

**United States Department of Energy
Carlsbad Field Office**

**Waste Isolation Pilot Plant
Land Management Plan**

DOE/WIPP-93-004

Reprint J



Effective: January 15, 2026

CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
Reprint I	10/31/23	<ul style="list-style-type: none"> • Minor editorial changes throughout. • Updated Table 3-2 and Figures 5.1, 8.1, and 10.1. • In Chapter 2, updated land use requests instructions. • In Chapter 3, Wildlife, added more language and updated definitions. • In Chapter 4, Cultural Resources, added more language. • In Chapter 6, Recreation, clarified language. • Revised text in section 8.2.7 since section 6.2.2 already references off-highway vehicles. • In Chapter 8, Lands and Realty updated language throughout. • In Chapter 10, Security, made more clarifications. • In Chapter 12, Industrial Safety added signage within WLWA information. • Updated title of subsection 12.2.8 to include occurrences and information in WP 15-CA1010. • Updated subsection to include WP 12-IS.01-6. • Removed subsection 12.2.11.13, redundant WLWA user information. • In Chapter 13, Maintenance and Work Control added signage within WLWA information. • Updated Appendix B to reflect updates in Chapter 2. • In Appendix F, added more references/regulations regarding cultural resources. • In Appendix H, updated contact lists.
Reprint J	01/15/26	<ul style="list-style-type: none"> • Minor editorial changes throughout. • Update to document numbering scheme throughout document. • Added informational note after Acronyms and Abbreviations. • Updated Table 3-2, species known to be endemic to the Pecos River and Guadalupe Mountains were removed from the list. WIPP terminated all sampling within the Pecos River in August 2025. • Updated Figure 10.1. • In Chapter 3, Wildlife, added some language and updated definitions. • PPA area description revised with reference to the Permit. • Updated WIPP Fire Department to WIPP Emergency Services. • In Appendix H, updated contact lists. • Appendix E, MOU updated.

FOREWORD

A prospective land user who has questions regarding elements of land management contained in this plan (see Table of Contents) or wishes to request access to Waste Isolation Pilot Plant (WIPP) lands owned by the federal government and managed by the U.S. Department of Energy (DOE) and the Carlsbad Field Office (CBFO), should refer to the contact information in appendix H or visit <http://www.wipp.energy.gov/>.

In the event of an emergency within the WIPP Land Withdrawal Area (WLWA), call the WIPP Central Monitoring Room (CMR) at 575–234–8111. Non-emergency numbers are 575–234–8125 and 575–234–8457.

Prior to submitting requests for land use, the requestor should examine the content of this document to identify those chapters that apply to the components of the respective activity and provide for compliance with WIPP land management requirements provided in this plan. For example, a potential user should read chapter 2, “Environmental Compliance,” to become familiar with the required permitting procedures and corresponding documentation.

It is the goal of the DOE to develop a “user-friendly” document that achieves management goals and objectives required to maintain site integrity, environmental quality, and to sustain multiple-land use objectives.

Through continual information sharing and timely updates of the Land Management Plan (LMP), DOE seeks to improve land management practices based upon sound professional standards. This includes sustainable management practices for land use, working with the U.S. Bureau of Land Management (BLM), consideration of memorandums of understanding with other entities, construction projects, industry, public land use, environmental requirements, grazing, cultural resource requirements, and reclamation. Guidance prescribed by the LMP is useful for proposed activities, external as well as WIPP-related, which could impact lands used in the operation of the WIPP facility.

The WIPP LMP is updated as needed and the current reprint is available at <http://www.wipp.energy.gov/>. Land users should visit this website or scan the QR code below to ensure they have the most current reprint of the LMP.



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ACRONYMS AND ABBREVIATIONS

ACA	Agency for Conservation Archaeology
APD	Application for Permit to Drill
APE	Area of Potential Effects
API	American Petroleum Institute
ASER	Annual Site Environmental Report
AUM	Animal Unit Month
BECR	Biennial Environmental Compliance Report
BISON-M	Biota Information System of New Mexico
BLM	Bureau of Land Management (DOI)
BNSF	Burlington Northern Santa Fe
CBFO	Carlsbad Field Office (DOE)
CFR	Code of Federal Regulations
CMR	Central Monitoring Room
CMRO	Central Monitoring Room Operator
CPD	Carlsbad Potash District
CWMA	Coordinated Weed Management Area (Eddy County)
DCA	New Mexico Department of Cultural Affairs
DFA	New Mexico Department of Finance & Administration
DGF	see NMDGF
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DP	Discharge Permit
DPA	Designated Potash Area
DSA	Documented Safety Analysis
EA	Environmental Assessment
ECOS	Environmental Conservation Online System
ECR	Environmental Compliance Review
EIS	Environmental Impact Statement
EMNRD	New Mexico Energy, Minerals, and Natural Resources Department
EMS	Environmental Management System
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ER	Environmental Reviewer
ERO	Emergency Response Organization/Emergency Response Officer
ESA	Endangered Species Act of 1973 (as amended)
EUA	Exclusive Use Area
FEIS	Final Environmental Impact Statement for the Waste Isolation Pilot Plant
FIMS	Facilities Information Management System
FLPMA	Federal Land Policy and Management Act (of 1976)

FSM	Facility Shift Manager
FWS	U.S. Fish and Wildlife Service, also the Service
HAZMAT	Hazardous Materials
IC	Incident Commander
ICS	Incident Command System
ISMS	Integrated Safety Management System
JHA	Job Hazard Analysis
JPA	Joint Powers Agreement
LMP	Land Management Plan
LUC	Land Use Coordinator
LUR	Land Use Request
LWA	Land Withdrawal Act
MOC	Management and Operating Contractor
MOU	Memorandum of Understanding
MSHA	Mine Safety and Health Administration of the U.S. Department of Labor
NAGPRA	North American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIMS	National Incident Management System
NM	New Mexico
NMAC	New Mexico Administrative Code
NMDGF	New Mexico Department of Game and Fish
NMED	New Mexico Environment Department
NMOCD	see OCD
NMSA	New Mexico Statutes Annotated
NMSLO	New Mexico State Land Office
OCA	see DCA
OCD	New Mexico Oil Conservation Division
OHV	Off-highway Motor Vehicle
OSHA	Occupational Safety and Health Administration
Pub. L.	Public Law
PPA	Property Protection Area
PPE	Personal Protective Equipment
RCRA	Resource Conservation and Recovery Act
REDA	Regional Emergency Dispatch Authority
RMP	Resource Management Plan

SDS	Safety Data Sheet
SEIS-I	Final Supplement Environmental Impact Statement for the Waste Isolation Pilot Plant
SEIS-II	Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement
SG	Short-grass Prairie Grassland
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SLO	see NMSLO
SMA	Special Management Area
SNL	Sandia National Laboratories
SOC	Security Operations Center
SOD	Shinnery Oak Dune (habitat)
SOW	Statement of Work
SPDV	Site and Preliminary Design Validation
STR	Subcontract Technical Representative
T&E	Threatened and Endangered (species)
TRU	Transuranic (waste)
U.S.	United States
U.S.C.	United States Code
UVS	Underground Ventilation System
WIPP	Waste Isolation Pilot Plant
WLWA	WIPP Land Withdrawal Area
WP	WIPP Procedure

Important aspects of this document:

Federal Register (FR) references are shown with the volume number preceding "FR" and ending with the first page number of the document. An example is 63 FR 27354. Even though this FR document consists of multiple pages, this format is used for citation searches of the FR database.

When describing tracts of public land, abbreviations are used. For example, section 31, Township 22 South, Range 31 East is abbreviated as sec. 31, T. 22 S., R. 31 E. Land descriptions herein are associated with the New Mexico Principal Meridian.

PREFACE

In accordance with section 4 of the WIPP Land Withdrawal Act (LWA) (Public Law [Pub. L.] 102–579), as amended by Pub. L. 104–201, the DOE has prepared this LMP. This plan was developed in cooperation with the U.S. Department of the Interior (DOI) Bureau of Land Management (BLM) and the State of New Mexico. Changes or amendments to this plan shall be done in consultation with the BLM, the State of New Mexico, and affected stakeholders, as appropriate.

This LMP, as required by the LWA, has been prepared to identify resource values, promote the concept of multiple-use management, and identify long-term goals for the management of WIPP lands until the end of the decommissioning phase. This plan also provides the opportunity for participation in the land use planning process by the public, as well as local, state, and federal agencies. As per the LWA and Permit Attachment H, a post decommissioning land management plan will be prepared and submitted. Section 13 of the LWA requires this to be submitted to Congress. As per the LWA, the term “decommissioning phase” means the period of time beginning with the end of the disposal phase and ending when all shafts at the WIPP repository have been back-filled and sealed.

This plan integrates applicable land management provisions of the LWA; BLM planning regulations (Title 43 *Code of Federal Regulations* [CFR] Part 1600) issued under the authority of the Federal Land Policy and Management Act (FLPMA) of 1976; the National Environmental Policy Act (NEPA) of 1969, as amended; DOE NEPA regulations (10 CFR Part 1021); and applicable Memoranda of Understanding (MOUs) among the DOE and local, state, or federal agencies. The LMP is designed to provide a comprehensive framework for the management and coordination of WIPP land use. The LMP, and any subsequent amendments, will continue to apply to the use of WIPP lands through the decommissioning phase.

The guidelines in the LMP provide for the management and oversight of WIPP lands under the jurisdiction of the DOE and lands outside the WIPP boundary that are used in the operation of the WIPP facility (e.g., groundwater surveillance well pads outside the WLWA). Furthermore, this plan provides for multi-agency involvement in the administration of DOE land management actions. Documents referenced in the LMP may be requested by calling the WIPP Information Center at 1-800-336-WIPP (9477). See appendix H for additional contact information or visit <http://www.wipp.energy.gov/>.

This LMP envisions and encourages direct communication among affected stakeholders, including federal and state agencies involved in managing the resources within, or activities impacting the areas adjacent to, the WLWA. It sets forth cooperative arrangements and protocols for addressing land management actions at the WIPP site. The DOE recognizes the guidelines for contemporary land management practices that apply to the WLWA and applicable regulatory requirements contained therein. Commitments contained in current permits, agreements, or concurrent MOUs with other agencies (e.g., State of New Mexico, DOI) shall be adhered to when

addressing/evaluating land use management activities and future amendments that affect the management of WIPP lands.

This LMP will be reviewed biennially to assess the adequacy and effectiveness of the document, or as necessary to address emerging issues affecting WIPP lands. Affected agencies, groups, or individuals may be involved in the review process. It is important to the DOE that the information in this plan is valid, accurate, easily understood, of interest, and communicates the DOE's efforts and commitment to land management, environmental protection, compliance, and sustainability. Any issues discovered in this plan should be communicated to a WIPP contact listed in appendix H.

The contents of this LMP focus on management protocols for the following topics: administration of the plan, environmental compliance, wildlife, cultural resources, grazing, recreation, energy and mineral resources, lands/realty, reclamation/environmental restoration, security, emergency management, industrial safety, and maintenance and work control. Each topic and its complementary planning/management criteria are described in respective chapters.

This reprint J was prepared by LATA, a subcontractor to Salado Isolation Mining Contractors, under contract number 89303322DEM000077.

CHAPTER 1

ADMINISTRATION OF THE WIPP LAND MANAGEMENT PLAN

1.0 INTRODUCTION

On October 30, 1992, the Waste Isolation Pilot Plant Land Withdrawal Act (Pub. L. 102–579) became law, later amended by Pub. L. 104–201 in 1996. This Act transferred the responsibility for the management of the WLWA (see figure 10.1) from the Secretary of the Interior to the Secretary of Energy. In accordance with sections 3(a)(1) and (3) of the LWA, these lands: “. . . are withdrawn from all forms of entry, appropriation, and disposal under the public land laws . . . and are reserved for the use of the Secretary of Energy . . . for the construction, experimentation, operation, repair and maintenance, disposal, shutdown, monitoring, decommissioning, and other authorized activities associated with the purposes of WIPP as set forth in section 213 of the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (Pub. L. 96–164; 93 Stat. 1259, 1265) and this Act.”

As a complement to this LMP, an MOU has been executed between the DOE and the BLM, as required by section 4(d) of the LWA (appendix C). The State of New Mexico was consulted in the development of the MOU and the associated Statement of Work (SOW) (appendix D). An MOU was developed between the DOE and the State of New Mexico regarding emergency response (appendix E). In addition, a Joint Powers Agreement (JPA) (appendix G) for the management of the WLWA was promulgated.

1.0.1 Affected Environment

The WIPP facility, a project of the DOE, was authorized in 1979 by Pub. L. 96–164 “for the express purpose of providing a research and development facility to demonstrate the safe disposal of radioactive wastes resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission.” The facility is a non-reactor nuclear facility, classified as a Hazard Category 2 as defined by DOE-STD-1027-2018, Hazard Categorization of DOE Nuclear Facilities. While fulfilling the WIPP Project mission to provide underground disposal of transuranic (TRU) and TRU-mixed wastes, the DOE considers the needs of, and the impacts to, native and migratory wildlife populations due to surface operations and construction at the WIPP facility. The DOE is committed to environmental protection, compliance, and sustainability at DOE facilities.

The WIPP site is located in Eddy County in southeastern New Mexico. The center of the site is 26 miles east of Carlsbad, New Mexico, in a region known as the Los Medaños, which represents the initial intergradation between the Llano Estacado and the Chihuahuan Desert. This region displays an exceptional diversity of plant and animal inhabitants.

Geographically, the region is regarded as a relatively flat, sparsely inhabited plateau with little surface water. Demographically, there are fewer than 30 residents at various locations within 10 miles of the central point of the WIPP site. The majority of the local population within 50 miles of the WIPP is concentrated in and around the communities of Carlsbad, Lovington, Hobbs, Eunice, Jal, Loving, and Artesia, New Mexico. The nearest community is the village of Loving, New Mexico, 18 miles west-southwest of WIPP.

The population of Loving decreased from 1,413 (2010 census) to 1,390 (2020 census). The nearest major population center is the city of Carlsbad, New Mexico, 26 miles west of the center of the WIPP site. The population of Carlsbad increased from 26,138 (2010 census) to 32,238 (2020 census). The permanent population within 10 miles of the WIPP site is associated with ranching. The transient population within 10 miles of the WIPP site is associated with ranching, oil and gas exploration/production, and potash mining. The region is popular for recreation, providing opportunities for hunting, camping, hiking, and bird watching.

1.0.2 Implementation of the WIPP Land Management Plan

Waste Isolation Pilot Plant land management authorizations and actions, including budget proposals, will not conflict with this LMP. Valid existing rights, operations, and activities under existing permits, contracts, cooperative agreements, MOUs, or other instruments for land use are evaluated to ensure that the Land Use Request (LUR) process complies with the intent of applicable permits, regulatory requirements, agreements, and the LWA.

Actions in the LMP shall be implemented over a period extending through the decommissioning phase of the WIPP facility. In some cases, site-specific planning and environmental analyses, more detailed than those covered in this LMP, may be required before an action can be taken.

This LMP will be reviewed biennially and updated (new reprint), amended, or revised as needed, per section 1.2.2, to reflect new management direction, program policy, and monitoring results, or to respond to changes in the law and accommodate additional missions, when appropriate. Amendments (or revisions) to this plan will be developed in consultation with the BLM and the State of New Mexico and promptly submitted to the Congress and the State of New Mexico as required by section 4(e) of the LWA. The DOE may consider additional missions for the WLWA as determined by the Secretary of Energy within the scope of authorizing legislation.

As implementation of the LMP proceeds, proposed land use projects not addressed in this plan will be evaluated to determine conformance with LMP objectives. The WIPP Land Use Coordinator (LUC), in collaboration with the NEPA/Environmental Reviewer (ER) Coordinator and CBFO NEPA Compliance Officer, shall review proposals through the LUR process for this purpose, as defined in chapter 2 of this LMP. The LUC and the CBFO NEPA Compliance Officer also will determine if management actions contained

in the LUR are provided for specifically in the LMP or, if not, that they are clearly consistent with the terms, conditions, and decisions of the approved LMP. Related responsibilities are included in appendix A.

It is the DOE's goal to manage the surface of the WLWA using traditional multiple land use concepts identified in the Federal Land Use and Management Act of 1976 as amended, Title II section 202 for the public multiple land use area within the 16 sections of the Land Withdrawal Boundary in coordination with the BLM. Restricted areas of the WLWA associated with WIPP operations are managed through the WIPP land-use policies and the land use request program. Accordingly, land use restrictions will be minimized to the extent practicable as per the LWA.

The subsurface of the WLWA is restricted to exclusive use by the DOE with the exception of two 320-acre tracts that are leased for oil and gas development below 6,000 feet. These subject tracts are identified as Federal Oil and Gas Leases, numbers NMNM02953 and NMNM02953C, within sec. 31, T. 22 S., R. 31 E. The U.S. Environmental Protection Agency (EPA) has determined that potential activities at the existing oil and gas leases, NMNM02953 and NMNM02953C, referred to in section 4(b)(5)(B) of the LWA, "would have an insignificant effect on releases of radioactive material from the WIPP disposal system and, thus, that they [leases] do not cause the WIPP to violate the disposal regulations." As a result, acquisition of existing oil and gas leases below 6,000 feet is not required to ensure compliance with EPA's final disposal regulations at 40 CFR Part 191, Subparts B and C. The EPA findings were published May 18, 1998, in [63 FR 27354](#).

In accordance with section 4(c) of the LWA, "if the Secretary (i.e., Secretary of Energy) determines, in consultation with the Secretary of the Interior, that the health and safety of the public or the common defense and security require the closure to the public use of any road, trail, or other portion of the Withdrawal, the Secretary may take whatever action the Secretary determines to be necessary to effect and maintain the closure and shall provide notice to the public of such closure."

1.1 OBJECTIVE

The objective of this LMP is to provide land management and use guidelines and to establish criteria for review and implementation of land management and use decisions. These criteria allow the DOE to evaluate the effectiveness of multiple-use decisions, and provide guidance for the evaluation of productivity, condition, quality, or other issues related to land-management actions. These guidelines also ensure protection of the public and environment with regard to the operation of the WIPP facility. Implementation and monitoring plans for each respective land resource are discussed in subsequent chapters of this document.

1.2 PLANNED ACTIONS

Planned actions are those associated with the review and update of this LMP. These are presented to ensure timely review and update of the LMP and to establish consistency with current regional land management practices, DOE policy, and congressional directives.

1.2.1 Maintaining the Land Management Plan

The LMP shall be effectively maintained through timely modifications which document new data, minor changes, amendments to existing regulations, or corrections, and which have undergone appropriate DOE document review procedures.

1.2.2 Updating, Amending, or Revising the Land Management Plan

The LMP may be updated, amended, or revised when considering a proposal or an action that is not addressed by the LMP.

1.2.2.1 Updates

This category is used to define activities designated as “low impact” by the LUC. The purpose of this category is to designate proposal(s) that the LUC, in consultation with cognizant regulatory personnel, has identified as not being addressed specifically in the LMP and as not having significant environmental impact. An LUR shall be submitted to the LUC for status determination. The CBFO NEPA Compliance Officer will assess the proposed project for a NEPA determination (e.g., DOE/NEPA categorical exclusion). Updates (reprints) are considered minor alterations to the LMP.

1.2.2.2 Amendments

This category is used when preliminary analysis by the LUC or NEPA/ER Coordinator indicates that proposal(s) not specifically addressed in the LMP have, or are likely to have, significant environmental impacts that would necessitate the development of new NEPA documentation. In this case, the LUC or NEPA/ER Coordinator will evaluate regulatory impacts and possible permit requirements and request a NEPA determination from the CBFO. Actions (e.g., document modifications) that are determined by the LUC to be amendments will require stakeholder notification and subsequent submittal to Congress and the State of New Mexico.

1.2.2.3 Revisions

This category is used when a proposal(s) not specifically addressed in the LMP will have a significant impact. A revision of the LMP may involve the preparation of a new LMP when updates or amendments can no longer keep the existing plan current with existing NEPA documentation, changing management needs, resource conditions, policies, or regulatory laws. Land Management Plan revisions will be considered only

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Waste Isolation Pilot Plant Land Management Plan

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after a comprehensive review by the LUC and cognizant regulatory personnel. Revisions will be submitted to Congress and the State of New Mexico and may include formal public involvement.

CHAPTER 2 ENVIRONMENTAL COMPLIANCE

2.0 INTRODUCTION

Parties who desire to conduct activities that have the potential to impact the WLWA, outside the perimeter of the Property Protection Area (PPA) (see figure 10.1), must prepare an LUR (appendix B). This includes activities that originate outside the WLWA but will directly affect properties within the WLWA, or on lands used for the operation of the WIPP facility outside the WLWA boundary, managed under land use permits issued to the DOE. An LUR consists of a narrative description or an abstract of the project, a completed Environmental Compliance Review (ECR) Form for WIPP-related activities, and a map depicting the location of the proposed activity. The LUR abstract and ECR Form are used to determine if applicable regulatory requirements have been met prior to approval of a proposed project and will be used to determine whether new environmental documentation must be prepared. An LUR is submitted by any WIPP project organization or outside entity wishing to complete any construction rights-of-way, pipeline easements, or other land use projects within the WLWA and on lands used in the operation of the WIPP facility, under the purview of the DOE.

