the Department of Defense (DoD), USFWS, National Park Service (NPS), and other Federal agencies. In accordance with BLM policy, the RMP will be consistent to the extent practical with officially approved or adopted plans for these agencies. In addition, there are Recovery Plans for multiple species that occur on lands and mineral estate administered by the BLM in Mississippi. In accordance with BLM policy, the RMP will be consistent to the extent practical with officially approved or adopted plans for Federally listed species and habitats.

2.2 Management Decisions

2.2.1 Standard Management

2.2.1.1 Air Quality

Goals and Objectives: Comply with local, State and Federal air quality regulations, requirements and implementation plans.

Management Actions: Conduct activities so as to comply with Clean Air Act requirements, including applicable National Ambient Air Quality Standards, (NAAQS) (Section 109); the State Air Quality Implementation Plan (SIP) (Section 110); control of pollution from Federal facilities (Section 118); prevention of significant deterioration (PSD), including visibility impacts to mandatory Federal Class I areas (Section 160 et seq.); and conformity analyses and determinations (Section 176(c)).

2.2.1.2 Soil Resources

Goals and Objectives: Maintain or improve soil conditions and prevent or minimize accelerated soil erosion.

Management Actions: Measures for minimizing accelerated soil erosion will be made on a site-specific basis through evaluation of management actions and implementation of best management practices (BMP). Examples of soil BMPs can be found in the *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, Gold Book (BLM 2006)* and at <http://www.blm.gov/bmp>.

Unique and Prime Farmland

Goals and Objectives: Minimize the impact of BLM-authorized activities on the unnecessary and irreversible conversion of farmland to nonagricultural uses and comply with State and local government policies to protect farmland.

Management Actions: Before any decision authorizing surface disturbance, a determination will be made as to if prime or unique farmland as defined by the Farmland Protection Policy Act (7 U.S.C. 4201 et seq.) is in an area that may be affected by a proposed action. If prime or unique farmland is present, then an appropriate level of analysis will be prepared to determine if the proposed action may have an adverse effect and identify appropriate mitigation measures to minimize any unnecessary and irreversible conversion of farmland to nonagricultural uses.

2.2.1.3 Water Resources

Goals and Objectives: Maintain water quality where it presently meets EPA-approved State water quality standards and improve water quality on public lands where it does not meet standards as defined by Section 303(d) of the Clean Water Act (CWA).

Management Actions: Actions authorized on BLM lands will comply with the mitigation requirements defined by the Office of Surface Mining regulations for coal leasing and by the U.S. Army Corps of Engineers Section 404 permit requirements. Management actions will be conducted in conformance with the various regulations in the CWA, the State regulations, and the FLPMA to achieve the water quality classifications and standards for surface and ground waters developed by the States. Management actions will be conducted in a manner conforming to water quality management objectives developed by the States. Measures for minimizing accelerated soil erosion will be made on a site-specific basis through evaluation of management actions and implementation of Best Management Practices.

For proposed actions on tracts that are within coastal areas, the BLM will recognize and comply with the requirements of the state coastal area management program.

2.2.1.4 Vegetative Communities

Goals and Objectives: Manage vegetative communities to protect, preserve, or enhance Federally listed and other special status plant species and imperiled plant communities and control noxious and invasive plant species.

Management Actions: The BLM will manage for desired outcomes of vegetative communities, including control of noxious and invasive species, that incorporate the conservation actions identified in the approved State comprehensive conservation strategies. Unless otherwise specified in an alternative, vegetation manipulation (e.g., prescribed burning, mechanical alteration, chemical treatment, manual, biological) will be allowed if needed to meet resource management objectives.

2.2.1.5 Fish and Wildlife

Goals and Objectives: Manage vegetative communities to protect, preserve, or enhance habitat for fish and wildlife species.

Management Actions: The BLM will support and coordinate with the State and other partners on habitat improvements and protection in compliance with approved comprehensive State fish and wildlife conservation strategies. This may include actions such as control of invasive plant species, use of prescribed fire, and wetland enhancements. Hunting regulations and game management are under the authority of the State fish and wildlife agency.

2.2.1.6 Special Status Species

Goals and Objectives: Protect, preserve, or enhance Federally listed and other special status species and their habitat.

Management Actions: The BLM will avoid jeopardizing the continued existence of any Federally listed, State listed, or proposed species; actively promote species recovery; and work to improve the status of candidate and sensitive species. If a Federally listed species may be affected by a proposed management action, BLM will consult with the USFWS pursuant to Section 7 of the ESA, as amended (16 United States Code [USC] 1531 *et seq.*). If a proposed management action might impact a State-listed species, BLM will consult with the appropriate State game and fish agency. Harvesting of any sensitive species will be prohibited, except when explicitly authorized for scientific purposes by an appropriate State and/or Federal agency.

If a proposed activity could affect candidate or sensitive species or their habitat, the BLM will avoid activities that would contribute to a need to list such species or their habitat. Thus, the BLM could require modifications to or reject a proposed activity that could jeopardize the continued existence of a proposed or listed threatened or endangered species or that could result in destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any surface-disturbing activity that may affect any such species or critical habitat until obligations are met under applicable requirements of ESA, as amended, including completion of any required procedure for conference or formal consultation.

2.2.1.7 Wildland Fire Ecology and Management

Goals and Objectives: Manage fire and fuels to protect life, firefighter safety, property, and critical resource values.

Management Actions: Unless a separate, site-specific plan is in place, wildfires will be suppressed. Agreements, as needed, will be pursued with Federal, State, and local government fire protection agencies for fire suppression. Prescribed burning will be allowed on a case-by-case basis if needed to meet vegetative communities or fish and wildlife habitat management objectives.

2.2.1.8 Cultural Resources

Goals and Objectives: Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations (FLPMA, Section 103 (c), 201(a) and (c); National Historic Preservation Act (NHPA), as amended (16 USC 470), Section 110(a); Archaeological Resources Protection Act (ARPA), Section 14(a)).

Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses (FLPMA Sec. 103(c), NHPA 106, 110 (a) (2)) by ensuring that all authorizations for land use and resource use will comply with the NHPA Section 106.

Management Actions: Management actions will comply with the NHPA, which provides protection for significant cultural resources. An appropriate level of inventory will be conducted for all actions with a potential to affect these resources, in compliance with the requirements of Section 110 of the NHPA. Actions will require additional consultation with the State Historic Preservation Officer (SHPO), in compliance with Section 106 of NHPA, and/or the Advisory Council on Historic Preservation (36 Code of Federal Regulations [CFR] 800).