2.1 OBJECTIVE

The objective of this chapter is to describe the method that the CBFO, working in collaboration with the NEPA/ER Coordinator and WIPP LUC, will use to review and implement regulatory guidelines that govern land use activities related to the WIPP facility. The CBFO is required by various DOE Orders, the JPA between the DOE and the State of New Mexico, MOUs, and regulations to evaluate activities that could impact human health or the environment prior to implementation. The DOE NEPA implementing procedures are found primarily at DOE's Office of NEPA Policy and Compliance website (<https://www.energy.gov/nepa/office-nepa-policy-and-compliance>) in 10 CFR Part 1021.

2.2 PLANNED ACTIONS

The LUR abstract and ECR Forms are used to initiate regulatory reviews and determine any activity-specific regulatory requirements. Through the submittal of an LUR (to include an ECR Form for WIPP-related activities), the WIPP NEPA/ER Coordinator evaluates potential environmental impacts, mitigating actions for the impacts, and potential permit requirements and utilizes a NEPA checklist for the proposal. Environmental Compliance Reviews are evaluated to determine if air, water, hazardous waste, or land use permits are required for the activity as well as potential impacts to wildlife, vegetation, and cultural resources.

Discussions of environmental regulations that pertain to the WIPP Project are provided in the WIPP Biennial Environmental Compliance Report (BECR), and the WIPP Annual Site Environmental Report (ASER). Both documents, available from CBFO, provide regulatory applicability and compliance status for federal, state, and local environmental regulations. The BECR and the ASER serve as reference documents for use in better understanding regulatory requirements at the WIPP site. Both documents may assist the requestor in identifying some regulations that could affect the development of project schedules prior to submittal of the LUR package.

2.2.1 National Environmental Policy Act and Land Use within the Waste Isolation Pilot Plant Land Withdrawal Area

2.2.1.1 Waste Isolation Pilot Plant Project Requests

Land use requests associated with WIPP-related activities are addressed as follows, in no specific order:

As needed, the LUC will provide the requestor with a guide for the proper completion of an LUR (appendix B).

The requestor will submit to the LUC an LUR abstract (appendix B) identifying the proposed project. The submittal of a properly completed LUR abstract and map (including a completed ECR Form for WIPP-related activities) is mandatory for obtaining authorization for use that impacts lands contained within the WLWA (excluding the inner PPA), or lands outside the WLWA boundary used for the operation of the WIPP facility, managed under land use permits issued to the DOE (e.g., groundwater surveillance pads, access corridor rights-of-way). The WIPP NEPA/ER Coordinator can provide assistance in completing the ECR Form for the LUR package.

2.2.1.2 Land Use Request Review Process

Reviews are addressed as follows, in no specific order:

The requestor will provide the LUR documentation to the LUC.

The LUC will assign a unique number to the LUR and enter the LUR into the tracking system.

The LUC will review the LUR and transmit it, along with any supporting documentation, to the WIPP NEPA/ER Coordinator.

In consultation with appropriate cognizant regulatory personnel, the WIPP NEPA/ER Coordinator will complete a technical review, as required, to address any concerns not completely addressed in the LUR. Items that need to be resolved prior to project initiation will be added to the review in order to comply with regulatory considerations such as threatened and endangered species, National Historic Preservation Act consultations, waste minimization, water and air permit requirements, waste management, reclamation requirements, and rights-of-way, in addition to other concerns pertaining to the protection of human health and the environment.

The WIPP LUC or NEPA/ER Coordinator will provide a copy of the LUR and supporting documentation to the CBFO NEPA Compliance Officer.

If the proposed action is addressed by existing environmental documentation and other pertinent regulatory approvals have been obtained, the CBFO NEPA Compliance Officer will indicate approval of the proposal. Once the CBFO's approval has been obtained, the WIPP NEPA/ER Coordinator will indicate approval and return the package, including the LUR, to the LUC. The LUC or NEPA/ER Coordinator may have the proposal scope reviewed by a Permit screener and have a WIPP Permit Screen Sheet completed. A review of the impact of the project on the Compliance Recertification Application may also be required. Proposed actions involving any water discharge will need to be reviewed for compliance with the New Mexico Discharge Permit (DP-831). Any proposed air emission source will also require review to determine compliance with Clean Air Act rules. The LUC or NEPA/ER Coordinator will advise the requestor of regulatory concerns.

If the Environmental Compliance Review is outside the scope of actions previously assessed within WIPP Project NEPA documentation, the CBFO NEPA Compliance Officer will determine whether the proposal is categorically excluded or whether further environmental analysis must be performed.

The WIPP NEPA/ER Coordinator will inform the requestor of the action of additional requirements for NEPA review and an estimated time frame for completion.

After the WIPP NEPA/ER Coordinator has released the LUR back to the LUC with the appropriate level of environmental approval, the LUC will log out the LUR and indicate approval of the project.

The LUC's final approval of the proposal will include general stipulations for the implementation of the action. Specific stipulations (e.g., avoidance measures for cultural resource sites) may also be included.

2.2.1.3 Project Requests Through the Bureau of Land Management or State Land Office

Proposed actions that involve land uses on BLM, State of New Mexico, and DOE lands which may have a significant impact on human health or the environment will require a “lead agency” determination. Lead agency status regarding projects involving multiple agencies will be determined by existing agreements (e.g., MOU, JPA) or Section 2.5 of DOE’s NEPA procedures. To this extent, the following criteria are used to determine “lead agency” designation:

- Magnitude of agency’s involvement,
- Project approval/disapproval authority,
- Expertise concerning the action’s environmental effects,
- Duration of agency’s involvement, and
- Sequence of agency’s involvement.

In the event the DOE receives lead agency designation, guidelines contained in section 2.2.1 of this document apply.

If either the BLM or the New Mexico State Land Office (NMSLO) is determined to be the lead agency, then the LUR review process will be as follows, in no specific order:

- The BLM or the NMSLO will direct the requestor to notify the WIPP LUC prior to initiating subject land use activities.

- The BLM or NMSLO will oversee the submittal of the requisite environmental assessment (EA), as appropriate, and advise the requestor to notify the LUC for guidance in the development and submittal of an LUR.

- An LUR abstract (appendix B) will be submitted in writing to the LUC for use that impacts land within the WLWA (excluding the inner PPA), or on lands outside the WLWA under the purview of the DOE.

- The requestor will contact the BLM or the NMSLO regarding their proposed action.

- The requestor will provide information to the lead agency to allow the appropriate NEPA documentation to be prepared for the proposed project.

- Upon completion of the draft NEPA documents, the BLM or NMSLO will transmit the document, along with any supporting documentation, to the LUC and CBFO NEPA Compliance Officer for review and comment.

- The LUC will assign a unique number to the LUR and enter the request for land use into the tracking system.

The LUC will review the NEPA documentation and provide it to the WIPP NEPA/ER Coordinator for environmental regulatory considerations. Subsequently, the LUC or NEPA/ER Coordinator may have the proposal scope reviewed by a Permit screener and have a WIPP Permit Screen Sheet completed. A review of the impact of the project on the Compliance Recertification Application may also be required. DP-831 and the New Mexico Air Quality Permit may also require review. The LUC or NEPA/ER Coordinator will advise the requestor of regulatory concerns.

The WIPP NEPA/ER Coordinator will convey any regulatory consideration regarding the proposed action to the LUC by way of a technical review.

The LUC will append the technical review with any other appropriate land use considerations.

If the regulatory considerations detailed in the technical review are significant, the BLM or NMSLO will arrange a meeting with the affected requestor. The requestor(s) will be advised of the regulatory concerns of the proposed action.

When regulatory considerations are addressed to the satisfaction of affected participants, the project may be approved by the CBFO NEPA Compliance Officer.

The CBFO NEPA Compliance Officer will transmit a letter to the BLM or NMSLO, approving the proposed project, and will send a courtesy copy to the WIPP LUC and NEPA/ER Coordinator.

CHAPTER 3 WILDLIFE

3.0 INTRODUCTION

Consideration shall be given during planning stages of projects involving the disturbance or encroachment of wildlife habitat within the WLWA. Monitoring of specific wildlife populations will occur in accordance with applicable laws, agreements, and regulations. Discussions of regulations that pertain to wildlife are provided in this chapter and in the BECR and the ASER. When wildlife management activities occur, activities may be supported by state and federal guidelines or by way of commitments created through interagency agreements or MOUs (appendix C).

3.0.1 **Affected Biological and Wildlife Environment**

The wildlife habitat around the WLWA is categorized in accordance with the BLM National Vegetation Classification System. Waste Isolation Pilot Plant lands comprise a small part of those lands grouped into major habitat types as described in appendix L-2 of the East Roswell Grazing Environmental Impact Statement (EIS). Moreover, habitat types and species inventories were conducted for the DOE during initial site characterization studies and the Site and Preliminary Design Validation studies. Details can be found in the Final Environmental Impact Statement for the Waste Isolation Pilot Plant (FEIS) (DOE/EIS-0026). Wildlife in the vicinity of the WIPP site includes a wide variety of arthropods, amphibians, reptiles, birds, and mammals.

The Chihuahuan Desert has long been regarded for its extraordinary diversity of plant and animal communities. The location of the WLWA, situated in the Los Medaños region of the Chihuahuan Desert, exemplifies this unusual array of biotic factors. The Los Medaños is located in an area of intergradation between the northern region of the Chihuahuan Desert and the Llano Estacado (Staked Plains). The region includes aeolian and alluvial sedimentation on upland plains that form hummocks, dunes, sand ridges, and swales with the presence of Havard oak (or shinnery oak) as a prominent foliar factor. Although the abundance of shinnery oak has aided in the stabilization of the dunes, a number of them remain unstable and exhibit distinct signs of shifting. An additional predominant shrub is honey mesquite which has invaded what historically was a short-grass, shinnery oak-dominated landscape.

The shinnery oak community has shifted from a dominant bluestem/grama grassland with varying amounts of shinnery oak, sand sagebrush, and yucca to a composition dominated by dropseeds, purple threeawn, and gramas, with high densities of plains yucca, annual forbs, and mesquite.

According to the BLM's Carlsbad Resource Management Plan (RMP), 15 percent of the wildlife species identified in the resource area utilize the shinnery oak habitat, with 30 percent occupying areas consisting primarily of grass compositions with greater than 75 percent grasses. The subtle blend of plant communities with shinnery oak dune (SOD) habitat that somewhat dominates short-grass prairie grassland (SG) affords a composition of factors that results in the diverse wildlife population of the Los Medaños.

Wildlife populations are characterized by numerous species of arthropods, amphibians, reptiles, birds, and mammals. Now and then, aquatic mollusks, inhabitants of local stock ponds and livestock drinking units, are observed.

Red-spotted toads and the New Mexico spadefoot are two examples of no fewer than ten different species of indigenous amphibians. Their significance is seldom recognized until spring or summer rains, at which time they appear in exceptional numbers.

Reptiles comprise more conspicuous inhabitants due to the diurnal nature of numerous species. Ornate box turtles, common side-blotched lizards, and Texas horned lizards represent 3 of approximately 35 distinct species of indigenous reptiles. Moreover, three species of rattlesnake (western diamond-backed, prairie, and western massasauga) can be encountered in the area.

Bird densities vary according to preferable food and habitat availability. The habitat heterogeneity of the Los Medaños accounts for a wide assortment of bird species that inhabit the area either as seasonal transients or permanent residents. Large numbers of mourning dove, pyrrhuloxias, and black-throated sparrows are frequently observed. A unique desert subspecies of the Northern bobwhite quail, scaled quail, and an occasional lesser prairie-chicken depict the gallinaceous inhabitants. Due to a scarcity of natural surface waters in the immediate vicinity of the WIPP site, migrating or breeding waterfowl do not occur in significant numbers, but several species may be found and occasionally breed in the storm water ponds located at the WIPP site.

The area once supported a particularly abundant and diverse population of raptors, or birds of prey. Harris's hawks, Swainson's hawks, and great horned owls illustrate species historically found nesting in the area. The density of large avian-predator nests was previously documented as high as 16 nests per 10 square kilometers, but recent decline in raptor populations have generally been observed in New Mexico.

Black-tailed jackrabbits and desert cottontail rabbits are the most conspicuous mammals. Several species of ground squirrel, such as the spotted ground squirrel, and numerous other rodents such as kangaroo rats and cactus mice also occupy the area. Large piles of debris, which may consist of aluminum cans, cow dung and other rubbish (sometimes to a height of nearly five feet), clustered at the base of cactus or large mesquites characterize the houses (or "middens") of the southern plains wood rat. Other species, such as mule deer and carnivores (e.g., coyotes, bobcats, and American badgers) also frequent the area. The species described above are listed in table 3-1.

Table 3-1. Nomenclature – Aforementioned Species

Common Name	Scientific Name
FLOWERING PLANTS	
Havard Oak (or shinnery oak)	<i>Quercus havardii</i>
Honey Mesquite	<i>Prosopis glandulosa</i>
Bluestem (grass)	<i>Andropogon</i> spp.
Grama (grass)	<i>Bouteloua</i> spp.
Sand Sagebrush	<i>Artemisia filifolia</i>
Yucca	<i>Yucca</i> spp.
Dropseed	<i>Sporobolus</i> spp.
Purple Threeawn	<i>Aristida purpurea</i>
Plains Yucca	<i>Yucca campestris</i>
Mesquite	<i>Prosopis</i> spp.
AMPHIBIANS	
Red-spotted Toad	<i>Anaxyrus punctatus</i>
New Mexico Spadefoot	<i>Spea multiplicata</i>
REPTILES	
Ornate Box Turtle	<i>Terrapene ornata</i>
Common Side-blotched Lizard	<i>Uta stansburiana</i>
Texas Horned Lizard	<i>Phrynosoma cornutum</i>
Western Diamond-backed Rattlesnake	<i>Crotalus atrox</i>
Prairie Rattlesnake	<i>Crotalus viridis</i>
Western Massasauga	<i>Sistrurus tergeminus</i>
BIRDS	
Mourning Dove	<i>Zenaida macroura</i>
Pyrrhuloxia	<i>Cardinalis sinuatus</i>
Black-throated Sparrow	<i>Amphispiza bilineata</i>
Northern Bobwhite Quail	<i>Colinus virginianus</i>
Scaled Quail	<i>Callipepla squamata</i>
Lesser Prairie-Chicken	<i>Tympanuchus pallidicinctus</i>
Harris's Hawk	<i>Parabuteo unicinctus</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Great Horned Owl	<i>Bubo virginianus</i>
MAMMALS	
Black-tailed Jackrabbit	<i>Lepus californicus</i>
Desert Cottontail Rabbit	<i>Sylvilagus audubonii</i>
Spotted Ground Squirrel	<i>Xerospermophilus spilosoma</i>
Kangaroo Rat	<i>Dipodomys</i> spp.
Cactus Mouse	<i>Peromyscus eremicus anthonyi</i>
Southern Plains Wood Rat	<i>Neotoma micropus canescens</i>
Mule Deer	<i>Odocoileus hemionus</i>
Coyote	<i>Canis latrans</i>
American Badger	<i>Taxidea taxus</i>

Note: Vegetation naming conventions per U.S. Dept. of Agriculture, vertebrate naming conventions per Biota Information System of New Mexico (BISON-M).

As required by section 7 of the 1978 amendments to the Endangered Species Act of 1973 (ESA), the DOE submitted a formal request to the U.S. Fish and Wildlife Service (FWS) in 1979 to provide a list of threatened and endangered species that may be affected by the proposed WIPP facility. The FWS in a letter dated November 15, 1979, replied with a list of five threatened or endangered species; Lee pincushion cactus, Pecos gambusia, black-footed ferret, American peregrine falcon, and bald eagle. The

FWS identified these as listed species that may occur in the proposed project area. No proposed species or critical habitat was identified in the letter. In a letter dated April 7, 1980, New Mexico Department of Game and Fish (NMDGF) provided concurrence that WIPP construction would not have a significant adverse impact on State-designated threatened or endangered species. These letters are available in appendix I of the WIPP FEIS.

In 1989, the DOE again consulted with the FWS to update the list of threatened and endangered species. In a letter dated May 26, 1989, the FWS advised the DOE that the list of species provided in 1979 is still valid, except that the black-footed ferret should be removed.

During 1989, the DOE consulted with the NMDGF regarding the state-listed endangered species in the vicinity of the WIPP site. Based on the listings in NMDGF Regulation 657, dated January 9, 1988, the NMDGF identified seven birds and one reptile in one of two endangerment categories that occur or are likely to occur at the site. The eight species included in the letter from NMDGF dated May 26, 1989, were "Mississippi kite, bald eagle, peregrine falcon, least tern, willow flycatcher, Bell's vireo, Baird's sparrow, and sagebrush lizard." A statement of agreement by the agency "that the WIPP Site activities, at least as we understand them, are not likely to have significant impacts on state-listed endangered wildlife in the area" was also provided in the letter.

In 1996, a large-scale biological survey was performed on the WLWA and waterline right-of-way. This survey was designed to focus on a list of species that were considered threatened or endangered in 1996. The survey report, 1996 Waste Isolation Pilot Plant Threatened and Endangered Species Survey, concluded that only one species, per 1996 listings, was encountered. Six species with current special-status listings, dunes sagebrush lizard, Baird's sparrow, Cassin's sparrow, loggerhead shrike, vesper sparrow, and Virginia's warbler, were reported as encountered during the survey. These are currently listed by state or federal agencies as endangered, threatened, or species of greatest conservation need (SGCN). Only the last five were reported within the WLWA. The dunes sagebrush lizard (formerly sand dune lizard), a State-listed endangered species, was only reported outside of the WLWA. One State-listed threatened bird species (i.e., Baird's sparrow) was reported with one sighting near the northeast corner of the WLWA, but that sighting was not included in the results summary even though that species was listed as State-threatened in 1996. The report concluded that only the lizard was found during the survey. There was only one sighting of Virginia's warbler, in the same area of the Baird's sparrow. Cassin's sparrow, loggerhead shrike, and vesper sparrow were reported as commonly seen on nearly all transect lines. Sage thrasher and scaled quail, two bird species identified by BLM as sensitive and watch species, respectively, were also reported within the WLWA.

In May 2022, a small-scale biological survey was performed on undisturbed land focusing on an 800-acre area near the main WIPP facility. Although results reported in the Biological Survey Report for the Supplemental Environmental Impact Statement for the Continued Operation of the Waste Isolation Pilot Plant, indicated that no threatened

or endangered species were found within the surveyed area, three bird species (i.e., burrowing owl, Cassin's sparrow, and loggerhead shrike) classified in BISON-M as SGCN were reported as encountered. The report notes that the dunal habitat (sand dunes) within the WLWA is favorable to the burrowing owl and some areas near the main WIPP facility are potential habitat for the State-listed endangered Scheer's pincushion cactus. Since this survey did not capture the entire WLWA and due to the transient and cryptic nature of some species, the possibility exists of other special-status species (including threatened and endangered) occurring within the WLWA. Scaled quail, identified by BLM as a watch species, was also reported.

A list of special-status species that could be encountered during WIPP operations (not including waste transport from generator sites), was compiled from multiple sources in April 2025 and is shown in table 3-2. These sources include FWS Environmental Conservation Online System (ECOS), Biota Information System of New Mexico (BISON-M), New Mexico Rare Plants website, and 2018 BLM – NM Sensitive Update for animals and plants. The BLM has not updated the NM lists since 2018. Table 3-2 was configured to minimally show a State listing for animals listed in BISON-M and plants listed on the New Mexico Rare Plants website as occurring in Eddy and Lea Counties and having a threatened, endangered, and SGCN or "species of concern" classification. Even though the WIPP site is entirely within Eddy County, activities and rights-of-way associated with WIPP environmental monitoring occur in both Eddy and Lea Counties. The list primarily focuses on species at the WIPP site and nearby areas, therefore special-status crustaceans, fishes, and mollusks are not included. Table 3-2 also includes species identified by BLM as special-status species and verified or potentially in the Carlsbad Resource Area. Some of these species may not be included on the State lists for Eddy and Lea Counties. Also, the Sneed's Pincushion Cactus is included on the list because it is identified in ECOS as being in Eddy County, even though not backed by the State or BLM listings.

Table 3-2 will be used as a foundation for researching the current special-status listings on agency websites, when considering impacts to wildlife due to WIPP operations. Regardless of special-status classification, virtually all migratory bird species are protected by the Migratory Bird Treaty Act and by various New Mexico Statutes (see section 3.2.4.3). Additional details and current lists of threatened and endangered species in New Mexico can be found on the BISON-M, New Mexico Rare Plants, BLM, and FWS ECOS websites. These websites also list species that warrant heightened attention (i.e., SGCN and species of concern).

Promulgated in 19.33.6 New Mexico Administrative Code (NMAC), List of Threatened and Endangered Species, is the list of threatened and endangered wildlife in New Mexico. Promulgated in 19.21.2 NMAC, Endangered Plant Species Lists and Collection Permits, is the list of endangered plants in New Mexico. Considerations pertaining to special-status species will be implemented in accordance with federal and state regulations and current listings of the species during the deliberation and administration of projects conducted on WIPP lands.

Definitions

(Items marked with an asterisk [*] is from Information for Planning and Consultation of FWS or "Service"):

*Candidate – Any species for which the Service has sufficient information to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species are not protected by the take prohibitions of section 9 of the ESA.