Cultural resources will be identified and protected on a case-by-case basis, according to site-specific needs. Any significant sites discovered will be available for scientific, conservation, traditional, or interpretation uses. A site that is not significant (as determined by the BLM with SHPO consultation) will be released from management concerns.

2.2.1.9 Paleontological Resources

Goals and Objectives: Protect important scientific values of paleontological resources.

Management Actions: Known paleontological resources will be managed according to the BLM 8270 *Handbook* and the BLM *Manual for the Management of Paleontological Resources*.

If discovered, paleontological resources will be managed to protect their important scientific values. Area closures, restrictions, or other mitigation requirements for the protection of paleontological values will be determined on a case-by-case basis. Collecting of scientifically significant vertebrate and invertebrate fossils by qualified paleontologists will be allowed by permit only.

2.2.1.10 Visual Resources

Goals and Objectives: Protect scenic values while providing for overall multiple use and quality of life for local communities and visitors to public lands.

Management Actions: Case-by-case processing of land use and mineral development proposals will consider impacts to visual resources where these have been identified as public concerns. Interim visual management classes will be assigned in accordance with Visual Resource Management (VRM) Manual 8400 and Visual Resource Inventory Handbook H-8410-1. The Hancock County tract in Mississippi would be managed as VRM Class II.

2.2.1.11 Minerals

Goals and Objectives: Provide for leasing, exploration, and development of BLM-administered, non-USFS FMO, while protecting other resource values.

Management Actions: Federal mineral estate will be available for conveyance to owners of the surface estate as provided in Section 209 of FLPMA. Section 209 provides for this conveyance if there are no known mineral values in the land or if reservation of the mineral rights to the United States is interfering with or precluding appropriate surface development of the land and such development is a more beneficial use of the land. The BLM will retain the FMO with known mineral value.

BLM-administered, non-USFS FMO under the jurisdiction of another Federal surface managing agency will be available for exploration and development as directed by the surface managing agency. Split-

estate (i.e., non-USFS FMO underlying private or State-owned surface lands) will be subject to stipulations deemed necessary to protect existing surface improvements or use. The BLM will apply stipulations to oil and gas leases as determined through this plan; however, surface management agencies may provide their own stipulations that will be attached to a lease during the lease-approval process.

After this plan is approved, it is expected that additional FMO tracts will be identified or acquired through mineral leasing applications. If these tracts are similar in resource values and within the environmental issues analyzed in this plan, the new FMO tracts will be managed according to the guidance of this plan and incorporated into the plan through plan maintenance.

BMPs will be applied as appropriate when processing a Lease by Application (LBA).

2.2.1.12 Recreation and Travel Management

Goals and Objectives: Allow recreation use and travel compatible with other resource management objectives.

Management Actions: The BLM surface tracts are open to dispersed recreational use, including hunting, fishing, hiking, and nature study. Case-by-case processing of land use and mineral development proposals will consider impacts to recreation where it has been identified as a public concern. Due to the scattered nature of the small surface tracts and lacking recreation interest, special recreation management areas (SRMA) will not be designated within this RMP, and all surface tracts will be managed as extensive recreation management areas (ERMA).

2.2.1.13 Lands and Realty

Goals and Objectives: Manage the land ownership pattern, withdrawal, and use of public lands to promote efficiency of management and protect important resource values. In addition, make public lands available for purposes such as transportation routes or utilities, when consistent with other resource goals.

Management Actions: All land use proposals will be evaluated for conformance with plan objectives and land use decisions. Case-by-case processing will include analysis of environmental impacts through the NEPA compliance process. Land disposals will be conducted to meet the requirements identified under applicable authorities. To be considered suitable for disposal through sale, lands must meet the following criteria outlined in Section 203 of the FLPMA:

- (1) Such tract, because of its location or other characteristics, is difficult and uneconomic to manage as part of the public lands and is not suitable for management by another Federal department or agency
- (2) Such tract was acquired for a specific purpose, and the tract is no longer required for that or any other Federal purpose
- (3) Disposal of such tract will serve important public objectives, including, but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in Federal ownership.

Lands may be exchanged as authorized by Section 206 of the FLPMA when the exchange would serve the national interest and benefit BLM programs or the programs of other Federal agencies. Lands may be conveyed to State and local government agencies and other qualified organizations under the Recreation

and Public Purposes Act of 1926 (R&PP), as amended. Under R&PP, lands may be conveyed or leased only for an established or proposed project for which there are development and management plans, as well as adequate funding by the R&PP applicant to complete the development and a reasonable timetable of development.

Specific surface tracts identified for disposal under the various management alternatives will be evaluated for the presence of significant resource values before such action. Resources to be evaluated include minerals, recreation, cultural resources, wetlands, and special status species. This evaluation will also be applied before disposal of any additional BLM-administered surface tracts that are identified or verified after approval of the RMP.

Tracts with uncertain titles will be handled on a case-by-case basis in accordance with the Color-of-Title Act, under which claimants may apply for transfer of these tracts and, if qualified, purchase the tracts to obtain title.

Existing withdrawals will be subject to review to determine if they are serving their intended purpose. The BLM has the authority to revoke, modify, extend, or change withdrawals in accordance with the provisions and limitations of Section 204 of FLPMA.

Additional surface tracts may return to BLM administration after revocation of withdrawals, reversion of R&PP lands, and resolution of title. These additional surface tracts will be managed according to applicable guidance of this plan.

Resolution of unauthorized use will be pursued on a case-by-case basis. Resolution will include termination of use and payment of damages, including reclamation of disturbed land, if needed. In some cases, use may be authorized through ROWs, permits, leases, or land disposal. Valid authorizations will be protected if the land undergoes disposal.

2.2.1.14 Hazardous Materials

Goals and Objectives: Minimize or eliminate the potential for intentional or accidental releases of hazardous materials or wastes from BLM-authorized actions.

Management Actions: Proposed activities on BLM-administered surface tracts and non-USFS FMO will be evaluated for their potential to release hazardous materials into the environment. Authorized use of hazardous materials must comply with the Resource Conservation and Recovery Act (RCRA). Disposal of hazardous materials is prohibited. Discovery of hazardous materials that have not been permitted will be handled in accordance with the reporting, removal, and remediation requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

2.2.2 Management of Non-USFS FMO

Management of mineral leasing and development of BLM-administered, non-USFS FMO is limited to oil and gas leasing. Non-USFS FMO includes mineral ownership underlying BLM-administered surface tracts. Where non-USFS FMO is concerned, decisions of this RMP pertain only to the BLM's role in administering the minerals.

There are four oil and gas leasing categories. Following is a description of each.

- **Open to leasing, subject to standard lease terms and conditions.** Includes areas in which standard lease terms and conditions are determined to be sufficient to protect other land uses or resource values.
- **Open to leasing, subject to minor constraints.** Comprises areas in which moderately restrictive lease stipulations such as timing limitations or distance setbacks are required to mitigate impacts to other land uses or resource values. Such constraints are often referred to as Controlled Surface Use (CSU).
- **Open to leasing, subject to major constraints.** Encompasses areas in which highly restrictive lease stipulations, such as No Surface Occupancy (NSO), are required to mitigate impacts to other land uses or resource values.
- **Closed to leasing.** Designated for areas where other land uses or resource values cannot be adequately protected by even the most restrictive lease stipulations. Appropriate protection can be ensured only by closing the lands to leasing.

The acreage of BLM-administered, non-USFS FMO available for oil and gas leasing in Mississippi is shown in Table 1. Federal oil and gas leases contain standard lease terms that are included on the lease form, many of which are designed to protect natural resources. Special stipulations can be attached to a lease to respond to specific environmental or resource concerns for a particular lease area. Special stipulations are developed during the land use planning process, such as this RMP. Stipulations are attached to and made part of the lease and modify standard lease terms or the manner in which operations may be conducted.

2.2.2.1 Reasonably Foreseeable Development Scenario for Minerals

Mississippi has been classified as having high occurrence potential for oil and gas resources, based on the Reasonably Foreseeable Development Scenario (RFDS) prepared by the BLM. It is estimated that 10 wells will be drilled on non-USFS FMO in Mississippi over the next 20 years (BLM 2004). These actions are expected to disturb a total of 55 acres in Mississippi.

Table 1. Oil and Gas Leasing Categories in Mississippi

| Oil and Gas Leasing Category | Proposed Plan (Acres) |
|---|------------------------------|
| Open to leasing, subject to standard lease terms and conditions | 359,640 |
| Open to leasing, subject to minor constraints | 3,021 |
| Open to leasing, subject to major constraints | 92,269 |
| Closed to leasing | 63,004 |
| TOTAL | 517,934^a |

Notes:

a Represents all BLM-administered, non-USFS FMO within the State of Mississippi.

2.2.2.2 Proposed Stipulations

Three types of lease stipulations will be applied, defined as follows:

- **No Surface Occupancy (NSO).** A constraint that prohibits occupancy or disturbance on all or part of a lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the lease surface through use of directional drilling from outside the NSO area.
- **Controlled Surface Use (CSU).** A constraint under which use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational limitations that may modify lease rights.
- **Seasonal (Timing Limitation).** A constraint that prohibits surface use during specified periods to protect identified resource values.

For each stipulation, there are provisions for exception, modification, and waiver. An exception is a one-time exemption to the stipulations, determined on a case-by-case basis. A modification is a change to the provisions of the stipulation, either temporarily or for the term of the lease. A waiver is a permanent exemption to the stipulation. For Federally listed species, exception, modification, and waiver will typically require coordination and possibly formal consultation with the USFWS.

Bald Eagle

Stipulation (NSO): No surface occupancy or disturbance will be permitted within a 1,500-foot buffer zone around active or inactive bald eagle nests and communal roost sites (primary zone).

Objective: To avoid impact to nesting eagles, including impact to important courtship and nesting behavior, egg laying and incubation, and feeding and fledging activity.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and appropriate State agencies.

Modification: This stipulation may be modified to remain consistent with Federal or State guidelines or if a portion of the stipulated area is no longer within the 1,500-foot buffer zone.

Waiver: This stipulation may be waived if no suitable nest sites are within 1,500 feet of any portion of the leased tract or if the nest site has not been used for at least 5 years.

Stipulation (CSU): BLM-permitted projects will not remove trees suitable for nesting within a 1.5-mile buffer zone around active or inactive bald eagle nests and communal roost sites (secondary zone).

Objective: To protect foraging habitat, promote nest fidelity, and maintain habitat integrity around bald eagle nests and communal roosting sites.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified to remain consistent with Federal and State guidelines or if a portion of the stipulated area is no longer within the 1.5-mile buffer zone.

Waiver: This stipulation may be waived if no nest or communal roosting site can be identified within 1.5 miles of the leased tract or if the applicant can document that no sites have been used by bald eagles for 5 consecutive years.

Stipulation (Timing Limitation): Surface-disturbing and other activities that are potentially disruptive to nesting bald eagles are prohibited within 1.5 miles of a bald eagle nest or communal roosting site between December 1 and August 1.

Objective: To protect foraging habitat, promote nest fidelity, and maintain habitat integrity around bald eagle nest and roosting sites.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified to remain consistent with Federal and State guidelines or if a portion of the stipulated area is no longer within the 1.5-mile buffer zone.

Waiver: This stipulation may be waived if no nest site can be identified within 1.5 miles of any portion of the leased tract or if the applicant can document that no sites have been used by bald eagles for 5 consecutive years.

Red-Cockaded Woodpecker

Stipulation (NSO): No surface occupancy or disturbance within 0.5 mile of a red-cockaded woodpecker cluster, defined as the area containing all active and inactive cavity trees and a 200-foot buffer zone surrounding that area. Vehicle use is prohibited within a cluster except for through-travel on existing, maintained, paved roads.

Objective: To protect red-cockaded woodpecker nest sites from disturbance and habitat degradation.

Exception: An exception may be granted to allow surface occupancy within 0.5 mile of a cluster if the operator agrees to measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified if a portion of the stipulated area is no longer within the 0.5-mile buffer zone.

Waiver: This stipulation may be waived if no cluster can be identified within 0.5 mile of the leased tract.

Sea Turtles

(Green sea turtle, hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, and loggerhead sea turtle)

Stipulation (NSO): No surface occupancy or disturbance is permitted in suitable sea-turtle nesting habitat.

Objective: To protect sea turtle nesting habitat.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified if a portion of the stipulated area is no longer suitable sea turtle nesting habitat.

Waiver: This stipulation may be waived if it is determined that none of the leased area is suitable sea turtle nesting habitat.