Delisted – Indicates the species was formerly a listed species, but the Service removed the listing based on new information on the species.

*Endangered – Any species which is in danger of extinction throughout all or a significant portion of its range. Endangered species are protected by the take prohibitions of section 9 under the ESA.

*Experimental population, Non-essential – A population that has been established within its historical range under section 10(j) of the ESA to aid recovery of the species. The Service has determined a non-essential population is not necessary for the continued existence of the species. For the purposes of consultation, non-essential experimental populations are treated as threatened species on National Wildlife Refuge and National Park land (require consultation under section 7(a)(2) of the ESA) and as a proposed species on private land [no section 7(a)(2) requirements, but federal agencies must not jeopardize their existence (section 7(a)(4))].

Not Listed – Indicates limited species information is available in FWS ECOS, but species did not have a special-status listing (i.e., not a listed species) when table 3-2 was compiled.

*Proposed endangered – Any species the Service has determined is in danger of extinction throughout all or a significant portion of its range and the Service has proposed a draft rule to list as endangered. Proposed endangered species are not protected by the take prohibitions of section 9 of the ESA until the rule to list is finalized. Under section 7(a)(4) of the ESA, federal agencies must confer with the Service if their action will jeopardize the continued existence of a proposed species.

*Proposed threatened – Any species the Service has determined is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and the Service has proposed a draft rule to list as threatened. Proposed threatened species are not protected by the take prohibitions of section 9, consistent with any protective regulations finalized under section 4(d) of the ESA, until the rule to list is finalized. Under section 7(a)(4) of the ESA, federal agencies must confer with the Service if their action will jeopardize the continued existence of a proposed species. SGCN – BISON-M classification for animal species that warrant heightened attention due to rare, declining, or vulnerable populations. Often, BISON-M will use this classification in addition to endangered or threatened.

Species of concern – The New Mexico Rare Plants website presents species with various ranking classifications. Species classified with a ranking indicative of a concern is generally presented as “species of concern” in table 3-2 and is considered synonymous with SGCN for management purposes.

*Threatened – Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Threatened species are protected by the take prohibitions of section 9, consistent with any protective regulations finalized under section 4(d) of the ESA.

Under review – Indicates that the Service initiated a review of the species for a number of possible reasons. The Service provides additional details and links to regulatory documents on the ECOS website. To determine federal status, these documents should be explored when WIPP activities may impact species that are under review.

Table 3-2. Special-Status Species List – April 2025

Common Name	Scientific Name	Federal Listing ¹	State Listing	BLM-Carlsbad Listing ²
AMPHIBIANS				
Eastern Barking Frog	<i>Craugastor augusti latrans</i>	Null	SGCN	Watch, Verified
Plains Leopard Frog	<i>Lithobates blairi</i>	Null	SGCN	Watch, Verified
Rio Grande Leopard Frog	<i>Lithobates berlandieri</i>	Null	SGCN	Null
Western Narrow-mouthed Toad	<i>Gastrophryne olivacea</i>	Null	Endangered, SGCN	Watch, Verified
BIRDS				
American Bittern	<i>Botaurus lentiginosus</i>	Not Listed	SGCN	Watch, Verified
Baird's Sparrow	<i>Centronyx [Ammodramus] bairdii</i>	Not Listed	Threatened, SGCN	Sensitive, None
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Delisted due to Recovery (2007)	Threatened, SGCN	Null
Bank Swallow	<i>Riparia riparia</i>	Not Listed	SGCN	Null
Bell's Vireo	<i>Vireo bellii</i>	Not Listed	Threatened, SGCN	Sensitive, Verified
Bendire's Thrasher	<i>Toxostoma bendirei</i>	Not Listed	SGCN	Sensitive
Black-capped Vireo	<i>Vireo atricapilla</i>	Delisted due to Recovery (2018)	Not Listed, but has full protection	Null
Black-chinned Sparrow	<i>Spizella atrogularis evura</i>	Not Listed	SGCN	Watch, Verified
Black-throated Gray Warbler	<i>Setophaga nigrescens</i>	Null	SGCN	Watch
Broad-billed Hummingbird	<i>Cynanthus latirostris</i>	Null	Threatened, SGCN	Null
Brown Pelican	<i>Pelecanus occidentalis carolinensis</i>	Delisted due to Recovery (2009)	Endangered	Null
[Western] Burrowing Owl	<i>Athene cunicularia</i>	Not Listed	SGCN	Sensitive, Verified
Cassin's Finch	<i>Haemorhous [Carpodacus] cassinii</i>	Not Listed	SGCN	Watch, Verified
Cassin's Sparrow	<i>[Aimophila] Peucaea cassinii</i>	Not Listed	SGCN	Null
Chestnut-collared Longspur	<i>Calcarius ornatus</i>	Not Listed	SGCN	Sensitive, Verified
Common Black Hawk	<i>Buteogallus anthracinus</i>	Not Listed	Threatened, SGCN	Watch, Verified
Common Ground Dove	<i>Columbina passerina [exigua]</i>	Not Listed	Endangered, SGCN	Watch, Verified
Common Nighthawk	<i>Chordeiles minor</i>	Not Listed	SGCN	Null
Eared Grebe	<i>Podiceps nigricollis</i>	Not Listed	SGCN	Null

Common Name	Scientific Name	Federal Listing ¹	State Listing	BLM-Carlsbad Listing ²
Elf Owl	<i>Micrathene whitneyi</i>	Not Listed	SGCN	Watch
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Not Listed	SGCN	Null
Flammulated Owl	<i>Psiloscops [Otus] flammeolus</i>	Not Listed	SGCN	Watch
Golden Eagle	<i>Aquila chrysaetos</i>	Not Listed	Formerly SGCN	Watch, Verified
Grace's Warbler	<i>Setophaga [Dendroica] graciae</i>	Not Listed	SGCN	Null
Gray Vireo	<i>Vireo vicinior</i>	Not Listed	Threatened, SGCN	Watch, Verified
Juniper Titmouse	<i>Baeolophus ridgwayi</i>	Not Listed	SGCN	Watch, Potential
Least Tern	<i>Sternula antillarum</i>	Delisted due to Recovery (2021)	Endangered, SGCN	Null
Lesser Prairie-Chicken	<i>Tympanuchus pallidicinctus</i>	Endangered (2023)	SGCN	Sensitive, Verified
Lewis's Woodpecker	<i>Melanerpes lewis</i>	Not Listed	SGCN	Watch, Verified
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Not Listed	SGCN	Watch, Verified
Long-billed Curlew	<i>Numenius americanus</i>	Not Listed	SGCN	Watch, Verified
Lucifer Hummingbird	<i>Calothorax lucifer</i>	Not Listed	Threatened, SGCN	Null
Lucy's Warbler	<i>Leiothlypis luciae</i>	Not Listed	SGCN	Null
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	Threatened (1993)	Habitat and SGCN	Null
Mexican Whip-poor-will	<i>Antrostomus arizonae</i>	Not Listed	SGCN	Sensitive, Potential
Mountain Bluebird	<i>Sialia currucoides</i>	Not Listed	SGCN	Null
Mountain Plover	<i>Charadrius montanus</i>	Not Listed	SGCN	Watch
Neotropic Cormorant	<i>Phalacrocorax brasilianus</i>	Null	Threatened, SGCN	Null
[Northern] Aplomado Falcon	<i>Falco femoralis [septentrionalis]</i>	Experimental Population, Non-Essential (2006)	Endangered, SGCN	Null
Northern Beardless-Tyrannulet	<i>Camptostoma imberbe</i>	Not Listed	Endangered, SGCN	Watch, None
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Not Listed	SGCN	Null
Painted Bunting	<i>Passerina ciris pallidior</i>	Not Listed	Formerly SGCN	Watch, Verified
Painted Redstart	<i>Myioborus pictus</i>	Null	SGCN	Null
[American] Peregrine Falcon	<i>Falco peregrinus [anatum]</i>	Delisted due to Recovery (1999)	Threatened, SGCN	Watch
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	Not Listed	SGCN	Sensitive, Potential
Piping Plover	<i>Charadrius melodus</i>	Threatened (1985)	Threatened	Null
Pygmy Nuthatch	<i>Sitta pygmaea</i>	Null	SGCN	Null

Common Name	Scientific Name	Federal Listing ¹	State Listing	BLM-Carlsbad Listing ²
Red-faced Warbler	Cardellina rubrifrons	Not Listed	SGCN	Null
Red-headed Woodpecker	Melanerpes erythrocephalus	Not Listed	SGCN	Null
Red Knot	Calidris cantus rufus	Threatened (2015)	Not Listed, but has full protection	Null
Sagebrush Sparrow	Artemisiospiza nevadensis	Not Listed	SGCN	Null
Sage Thrasher	Oreoscoptes montanus	Not Listed	Formerly SGCN	Watch, Verified
Scaled Quail	Callipepla squamata	Not Listed	Formerly SGCN	Watch, Verified
Snowy Plover	Charadrius nivosus	Not Listed	SGCN	Null
Southwestern Willow Flycatcher	Empidonax traillii extimus	Endangered (1995)	Endangered, Habitat and SGCN	Null
Sprague's Pipit	Anthus spragueii	Not Listed	SGCN	Sensitive, Verified
Thick-billed Kingbird	Tyrannus crassirostris	Null	Endangered, SGCN	Null
Thick-billed [McCown's] Longspur	Rhynchophanes [Calcarius] mccownii	Not Listed	SGCN	Sensitive, Verified
Varied Bunting	Passerina versicolor	Not Listed	Threatened, SGCN	Null
Vesper Sparrow	Poocetes gramineus	Null	SGCN	Null
Virginia's Warbler	Leiothlypis [Vermivora] virginiae	Not Listed	SGCN	Sensitive, Verified
Yellow-billed Cuckoo (western pop)	Coccyzus americanus occidentalis	Threatened (2014)	Habitat and SGCN	Null
Western Bluebird	Sialia mexicana	Not Listed	SGCN	Null
Williamson's Sapsucker	Sphyrapicus thyroideus	Not Listed	SGCN	Null
Woodhouse's Scrub-Jay	Aphelocoma woodhouseii	Not Listed	Not Listed, but has full protection	Watch, Verified
INSECTS				
Monarch Butterfly	Danaus plexippus plexippus	Proposed Threatened (2024)	Not Protected	Sensitive, Verified
Western Bumble Bee	Bombus occidentalis	Under Review (2016)	Not Protected ³	Watch, Verified
MAMMALS				
Black-tailed Prairie Dog	Cynomys ludovicianus ludovicianus	Not Listed	SGCN	Sensitive, Verified
Least Shrew	Cryptotis parvus	Null	Threatened, SGCN	Watch, Verified
Mexican long-tongued Bat	Choeronycteris mexicana	Not Listed	SGCN ³	Sensitive, Potential

Common Name	Scientific Name	Federal Listing ¹	State Listing	BLM-Carlsbad Listing ²
Pale Townsend's Big-eared Bat	Corynorhinus [Plecotus] townsendii	Not Listed	SGCN	Sensitive, Verified
Pocketed free-tailed Bat	Nyctinomops femorosaccus	Not Listed	Formerly SGCN	Watch, Verified
Spotted Bat	Euderma maculatum	Not Listed	Threatened, SGCN	Sensitive, Potential
Tri-colored Bat	Perimyotis subflavus	Proposed Endangered (2022)	Not Listed, but has limited protection	Null
Yellow-faced pocket Gopher	Cratogeomys castanops	Null	Not Listed, but has limited protection	Watch, Verified
REPTILES				
Arid Land Ribbonsnake	Thamnophis proximus	Null	Threatened, SGCN	Null
Western [Desert] Massasauga	Sistrurus tergeminus	Null	SGCN	Sensitive, Verified
Dunes Sagebrush Lizard	Sceloporus arenicolus	Endangered (2024)	Endangered, SGCN	Sensitive, Verified
Gray-banded Kingsnake	Lampropeltis alterna	Not Listed	Endangered, SGCN	Watch, Verified
Mottled Rock Rattlesnake	Crotalus lepidus lepidus	Null	Threatened, SGCN	Watch, Verified
Plain-bellied Water Snake	Nerodia erythrogaster	Null	Endangered, SGCN	Null
Sonoran Mud Turtle	Kinosternon sonoriense sonoriense	Null	SGCN	Null
Western River [Rio Grande] Cooter	Pseudemys gorzugi	Not Listed	Threatened, SGCN	Sensitive, Verified
FLOWERING PLANTS				
Allred's Flax	Linum allredii	Null	Endangered	Sensitive, Verified
Arizona Crested Coralroot	Hexalectris arizonica	Null	Endangered ³	Watch, Potential
California Sawgrass	Cladium californicum	Null	Species of concern	Null
Chapline's Columbine	Aquilegia chaplinei	Null	Species of concern	Sensitive, Verified
Chisos Coralroot	Hexalectris revoluta	Under Review (2009)	Species of concern	Watch, Potential
Cliff Nama	Nama xylopodum	Not Listed	Uncommon but not rare	Watch, Verified
Five-flowered Rockdaisy	Laphamia [Perityle] quinqueflora	Null	Species of concern	Watch, Potential
Giant Helleborine	Epipactis gigantea	Null	Species of concern	Null
Guadalupe [Mat] Leastdaisy	Chaetopappa hersheyi	Not Listed	Species of concern	Watch, Verified

Common Name	Scientific Name	Federal Listing ¹	State Listing	BLM-Carlsbad Listing ²
Guadalupe Mescalbean	Dermatophyllum [Sophora] guadalupense	Not Listed	Species of concern	Sensitive, Verified
Guadalupe Milkwort	Rhinotropis [Polygala] rimulicola var. rimulicola	Not Listed	Species of concern	Watch, Verified
Guadalupe Mountains Goldenrod	Solidago correllii	Null	Species of concern	Null
Guadalupe Penstemon	Penstemon cardinalis ssp. Regalis	Null	Species of concern	Sensitive, Verified
Guadalupe Pincushion Cactus	Escobaria guadalupensis	Not Listed	Species of concern	Watch, Potential
Guadalupe Rabbitbrush	Ericameria nauseosa var. texensis	Null	Species of concern	Watch, Potential
Guadalupe Valerian	Valeriana texana	Not Listed	Species of concern	Watch, Verified
Gypsum Grama	Bouteloua breviseta	Null	Uncommon but not rare	Null
Gypsum Milkvetch	Astragalus gypsodes [Astragalus cobrensis var. maguirei]	Not Listed	Species of concern	Sensitive, Verified
Gypsum Wild-Buckwheat	Eriogonum gypsophilum	Threatened (1981)	Endangered	Null
Havard's Gumweed	Grindelia havardii	Null	Species of concern	Null
Havard's Machaeranthera	Xanthisma viscidum	Null	Species of concern	Null
Kuenzler Hedgehog Cactus	Echinocereus fendleri var. kuenzleri	Threatened (1979)	Endangered	Null
Lee Pincushion Cactus	Escobaria [Coryphantha] sneedii var. leei	Threatened (1979)	Endangered	Null
Leoncita False Foxglove	Agalinis calycina	Under Review (2016)	Species of concern ³	Watch, Potential
Limestone Violet	Viola calcicola	Null	Species of concern	Watch, Verified
McKittrick Pennyroyal	Hedeoma apiculata	Delisted due to Original Data in Error – New Information Discovered (1993)	Species of concern	Watch, Verified
McVaugh's Greeneyes	Berlandiera macvaughii	Null	Species of concern	Null

Common Name	Scientific Name	Federal Listing ¹	State Listing	BLM-Carlsbad Listing ²
Neglected Sunflower	<i>Helianthus neglectus</i>	Null	Not Assessed ³	Watch, Potential
Pecos Gyp Ringstem	<i>Anulocaulis leiosolenus</i> var. <i>gypsogenus</i>	Null	Species of concern	Watch, Verified
Scheer's Pincushion Cactus	<i>Coryphantha robustispina</i> ssp. <i>Scheeri</i>	Null	Endangered	Sensitive, Verified
Shining [Glass Mountain] Coralroot	<i>Hexalectris nitida</i>	Not Listed	Endangered	Watch, Potential
Small Teasel Lichen	<i>Acarospora clauzadeana</i>	Not Listed	Species of concern	Null
Sneed's Pincushion Cactus	<i>Escobaria sneedii</i> var. <i>sneedii</i>	Endangered (1979)	Endangered ³	Null
Few-flowered [Guadalupe or Sparseflower] Jewelflower	<i>Streptanthus sparsiflorus</i>	Not Listed	Species of concern	Sensitive, Verified
Supreme Sage	<i>Salvia summa</i>	Null	Species of concern	Null
Tharp's Bluestar	<i>Amsonia tharpai</i>	Under Review (2009)	Endangered	Sensitive, Verified
Villous Muhly	<i>Muhlenbergia villiflora</i> var. <i>villosa</i>	Not Listed	Species of concern	Null
Warnock's Ragwort	<i>Senecio warnockii</i>	Not Listed	Species of concern	Watch, Verified
Waterfall's Milkvetch	<i>Astragalus waterfallii</i>	Null	Species of concern	Watch, Verified
Wind Mountain Rockcress	<i>Boechera zephyra</i>	Null	Species of concern	Sensitive, Potential
Wright's Marsh Thistle	<i>Cirsium wrightii</i>	Threatened (2023)	Endangered	Sensitive, Potential
Wright's Water-willow	<i>Justicia wrightii</i>	Not Listed	Species of concern	Sensitive, Verified

Note: In New Mexico, the federal list of animal species is not automatically adopted as part of the state list. Instead, the New Mexico State Game Commission must adopt it by regulation and, to date, only select species from the federal list have become part of the state list. Similarly, a federal delisting is not automatically adopted by the State. Species of concern and SGCN listings are also included in the table. It is common to find discrepancies in naming conventions (both common and scientific) between multiple agencies and thus names in this list may not be an exact match with an agency listing. When beneficial, text in brackets is added for additional clarification.

¹ Listing based on information in ECOS. Null indicates the species is not in the system.

² The listing includes BLM's status and if verified or potentially in the Carlsbad Resource Area, when available. None denotes that BLM indicates the species is not in the Carlsbad Resource Area. Null indicates that it was not addressed in the latest BLM lists, issued in 2018.

³ State listings are primarily for Eddy and Lea Counties. A listing with this footnote reference indicates the species did not appear on the BISON-M animal list or New Mexico rare plant list for Eddy or Lea Counties because the State does not recognize it as occurring in these counties or the species has not been accessed to determine distribution.

Listing is maintained on list either because BLM indicates potential or verified in Carlsbad Resource Area or the Service indicates in Eddy or Lea Counties.

3.1 OBJECTIVES

The objective of the DOE management of wildlife is to maintain or enhance the ecological condition of wildlife habitat within the WLWA.

Decisions regarding the management of wildlife are implemented over time in accordance with the DOE planning and budgeting processes. WIPP management program (e.g., leads/directors) will coordinate appropriately to implement priority wildlife management actions. For example, WIPP management programs will coordinate to determine sufficiently protective actions for endangered and threatened species, in appropriate sequence. Priorities will be established for each management program to coordinate sequential implementation.

Implementation of wildlife management objectives shall be in accordance with existing local, state, and federal laws. In addition, it is the DOE's objective to comply with commitments contained in existing MOUs and interagency agreements with separate agencies and to consider the needs of, and the impacts to, native wildlife populations throughout the life of the WIPP facility (to include decommissioning).

3.2 PLANNED ACTIONS

3.2.1 Protected Species

The DOE intends to manage wildlife habitat within the WLWA for ungulates, raptors, upland game, and any special-status plant or animal species occupying the WLWA. Upon identification of habitat within WIPP lands occupied by any species conferred special protections through state or federal regulations, the area will be monitored and, if needed, set aside, and posted against unauthorized entry. Prior to implementation of proposed projects and other activities that may affect special-status plant or animal species within the WLWA, expeditious notification (within 30 days of project implementation) to cognizant regulatory agencies (e.g., the NMDGF, the FWS, the New Mexico Energy, Minerals, and Natural Resource Department [EMNRD] State Forestry Division) will be made by the DOE. The DOE will solicit recommendations from said agencies for incorporation into a habitat management plan to be developed and implemented in a timely manner.

Federally listed threatened and endangered (T&E) plant and animal species shall be managed according to FWS recovery plans. If a preliminary determination is made during the assessment process that a proposed project could affect T&E species habitat, then consultation with the FWS will be initiated under section 7 of the ESA, as amended. State-listed species will be protected by way of cooperative agreements, joint powers agreements, or MOUs with the NMDGF, the EMNRD State Forestry Division, or other cognizant regulatory agencies.

The DOE will continue to monitor for the presence of T&E species.

Cognizant WIPP personnel will monitor and maintain, as required, sensitive habitats for T&E species.

3.2.2 Wild Ungulates

Waste Isolation Pilot Plant Environmental will consult with the BLM to determine the best seed mix to be used in reclamation plans.

New water developments within the WLWA may be made accessible to wild ungulates. Existing water developments (e.g., livestock watering units) inside the WLWA may be modified, if necessary, to accommodate wildlife needs.

Fencing within the WLWA and along DOE rights-of-way will reflect configurations recommended by the BLM or NMDGF for construction in areas containing wild ungulates.

3.2.3 Small Game

3.2.3.1 Galliformes

Galliformes is a taxonomic order of ground-feeding birds that includes quail and other gallinaceous birds. Quail comprise one of the more popular recreational pursuits of local hunters and therefore represent a direct pathway to man for environmental contaminants. Consequently, WIPP personnel are permitted by NMDGF to sample and analyze quail for radionuclides. Results are presented in the WIPP ASER.

Existing and new livestock waterers within the WLWA will be equipped to facilitate gallinaceous birds (e.g., bird ramps in livestock watering systems). Waste Isolation Pilot Plant Environmental will consult the BLM to select the best seed mixes for reclamation that reflect plant species conducive to the needs of native gallinaceous birds.

3.2.4 Nongame Species

3.2.4.1 Small Mammals

Small mammal population management will be on an “as needed” basis.

3.2.4.2 Furbearers

Trapping of furbearers in the WLWA will be allowed; however, restrictions will apply, as posted at area access points and discussed in chapter 6 of this document. Trapping will be done in accordance with applicable state and federal laws. Traps shall be well-marked and checked every calendar day, at a minimum. If the presence of traps represents a safety concern, or if the trapper has not complied with stipulations imparted by cognizant WIPP personnel, then the owner of the traps will be notified. Any trapping found to be not in compliance with applicable state and federal laws will be reported to the proper authorities.

Resident populations of furbearers (e.g., coyotes, foxes, bobcats) will be managed on an “as needed” basis. Responses to anomalous conditions (e.g., disease) in the furbearer population will be based on the severity of the condition (e.g., rabies) and the potential threat it represents to the employees at the WIPP facility.

The deployment of traps utilizing poisons such as cyanide (e.g., M-44s) is strictly prohibited on WIPP lands.

3.2.4.3 Birds

Waste Isolation Pilot Plant personnel will incorporate management directives for resident and transient populations of birds, including raptors, on an “as needed” basis. Migration trends, habitat preferences, and nesting behavior will be factored into mitigation actions concerning adverse impacts of WIPP operations on special-status species. Regardless of federal or state listing status (see table 3-2), most native bird species are protected by regulations set forth in the Migratory Bird Treaty Act. The complete list of migratory birds protected by this act can be found in 50 CFR § 10.13.

The intent of the congressional legislation protecting migratory birds under the Migratory Bird Treaty Act is addressed in chapter 17 of the New Mexico Statutes. In particular, Section 17-2-3 NMSA (New Mexico Statutes Annotated) 1978, *Protected Wildlife Species and Game Fish Defined*, specifies bird families protected as game animals under state law. Section 17-2-13 NMSA protects many species of songbirds. The hunting, taking, capturing, killing, or possession or the attempt to hunt, take, capture, or kill these species is regulated by the Game Commission of the State of New Mexico.

Waste Isolation Pilot Plant Environmental will consult the BLM when conducting reclamation efforts to use plant species conducive to the needs of birds.

Water developments and similar avian hazards (e.g., molasses troughs) within the WLWA will be configured to prevent mortalities of birds. Bird-safe glass should be considered for new construction to reduce collisions, and this supports the intention of Presidential Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds.

The Management and Operating Contractor (MOC) at the WIPP site, on behalf of the DOE, takes appropriate actions regarding federally protected migratory birds when proximity to operational or construction activities will impact the safety of migratory birds. As permitted by the FWS, specific actions taken may include relocation of migratory birds to a permitted wildlife rehabilitator (to include the eggs, nestlings, or fledglings from an active nest that is in jeopardy of being harmed) or the occasional relocation of a migratory bird in any stage of life for life-saving actions. Proposed construction projects or activities and operational considerations are fully evaluated to minimize negative impacts to migratory birds.

However, occasionally the need to take protective actions arises relative to an active nest or injured bird. The MOC will coordinate with the FWS before taking an action not covered under the migratory bird special purpose permit.

The MOC implements programs and procedures to minimize the occurrence of nest disturbance and comply with regulatory and permit requirements. Only staff qualified through structured training programs will relocate nests or handle migratory birds. Handling will be minimal to only what is needed and will be in compliance with the FWS permit which is implemented through WIPP programs and procedures.

3.2.4.4 Reptiles

The monitoring and management of reptiles will fall primarily under the auspices of T&E species management. Potential impacts will be considered during deliberation of land management decisions.

Construction projects conducted on WIPP lands will be in accordance with applicable state and federal laws pertaining to the mitigation of impacts to habitat conducive to the presence of protected species of reptiles.

3.2.4.5 Pollinators

Best management practices for mowing access road rights-of-way have been developed and will be utilized to support compliance with the DOE's Pollinator Protection Plan, which is part of a national strategy to protect pollinators and enhance their habitats.

CHAPTER 4 CULTURAL RESOURCES

4.0 INTRODUCTION

Federal laws relating to cultural resources management require that the DOE identify, evaluate, and manage cultural resources under its control and jurisdiction. The DOE is committed to responsible stewardship of cultural resources on the land it manages for the federal government and has an obligation to protect these resources for future generations. This chapter provides information on the appraisal, documentation, protection, preservation, and chronology of cultural resources within the WLWA. Per DOE Policy 141.1, Department of Energy Management of Cultural Resources, cultural resources include historic properties as defined in the National Historic Preservation Act (NHPA), archaeological resource as defined in the Archaeological Resources Protection Act, and cultural items as defined in the Native American Graves Protection and Repatriation Act (NAGPRA). In the context of section 106 of the NHPA, "the term historic property means any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object," and defines National Register as the National Register of Historic Places. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on historic properties. Discussions of regulations that pertain to cultural resources are provided in this chapter and additionally in the BECR and the ASER.

4.0.1 Cultural Resources in the Affected Environment

Southeastern New Mexico was inhabited by aboriginal hunters and gatherers who subsisted on wild plants and animals. They would have found a number of edible plants throughout the region, including mesquite beans, hackberries, walnuts, acorns, seed-producing grasses, agave, and a variety of other succulents. Big and small game, including bison, deer, pronghorn, rabbits, reptiles, birds, and various invertebrates, could have been hunted or collected in the region.

From approximately AD 600 onward, as trade networks were established with Puebla people to the west, domesticated plant foods and materials, including corn (or maize), beans, squash, and cotton, were acquired in exchange for dried meat, hides, and other products from the Pecos Valley and Plains. The indigenous population may also have practiced horticulture at favorable locales in the area, but only on an intermittent basis since water for crops would have been scarce and unpredictable much of the time.

In the mid-1500s, the Spanish Conquistadors encountered Jumano and Apachean peoples in the region practicing hunting and gathering and engaging in trade with Pueblans. Later, as the natives acquired horses, and as Europeans began settling the land, this traditional way of life evolved into specialized bison hunting on the Llano Estacado and raiding both Spanish and Puebla settlements to the west. In the late 1800s, the region was settled by ranchers and farmers.

The WLWA is situated in dune-covered, rolling-plains terrain in the eastern part of the BLM's Carlsbad Resource Area. Known archaeological sites within the area are primarily the remains of prehistoric camps and transient settlements. These localities are generally marked by hearth features, scattered burned rock, flaked stone projectile points, and cutting and scraping tools, pottery fragments, and ground stone implements. Locations generally represent transient, seasonal occupations by small, nomadic groups of hunters and gatherers who utilized the plants and animals in the dune lands east of the Pecos River. In a few cases within the WLWA, sites with evidence of structures have been reported. These sites were probably inhabited for several weeks or months at a time.

Many known cultural sites with historic components in southeastern New Mexico consist primarily of early twentieth century homesteads that failed, or isolated features from late nineteenth and early twentieth century cattle or sheep ranching and military activities. Although the region was part of the Spanish and Mexican colonial empires, no related conquest or settlement sites have yet been identified.

Historic components (more than 50 years old) are rare but are occasionally noted within the WLWA. These include features and items related to ranching in the early twentieth century. In addition, more modern ranching equipment and facilities such as fence lines are present in the area, including some which are likely still in use. Ranch-related sites which date to the 1940s and 1950s are common in parts of the WLWA. These will be considered historical properties as they age into that category, and under current law will have to be treated as such. The majority of the sites recorded in the area typically include elements which can contribute to their eligibility for the National Register. With few exceptions, cultural properties known or anticipated for the WLWA are significant; they must be identified, recorded, assessed through inventory, and considered in any plan of development for the area.

Compared to other areas of southeastern New Mexico, the locations and nature of cultural resources within the WLWA can be described relatively well, based on intensive inventory of portions of the area, along with limited excavation and other work on some sites.

An Archaeological Reconnaissance of a Proposed Site for the Waste Isolation Pilot Plant (Nielson 1977), indicate four sections comprising the WIPP core area (secs. 20, 21, 28, and 29 of T. 22 S., R. 31 E.), along with associated rights-of-way and drilling pads within and outside the WLWA were inventoried by the Agency for Conservation Archaeology (ACA) of Eastern New Mexico University. Two additional documents, Archaeological Clearance Report for Sandia Laboratories (Schermer 1978) and An Archaeological Survey for the Waste Isolation Pilot Project: Access Roads and Railroad Right-of-Way (MacLennan and Schermer 1979) indicate additional rights-of-way within and outside the WLWA were inventoried in 1978 and 1979 by the ACA. A Report on the Archeological Site Locations in the WIPP Core Area with Mitigation Recommendations for Bechtel National, Inc (Schermer 1980) indicates sites identified in the core area were field verified and evaluated in 1980 by the ACA, and management recommendations for

those sites were prepared. Two subsequent documents, Mitigation of Four Archaeological Sites on the Waste Isolation Pilot Plant Project near Carlsbad, New Mexico for Westinghouse, Inc. (Hicks 1981) and Archaeological Investigations of Three Sites within the WIPP Core Area, Eddy County, New Mexico (Lord and Reynolds 1985) indicate that in accordance with the ACA's recommendations, a number of sites within the WIPP core area were tested or excavated to determine eligibility.

An intensive study was conducted on portions of 45 sections surrounding the WIPP site, documented in Report of Class II Survey and Testing of Cultural Resources at the WIPP Site at Carlsbad, New Mexico (Mariah Associates, 1987). Mariah's study included an inventory of 2,460 acres in 15 quarter-section units. Inventoried units were selected so as to be representative of the area as a whole. Within each of the sample units, cultural resource sites encountered were recorded, certain selected sites were tested, and management recommendations were prepared.

Beginning in 1989, several seismic projects associated with oil and gas development provided cultural resource clearances within the WLWA. Numerous inventories have been conducted outside the WLWA, primarily for oil and gas exploration and ranching.

Inventories conducted to date within the WLWA have located at least 59 cultural sites, along with 91 isolates (i.e., isolated occurrences, finds, and manifestations of single or few artifacts, or isolated features which can be fully recorded in the field). Sites and isolates identified are almost exclusively prehistoric. Only one site with both prehistoric and historic components has been noted.

Of a total of 10,240 acres in the WLWA, at least 3,830 acres (37 percent) have been inventoried for cultural resources. The results have been the discovery of 1 site for every 65 acres surveyed, and 1 isolate in every 42 acres. Based on this information, and assuming environmental homogeneity and a fairly even distribution of sites, the remaining 6,410 uninventoried acres could contain approximately 99 sites and 153 isolates. The combined results of the several inventories conducted within the WLWA compare well with those from Mariah's 1987 inventory of selected units over a much larger area. Mariah's results show only a slightly higher frequency of cultural resources per acre. In 2,460 acres, 40 sites and 75 isolates were recorded, or 1 site for every 62 acres and 1 isolate in every 33 acres.

Of the 40 sites identified and evaluated on the Mariah inventory, 14 were deemed eligible for the National Register, 24 are potentially eligible, and 2 are not eligible. None of the 75 isolates are considered eligible. While the data from the various researchers cited above are not always consistent with Mariah's explicit data on-site significance, it appears that within the WLWA, the majority of sites either are or have the potential to be eligible for the National Register and will require consideration in future land-disturbing activities.

Site significance is contingent on the number of manifestations encountered, their diversity in composition, the total number of each type of manifestation, and existing

evidence suggesting whether or not a given site is datable. Previous limited cultural inventories indicate that the WLWA represents a potentially significant cultural resource contributor to the discipline of archaeology and shall be regarded as such when deliberating land management decisions.

4.1 OBJECTIVES

The objectives of the DOE are to protect and preserve representatives of the full array of cultural resources within the WLWA for the benefit of scientific and socio-cultural use by present and future generations. Planning/management policies pertaining to cultural resources within the WLWA shall be conducted in accordance with guidelines established in appendix F of this plan. This will ensure that cultural resources are given full consideration in land use planning and management decisions.

4.2 PLANNED ACTIONS

The DOE will be responsible for completing cultural resource clearances for DOE-funded activities prior to initiating projects that result in land disturbance by means of the LUR process (see chapter 2). Cultural resource clearances for actions by outside agencies or organizations, not funded by the DOE, but completed on DOE property, or crossing DOE property, are the responsibility of the outside agency or organization. Clearances will be completed within the area of potential effects (APE) in accordance with DOE standards, to include the guidelines established in this plan, and submitted to the DOE for review.

4.2.1 Cultural Resource Management

The DOE will continue to inventory, evaluate, and manage cultural resources inside the WLWA. In locating, evaluating, and adding properties to the management inventory, the DOE shall consult the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. Unanticipated discoveries of cultural resources during project execution will be handled in accordance with the DOI Standard Discovery Plan (see appendix F).

4.2.2 Field Surveillance

The DOE will conduct field surveys, using vetted and qualified personnel, within an APE in a timely manner relative to historical surveys and results and agency planning for LURs involving surface disturbance of land within the WLWA. The DOE shall select appropriate strategies to ensure that surveys are completed so that the DOE can carry out its responsibilities under section 106 of the NHPA, 36 CFR Part 800, "Protection of Historic Properties," and the NAGPRA, before initiating any activity that might damage or disturb cultural sites.

4.2.3 Reports on Survey Results

The DOE will provide reports on survey results, both negative and positive, fully documenting the rationale for decisions made in the identification and evaluation of properties. The inclusion of negative data is important for deciding if redundant surveys are needed in the future. Negative data are also needed to improve the reliability of predictive models. When large-scale surveys are conducted within the WLWA, or smaller scale surveys over time result in the accumulation of substantial bodies of survey data about cultural resources within the WLWA, the DOE will prepare reports synthesizing and analyzing the resulting data for use by legitimate scholars as well as for management purposes. Such analyses should be provided to the New Mexico State Historic Preservation Officer (SHPO) and other legitimate parties for review, comment, and incorporation into inventories. The DOE will document current locations and conditions of artifacts and remains related to cultural sites under their jurisdiction or control. In some cases, such as when objects have long been removed from their places of origin, documentation may not be feasible. Documentation should be included as appropriate in identification and evaluation records as well as National Register property records.

4.2.4 Report Reviews

The DOE will provide reports to the SHPO and other consulting parties for review, comment, and incorporation into cultural resource inventories and for use in reviews under section 106 of the NHPA and NAGPRA when applicable. Such reporting to the SHPO is required and assists in maintaining comprehensive inventories while ensuring that SHPO and DOE efforts are coordinated and compatible.

4.2.5 Potentially Eligible Properties

While conducting surveys, the DOE may encounter properties that are potentially eligible for the National Register, but that do not meet the criteria at the time of the survey. For example, properties may be less than 50 years old and not of exceptional significance; consequently, they would not meet the National Register criteria. If it is determined that such properties are likely to become eligible in the future, it is to the DOE's advantage to document them at the time of the survey to facilitate later evaluation and registration. As cultural resources are identified, they will be evaluated in consultation with the New Mexico SHPO and the BLM to determine their eligibility for listing on the National Register.

Sites that are found to be eligible for listing in the National Register will be avoided to the maximum extent possible. Where avoidance is not possible, a data recovery plan to mitigate potential impacts will be developed and implemented in consultation with the SHPO, the BLM, and the appropriate tribe(s).

4.2.6 Project Clearances

Any proposed activity involving surface disturbance within the WLWA that has not received cultural resource clearance will be postponed until such time that an appropriate cultural resource investigation is completed within the APE and approved.

4.2.7 Management and Record Inventory

The DOE will maintain management inventory and maintain records of identification, using appropriate forms and following the Guidelines for Federal Agency Responsibilities under section 110 of the NHPA, to include:

- Description of methods used,

- Identification of lands surveyed and corresponding data, including negative reports,

- Identification of evaluation methods,

- Identification of sources (informants), and

- Documents produced during research and consultation.

4.2.8 Information Disclosure

The DOE will establish guidelines for withholding and disclosing sensitive information regarding locations or character of cultural sites if such disclosure may create a substantial risk of harm, theft, or destruction of such sites. Protocol for restricting information disclosure will be in accordance with the National Register Bulletin 29, "Guidelines for Restricting Information About Historic and Prehistoric Resources." Section 304 of the NHPA and section 9(a) of the Archeological Resources Protection Act provide the legal authority for restricting information about cultural sites including redaction from publicly available documents.

CHAPTER 5 GRAZING

5.0 INTRODUCTION

This chapter provides guidance pursuant to best management practices of the DOE, on lands contained in the WLWA, as they pertain to traditional livestock use. Grazing within the WLWA operates within the authorization of the Taylor Grazing Act of 1934, the FLPMA of 1976, the Public Improvements Rangelands Act of 1973, and the Bankhead-Jones Farm Tenant Act of 1937. The responsibilities of the DOE include supervision of ancillary activities associated with grazing (e.g., wildlife access to livestock water development, assurance that livestock water developments inside the WLWA lands are configured properly) and maintenance of an interface with respective allottees. Administration of grazing rights shall be in cooperation with the BLM in accordance with existing MOUs (appendix C) and the coinciding SOW (appendix D) through guidance established in the East Roswell Grazing Environmental Impact Statement (BLM 1979).

5.0.1 Grazing within the Affected Environment

The LWA provides for the continuation of grazing practices within the WLWA as permitted by the Secretary in consultation with the Secretary of the Interior in accordance with applicable grazing laws and policies, including: the Act described as “An Act to stop injury to public grazing lands by preventing overgrazing and soil deterioration, to provide for their orderly use, improvement, and development, to stabilize the livestock industry dependent upon the public range, and for other purposes . . .” approved June 28, 1934 (43 United States Code [U.S.C.] 315 et seq., commonly referred to as the Taylor Grazing Act); title IV of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1751 et seq.); and the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq., and 43 CFR Part 4100).

The principles of multiple-use and sustained-yield are basic to the management of this program. Rangelands comprise a substantial portion of the WLWA and provide forage for livestock and valuable wildlife habitats.

The WLWA affects two grazing allotments administered by the BLM: the Livingston Ridge (NM77027) and the Antelope Ridge (NM77032) (figure 5.1).

The Livingston Ridge allotment is comprised of 55,581 acres in size and permitted to a livestock rancher operating a year-round cow/calf business. Land ownership is distributed as follows: (1) 41,608 acres of Federal ownership (2,880 acres within the WLWA), (2) 13,063 acres of State Trust lands, and (3) 910 acres of private (deeded) land.

Pasture rotation with some of the pastures being rested for at least a portion of the growing season is standard management practice for this allotment. Vegetative monitoring studies to collect data on the utilization of the land, and the amount of precipitation by pasture from each study allotment are conducted as needed to compare production with consumption. Should vegetative monitoring studies indicate a need for an allotment management plan, a plan will be developed in consultation with the BLM, ranchers, and the State of New Mexico. The allotment is permitted for 6,483 active animal unit months (AUMs), which converts to 6.4 acres per AUM on the total federal acreage (41,608 acres) in this allotment. (An AUM is the amount of forage necessary for the sustenance of a cow, or its equivalent, for a period of one month).

The Antelope Ridge allotment contains 77,574 acres and is permitted to a livestock rancher operating a year-round cow/calf business. A portion of the Antelope Ridge allotment contains the WIPP facilities, which are posted against trespass (see chapter 10 for sector designations) and fenced to prevent grazing. Land ownership of the subject allotment is divided between federal, state, and private (deeded) lands. Acreages distributed by ownership are as follows: (1) 66,757 acres of federal land (7,360 acres within the WLWA), (2) 8,749 acres of State Trust lands, and (3) 2,068 acres of private land.

An allotment management plan has been developed for this allotment by the BLM. The plan includes a seven-pasture rotation system with some pastures being rested for full years and others receiving growing season rest. The allotment is permitted for 13,236 AUMs of which 3,660 AUMs are held in suspension leaving 9,576 AUMs active, this translates to approximately 7.0 acres per AUM on the total federal acreage (66,757) in this allotment.

Both allotments consist of sandy and deep sand range sites. These sites have combined SOD and SG aspects and include grasses such as gramas, bluestems, and dropseeds. Other key forage plant species include shinnery oak, and fourwing salt-bush (or Chamiza).

5.1 OBJECTIVES

The objective of the DOE for grazing management is based on the current practices for adjacent public lands. Priorities involve maintaining rangeland resource values on a long-term, sustained-yield basis, utilizing vegetative monitoring studies of key forage species as the mechanism by which the need for any potential range management changes would be detected.

5.2 PLANNED ACTIONS

Planned Actions will be administered by the BLM, for the DOE, in consultation with the State of New Mexico and affected county, state, and federal agencies.

5.2.1 Grazing Regulations

With the exception of the WIPP Exclusive Use Area (EUA) and other areas as noted in section 10.2.2 and shown in figure 10.1, the DOE will continue to grant livestock grazing privileges in accordance with historical land uses as regulated by pertinent laws, regulations, and existing agreements (e.g., BLM/DOE MOU) governing livestock use of public lands.