Gopher Tortoise, Eastern Indigo Snake, Gopher Frog, and Black Pine Snake

Stipulation (CSU): BLM-approved surveys will be required in all suitable gopher tortoise habitat where the tortoise is listed, including: Choctaw and Washington counties, No surface disturbance or activity is permitted within 600 feet of a gopher tortoise burrow.

Suitable habitat includes areas with deep, well-drained and excessively well-drained sandy soils, especially the following U.S. Department of Agriculture (USDA)-National Resource Conservation Service (NRCS) soil series with an open understory with grass and forb groundcover open areas. Suitable soils include Alaga, Bigbee, Eustis, Lakeland, Wadley or Troup, McLaurin, Benndale, Heidel, Bama, Smithdale, Ruston, Lucedale, Lucy, Shubuta, Baxterville, Malbis, Poarch, Saucier, Susquehanna, Boswell, Lorman, Freestone, Freest, Prentiss, Savannah, Basin, and Petal.

Objective: To protect gopher tortoise habitat and commensal species.

Exception: Exceptions may be granted if the proponent agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified if suitable gopher tortoise habitat does not exist in the stipulated area and that area does not provide forage habitat for adjacent tortoise populations. Survey requirements may be modified if current tortoise surveys of the tract are approved by the BLM and USFWS.

Waiver: This stipulation may be waived if suitable gopher tortoise habitat does not exist on the tract and the tract does not provide forage habitat for gopher tortoises in adjacent areas.

Indiana Bat

Stipulation (NSO): No surface occupancy or disturbance is permitted within 250 feet of caves, fractures, large sinkholes, and perennial or intermittent streams in or adjacent to counties with documented Indiana bat populations.

Objective: To prevent any impact to hydrologic networks connected to cave habitats and to protect flight paths and food sources for the bats.

Exception: An exception may be granted if the operator agrees to implement measures developed in coordination with USFWS and appropriate State agencies. Formal consultation with USFWS may be required if determined necessary to protect species and associated habitat.

Modification: This stipulation may be modified if a portion of the stipulated area is found to be no longer within the 250-foot buffer zone.

Waiver: This stipulation may be waived if no portion of the leased area is within the 250-foot buffer zone.

Stipulation (NSO): No surface occupancy or disturbance is permitted within 0.5 mile of an Indiana bat summer roost or gray bat wintering-cave hibernacula.

Objective: To prevent fatal disturbance during summer nursery roosting or winter hibernation.

Exception: An exception may be granted if the operator agrees to implement measures developed in coordination with USFWS and appropriate State agencies. Formal consultation with USFWS may be required if determined necessary to protect species and associated habitat.

Modification: This stipulation may be modified if the project does not adversely affect Indiana bat hibernacula, with concurrence from USFWS and the appropriate State agencies.

Waiver: This stipulation may be waived if the lease is not within 0.5 mile of an Indiana bat hibernacula.

Stipulation (CSU): A BLM-permitted action will not remove shagbark hickory trees or snags within 1.5 miles of an Indiana bat hibernacula.

Objective: To prevent fatal disturbance during summer nursery roosting or winter hibernation.

Exception: An exception may be granted if the operator agrees to implement measures developed in coordination with USFWS and appropriate State agencies. Formal consultation with USFWS may be required if determined necessary to protect species and associated habitat.

Modification: None.

Waiver: None.

Stipulation (CSU): Injection or disposal of produced water or water withdrawal will not be allowed into identified karstic habitat or any hydrologic network connected to caves used by the bats or other listed cave species.

Objective: To prevent any impact to hydrologic networks connected to bat caves and flight paths, and to protect food sources for the bat.

Exception: An exception may be granted if the operator agrees to implement measures developed in coordination with USFWS and appropriate State agencies. Formal consultation with USFWS may be required if determined necessary to protect species and associated habitat.

Modification: The stipulation may be modified if a portion of the stipulated area is not in karstic habitat or a hydrologic network connected to caves used by the bats.

Waiver: The stipulation may be waived if none of the lease area is karstic habitat or is not hydrologically connected to caves used by the bats.

Aquatic Habitats

(Habitat for special status species including the Mississippi gopher frog; yellow-blotched map turtle; ringed map turtle; Gulf sturgeon; sensitive clam and snail species including the ovate clubshell, southern clubshell; and wood stork)

Stipulation (NSO): No surface occupancy or disturbance, including discharges, are permitted within 250 feet of a river, stream, wetland spring, headwaters, wet meadows, wet pine savannas, pond, tributary, lake, coastal slough, sand bars, vernal pools on granite outcrops, calcareous seepage marshes, brackish marshes, saltmarsh or small, marshy calcareous streams. This buffer may be extended to 600 feet where the slope exceeds 10 percent and to protect vernal pools in southeastern Mississippi between Highways 98 and 59 providing suitable habitat for endangered Mississippi gopher frog.

Objective: To protect the water quality of watersheds and natural stream substrate and morphology and to avoid potential impacts to Federal- and State-listed aquatic species.

Exception: An exception may be granted if the operator agrees to 1) span creeks and floodplains by attaching pipelines to bridges; 2) directionally drill under creeks, rivers, and other waters supporting listed species; or 3) implement other measures developed in consultation with USFWS and in coordination with State agencies.

Modification: The buffer may be reduced if the adjacent waterway has been surveyed for 100 yards upstream and 300 yards downstream of the site, and the results document the lack of suitable/occupied habitat for special status species within the mixing zone downstream of the project, as determined by the BLM and USFWS.

Waiver: The stipulations may be waived if it is determined that the lease area has no hydrological connection to habitat of sensitive aquatic species.

Louisiana Black Bear

Stipulation: No surface disturbance, including removal of potential den trees, is permitted within a 1,500-foot buffer around den trees in occupied bottomland hardwood and floodplain forest habitats.

Objective: To protect Louisiana black bear denning and foraging habitat.

Exception: An exception may be granted if the operator agrees to implement measures developed in coordination with USFWS and appropriate State agencies.

Modification: Temporary surface use may be permitted if USFWS concurs that the action would not adversely affect Louisiana black bear or suitable habitat.

Waiver: This stipulation may be waived if the tract does not contain suitable Louisiana black bear habitat.

Piping Plover, Least Tern

Stipulation: No surface disturbance in piping plover and least tern habitat from the debris wrack line to the low-tide line of coastal beaches.

Objective: To protect wintering piping plover and least terns.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with the USFWS and in coordination with State agencies.

Modification: Temporary surface use may be permitted if USFWS concurs that the action would not adversely affect piping plover or least tern or suitable habitat.