Vegetative monitoring by the BLM will continue in the WLWA to determine if the goals and objectives of the grazing allotments are being achieved. As a minimum, data on actual livestock use, wildlife use, degree of utilization of key forage species, climatic conditions, and rangeland ecological condition and trend will be collected by the BLM.

5.2.2 Configuration of Rangeland Improvements

As a result of the LWA, existing and future rangeland improvements (e.g., livestock water developments) within the WLWA belong to the DOE and are administered consistent with BLM policy. Therefore, rangeland improvements within the WLWA will conform to configuration requirements established by cognizant regulatory personnel.

New or replacement livestock watering units may have water supplied from the Double Eagle Water System. For connections to the Double Eagle Water System, the allottee will be required to contact the City of Carlsbad. Request submittals will be routed in accordance with chapter 2 and appendix B of this document.

5.2.3 Wildlife Access

Rangeland improvements within the WLWA will be made accessible to wildlife. Any improvement that is determined by cognizant personnel to pose an imminent threat to wildlife of the area will be corrected immediately by the responsible party or will be expeditiously removed from service.

5.2.4 Future Rangeland Improvements

Future rangeland improvements will be initiated through a request to the BLM by the responsible party (requestor). The request will be forwarded by the BLM to the DOE for evaluation by the LUC. The BLM will determine the expediency of the request, make status decisions per the request, and attach necessary stipulations to the request. Requests for rangeland improvements will be completed in accordance with existing MOUs or comparable documents.

5.2.5 Maintenance of Existing Improvements

General maintenance of existing rangeland improvements will be the responsibility of the allottee. Maintenance will be conducted in accordance with applicable laws and regulations governing the respective action. Removal of improvements within the WLWA will be conducted per the language contained in the specific agreement.

5.2.6 Violations of Existing Agreements

Alleged violations of existing agreements (e.g., MOUs), commitments, or laws and regulatory requirements will be brought before the LUC for discussion, determination, and resolution. Examples of violations are connections to water developments and fence modifications that do not meet configuration requirements.

5.2.7 Nonconformance with Grazing Requirements

If evidence suggests that a respective allottee is in nonconformance with existing grazing regulations/requirements on lands within the WLWA (e.g., exceeding legal AUM allocation), the concern will be submitted in writing to the BLM for resolution.

5.2.8 Modifications to Improvements

Modifications of existing rangeland improvements (e.g., fence line alterations) may be conducted by the respective allottee. However, the modification will not contradict the management goals and best management practices of the BLM and the LMP. Requests for modifications must be submitted in writing by the respective allottee to the BLM. The BLM will forward the request to the DOE for review, comments, and determination by the LUC.

5.2.9 Amending Grazing Rights

If the determination is made that livestock grazing represents a significant risk to the health or safety of WIPP personnel, then the integrity of critical T&E species or other wildlife habitat, or that it poses a risk to the incorporation of best management practices, ancillary restrictions or guidelines may be imposed on the respective allottee pursuant to their grazing privileges on WIPP lands. If the determination is made by the BLM that a respective allottee has committed three or more incidents of noncompliance pertaining to existing grazing laws or restrictions, then grazing privileges may be revoked within the WLWA in accordance with applicable laws and regulations governing the revocation of grazing rights on public lands.

5.2.10 State Notification

The DOE will provide notice to the EMNRD Forestry Division upon receipt or development of:

Grazing management changes or plans proposed for the WLWA.

Applicable reports generated from the BLM vegetative monitoring programs covering the WLWA.

5.2.11 Grazing Fees

Administration of grazing fees shall be conducted in accordance with the provisions of the BLM/DOE MOU (appendix C).

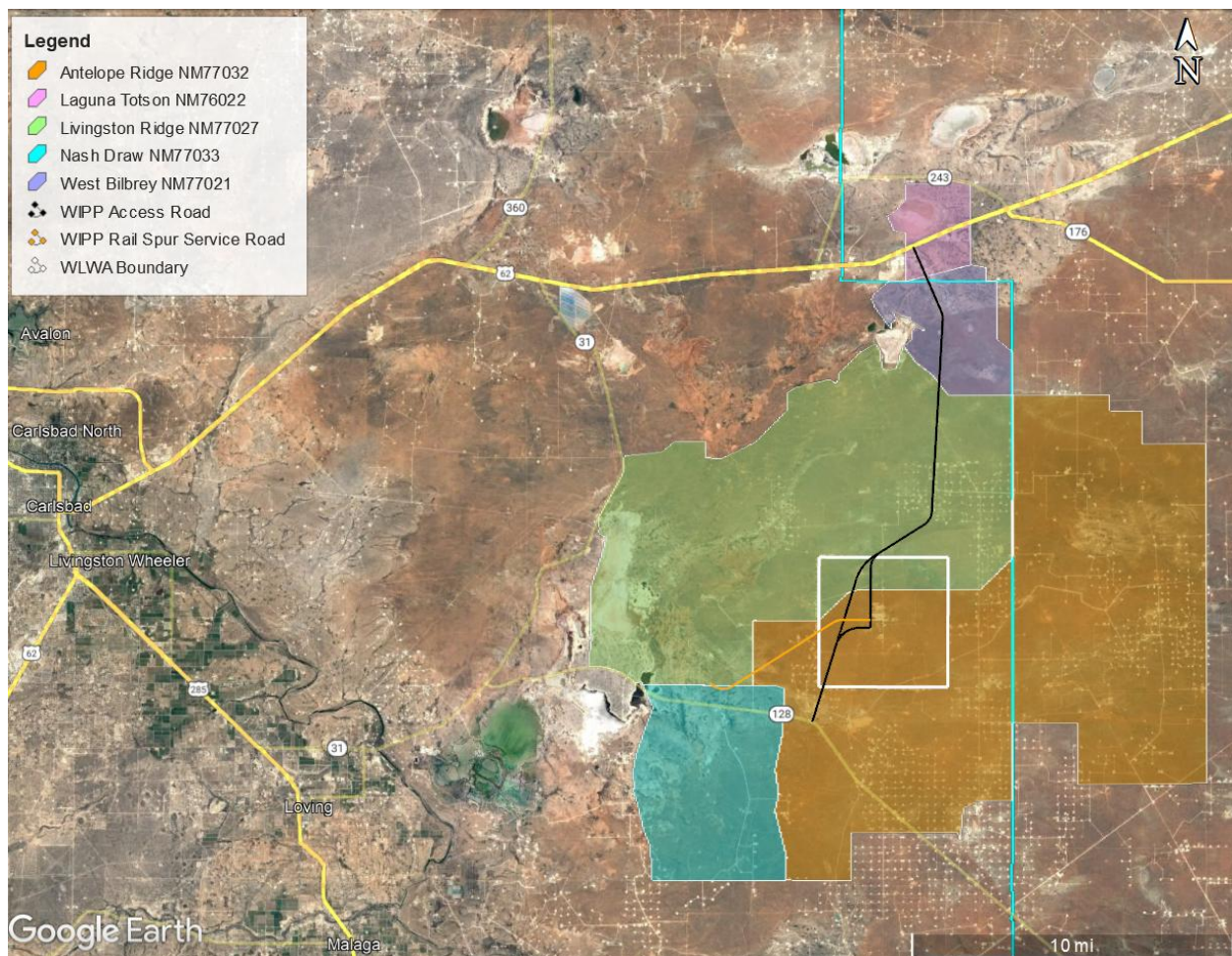


Figure 5.1. Grazing Allotments in the Vicinity of the WIPP Land Withdrawal Area

CHAPTER 6 RECREATION

6.0 INTRODUCTION

Recreational opportunities will continue in accordance with most traditional land uses as the Secretary determines to be appropriate. Examples of such land use concepts can be found in the Carlsbad Resource Area Resource Management Plan and Environmental Impact Statement (BLM-NM-PT-89-001-4410, including the 1997 Amendment). Properties posted with DOE “no trespassing” signs are excluded from public use and will be patrolled by WIPP Security personnel to prevent unauthorized use. Violators are subject to prosecution in accordance with applicable laws and regulations governing property protection (see section 10.2.3).

In May 2016, increased safety notifications for persons within the WLWA were implemented. As a result, signs are posted at vehicle entry points to the WLWA, which state as follows:

“Land users (recreational and for non-WIPP work) entering this area MUST check in and out with the WIPP Site at 575–234–8407.”

followed by notification in Spanish:

“Usuarios de esta área (para recreación o trabajo no relacionado con WIPP), DEBEN registrarse a la hora de entrar y salir del área, llamando a WIPP al 575–234–8407.”

6.0.1 Recreation within the Affected Environment

Due to the topography, climatic conditions, and wildlife in the area of the WIPP site, an extensive (non-facility based) variety of recreational opportunities are available including hunting for both big and small game animals; camping; horseback riding; hiking; watching wildlife (e.g., bird watching); and sightseeing.

6.1 OBJECTIVES

The objective of the DOE is to support a range of recreational outdoor activities for interested segments of the public, commensurate with demand, access, safety, regulatory requirements, environmental protection, and liability. The WLWA encompasses 10,240 acres with the Off-Limits Area at 1,454 acres making up the major portion that is not available to public access. That leaves close to 85 percent of the WLWA regularly available for public recreational opportunities (see chapter 10, figure 10.1).

Figure 8.1 shows access routes, existing roads, and some use restrictions at the WIPP site. Additionally, the BLM in New Mexico collaborated with the NMDGF to provide free

public land maps for recreation in New Mexico that can be downloaded to mobile devices. The maps include the WLWA, restricted to exclusive use by the DOE, but comprising areas open to public access per this plan. Instructions on downloading the CarryMap app and New Mexico maps can be obtained by scanning the QR code below or by contacting the BLM or NMDGF.



6.2 PLANNED ACTIONS

6.2.1 Access

Roads outside of the Off-Limits Area are maintained (to the degree possible) and open to public access, unless otherwise designated. Some WLWA roads are not maintained and not suitable for low-clearance, two-wheel-drive vehicles. Roads within the WLWA will enhance recreational opportunities and allow use of the WLWA. Areas identified as Special Management Areas (SMAs) (e.g., reclamation areas, wildlife habitat) can, at the discretion of the LUC, be removed from access. These areas will be posted and configured to prevent unauthorized access. The LUC may be contacted for additional information on access, road conditions, and recreational opportunities.

Recreational users are prohibited from parking any motor vehicle or camping within 300 yards of any man-made water hole, water well, or watering tank used by wildlife or domestic stock, without the prior written consent of the LUC. Motor vehicle use by the general public is limited to existing roads (figure 8.1). Any restrictions on use will be posted. Federal and State motor vehicle laws apply. Parked vehicles shall be on the side of the road and in a manner that does not interfere with normal flow of traffic. Parking in an area where superheated parts of the vehicle catalytic converter are in contact with dry vegetation shall be avoided. Parking and leaving vehicles or equipment on WIPP access roads and easements is not permitted except as specified in section 8.2.9.

Recreational users must pack out or remove all refuse, litter, cigarette butts, hazardous materials, sewage, gray water, and any other equipment or materials brought on to the WLWA.

Per the U.S. Department of Transportation Federal Aviation Administration, drone operators who interfere with wildfire suppression, law enforcement, or emergency response efforts are subject to civil penalties of up to \$20,000 and possible criminal prosecution. Drone operators shall contact WIPP Security Operations Center (SOC) at 575-234-8407 to inquire about other restrictions on flying drones within the WLWA.

6.2.2 Off-Highway Motor Vehicles

Off-highway motor vehicles must be permitted or licensed in accordance with any local, state, or federal laws and must be used only on existing roads. Recreational motor vehicle use may be limited or prohibited at certain times to protect the health and safety of the public, environmental quality of the area, or for the common defense and security of the WIPP site. Limitations and prohibitions that may be implemented include:

- Numbers of vehicles,
- Types of vehicles,
- Time or season of use, and
- Other restrictions as deemed necessary.

The use of off-highway vehicles (OHV) within the WLWA will be limited to existing roads (figure 8.1). Exceptions are those projects which are in conjunction with WIPP-related activities and have received proper authorization from the LUC. Trails and primitive roads may be posted with informational signs that clearly communicate restrictions regarding the operation of OHVs. The unauthorized use of OHVs traveling off existing roads, or in posted areas within the WLWA, will be regarded as criminal trespass. Violators are subject to criminal prosecution in accordance with applicable laws and regulations governing property protection. Operators must comply with applicable requirements of the New Mexico Off-Highway Motor Vehicle Act (66-3-1001 through 66-3-1021 NMSA). The use of OHVs is not permitted on paved access roads except as provided in 66-3-1011 NMSA.

6.2.3 Hunting and Trapping

The Secretary has made the decision to permit sport hunting and trapping inside the WLWA to continue in accordance with applicable traditional land uses, existing NMDGF and FWS regulations, and best management practices regarding the health and safety of WIPP personnel and the protection of the environment. The WLWA is accessible via access roads as described in section 8.

Hunting and trapping within areas designated as “no trespassing,” including the Off-Limits Area and all areas noted in section 10.2.2 (see figure 10.1), is prohibited. Any attempt to harvest wildlife located within the area closed to hunting is prohibited. Contact WIPP SOC at 575-234-8407 to retrieve big game when the attempt to harvest was in an area open to hunting but the game subsequently perished in an area designated as “no trespassing.”

Driving off existing roads (figure 8.1) without prior approval of the LUC is **NOT** allowed in the WLWA. This includes for retrieval of game. Taking or attempting to take game on, from, or across the WIPP paved access roads or within the fenced rights-of-way of these roads is prohibited. This prohibition also applies to hunters certified by NMDGF as mobility impaired. Violators are subject to prosecution under existing laws and regulations pursuant to property protection. The DOE, after consultation with the BLM

and the State of New Mexico, may impose regulations that prohibit or limit hunting or trapping if it is determined that the activity represents a safety risk to WIPP personnel or the public, creates significant adverse impacts to the environment, represents a potential threat to the integrity of T&E species habitat, or threatens the quality of life for isolated wildlife populations residing within the WLWA.

The Secretary has made the decision to allow trapping inside the WLWA in accordance with applicable federal and state laws and regulations governing the taking of furbearers. Prerequisites that pertain to trapping on the WLWA will be implemented in accordance with subsection 3.2.4.2 of this plan.

6.2.4 Horseback Riding and Hiking

The Secretary has made the decision to allow recreational riding and hiking in areas of the WLWA identified as “multiple land use areas.” Restrictions such as “No Trespass” zones will apply to non-DOE users. Except for posted areas, horseback riding and hiking by the general public will be encouraged to provide non-motorized recreational experiences. Equine must meet federal and state vaccination requirements.

6.2.5 Camping

Campers must check in with the SOC at 575–234–8407 prior to establishing camp in addition to the stipulated WLWA use entry/exit notification. Further instructions and information on any restrictions can be obtained from the SOC. Fire restrictions enacted for adjacent BLM and NMSLO lands will be enforced on the WLWA.

The Secretary has made the decision to allow camping in areas of the WLWA identified as “multiple land use areas,” similar to adjacent lands managed by the DOI. Equivalent with DOI policies, camping will be allowed for no more than a period of 14 days within any period of 28 consecutive days. The 14-day limit may be reached either through a number of separate visits or through 14 days of continuous overnight occupation (personnel or equipment) during the 28-day period. After those 14 days are up, campers must move to a new campsite at least 25 miles away. Campers within the WLWA will be requested to provide names, license numbers of vehicles, camp location, emergency phone numbers, and arrival and expected departure times. Camps are subject to random inspections at the discretion of security personnel. Campers may be asked to leave the WLWA for violating any prohibitions of the LMP or violation of federal, state, and local laws. Campers are to observe “Leave No Trace” principles when camping:

- Plan ahead and prepare (inquire with WIPP contacts in appendix H),
- Camp on existing durable surfaces and travel on existing roads,
- Dispose of waste properly (i.e., pack out everything brought in),
- Do not collect cultural artifacts,
- Do not alter the land (leave only footprints),
- Minimize campfire impacts (check for restrictions),
- Respect wildlife and livestock, and

- Be considerate of ranchers, hunters, and other recreational users.

At the time of departure, campers should check out with WIPP Security personnel in addition to the stipulated WLWA use entry/exit notification. In the event that campers do not check out, the SOC should provide the contact information of the campers to the LUC or Site Environmental Manager. Environmental personnel will determine if further actions are needed.

For pre-trip planning, WLWA information specific to recreational users, such as safety/security reminder cards and BLM pamphlets are available.

CHAPTER 7 ENERGY AND MINERAL RESOURCES

7.0 INTRODUCTION

This chapter discusses mineral resources and reserves as they pertain to the judicious management of lands under the jurisdiction of the DOE. This serves as a baseline management document for the determination and analysis of energy and mineral resources in the affected environment.

7.0.1 Mineral Resources in the Affected Environment

Mineable resources known to underlie the WLWA are caliche, gypsum, salt, sylvite, langbeinite, crude oil, natural gas, and distillate. Potassium salts (sylvite and langbeinite) and hydrocarbons (e.g., crude oil and natural gas) are the only resources of present-day commercial significance.

7.0.1.1. Oil and Gas

The oil and gas industry is well established in the Los Medaños region of New Mexico (the vicinity of WIPP), with producing oil and gas fields, support services, and compressor stations. Nearly all phases of oil and gas production activities have occurred in the locality. These phases include seismic exploration, exploratory drilling, field development (comprised of production and injection wells) and other sundry activities associated with hydrocarbon extraction. The location and number of oil and gas and other hydrocarbon wells within 1 mile of the WLWA boundary are maintained per the WIPP Delaware Basin Drilling Surveillance Program.

7.0.1.2. Potash

Potash minerals are used to produce one of the major ingredients in fertilizers, and “potash minerals” is the common industrial term for potassium in various chemical combinations with sodium, magnesium, chloride, and sulfate. Important natural and commercial soluble potassium salts are sylvite and langbeinite. Sylvite, a mixture of sylvinite and halite, is the typical ore mined in the Carlsbad Potash District (CPD) in southeastern New Mexico. Geologically, all of the ore zones occur in the Permian Age. Detailed descriptions of these ore zones can be found in the Generalized Columnar Section and Radioactivity Log, Carlsbad Potash District, (C. L. Jones, C. G. Bowles, and A. E. Disbrow 1954). Also, in 1995 the New Mexico Bureau of Mines (now Geology) and Mineral Resources performed an evaluation of the potash resources in the vicinity of the WLWA.

The CPD is near the northeast border of the Delaware Basin with soluble potash primarily occurring in Eddy and Lea Counties, which contain the only potash mines in the state. The Designated Potash Area (DPA) consists of that part of the CPD where federal and state lands under BLM management require competitive bidding for mineral leases (2012 Secretary of the Interior Order Number 3324). The WIPP site is on the southeast edge of the DPA in secs. 15 through 22 and 27 through 34 of T. 22 S. and R. 31 E.

In 2004, there were two active potash mining and refining operations in the area: Mosaic Potash Carlsbad Inc. and Intrepid Potash New Mexico LLC. As of 2016, they continue to be the only active potash mines in the area.

7.0.1.3. Caliche

Caliche, as the term is used in the Southwestern United States, refers to a buff, white, or reddish-brown calcareous material of secondary accumulation, commonly found in layers on or near the surface of soils in the arid and semiarid regions. “Calcrete,” “duricrust,” and “hardpan” are other terms used to describe caliche in its various forms.

Caliche is considered a locally significant construction material due to its compaction properties. Deposits of caliche are frequently used for the construction of well pads, surfacing roads, and as a compacted base-course for buildings and paved roads. Although the caliche profile for the Los Medaños does not compare with the well-developed Llano Estacado profile, several pits that produce a high-quality material are located in the vicinity. Access to this caliche, for use by the DOE, is made available by way of Free Use Permits granted to the DOE by the BLM.

Several historic extraction pits are located within the WLWA. Historic pits within the WLWA are now the property of the DOE and will be managed in accordance with chapter 9 of this plan.

Inasmuch as the LWA prohibits surface or subsurface mining unrelated to the WIPP Project within the WLWA, supplementary conditions pertaining to caliche or potash extraction described within this document are not relevant. Accordingly, text within this chapter will pertain to oil and gas exploration and production only.

7.1 OBJECTIVES

The objective of the DOE with respect to mining and oil and gas production is to ensure that the development of mineral leases adjacent to the WLWA does not impact the integrity of the disposal system or compliance with EPA’s final disposal regulations at 40 CFR Part 191, Subparts B and C, and the Permit.

7.2 PLANNED ACTIONS

7.2.1 Provisions

In accordance with section 4(b)(5) of the LWA, no surface or subsurface mining unrelated to the WIPP Project, or oil or gas production, including slant drilling from outside the boundaries of the WLWA, are permitted at any time (including after decommissioning) on lands on or under the WLWA, with two exceptions. These exceptions are two 320-acre leases within the WLWA, below 6,000 feet, which are leased for oil and gas development (Federal Oil and Gas Leases NM 02953 and NM 02953C). Both tracts, located in sec. 31, T. 22 S., R. 31 E., prohibit drilling within the first 6,000 feet of the surface. In accordance with the LWA, existing rights under these leases will not be affected since the Administrator of the EPA has determined that continued activities under these leases will not affect the ability of the DOE to comply with EPA disposal standards for TRU wastes. The EPA findings were published May 18, 1998, in [63 FR 27354](#).

7.2.2 Surveillance

Surveillance of drilling and mining activity within 1 mile of the WLWA boundary will be conducted by the DOE in coordination and cooperation with the BLM and the State of New Mexico in accordance with the MOU (appendix C) and the associated SOW (appendix D). The BLM and state agencies have agreed to forward Applications for Permit to Drill (APDs) and mining and reclamation plans to the DOE for review and comment in determining issuance of any drilling or mining permit within 1 mile of the WLWA. In addition to those commitments contained in the MOU and SOW, the DOE shall conduct perimeter surveillance to verify proposed drill locations in accordance with APD submittals and evaluate potential encroachment of ancillary activities associated with producing wells and mines.

7.2.3 U.S. Department of Energy Response to Mining Plans and Applications for Permit to Drill

As directed by the existing MOU between the BLM and the DOE, WIPP personnel will receive APDs and mining reclamation plans from the BLM regarding activities proposed to be conducted within 1 mile of the WIPP site boundary. The DOE will field-verify the proposed locations and respond to the BLM within 15 days with DOE stipulations for approval. At the recommendation of the DOE (and in accordance with existing DOE/BLM MOUs), companies that file for proposed drilling activities (surface or subsurface) within 330 feet of the WLWA boundary may be required to submit a daily set of drilling logs or “suite” of logs for verification, by the DOE, that the horizontal displacement of the well at no time encroaches on the WLWA.

In the event of encroachment, a trespass condition will exist. The company will be required to cease drilling activities immediately and plug and seal the region of trespass in accordance with applicable laws and regulations that govern drilling activities, and to the satisfaction of the DOE, prior to proceeding with completion of the well. Transmittal of proposed resource extraction applications or mining plans to the DOE by the BLM or the appropriate state agencies is formalized through MOUs or similar agreements.

CHAPTER 8 LANDS AND REALTY

8.0 INTRODUCTION

This chapter identifies land use management responsibilities of the DOE as they pertain to general realty issues, access corridors, rights-of-way, and avoidance areas that affect, but are not solely contained within, the WLWA.

8.0.1 Lands and Realty within the Affected Environment

There are additional properties outlying the WLWA boundary, used in the operation of the WIPP facility, that are managed under the right-of-way reservations granted (typically) by the BLM or the State of New Mexico. Groundwater monitoring well pads, respective access roads, and environmental monitoring sampling stations predominate this property category of lands that the WIPP is authorized to use.

Access to the WLWA is from U.S. Highway 62/180, 13 miles to the north and from NM State Highway 128, 4 miles to the south. A rail spur connected the WIPP site with the Burlington Northern Santa Fe (BNSF) railroad near the Nash Draw mine, 6 miles southwest of the WIPP site (figure 8.1). The rail spur is currently not in service, but the frontage/service road is open for travel.

The WLWA may be designated as right-of-way corridors or as avoidance areas to protect environmental and social values while optimizing economic efficiency for utilities and transportation facilities. The LUC will identify which lands will be avoided when routing future rights-of-way in order to protect sensitive resource values, and which areas may be designated as corridors. Major rights-of-way used in the operation of the WIPP facility, in addition to those that existed prior to land withdrawal, were acquired from the BLM. Existing rights-of-way are commonly associated with developments such as power lines, gas lines, and water lines.

8.1 OBJECTIVES

The objective of the DOE is to ensure proper management and maintenance of the WLWA and realty (e.g., rights-of-way and access routes), in addition to providing safe and adequate access to the WIPP facility while protecting the security of WIPP facility personnel, lands, and realty (e.g., facilities). The CBFO will consult with the BLM and the State of New Mexico, as appropriate, on future rights-of-way actions needed outside the WLWA.

8.2 PLANNED ACTIONS

8.2.1 Proposals for New Access Routes, Easements, and Rights-of-Way

The DOE will examine, in accordance with chapter 2 of this document, proposals from land users (WIPP projects and non-WIPP projects) that impact lands/realty under the jurisdiction of the DOE to include new access routes, easements, and rights-of-way. A review of the proposed actions is required to determine if access will cause significant adverse impacts to other resources or impact regulatory permits or requirements. In addition, the DOE will:

Review and comment on applications or proposals received from the BLM for access routes, easements, and rights-of-way affecting, but not solely contained within, the WLWA.

Forward to the New Mexico EMNRD within 30 days of receipt from the DOI/BLM:

Applications or proposals for any access routes, easements, and rights-of-way affecting, but not solely contained within, the WLWA; and

Any DOE comments developed on such applications or proposals.

8.2.2 Utility Development

In general, the WLWA is available for utility and transportation facility development; however, applicants will be encouraged to locate any new facilities within existing right-of-way corridors or parallel with existing roads. Deviations may be permitted on the basis of the need of the proposal and lack of conflicts with other resource values and uses.

8.2.3 Noxious Weed Management

Peganum harmala, an invasive plant species commonly known as African rue, has been encountered on the WLWA and several WIPP rights-of-way. African rue is also commonly seen at oil and gas sites near the WLWA. These oil and gas well sites and access roads, within 1 mile of the WLWA boundary and WIPP rights-of-way, are monitored for noxious weeds and other activities because of their close proximity to the WLWA.

The African rue plant is established as toxic to humans and livestock if ingested. African rue has been selected by the New Mexico Department of Agriculture to be targeted for control or eradication pursuant to the Noxious Weed Management Act of 1998 and listed under class B species on the New Mexico Noxious Weed List. The list of weeds is subdivided into class A, B, and C and a "watch list," which is indicative of management priorities. Class A weeds are given the highest priority. Class B species are limited to portions of the state and management in areas with severe infestations should be

designed to contain the infestation and stop any further spread. The weeds listed on the New Mexico Noxious Weed List have the potential to negatively impact the state's environment or economy.

Executive Orders 13112, Invasive Species, and 13751, Safeguarding the Nation from the Impacts of Invasive Species, are orders issued by U.S. Presidents and directed towards officers and agencies of the U.S. Federal Government. Executive orders have the full force of law. These orders were issued to protect the assets and security of the U.S. Executive Orders 13112 and 13751 call upon executive departments and agencies to take steps "to prevent the introduction, establishment, and spread of invasive species, as well as to eradicate and control populations of invasive species that are established." Further clarified in Executive Order 13751, these decrees were established to ensure the faithful execution of several laws of the U.S., such as the National Environmental Policy Act of 1969 and other pertinent statutes.

The CBFO, along with multiple agencies, signed an MOU to support a program "to prevent introduction, control the spread of, and eradicate noxious plants through the coordinated efforts in Eddy County." The projects established under the MOU are administered by the Carlsbad Soil and Water Conservation District under the working group known as the Eddy County Coordinated Weed Management Area (CWMA). The purpose of the MOU is to "coordinate the management of noxious plants on public and private lands in Eddy County, New Mexico; to coordinate, encourage and formalize the cooperative relationship necessary for the effective management of noxious plants including implementation of an Integrated Pest Management System." The Eddy County CWMA identifies target weeds and provides updates on management strategies. Funding for the Eddy County CWMA is provided through many sources, including the CBFO.

An additional obligation to manage noxious weeds originates from rights-of-way granted to the CBFO for groundwater monitoring well sites and access roads. Standard stipulations typically include requirements for the lessee to keep areas free of noxious plant species, as specified in the right-of-way agreement. Management decisions for noxious weeds on rights-of-way granted by the NMSLO are influenced by New Mexico statutes (e.g., Noxious Weed Management Act of 1998).

In order to effectively manage invasive species, advocate improved ecosystem health, and comply with federal and state regulations, MOU agreements, and right-of-way stipulations, management and control measures will be employed at the WIPP site for noxious weeds. The most effective, economical, and ecologically sound approach for control of invasive species is prevention. Early detection and rapid response of problem areas is also an effective control method. The LUC will identify noxious weed problem areas and take appropriate action to prevent the spread of noxious weeds. The LUC will report detections to the Eddy County CWMA. For lands within the WLWA and WIPP rights-of-way, the LUC will also implement current management strategies recommended for the species. Typically, the use of herbicides is an effective means for control, but other measures can and will be utilized for an integrated pest management

strategy with a goal to minimize the use of chemical herbicides. In the event herbicides are used, their use will be in compliance with applicable state and federal laws and regulations. Recommended control measures are species-specific and area-specific and may evolve over time. The LUC will research the best management and control strategies and oversee or implement for obtaining the most effective control.

The following measures will be used within 1 mile of the WLWA boundary:

- Monitor accessible oil and gas locations and access roads and report significant infestations to the proper agency for mitigation.

The following measures (not all-inclusive and not in any specific order) may be used on the WLWA and WIPP rights-of-way for control of noxious weeds:

- Monitor access roads and rights-of-way,
- Monitor disturbed areas,
- Monitor for livestock overgrazing and report to the BLM for mitigation,
- Avoid spreading noxious weed seeds when mowing,
- Ensure sources for fill dirt/caliche do not have noxious weeds,
- Pre-construction/disturbance survey for noxious weeds,
- Post-construction/disturbance monitoring for noxious weeds,
- Minimize size of disturbed areas and reseed as feasible using weed-free seed mix,
- Timely application of herbicides with follow-up treatment as required,
- Mechanical control – methods that physically disrupt plant growth,
- Biological control – use of organisms to disrupt plant growth,
- Monitor for any illegal off-road activities that could result in the deposition of noxious weed seeds,
- Reclaim roads and disturbed areas that are no longer needed for WIPP operations,
- Restrict access to roads and problem areas,
- Avoid walking or driving through infested areas,
- Evaluate LURs for the potential of spreading noxious weeds and add stipulations as needed,
- Clean vehicles and equipment used at a location infested with noxious weeds,
- If work is performed in infested areas, schedule work to reduce spread of seeds,
- Perform jobs in weed-free areas before working in infested areas,
- Perform noxious weed surveys concurrently with biological surveys, and
- Promote noxious weed awareness and reporting.

The LUC will actively manage the African rue found on the WLWA and WIPP rights-of-way and incorporate aforementioned measures to prevent new infestations

and spread of current infestations. In accordance with MOU agreements, areas where noxious weeds are found will be reported.

8.2.4 Avoidance Areas

Right-of-way avoidance areas are defined as areas where future rights-of-way may be considered only when no feasible alternative route or designated right-of-way corridor is available. Terms and conditions of right-of-way grants will depend on the sensitivity of the affected resources, and existing laws and regulations established as protective measures for the area in question.

8.2.5 Visual Resource Management

The DOE implements the BLM's Visual Contrast Rating System to determine the degree to which any proposed projects or other activities within the WLWA would affect the visual quality of the landscape. Using this system, any anticipated unacceptable visual impacts can be mitigated during the planning and design stage.

The DOE aspires to conduct WIPP-related activities in accordance with visual resource objectives. Proposed activities and projects will be evaluated for consistency with existing laws and best management practices regarding scenic quality. The impacts of each action will be evaluated by DOE and affected stakeholders, via environmental reviews, EAs, or visual inspections of the proposed site prior to implementation. The ER will analyze the project significance, the visual sensitivity of the affected area, and the project impacts. Stipulations will be attached as appropriate to ensure compatibility of projects with management objectives for visual resources. Painting requirements will be implemented for surface facilities in accordance with existing guidelines (e.g., BLM painting requirements). Requirements may be modified, at the discretion of the LUC, to blend with the native landscape.

Compliance requirements pertaining to land management are provided to land users during the LUR process. Work performed will be consistent with the WIPP environmental management system (EMS) principles, which provide the framework for implementing the commitments of the WIPP Environmental Policy Statement. Inspections revealing poor housekeeping (e.g., excessive trash and debris in and around a work site), or projects that compromise the visual integrity of the surrounding area, will result in the immediate suspension of the project until such time as the problem is remediated.

Access to aesthetic visual resources of the WIPP site (e.g., bird watching, wildlife photography, wildflower photography) will be encouraged and supported by cognizant WIPP professionals as time and funding allow.

8.2.6 Access Permits

The DOE will not grant permits for access when reasonable access already exists. Exceptions may be considered by the LUC only if the requestor presents, to the satisfaction of the LUC, a compelling need (see chapter 2 for permitting protocol).

8.2.7 Off-Highway Motor Vehicles

The same stipulations provided in section 6.2.2 apply.

8.2.8 Advertising

No commercial advertising signs will be allowed on WIPP lands. Violations may result in prosecution of the violator. Directional and road signs must be authorized by the DOE and must conform to DOE specifications and configurations. Any other signs must be approved through the LUR process.

8.2.9 Rights-of-Way, Rights-of-Way Corridors, and Realty Components

Realty components originally constructed, currently maintained, or utilized in the operation of the WIPP facility, under custodial rights-of-way reservations include, but are not limited to, the following:

8.2.9.1 WIPP Bypass Road

The WIPP Bypass Road is a paved private road, 16 miles in length, created when a western “bypass” section was constructed that connects the WIPP north and south access routes. This was done to divert public traffic away from the main working areas of the facility. The north portion of the road (formerly North Access Road or Louis Whitlock Road) is granted, for perpetuity, under right-of-way reservation NM 55676 on August 24, 1983. The north route has a total easement width of 170 feet (includes 50-ft easement for City of Carlsbad water line). Right-of-way NM 55676 was amended on April 22, 1988, to facilitate the construction of livestock fencing along either side of the subject road and on February 14, 2019, to facilitate construction of the WIPP Bypass Road. The south portion of the WIPP Bypass Road (formerly South Access Road, WIPP Road, and Eddy County Road 802) was granted under right-of-way reservation NM 123703. Terms for the right-of-way expire on December 31, 2039, and terms are subject to renewal. This portion has an easement width of 140 feet.

Except for emergencies and for those projects which are in conjunction with WIPP-related activities and have received proper authorization from the LUC, the SOC must be contacted at 575–234–8407 before parking and leaving vehicles in these easements. The WIPP access roads may be restricted for use by the personnel, agents, licensees, and contractors of the DOE on official business related to the WIPP Project, or to personnel, permittees, licensees, or lessees of the BLM. Multiple-use access for WIPP roads (outside of the Off-Limits Area) will be allowed unless it is determined that

access by industry or the general public represents a significant safety risk to WIPP personnel or to the public. Upon determination, general access to the WIPP site may be restricted as needed in accordance with DOE Manual 470.4-2, *Physical Protection*. Persons desiring access between U.S. Highway 62/180 and NM State Highway 128 alternatively use the public county roads (Campbell Road and Red Road) immediately to the east.

8.2.9.2 East Access Road

The East Access Road (also known as East Link Road) is a paved road that is closed to general public use. A locked gate, at the eastern boundary of the WLWA, restricts access to this road. Signs posted at the western end of this road warn personnel of the use restrictions. This road is primarily open to authorized personnel but may be used as an alternative evacuation route.

8.2.9.3 Water Service Pipeline

Water service for the WIPP facility is furnished by a City of Carlsbad-owned waterline that originates 31 miles north of the facility and accesses the WLWA under right-of-way grant NM53809, issued to the city by the BLM. The volume capacity of the waterline is such that it meets the water requirements for the operation of the WIPP facility. As specified in a bill of sale transferring this waterline from the DOE to the City of Carlsbad in June of 2009, the City of Carlsbad will provide up to 6.6 million gallons of water per year to the WIPP facility free of charge for the next 100 years. Maintenance and operation of the waterline is the responsibility of the City of Carlsbad. The City of Carlsbad has been issued a right-of-entry permit (permit #REEMCBCDOE-0-09-0900) for the purpose of inspecting, maintaining, and repairing the waterline within the WLWA. The City of Carlsbad may authorize taps into this water line for private or commercial use.

8.2.9.4 WIPP Rail Spur

A rail spur connected the WIPP site with the BNSF railroad near the former Nash Draw Mine located 6 miles southwest of the site. This section of rail was constructed under the auspices of right-of-way reservation NM 55699, granted on September 27, 1983, is approximately 5 miles in length, and consists of an adjacent frontage/service road in addition to the rail. Both the rail spur and service road were constructed on an easement width of 150 feet. The rail spur is currently not in service, but the service road is still in service.

8.2.9.5 Transmission Line

The WIPP facility is serviced by an overhead electrical transmission line that traverses the WLWA for 2 miles to the north (right-of-way reservation NM 043203) and an additional 2 miles to the south (right-of-way reservation NM 91163). The southern terminal of the overhead electrical transmission line is approximately 5 miles south of the WLWA at a location identified as Xcel Energy's Sand Dune Substation. Access to the power line

easement within the WLWA is restricted to WIPP facility and Xcel authorized personnel. Unauthorized access to the easement is prohibited and will result in DOE response commensurate with property protection procedures (see chapter 10).

8.2.9.6 High-Pressure Gas Line

A 12.75-inch, high-pressure, non-regulated natural gas gathering pipeline with a corresponding easement road traverses portions of sections 15, 16, 17, 19, and 20 of the WLWA (figure 10.1). Maintenance and operation of the pipeline and the easement road are the proprietary responsibility of Enterprise Products Partners L.P. (the owner/operator of the line) under right-of-way reservation LC 060762. The WIPP facility personnel periodically use the easement road for access to the east and, therefore, will conduct maintenance activities (as needed and in accordance with WIPP facility maintenance protocol) (see chapter 13) on the road in order to provide adequate and safe access for WIPP facility vehicles (e.g., emergency response vehicles).

8.2.9.7 Sewage Treatment System and Evaporation Pond H-19

The WIPP facility sewage treatment system (Facultative Lagoon System) is a zero-discharge facility consisting of two primary settling lagoons, two polishing lagoons, and three effluent evaporation lagoons. Each impoundment in the system is lined with 60-mil synthetic liners. The Facultative Lagoon System is designed and permitted to receive up to 23,000 gallons per day of domestic sewage and nonhazardous industrial wastewater, for disposal by evaporation. This system is permitted for evaporative disposal of up to 27,000 gallons per day of nonhazardous wastewaters in Effluent Lagoon B. Effluent Lagoon C is also permitted for the evaporative disposal of up to 27,000 gallons per day of nonhazardous wastewaters. The Facultative Lagoon System is fenced and posted with DOE “no trespassing” signs and with signs indicating the water is not potable, per Discharge Permit (DP-831) requirements.

Evaporation Pond H-19 is a synthetically lined evaporation pond used for evaporative disposal of nonhazardous industrial wastewaters from the following sources: brine, purge waters from sampling and developing monitoring wells, condensate from the Exhaust Shaft fan ductwork on the surface, and water collected from the Waste Shaft sump, Exhaust Shaft interception wells, and other observation boreholes in the underground. The pond is permitted to receive up to 50,000 gallons per day. Evaporation Pond H-19 contains a synthetic liner (36 mil thickness) and is located southeast of the Off-Limits Area (see figure 10.1). Evaporation Pond H-19 is fenced and posted with DOE “no trespassing” signs and with signs indicating the water is not potable, per DP-831 requirements.

The WIPP facility sewage treatment system and the Evaporation Pond H-19 are operated in accordance with the New Mexico DP-831 and the New Mexico Water Quality Control Regulations (20.6.2 New Mexico Administrative Code, Ground and Surface Water Protection). These requirements provide guidelines for discharge to surface water and discharge that could impact groundwater quality. Requirements for

DP-831 are addressed in WIPP Procedure (WP) 02-2, WIPP Discharge Permit 831 Monitoring and Maintenance Plan.

8.2.9.8 Groundwater Surveillance Wells

The WIPP facility personnel monitor many groundwater monitoring wells and their corresponding locations on or in the vicinity of the WLWA. Monitoring of groundwater is addressed in WP 02-1, WIPP Groundwater Monitoring Program Plan and WP 02-2, WIPP Discharge Permit 831 Monitoring and Maintenance Plan. Well depths range from shallow wells (for DP-831 monitoring) to 4,325 feet below ground surface. Wells are used to conduct surveillance of groundwater surface elevation (groundwater levels) and for monitoring groundwater for potential releases from the repository and from infiltration control impoundments. Six detection monitoring wells, completed in the Culebra Member of the Rustler Formation, contribute water characterization data to the Detection Monitoring Program at the WIPP facility. Sampled wells are used to determine the physical and chemical characteristics of groundwater, both before and throughout the operational lifetime of the facility. Well locations beyond the WIPP site boundary were constructed and are maintained under the guidelines of existing right-of-way reservations for each respective well. Well locations are periodically inspected, existing well pads are examined, and any nonconformities are identified, reported, and dealt with accordingly.

In the event a well is considered unnecessary (e.g., no longer needed for groundwater surveillance or is found to be losing casing integrity), the well will be plugged and sealed in compliance with state and federal regulations in effect at the time. This process will apply as each DOE well (e.g., a well within the purview of the DOE or a well the DOE has assumed responsibility for) becomes abandoned until such time that all unnecessary or failing wells are plugged and sealed. Well pads and associated roads will be ripped, leveled, and reseeded in accordance with provisions contained in pertinent permits, agreements, right-of-way stipulations, and reclamation requirements identified in this document.

8.2.9.9 Salt Tailings Stockpiles

Salt from underground mining operations between the mid-1980s and May 2004 is stored in the inactive 18.8-acre Salt Cell 1 just north of the surface facilities. The associated lined evaporation pond, Salt Storage Pond 1 (SSP1), receives runoff from Salt Cell 1.