Waiver: This stipulation may be waived if the tract does not contain suitable piping plover or least tern habitat.

Sensitive Plant Species

(Including Price's potato-bean)

Stipulation (CSU): All suitable special status plant species habitat will be identified during environmental review of any proposed surface use activity. If field examination indicates that habitat of one or more of these species is present, the BLM will require a survey by a qualified botanist for special status plants during periods appropriate to each species. Operations will not be allowed in areas where sensitive plants would be affected.

Objective: To protect threatened, endangered, candidate, proposed, and BLM sensitive plant species.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: The stipulation may be modified if it is determined that a portion of the lease area does not support sensitive plant species.

Waiver: The stipulation may be waived if it is determined that the lease area does not support sensitive plant species.

Hancock County Marshes

Stipulation (NSO): No surface occupancy will be permitted within the component of the Mississippi Coastal Preserve System (MCPS) designated as Hancock County Marshes.

Objective: To promote the preservation of marsh habitat in the MCPS, including the following ecological communities expected or known to occur: estuarine subtidal, 1) large tidal creek; estuarine intertidal, 1) sand shore 2) mesohaline marsh 3) oligohaline marsh; and other shell middens.

Objective: For the protection of coastal marshes within this State-designated preserve.

Exception: An exception may be allowed if, in consultation with the State agency responsible for the MCPS, it is determined that potential affects of the proposal would be adequately mitigated.

Modification: The stipulation may be modified if a portion of the leased area is no longer identified as part of the MCPS.

Waiver: The stipulation may be waived if the leased area is no longer identified as part of the MCPS.

Best Management Practices

BMPs are mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse impacts. They may be incorporated as design features when actions are proposed or may be attached as conditions of approval for BLM-permitted Applications for Permit to Drill (APD) for oil and gas.

The BMPs described below are mandatory and are applied to oil and gas operations on new and existing leases. Note that the objective of each BMP is to reduce adverse impacts to specific resources, and that there is some flexibility in implementation. The degree of flexibility will vary. Application of BMPs when there is potential to affect Federally listed, proposed, or candidate species or designated critical habitat will typically require coordination and possibly formal consultation with USFWS. Examples of national environmental BMPs are listed below; other BMPs that could be applied during site-specific

evaluation can be found in the *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, Gold Book* (BLM 2006) and at <http://www.blm.gov/bmp>.

- Interim reclamation of the well and access road
- Painting of all facilities to blend into the background
- Design and construct all new roads to a safe and appropriate standard, “no higher than necessary” to accommodate intended vehicular use
- Final reclamation of all disturbed areas, including access roads, to the original or similar contour
- Raptor perch-avoidance devices on powerlines
- Burial of powerlines and flow lines in or immediately adjacent to access roads
- Centralized production facilities
- The use of submersible pumps where feasible
- Below-ground wellheads where feasible
- Multiple wells from a single well pad where feasible
- Noise-reduction techniques to reduce noise from compressors or other motorized equipment
- Seasonal restrictions on public vehicular access where there are wildlife-conflict or road damage/maintenance issues
- Avoidance of production facilities on hilltops and ridgelines

Disposal of Produced Water

Objective: To protect aquatic habitats for and to avoid potential impacts to special status fish, mussels, turtles, snails, plants, and migratory birds.

The preferred method for disposal of produced water is through reinjection to a permeable formation with total dissolved solids (TDS) content higher than 10,000 milligrams per liter (mg/L) where the aquifer is not hydrologically connected to caves, wetlands, or surface water. The UIC Program in Mississippi is implemented by the Mississippi Department of Environmental Quality (DEQ) and the Mississippi Oil & Gas Board. The Oil and Gas Board regulates Class II wells, and the DEW Management Support Brand, regulates all other well classes. In addition to Class II injection wells, Mississippi has Class I hazardous waste injection wells, Class I non-hazardous injection wells, and Class V injection wells. EPA regulates all classes of injection wells on Tribal lands in Mississippi. For surface water discharges into waters of the U.S., applicants would need State-issued National Pollution Discharge Elimination System (NPDES) permits, or federally-issued NPDES permits if the receiving waters were on Tribal lands.

If reinjection is not practicable, closed-containment treatment systems should be used to contain and treat produced water for those contaminants and sediments exceeding State standards or EPA criteria. Salt content of any surface ponds for produced water, pigging pits, or other fluids must be less than 7,500 microsiemens per centimeter ($\mu\text{S}/\text{cm}$). If surface pond salt content is greater than 7,500 $\mu\text{S}/\text{cm}$, if other bird toxicity is present, or if the surface exhibits sheen, then the ponds must be netted or covered with floating balls, or other methods must be used to exclude migratory birds.

Produced waters may be released into an impounded reservoir if there is documentation that the discharge site and affected waters do not support special status species, are not designated critical habitat, and State and Federal water quality standards/criteria are met.

Produced waters may be released into a stream/river if the discharge site and affected waters have been recently surveyed and lack special status species, or if the applicant conducts approved surveys documenting the absence of special status species, State and Federal water quality standards/criteria are met, and a NPDES permit is obtained. The applicant should be aware that some species can be surveyed only during certain times of the year.

Produced waters may be released into a stream/river if the applicant can document that the produced waters would not adversely affect special status species. Water quality tests will be conducted on stream segment(s) or other locations proposed as discharge points, volumes to be released, and any settling ponds or other treatments proposed to improve wastewater quality. The water quality test data, any monitoring proposed, and other available information about general coalbed methane effluent characteristics (from published or unpublished literature) shall be reviewed by USFWS. Information about timing of the releases in relation to low water and other planned BMPs is also required. Testing will include analysis of the discharge site and affected waters for chemical oxygen demand (COD), conductivity, total suspended solids (TSS), As, Hg, Se, and polycyclic aromatic hydrocarbons (PAH). Dissolved oxygen and ammonia standards/criteria must be met in bottom waters if they support listed benthic or epibenthic species. If a special status species has been documented to be more sensitive than State/Federal standards/criteria, site-specific standards for that species may be imposed. Calculations will be based on State standards (or Federal CCC criteria for protection of freshwater aquatic life when the State has not determined a standard for these parameters).

Invasive and Non-Native Species

Objective: To discourage the spread of invasive, non-native plants.