Salt Cells 2 and 3 were constructed north of Salt Cell 1. This area drains to a double-lined evaporation pond, Salt Storage Pond 2, (SSP2), with a leak detection sump to contain and evaporate salt contact storm water runoff. The area may be expanded as needed to provide sufficient capacity for the storage of the salt anticipated to be mined during the life of the project. A second double-lined evaporation pond, Salt Storage Pond 3, (SSP3) was placed into operation in 2010 and configured to connect with SSP2 to expand available capacity.

Brine Salt Storage Pond 4, a double synthetically lined storm water impoundment with a leak detection system, collects storm water runoff from the Underground Ventilation System (UVS) area and is authorized to receive brine to maintain freeboard on the two UVS brine retention ponds. This pond has been constructed but will be commissioned for discharge when the UVS becomes operational.

Salt Cell 5 adds a lined salt storage location and receives overburden and salt from the construction of Shaft #5 (also known as the Utility Shaft) and its associated underground connecting drifts. A pipe is installed to collect and transmit by gravity the leachate and storm water from Salt Cell 5 to Salt Storage Pond 5 (a double synthetically lined storm water impoundment with a leak detection system). Salt Storage Pond 5 currently receives both the leachate and storm water in contact with mined salt located in Salt Cell 5.

Salt storage ponds are fenced and posted with signs indicating the water is not potable, per DP-831 requirements.

Salt from the salt storage areas that is not needed for decommissioning will be disposed of under sections 2 and 3 of the Act of July 31, 1947 (30 U.S.C. 602, 603; commonly referred to as the "Materials Act of 1947"). After disposal of the salt, the salt storage areas will be reclaimed in accordance with stipulations for reclamation contained within this document (see chapter 9).

There is also an inactive storage pile containing roughly 162,000 cubic yards within the DOE EUA, east of the PPA fence. This pile, referred to as the Site and Preliminary Design Validation (SPDV) pile, resulted from accumulation of material(s) extracted during the drilling of one 12-foot diameter shaft and one 6-foot diameter shaft to the repository depth of 2,150 feet, and the initial excavations underground.

In 1999, the SPDV salt storage pile was recontoured and covered with a geosynthetic liner. Three feet of rooting medium was placed over the liner, and ½-inch crushed rock was disked into the upper 6 inches to deter erosion. The pile was seeded with native plants compatible with sandy soils possessing physical properties (e.g., root structure, drought tolerance) to mitigate erosion.

Additionally, three storm water detention ponds that receive runoff from the WIPP facility and parking lot area were lined with 60-mil synthetic liners to contain and evaporate storm water runoff. This construction work was completed in 2005. Storm water ponds are fenced per DP-831 requirements.

Additional details and monitoring and maintenance requirements of salt cells and salt storage ponds are addressed in WP 02-2, WIPP Discharge Permit 831 Monitoring and Maintenance Plan, which implements the requirements of DP-831.

8.2.9.10 Gigabit Circuit

Windstream Telecom, Carlsbad's local exchange carrier, installed the Gigabit Circuit in 2005. The Gigabit Circuit increases network bandwidth among the Skeen-Whitlock Building and the WIPP facility. The project included installation of 13 miles of fiber optic cable between U.S. Highway 62/180 and the WIPP site. The cable is located within the BLM Right of Way Grant NM113339, with Valor Telecommunications as the holder. Sufficient fiber optic cable was installed for future utilization so that the need for re-excavation will be avoided.

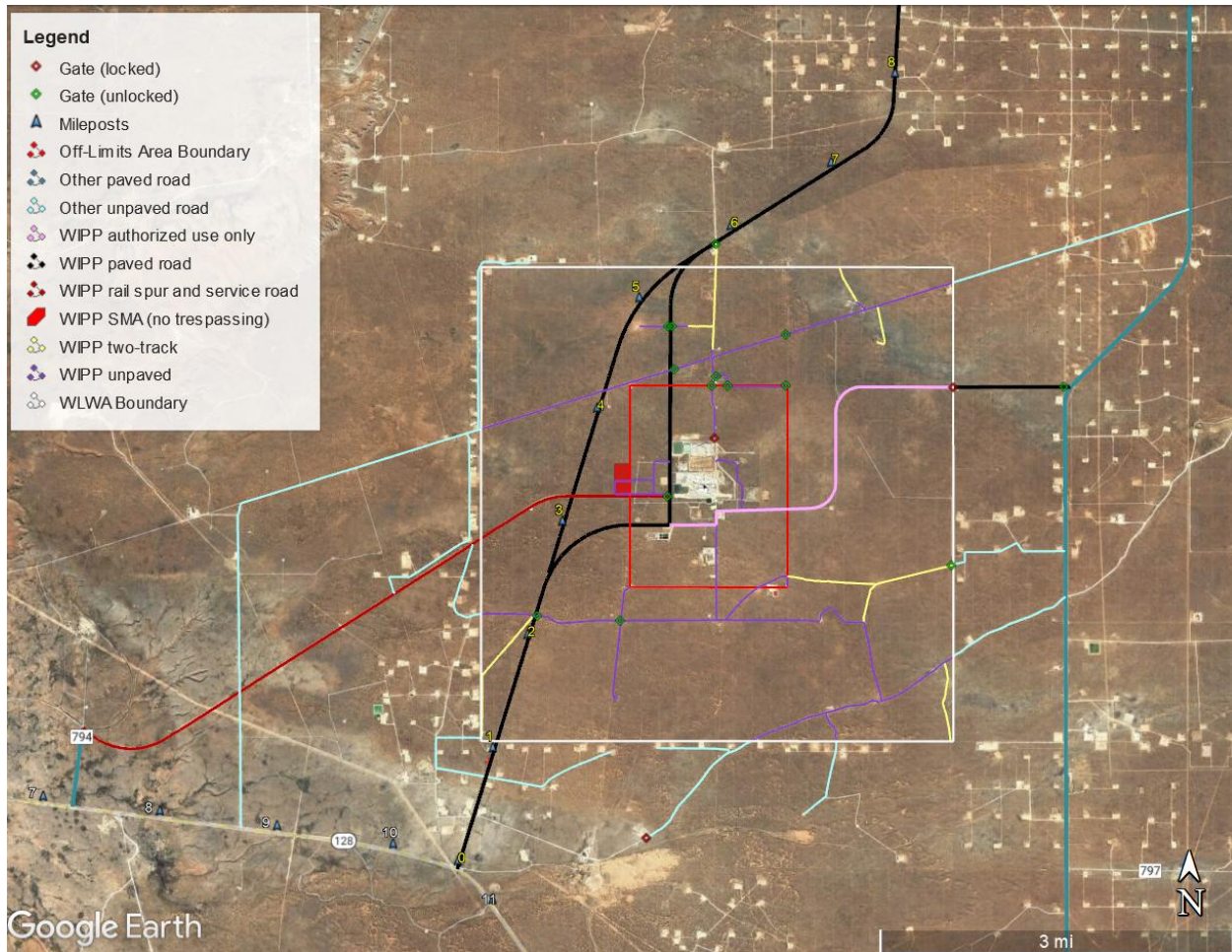


Figure 8.1. Existing Roads – Access to the WIPP Site

CHAPTER 9

RECLAMATION/ENVIRONMENTAL RESTORATION

9.0 INTRODUCTION

This chapter identifies DOE plans to enhance and restore areas affected by WIPP activities, to include areas disturbed prior to WIPP activities that were accepted as part of the land transfer from the DOI to the DOE. This chapter is designed to be revised as needed to incorporate new techniques for reclamation and new plans which DOE may incorporate in the future as applicable, unless expressly limited by law.

9.0.1 Reclamation in the Affected Environment

Waste Isolation Pilot Plant reclamation activities will be conducted in accordance with DOE Order 458.1, Radiation Protection of the Public and the Environment; the DOE Organization Act (42 U.S.C. 7112); the Federal Land Policy and Management Act of 1976 (Pub. L. 94-579); the SEIS-II (DOE/EIS-0026-3-2, September 1997); the SEIS-I (DOE/EIS-0026-FS, January 1990); the FEIS (DOE/EIS-0026); and applicable reclamation requirements by federal laws and regulations, Executive Orders, MOUs, DOE Orders, permits, certifications, and state and local laws. These commitments include any unforeseeable future mandates or amendments to existing regulations.

In accordance with this document, the DOE will implement a contemporary reclamation program and corresponding long-range reclamation plan. As locations are identified for reclamation, WIPP personnel will reclaim these areas. BLM-approved seed mixes used will reflect those species indigenous to the vicinity and priority will be given to those plant species which are conducive to soil stabilization and wildlife and livestock needs.

Reclamation activities will be designed to reduce soil erosion, increase the rate of plant colonization and succession, and provide habitat for wildlife in disturbed areas. In addition, reclamation will ultimately serve to mitigate the effects of WIPP-related activities on affected plant and animal communities.

9.1 OBJECTIVES

The objective of the DOE reclamation program is to return lands used in the operation of the WIPP facility that are no longer needed for WIPP operations to a stable ecological condition. Plant species and topography of the reclaimed area will be conducive to the functioning of the surrounding ecosystem.

9.2 PLANNED ACTIONS

The DOE will be responsible for reclaiming lands disturbed by DOE-funded activities. Reclamation for actions by outside agencies or organizations, completed on DOE property, or crossing DOE property, is the responsibility of the outside agency or organization. Reclamation activities must be completed in accordance with the following pertinent guidelines. Reclamation activities will be specified in land use permits when appropriate.

9.2.1 Timeliness of Reclamation Projects

Reclamation activities will be conducted at the earliest opportunity after the determination is made that an area is to be decommissioned. Scheduling of reclamation activities is done with mutual concurrence of the LUC and affected parties as applicable.

9.2.2 Review of Reclamation Activities

The DOE will seek review of proposed reclamation activities, in advance, by the BLM and appropriate state agencies to ensure compliance with applicable DOE reclamation commitments. Proposed WIPP reclamation activities will be reviewed and approved by the WIPP LUC in consultation with cognizant DOE personnel and the BLM.

9.2.3 Fencing of Reclamation Sites

Reclamation activities include fencing with four-strand fence with smooth top and bottom wires to deter grazing when livestock are present. Wire spacing will be approximately 16, 22, 28, and 38 inches above ground. The fence will be removed after the determination is made by the LUC that plant succession has progressed to a state of ecological stability suitable to sustain livestock access.

9.2.4 Reclamation Protocol

Reclamation activities will incorporate low-impact, shallow-tillage protocol as feasible. This reclamation technique is preferred, as it helps to mitigate the loss of ground moisture critical to seed germination.

9.2.5 Prioritization of Reclamation Sites

The LUC will identify and prioritize sites for reclamation (e.g., pads, roads, pits). Projects or facilities authorized by previous commitments (e.g., MOUs, cooperative agreements) will be managed by the LUC to project finalization in accordance with DOE commitments.

9.2.6 Seed Mixes

Reclamation areas will be sown with BLM or NMSLO-prescribed seed mixtures. These mixes will reflect plant species indigenous to the area and have specific requirements for purity to preclude the introduction of noxious weeds.

9.2.7 Reseeding of Sites

Reclamation sites with plantings that do not germinate within a reasonable time frame, to be determined by the LUC, will be reseeded.

9.2.8 Reclamation and Cultural Resources

Reclamation activities will incorporate mitigation or data recovery plans to address any potential adverse impacts to cultural resources imposed directly by reclamation activities, or by ancillary activities associated with reclamation projects.

9.2.9 Decommissioning of the Waste Isolation Pilot Plant

Once decommissioning of the WIPP facility begins, surface structures are to be abandoned, decontaminated, and removed (including support facilities such as power lines). The WIPP facilities will be decommissioned and closed in accordance with applicable laws, rules, permits, certifications, and regulations in effect at the time. Decommissioning and subsequent surface reclamation activities will be conducted in accordance with the WIPP Permit, or other applicable regulations and requirements in effect at the time. The DOE will also perform post-closure monitoring as required by the Permit as well as to satisfy requirements to provide both passive and active institutional controls after decommissioning.

CHAPTER 10 SECURITY

10.0 INTRODUCTION

The WIPP Protective Force personnel are on duty 24 hours a day. The WIPP Protective Force maintains field vehicles, which are used several times daily for area inspections.

10.1 OBJECTIVES

Security will be maintained within the PPA, EUA, and Off-Limits Area only. These areas are posted against trespass under the authority of section 229 of the Atomic Energy Act of 1954, 42 U.S.C. 2278a, and pursuant to the regulations set forth in 10 CFR Part 860 and DOE Orders 473.1A, Physical Protection Program and 473.2A, Protective Force Operations. Security personnel will evaluate requests for services within the WLWA and make determinations based on DOE direction, manpower, and funding.

10.2 PLANNED ACTIONS

10.2.1 Property Protection Area

The active portion of the facility (figure 10.1) is established as the PPA. It is restricted to authorized personnel only and is monitored and maintained per Permit requirements. Security requirements are listed in Part 2 of the Permit. A property description is included in Attachment A of the Permit.

10.2.2 Exclusive Use Area

The EUA (figure 10.1) is comprised of approximately 293 acres within secs. 20, 21, 28, and 29 of T. 22 S., R. 31 E. It is surrounded by barbed wire fence and is restricted exclusively for the use of the DOE, its contractors, and subcontractors in support of the project. In addition, this area is defined as the point of closest public access, for the purposes of performing accident consequence assessments for the general public, in the WIPP Documented Safety Analysis (DSA). This area is marked by DOE "No Trespassing" signs and will be patrolled by WIPP security personnel to detect unauthorized activities or uses. A detailed description of this area can be found on engineering drawing 24-C-007-W3.

10.2.3 Off-Limits Area

The Off-Limits Area boundary defines the DOE exclusion zone. The Off-Limits Area (figure 10.1) is a sector comprised of 1,454 acres, or 2.27 square miles (more or less), within secs. 20, 21, 28, and 29 of T. 22 S., R. 31 E. This sector is managed as an area wherein unauthorized entry and the unauthorized introduction of weapons or dangerous materials (as provided in 10 CFR § 860.3 and 860.4) is prohibited. Pertinent prohibitions and subsequent penalties (10 CFR § 860.5) are posted at intervals along the perimeter as directed in 10 CFR § 860.6. Grazing and public thoroughfare continue until such time that these activities present a threat to the security, safety, or environmental quality of the WIPP facility. While the subject sector is posted, the area is not entirely fenced. Fencing will be encountered only on the north boundary. The remaining boundary is posted using other methods, commonly with yellow fiberglass composite marker posts. A detailed description of the area included in the Off-Limits Area can be obtained by entering 94-18917 in the *Federal Register* database. For convenience, a direct hyperlink is provided here: [Off-Limits Area Designation](#). The boundary for this area can be viewed on mobile devices (refer to section 6.1 for map download instructions).

10.2.4 Waste Isolation Pilot Plant Land Withdrawal Area

The WIPP site boundary distinguishes the perimeter of the 16 section (or 10,240 acres) WLWA. This tract includes properties outlying the PPA, the EUA, and the Off-Limits Area. This sector is designated at points of ingress and egress, as a Multiple Land Use Area, and is managed accordingly. Certain restrictions do apply, however, as posted at area access points and discussed in chapter 6 of this document. Individuals entering the WLWA are subject to video surveillance.

In May 2016, increased safety notifications for persons within the WLWA were implemented. As a result, signs are posted at vehicle entry points to the WLWA, which state as follows:

“Land users (recreational and for non-WIPP work) entering this area MUST check in and out with the WIPP Site at 575–234–8407.”

followed by notification in Spanish:

“Usuarios de esta área (para recreación o trabajo no relacionado con WIPP), DEBEN registrarse a la hora de entrar y salir del área, llamando a WIPP al 575–234–8407.”

Site procedure WP 12-ER3908, Remote Worker and Land User Tracking, has been developed to provide direction to personnel performing WIPP-related work inside the WLWA, when outside the PPA.

10.2.5 Special Management Areas

There are sectors used in the operation of the WIPP facility (e.g., reclamation sites, well pads, roads) that are identified as SMAs. The SMA designation is due to values, resources, or circumstances that meet criteria for protection and management under special management designations. Unique resources of value that are in danger of being lost or damaged, sectors wherein ongoing construction is occurring, fragile plant or animal communities, sites of archaeological significance, sectors containing imminent risks (safety hazards), or a sector(s) that may receive an unanticipated elevated security status would be suitable for designation as an SMA. Accordingly, the subject sector would receive special management emphasis under this stipulation. Special management areas will be posted against trespass and shall be safeguarded commensurately with applicable laws.

Several areas are considered SMAs due to safety hazards or ongoing construction (figure 10.1). Evaporation Pond H-19, located in section 28, is removed from public access with fencing and postings. The western portion of the Shaft #5 construction area, located in section 20 outside of the Off-Limits Area, is removed from public access by barbed-wire fence. The Salt Storage Pond 5, (SSP5) within the Shaft #5 area is also fenced and posted to prevent unauthorized entry. The final SMA is an equipment storage area, located south of section 31. This area, formerly used during WIPP road construction, is fenced and posted to prevent unauthorized entry.

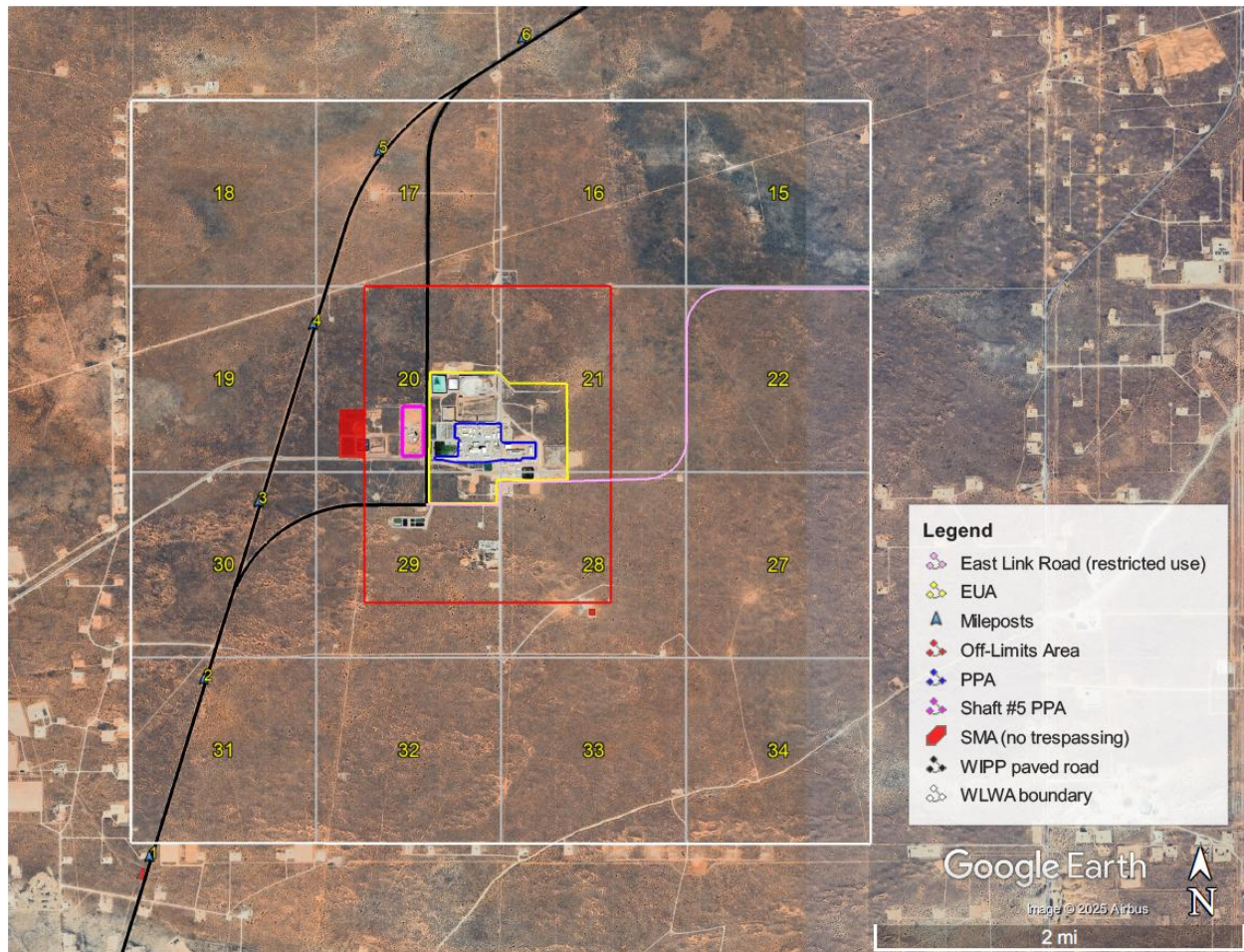


Figure 10.1. Security Zones within and near the WIPP Site Boundary

CHAPTER 11

EMERGENCY MANAGEMENT

11.0 INTRODUCTION

The management of emergency situations focuses on minimizing the risk of personnel injury and minimizing the exposure of workers, the environment, and the public to radioactive or hazardous substances/wastes to a level that is as low as reasonably achievable.

The Emergency Management Program is documented in DOE/WIPP-17-3573, Waste Isolation Pilot Plant Emergency Management Plan, which provides guidance and requirements for emergency planning, preparedness, response, mitigation, readiness assurance, and recovery activities in order to maintain acceptable levels of protection for the safety and health of employees, responders, and the public, as well as for property and the environment. Preparedness and response activities are based on a graded approach commensurate with the identified hazards. This plan provides a framework of the responsibilities, capabilities, and authorities for the members of the Emergency Response Organization (ERO).