Use of native or non-invasive cover plants in seeding mixtures will be encouraged to stabilize disturbed areas and during restoration activities. Construction areas will be surveyed for invasive species prior to ground disturbance. If invasive species are found, the proper control techniques will be used to either eradicate the species from the area or minimize its spread to other areas. If cogongrass is found on site equipment should be washed before exiting the site to prevent the spread of this highly invasive species to other locations. Post-construction monitoring for cogongrass and other invasive plant species should be conducted to ensure early detection and control. In the case of split-estate land, final seed mixtures will be formulated in consultation with the private landowner.

Migratory Birds and Federally Listed Wildlife

Objective: To protect perch and roosting sites and terrestrial habitats for and to avoid potential impacts to migratory birds and Federally listed wildlife.

Any reserve pit that is not closed within 10 days after a well is completed and that contains water must be netted or covered with floating balls, or another method must be used to exclude migratory birds.

Maximum design speed on all operator-constructed and maintained (non-public) roads shall not exceed 25 miles per hour to minimize the chance of a collision with migratory birds or other listed wildlife species.

All powerlines must be built to protect raptors and other migratory birds, including bald eagles, from accidental electrocution, using methods detailed by the Avian Power Line Interaction Committee (APLIC 2006).

Objective: To avoid or minimize the possibility of the unintentional take of migratory birds during periods of concentrated nesting activity and to provide long-term benefits and improved vegetation community condition.

The BLM or other qualified personnel may be required identify suitable migratory bird nesting habitat within the project site. Opportunities should be evaluated to shift disturbance away from high value migratory bird nesting or foraging habitats, or to replace habitat on or off site.

A Timing Limitation may be imposed on use authorizations to mitigate large-scale vegetative disturbing activities during the primary portion of the nesting season. Dates could be adjusted for the species and environmental conditions.

Perching and Nesting Birds and Bats

Objective: To prevent birds and bats from entering or nesting in or on open vent stack equipment.

Open vent stack equipment, such as heater-treaters, separators, and dehydrator units, will be designed and constructed to prevent birds and bats from entering or nesting in or on such units and, to the extent practical, to discourage birds from perching on the stacks. Installing cone-shaped mesh covers on all open vents is one suggested method. Flat mesh covers are not expected to discourage perching and will not be acceptable.

Pesticide Application

Objective: To protect the water quality of watersheds and natural stream substrate and morphology supporting special status species and their host species.

Any ground application of herbicides or other pesticides, sterilants, or adjuvants within 150 feet of listed species or habitat will require site-specific control measures developed in coordination or formal consultation with USFWS. No aerial application of herbicides or pesticides will be permitted.

Table 2. Leasing Stipulations in Mississippi ^a

| Area | Total non-USFS FMO (Acres) ^{a,b} |
|---|--|
| NO LEASE | |
| Other Surface Management Agency Lands | |
| USFWS | 60,207 |
| NPS | 2,797 |
| Total Affected Area^b | 63,004 |
| NO SURFACE OCCUPANCY/NO SURFACE DISTURBANCE | |
| Hancock County Marsh | 1,810 |
| Bald eagle nests (1,500-foot buffer around active or inactive nests and communal roost sites) | 1,089 |
| Red-cockaded woodpecker (0.5-mile cluster plus a 200-foot buffer zone surrounding that area) | 11,710 |
| Sea turtle suitable nesting habitat (100-foot buffer from the mean high-tide line of coastal beaches) | 997 |
| Gray bat, Indiana bat (600-foot buffer around caves, fractures, sinkholes or 250-foot buffer around perennial or intermittent streams in or adjacent to counties with documented populations) | 2,564 |
| Gray bat or Indiana bat summer roost or gray bat wintering cave hibernacula (0.5-mile buffer) | 7,073 |
| Freshwater aquatic species (250-foot buffer around river, stream, wetland spring, headwaters, wet meadows, wet pine savannas, pond, tributary, lake, coastal slough, sand bars, vernal pools on granite outcrops, calcareous seepage marshes, or small, marshy calcareous streams; buffer may be extended up to 600 feet if slope exceeds 10 percent) | 68,656 |

| Area | Total non-USFS FMO (Acres) ^{a,b} |
|---|---|
| Louisiana black bear (1,500-foot buffer around den trees in occupied bottomland hardwood and floodplain forest habitats) ^c | ND |
| Piping plover/least tern habitat (from the debris rack line to the low tide line of coastal beaches) | 4,237 |
| Total Affected Area^b | 98,136 |
| CONTROLLED SURFACE USE | |
| Bald eagle nests (no tree removal within 1.5-mile buffer zone around active or inactive bald eagle nests and communal roost sites) | 8,917 |
| Gopher tortoise burrow (600-foot buffer) | 122 |
| Gray bat/Indiana bat hibernacula (1.5-mile buffer) | 1 |
| Identified karstic habitat or any hydrologic network connected to caves used by listed bat species or other listed cave species | ND |
| Sensitive plant species habitat | ND |
| Total Affected Area^b | 9,040 |
| SEASONAL LIMITATIONS | |
| Bald eagle nest or communal roosting sites (timing restriction within 1.5 miles between December 1 and August 1) | 13,742 |
| Total Affected Area^b | 13,742 |
| OPEN TO LEASING, SUBJECT TO STANDARD LEASE TERMS AND CONDITIONS | |
| Total Affected Area^b | 359,640 |

Notes:

a All Federal mineral estate in Mississippi has high potential for oil and gas resources.

b Total acres under each alternative do not represent accurate totals shown in **Error! Reference source not found.** because of the overlap of land resources and land use restrictions.

c No habitat data available to estimate affected area. No surface disturbance, including removal of potential den trees, is permitted within a 1,500-foot buffer around den trees in occupied bottomland hardwood and floodplain forest habitats.

ND No habitat data available to estimate affected area.

2.2.3 Management of the Surface Tract

Table 3. Surface Tracts in Mississippi

| Name of Tract Group | Acres | County | Legal Description ^a |
|--|---------------|---------|--|
| Hancock County Tract | | | St. Stephens Meridian |
| Hancock County | 174.25 | Hancock | T. 9S, R. 15W, Sec. 25, Lots 2–5, SESE |
| Total Surface Estate in Mississippi | 174.25 | | |

a The legal description is abbreviated according to a rectangular survey system in which T. 22N, R. 16E, Sec. 5, Lot 1 means that the area is located at Lot 1 of Section 5 in Township 22 North, Range 16 East, in the meridian specified above. Townships are divided into 36 numbered sections. A standard section comprises 1 square mile or 640 acres of land and consists of aliquot parts of sections (e.g., half section of 320 acres, quarter section of 160 acres, 16th section of 40 acres). The township number indicates how far in a given direction (north or south) of a surveyed parallel the township is located. The range number indicates how far in a given direction (east or west) of a surveyed meridian the township is located.

2.2.3.1 Hancock County Tract, Mississippi ¹ (Map 2-1)

Vegetative Communities

Management Goals and Objectives

- Manage vegetative communities to protect, preserve, or enhance Federally listed and other special status plant species and imperiled plant communities.
- Control noxious and invasive plant species.

Allowable Uses and Management Actions

- Monitor for early detection of invasive plant species such as cogon grass and Chinese tallow. If detected, invasive species would be removed by hand or through selective, hand application of herbicide.

Fish and Wildlife Habitat

Management Goals and Objectives

- Manage vegetative communities to protect, preserve, or enhance Federally listed and other special status fish and wildlife species and their habitat.
- Protect and enhance the estuarine coastal wetland marshes in support of the Mississippi Coastal Preserve System (MCPS).

Allowable Uses and Management Actions

- Prescribed burns would be used as needed, depending on resource conditions and in cooperation with the State of Mississippi, to promote marsh health.

Minerals

Management Goals and Objectives

- Provide for leasing, exploration, and development of BLM-administered, non-USFS FMO while protecting other resource values.

Allowable Uses and Management Actions

- The tract would be open to leasing and subject to standard lease terms and conditions and BMPs, except for an NSO stipulation (as described in Appendix D of the Proposed RMP/FEIS) for protection of Hancock County Marshes.

Recreation and Travel Management

Management Goals and Objectives

- Allow recreation use compatible with other resource management objectives.

Allowable Uses and Management Actions

- The tract would be open to recreation use including fishing and waterfowl hunting.
- The tract would be designated as limited to motorized boats in areas of open water. Other motorized vehicle use would be limited to administrative use and emergency response.

¹ These allowable uses and management actions would not occur unless the R&PP patent were to revert to BLM.

Lands and Realty

Management Goals and Objectives

- Manage the land ownership pattern, withdrawal, and use of public lands to promote efficiency of management and protect important resource values.
- Make public lands available for purposes such as transportation routes or utilities, when consistent with other resource goals.

Allowable Uses and Management Actions

- The tract would be retained by the BLM. The BLM would pursue opportunities to manage the tract in partnership with other agencies and organizations.
- The tract would be an avoidance area for ROWs to protect wetland habitat.


Map 2-1
Mississippi ROD/ApprovedRMP

Hancock County Tract (174.25 total acres)
Hancock County, MS

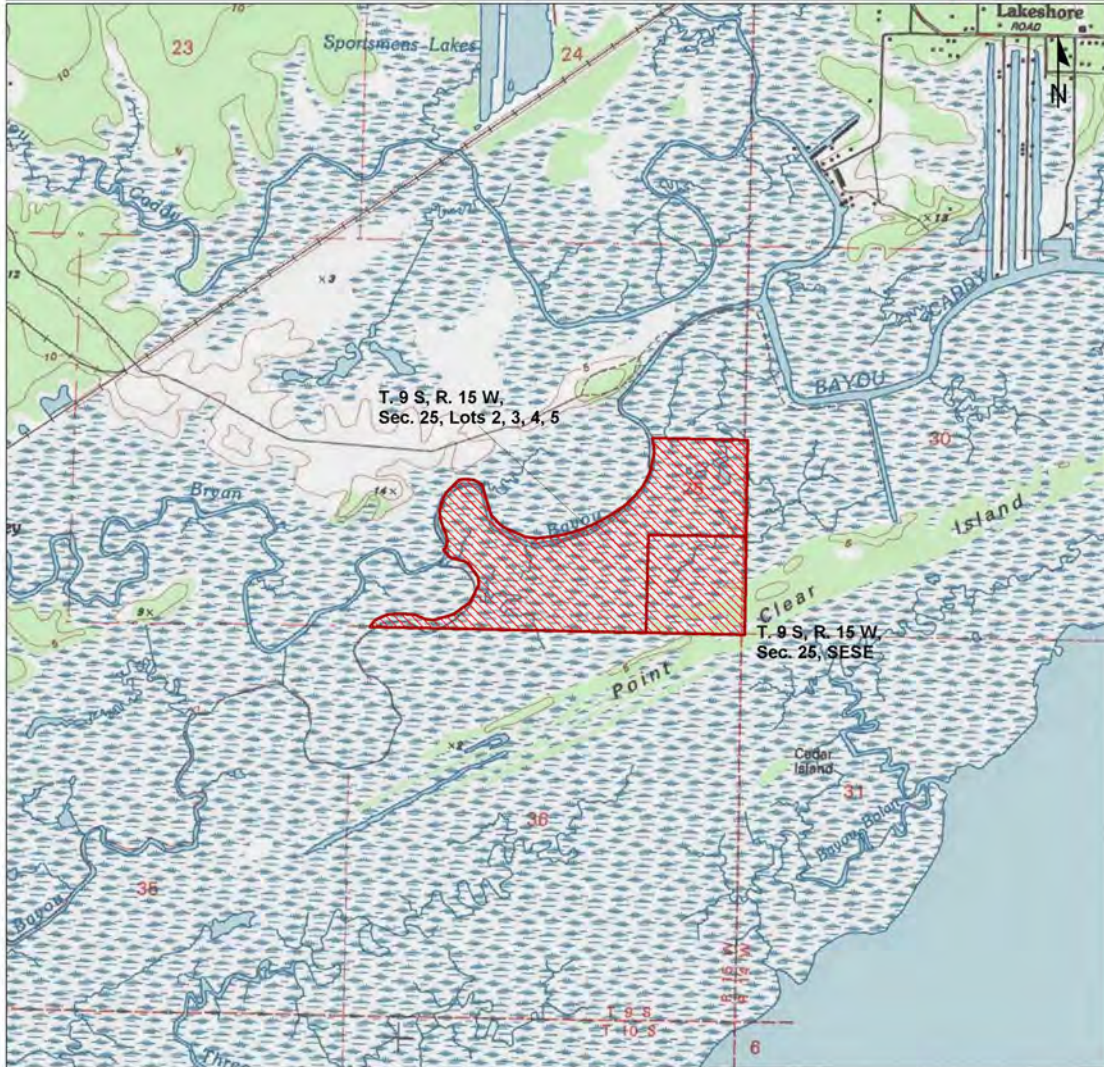
T. 9 S, R. 15 W, Sec. 25,
Lots 2, 3, 4, 5
T. 9 S, R. 15 W, Sec. 25,
SESE

Projection: UTM, Zone 16 North
Datum: North American Datum of 1927 (NAD27)

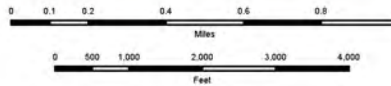
St. Stephens Meridian

 Public Domain Lands

Sources: BLM, Jackson Field Office
USGS - National Elevation Data
Environmental Systems Research Institute
TOPOI, 2003 National Geographic Maps



Scale 1:24,000



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



2.3 Management Plan Implementation

When an approved land use plan decision document (i.e., ROD) is signed, most of the land use plan decisions are effective immediately and require no additional planning or NEPA analysis. Some programs have specific requirements that must be taken in order to make certain decisions effective. Upon approval of the land use plan, subsequent implementation decisions are put into effect by developing implementation (project-specific) plans. Implementation decisions are made with the appropriate level of NEPA analysis along with any procedural and regulatory requirements for individual programs.

The regulations in 43 CFR 1610.4-9 require that land use plans establish intervals and standards for monitoring and evaluations, based on the sensitivity of the resource decisions involved. Land use plan monitoring is the process of (1) tracking the implementation of land use planning decisions (implementation monitoring) and (2) collecting data/information necessary to evaluate the effectiveness of land use planning decisions (effectiveness monitoring).

The BLM field offices must determine what management actions are needed to implement those decisions. Sometimes actions occur just once, e.g., the development of an implementation plan; or actions occur on a fairly regular basis, e.g., steps taken to repair a damaged watershed. Monitoring is the process of following up on these management actions and documenting the BLM's progress toward full implementation of the land use plan and the achievement of desired outcomes. Field offices are encouraged to involve state and local governments and the public if they express an interest in participating in this process.

2.4 Plan Evaluation/Adaptive Management

Evaluation is the process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions and NEPA analysis are still valid and whether the plan is being implemented. Land use plans are evaluated to determine if: (1) decisions remain relevant to current issues, (2) decisions are effective in achieving (or making progress toward achieving) desired outcomes, (3) any decisions need to be revised, (4) any decisions need to be dropped from further consideration, and (5) any areas require new decisions. In making these determinations, the evaluation should consider whether mitigation measures are satisfactory, whether there are significant changes in the related plans of other entities, and whether there is new data of significance to the plan.

The plan will be periodically evaluated (at a minimum every 5 years) as documented in an evaluation schedule. Plan evaluations will also be completed prior to any plan revisions and/or major plan amendments. Special or unscheduled evaluations may also be required to review unexpected management actions or significant changes in the related plans of other Federal agencies, and state and local governments, or to evaluate legislation or litigation that has the potential to trigger an RMP amendment or revision. Evaluations may identify resource needs and means for correcting deficiencies and addressing issues through plan maintenance, amendments, or new starts. They should also identify where new and emerging resource issues and other values have surfaced. Evaluations may also identify new and innovative practices that improve effectiveness and efficiency so that other offices may benefit.

REFERENCES

- APLIC 2006. *Suggested Practices for Raptor Protection on Power Lines—The State of the Art 2006*. APLIC, Edison Electric Institute, and the California Energy Commission. Washington, D.C. and Sacramento, CA.
- U.S. Department of the Interior, Bureau of Land Management (BLM). 2004. Mineral Report. Reasonable Foreseeable Development, Lands Involved: Non-Forest Service Federal Lands in the States of Alabama and Mississippi. BLM, April 6, 2004.
- U.S. Department of the Interior, Bureau of Land Management (BLM) and United States Department of Agriculture, Forest Service (USFS). 2006. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, Gold Book. Fourth Edition.

LIST OF PREPARERS

Erik Anderson

Jared Gunnerson

Melanie Martin

ACRONYMS

| | |
|--------|---|
| APD | application for permit to drill |
| APLIC | Avian Power Line Interaction Committee |
| ARPA | Archaeological Resources Protection Act |
| BA | biological assessment |
| BLM | Bureau of Land Management |
| BMP | best management practice |
| BO | biological opinion |
| CBM | coal bed methane |
| CCC | |
| CEQ | Council on Environmental Quality |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | Code of Federal Regulations |
| CSU | controlled surface use |
| CWA | Clean Water Act |
| CWCS | Comprehensive Wildlife Conservation Strategy |
| CZM | coastal zone management |
| DEW | |
| DoD | Department of Defense |
| DOI | Department of the Interior |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| ERMA | extensive recreation management area |

| | |
|------------------------|--|
| ESA | Endangered Species Act |
| FEIS | Final Environmental Impact Statement |
| FLPMA | Federal Land Policy and Management Act of 1976 |
| FMO | federal mineral ownership |
| JFO | Jackson Field Office (BLM) |
| LBA | lease by application |
| MCPS | Mississippi Coastal Preserve System |
| MDEQ | Mississippi Department of Environmental Quality |
| MFC | Mississippi Forestry Commission |
| mg/L | milligrams per liter |
| MNHP | Mississippi Natural Heritage Program |
| MSCZMP | Mississippi Coastal Zone Management Program |
| NAAQS | National Ambient Air Quality Standards |
| NEPA | National Environmental Policy Act of 1969 |
| N.F. | National Forest |
| NHPA | National Historic Preservation Act of 1966, as amended |
| NOA | Notice of Availability |
| NOI | Notice of Intent |
| NPDES | National Pollutant Discharge Elimination System |
| NPS | National Park Service |
| NRCS | National Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NRI | National Resources Inventory |
| NSO | no surface occupancy |
| NWI | national wetland inventory |
| NWR | National Wildlife Refuge |
| PAH | polycyclic aromatic hydrocarbons |
| PSD | prevention of significant deterioration |
| R&PP | Recreation and Public Purposes Act |
| RCRA | Resource Conservation and Recovery Act |
| RFDS | reasonably foreseeable development scenario |
| RMP | Resource Management Plan |
| ROD | Record of Decision |
| ROW | right-of-way |
| SHPO | State Historic Preservation Officer |
| SIP | State Implementation Plan (Air Quality) |
| SRMA | special recreation management area |
| T&E | threatened and endangered |
| TDS | total dissolved solids |
| Tg CO ₂ Eq. | teragrams of CO ₂ equivalent |
| TSS | total suspended solids |
| UIC | |
| USC | United States Code |
| USDA | U.S. Department of Agriculture |
| USFS | U.S. Forest Service |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| VRM | visual resource management |
| WQA | Water Quality Act |