The purpose of the ERO is to respond to emergencies at the WIPP site and facilities in a timely, efficient, and effective manner, and implement immediate protective actions and emergency response to ensure the safety and health of workers and the public, and protect property, the environment, and national security. The ERO adheres to applicable ERO procedures and guides. The response of the ERO is based on the National Incident Management System (NIMS) approach to integrated emergency response. The NIMS represents a core set of doctrines, concepts, principles, terminologies, and organizational processes to enable effective, efficient, and collaborative incident management at all levels.

The ERO facility maintains 24-hour readiness for response to an emergency event. Emergency response capabilities include firefighting and emergency medical services, which may also be deployed in accordance with existing mutual aid agreements (e.g., with Carlsbad, Hobbs, and Eddy/Lea County, New Mexico).

Emergency conditions of particular concern to the WIPP facility are both natural and man-made. Plans, procedures, and standard operating guides are implemented to minimize facility or programmatic impacts during an emergency condition at the WIPP site.

11.1 OBJECTIVES

The DOE objective is to provide for the safety of employees, contractor personnel, visitors, and the members of the general public during emergency conditions at the WIPP. Emergency situations may include, but are not limited to, structural and wildland fires, radioactive and hazardous material accidents, tornadoes, floods, lightning strikes, and earthquakes.

11.2 PLANNED ACTIONS

11.2.1 Initial Response and Notifications

The Central Monitoring Room Operator (CMRO) serves as the primary contact for notification that an incident has occurred at the WIPP facility. The CMRO activates emergency response assets and personnel (e.g., Incident Commander, RADCON Techs, etc.) for incidents that require immediate response (e.g., personnel injury, spills, fires) based on the information provided according to procedures, and notifies the Facility Shift Manager (FSM). Requests for mutual aid assistance are approved by the FSM before responders are dispatched to ensure onsite emergencies take priority and capabilities to respond onsite are sustained.

The FSM assumes responsibility for emergency response functions including categorization/classification of the incident, issuing follow-on protective actions for personnel, approving and transmitting emergency notifications to offsite agencies, and providing protective action recommendations to offsite agencies, according to procedures. For Operational Emergencies and any significant incidents as needed, the FSM will direct activation of the Emergency Operations Center (EOC). The FSM is also the primary RCRA Emergency Coordinator in accordance with the RCRA Contingency Plan and determines whether to implement the RCRA Contingency Plan for the incident. The RCRA Contingency Plan is located in the Permit.

Once the EOC is staffed and declared operational, a formal transfer of responsibility for emergency management functions will occur between the FSM and the EOC Crisis Manager.

11.2.2 Field Response

Waste Isolation Pilot Plant incident responders are described in the WIPP Hazardous Waste Facility Permit, NM4890139088-TSDF, in Attachment D, RCRA Contingency Plan and include the WIPP Protective Force. Once dispatched by the CMRO based on the type of incident, ERO field responders report to the scene. The role of Incident Commander (IC) is assumed by the senior qualified individual from the appropriate organization based on the type of event, indicators from the initial notification, facility designations, conditions at the scene, or other factors. The WIPP Emergency Services typically serves as the IC for fire, medical, and initial containment of hazardous

materials (HAZMAT) responses. The WIPP Protective Force typically serves as the IC for security or law enforcement events.

The IC directs activities at the incident scene and uses the Incident Command System (ICS), which provides defined operating characteristics and interactive management components. This NIMS ICS structure allows for the integration of community mutual aid resources to supplement or relieve WIPP response units. The IC may make additional requests for mutual aid resources if necessary, such as additional ambulances, air ambulance helicopters, or other support from offsite responders (e.g., Explosive Operations Disposal, Special Weapons and Tactics). Responders take actions to mitigate the emergency according to applicable training, procedures, and guides under the direction of the IC.

11.2.3 Fire Response

The WIPP Emergency Services responds to fires within the WLWA, including dispatch to the WLWA boundary specified in the LMP, and may also respond outside this area as part of mutual aid agreements. Such incident responses shall be conducted according to training, procedures, and guides. Pre-Incident Plans are kept in the WIPP fire engines and used to identify WIPP facility building entrances, exits, and any potential HAZMAT. If conditions are such that the WIPP IC determines additional resources are needed to handle wildland fires, then the WIPP CMRO shall notify the Regional Emergency Dispatch Authority (REDA) to coordinate suppression efforts with the BLM. (WP 12-FP.05, WIPP Wildland Fire Management Plan)

Upon detection of a fire within the WLWA, the BLM Carlsbad Fire Management Officer is notified by REDA in accordance with interagency agreements. Other agencies may also be notified in accordance with mutual aid agreements.

11.2.4 Radioactive and Hazardous Materials Response

The WIPP Emergency Services provides initial response to spills that cannot be managed by the responsible individual(s). Radiological Control personnel may also be dispatched to support the response to a radiological event. Such incident responses shall be conducted according to training, procedures, and guides by personnel wearing the appropriate level of personal protective equipment (PPE). Response to a radiological event may include teams from the DOE Radiological Assistance Program for offsite evaluation.

Spills or releases of HAZMAT will be reported to regulatory authorities in accordance with applicable regulations.

CHAPTER 12

INDUSTRIAL SAFETY

12.0 INTRODUCTION

The industrial safety requirements for this section cover work performed by subcontractors, work performed on approved easements, work performed by WIPP employees, work performed on the WLWA by individuals not contracted to the MOC, and non-camping recreational activities conducted within the boundaries of the WLWA. This program supplements WIPP policies contained in spill control plans and emergency response plans that relate to safe practices. The types of activities covered by this program include, but are not limited to:

- Construction work (e.g., buildings, annexes, warehouses, storage areas, etc.),
- Repairs or alterations,
- Equipment installation and servicing,
- Routine contract maintenance,
- Remediation work,
- Scrap and waste removal,
- Transportation (i.e., trucking and deliveries),
- Electrical (e.g., piping, rigging, roofing, etc.),
- Environmental monitoring/land management work, and
- Work supporting universities and laboratories.

12.1 OBJECTIVES

The objective of the DOE is to provide and maintain a safe environment for any who wish to use WIPP lands. The industrial safety program defines the safety and health policies, rules, and guidelines for ensuring safe conditions and acts, while preventing unsafe conditions that may result in personal injury or property damage. This program provides a mechanism for users of the WLWA to communicate their safety and health concerns to WIPP safety and health personnel.

Site procedure WP 12-ER3908 has been developed to provide direction to personnel performing WIPP-related work inside the WLWA, when outside the PPA.

12.2 PLANNED ACTIONS

In order to maintain a safe environment, the following are prohibited within the WLWA boundary:

- Possession or use of alcoholic beverages in violation of federal, state, and local laws. Open containers of alcohol are not allowed within the Off-Limits Area.
- Possession, use, manufacture, cultivation, sale, transfer, or delivery of an illegal controlled substance or drug that is in violation of federal, state, and local laws. Under federal law, marijuana or cannabis is classified as a Schedule 1 substance under the Controlled Substances Act (21 USC 812, as amended) and is therefore a prohibited substance.
- Improper or illegal disposal of waste and refuse/trash.

See section 6 for restrictions specific to recreation within the WLWA.

12.2.1 Work Performed by Waste Isolation Pilot Plant Employees

Work performed by WIPP employees shall comply with the applicable site requirements in the safety manual. The safety program addresses industrial safety and industrial health.

Any activity (e.g., recreational hunting, camping) that is identified by the DOE as an imminent risk to the health or safety of WIPP personnel may, at the discretion of the Secretary, be suspended indefinitely within the WLWA.

12.2.2 Safety Requirements for Subcontractors

Work performed within the WLWA, regardless of the point of origin of a purchase requisition (e.g., Sandia National Laboratories), must comply with existing WIPP site safety requirements. Documentation for work performed on approved easements must be submitted to cognizant WIPP personnel for validation concerning the appropriate worker safety and health requirements for the type of work to be performed.

Subcontractors who conduct drilling activities (e.g., groundwater monitoring wells) within the WLWA will be held accountable for compliance with American Petroleum Institute (API) Recommended Practices for Occupational Safety for Well Drilling and Servicing Operations, API Recommended Practices 54 (RP54).

12.2.3 Policy

Contractors, and their subcontractors, must comply with applicable local, state, and federal safety, health, and environmental regulations. The WIPP site representative (e.g., facility, work control, project engineer, or maintenance person in charge) will provide the site safety rules for which the contractor will be held accountable and shall verify the adherence to these rules by the subcontractor. The DOE recognizes that the subcontractor may also require its employees to follow specific safety rules that exceed WIPP rules. These will be acceptable, provided they do not conflict with WIPP site rules.

12.2.4 General Guidelines

The assigned subcontract technical representative (STR) will monitor the practices of subcontractors and establish a mechanism to control subcontractor services to ensure that such services are performed in a safe and healthy manner.

12.2.5 Pre-Start Safety Conference

Prior to commencement of work, subcontractors are required to attend an on-site preconstruction and safety conference. Conferences for construction (Davis-Bacon) subcontractors shall be conducted by the MOC's Procurement Services; those for maintenance contractors (non-Davis-Bacon) shall be conducted by the WIPP STR.

12.2.6 Subcontractor Submittals Required

12.2.6.1 Construction Subcontractors (Davis-Bacon Work)

The Davis-Bacon Act (40 U.S.C. 276a to 276a-7) is a federal law applicable to federally funded construction work. Requisitions specify that each subcontractor shall provide Procurement Services the following information when bidding a project. This documentation will be reviewed and approved by the MOC's Industrial Safety group.

Documentation of previous three-year injury experience and a current Occupational Safety and Health Administration (OSHA) 300 Log.

Historical information (last three years) on any OSHA citations and other regulatory inspection reports or citations relative to the type of work to be performed.

Confirmation of workers' compensation coverage or equivalent, including the experience modification rate and other specific insurance coverage.

Copies of written safety policy and programs, which include (as appropriate) but are not limited to (training requirements and supporting documentation):

- Hazard communication program,

- Respirator protection plan,
- Respirator fit testing and medical approval,
- Confined space entry program,
- Medical surveillance and first aid plan,
- Electrical safety program,
- Hearing conservation program,
- Personal protection equipment program,
- Housekeeping and inspection program, and
- Hazardous waste disposal procedures.

Copies of the Safety Data Sheet (SDS) for each chemical to be brought inside the WLWA. The SDSs will be reviewed, evaluated, and approved by the MOC industrial hygienist or designee before any chemical is permitted within the WLWA. The contractor is responsible for removal and for cleaning up spills generated by their actions, including costs associated with the cleanup and disposal of spills.

Written certification that material handling equipment (e.g., cranes, hoists, powered industrial trucks, chains, slings, spreaders) has been inspected and meets applicable requirements of Subpart N of both 29 CFR Part 1910 and 29 CFR Part 1926.

Written Job Hazard Analysis (JHA) for each phase of the work to be performed.

When specified in the subcontract, contractors are required to supply work plans describing the type of work to be performed, the number of people performing task(s), their emergency action plan, their safety rules, and the names of responsible personnel.

Subcontractor personnel are required to complete the appropriate WIPP training requirements prior to operating any WIPP site equipment, performing unescorted lockout/tagout functions within the fenced area, or entering any area within the WLWA labeled as a confined space or meeting confined space criteria.

12.2.6.2 Maintenance Contractors (Non-Davis Bacon Work)

Maintenance contractors performing work within the WLWA without active direction from the WIPP STR shall submit the same documentation required of the Davis-Bacon contractors (see above). When applicable, contractors operating under the direction of the site STR provide, for approval, to the WIPP STR and MOC Industrial Safety the following:

Written documentation that electrical hand tools have been tested as defined in OSHA 29 CFR § 1926.404 (b).

Training records or confirmation of safety training for employees as defined in OSHA 29 CFR § 1926.21, Safety Training and Education.

Copies of SDSs for each chemical to be brought onsite or to the project by the subcontractor.

Approved JHA or work instructions for each segment of work.

12.2.7 WIPP Management Responsibilities

12.2.7.1 MOC Procurement Responsibilities

MOC Procurement Services provides:

DOE safety rules and procedures for subcontractors (available on request from the WIPP STR).

Specific safety requirements for construction subcontractors meeting the Davis-Bacon criteria (available on request from the WIPP STR).

Copies of applicable subcontract purchase requisitions to the MOC Industrial Safety group.

12.2.7.2 WIPP STR Responsibilities

The WIPP STR shall:

Ensure that environment, safety, and health requirements pertinent to the work scope in the requests for proposal are clearly specified and consistent with the WIPP Worker Safety and Health Program.

Ensure that safety and environmental professionals review and approve safety aspects before the start of any project.

Ensure that the subcontractors providing work on the WIPP site and covered workplaces are conducting work in accordance with the MOC's specific safety procedures and the subcontract's scope of work.

Provide oversight of the subcontractor or vendor performance of work, as delineated in the WIPP procedure regarding STR responsibilities.

12.2.8 Reporting Accidents and Occurrences

The WIPP site-specific procedure, WP 15-CA1010, Occurrence Reporting and Processing, for reporting accidents and occurrences will be used throughout the WLWA. This procedure implements requirements of DOE Order 232.2A, Chg 1.

Accidents involving injury or illness are required to be reported per WP 12-SA3130, Occupational Injuries and Illnesses. Reporting is also required per WP 15-CA1010, when exceeding limits established for personnel exposure to chemical, biological, or physical hazards and when personnel receive unexpected contact from an energy source (e.g., shock).

Property damage caused by accidents and any fire (including wild land fires) shall be reported to the CMR then to the WIPP STR, who will convey the information to appropriate management.

Subcontractors are required to post emergency numbers and ensure that such numbers are provided to employees of lower-tier subcontractors. Subcontractors have stop work authority and are instructed to report issues and communicate directly with the STR, except in cases of emergencies where the CMR is contacted first.

Releases of hazardous materials to the environment (including radiological and chemical materials exceeding permitted limits), damage to threatened or protected flora and fauna, damage to drinking water facilities, damage to cultural resources, and other "off-normal" events impacting safety, health, environment, or facility operations are to be reported to the CMR and will be categorized in accordance with WP 15-CA1010, Occurrence Reporting and Processing. This procedure covers instances where reporting of an occurrence is required.

Information concerning injuries or illness involving subcontractor employees is required to be recorded on their OSHA 300 Log or other appropriate record.

12.2.9 Subcontractor Safety Procedures

When stipulated in the SOW, Davis-Bacon subcontractors are required to include in their bid package the safety program and policies information required in section 12.2.6.1.

The SOW for non-Davis-Bacon subcontractors whose employees are under the direction of a WIPP STR is not required to contain the above requirements because employees of such subcontractors are subject to WIPP safety programs.

12.2.9.1 Personal Protective Equipment

Subcontractors are responsible for providing WIPP-approved PPE to their employees, except respirators designed to protect against airborne contaminants, which shall be

distributed by an MOC industrial hygienist. Any employee required to wear respiratory equipment must have prior medical approval from a physician to wear such type of equipment and be trained to wear it properly.

12.2.9.2 Safety Meetings

Subcontractors are required to conduct safety meetings, the frequency of which will depend on the nature of the project.

12.2.9.3 Subcontractor Procedures

Procedures of subcontractors will not conflict with WIPP procedures. In cases wherein procedures of subcontractors conflict with those of the WIPP facility, the WIPP STR will seek assistance and guidance from the MOC's Engineering Department.

12.2.10 Housekeeping Inspections

Subcontractor personnel (including lower-tier subcontractors) are required to conduct daily safety checks of areas where work is being performed. Any unsatisfactory conditions will be reported immediately to the WIPP STR. Corrective actions will be taken immediately and documented on a daily safety inspection form.

Refuse and scraps that interfere with workflow or create fire hazards are required to be disposed of properly in a timely manner and not allowed to accumulate.

Subcontractors cannot block aisles, walkways, stairs, etc. The WIPP STR shall be notified prior to the erection of any barricades or other efforts by the subcontractor to prevent entry into areas.

12.2.11 WIPP Land Withdrawal Area Users not Contracted to the MOC

Companies, cities, universities, laboratories, and personnel performing work on CBFO property are required to abide by WIPP requirements. In addition to this LMP, other document(s) may be available to assist personnel working within the WLWA. This includes WP 12-IS.01-6, Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls.

These documents provide information for accessing and safely working at the WIPP site and DOE CBFO-controlled off-site facilities. The CBFO holds the MOC accountable for safe operations at the WIPP facility and gives the MOC authority to enforce safety rules and policies. The MOC will assign at least one WIPP project contact who will be available to assist non-MOC contracted parties (Users) in carrying out their responsibilities as presented in these WIPP documents.

A User means any individual, organization, laboratory, WIPP project regulator or stakeholder, entity, or company that may perform DOE-related work on DOE CBFO

property or rights-of-way on or around the WIPP site with whom the MOC has no contractual or employment relationship.

These two documents do not apply to recreational or other activities allowed by the LWA, which includes those whose sole business use is restricted to DOE permitted roads (e.g., oilfield vehicles using WIPP roads to gain access to well sites). Certain grazing activities that are separately permitted and managed by the BLM are also exempt.

12.2.11.1 Required Work Documents for Approval

The MOC has a process in place for assuring that proposed work is appropriately reviewed and authorized before work is performed. Users fit into this process by providing a detailed written description of the work they propose to perform. Attachment 1 of the User's Guide, *Guide to the Development of a Statement of Work*, provides the level of detail required for the written description. The User's work can commence once the MOC's Environmental Safety & Health Department has received the completed signature page from the User's Guide (Acknowledgment of Receipt and Designated Contacts), completed its review, and worked with the User to make any changes or enhancements in the way the proposed work will be carried out to ensure that the work can be accomplished safely.

The statement of work (including a JHA) initiates the review of documents for approval. The JHA is described in the User's Guide within the section on the Integrated Safety Management System (ISMS). Job Hazard Analyses and SOWs must be completed by the User and must be reviewed and approved by the MOC's Environmental Safety and Health Department and other departments affected by the proposed work. The MOC-approved JHA and SOW allows work to commence.

Changes to the work scope, procedures, work location, or schedule require the review process to be performed again before the changes are implemented. If hazards are identified which were not addressed in the JHA, the affected work must be suspended until the JHA is updated, hazards are mitigated, and a representative of the Environmental Safety and Health Department signs the updated JHA.

In addition to the required work documents for approval, the DOE follows numerous other applicable regulations including those promulgated by the Mine Safety and Health Administration (MSHA), the EPA, the U.S. Department of Transportation, the New Mexico Environment Department (NMED), and applicable DOE Orders.

Application of these requirements will depend on the proposed work, the location of the work, the materials used, and the type and volume of wastes to be generated. For instance, MSHA has a list of chemicals that are prohibited in the underground.

Users' compliance with applicable requirements is mandatory. Users are responsible for assuring that their respective employees, subcontractors, or other individuals under

their authority follow the requirements, policies, JHAs, and procedures approved per the work scope. The MOC may oversee the work based on a graded approach. The more complex and hazardous the work is, the more oversight may be provided by the MOC. Support and oversight by the MOC in no way relieves or minimizes the User's responsibility to abide by applicable legal requirements, their respective contractual requirements, and WIPP policies.

12.2.11.2 Working Independently

Being able to ultimately work independently depends on the User's knowledge of the site, the training the User has received, the hazards associated with their work areas and proposed actions, the ability to eliminate or mitigate the hazards, and the User's experience and qualifications to perform the work safely and in accordance with the WIPP's safety requirements.

Once the User becomes more experienced working at the site and has demonstrated outstanding safety practices, less MOC oversight is provided.

Clear communication among the User, the CBFO, and WIPP project contacts (including the LUC and those associated with the location of the User's work) is vital to personnel safety at the WIPP.

CHAPTER 13

MAINTENANCE AND WORK CONTROL

13.0 INTRODUCTION

Lands used in the operation of the WIPP facility are listed in one of two categories. The first category consists of lands contained within the WLWA. Included in this area are buildings, salt storage piles, evaporation and detention ponds, roads, groundwater monitoring well pads, reclamation sites, and storage yards. The second category consists of lands used in the operation of the WIPP facility outside the WLWA boundary. This area primarily includes access corridors to and from the WIPP site, groundwater well pads and air sampling installations, and a few isolated reclamation areas. The maintenance management program for the WIPP facility is consistent with best management practices (e.g., DOE Orders, WIPP procedures) that pertain to the maintenance of properties in a manner that promotes operational safety, worker health, environmental protection and compliance, property asset preservation, and cost effectiveness while meeting the programmatic mission.

Site procedure WP 12-ER3908 has been developed to provide direction to personnel performing WIPP-related work inside the WLWA, when outside the PPA.

13.1 OBJECTIVES

The DOE maintenance objective (scope) is defined as the preventive, predictive, modifications, and corrective maintenance activities for facilities, equipment, and support infrastructure necessary to accomplish the WIPP mission.

The MOC work control system controls maintenance activities. It ensures that maintenance activities are effective in maintaining safe and reliable facility operation. This system applies to personnel doing maintenance activities at the WIPP facility.

The MOC work order system is the central component of the control system for maintenance activities at the WIPP facility. The work order system ensures that jobs are identified, logged, planned, scheduled, performed, tested, and formally accepted and documented in a systematic manner.

The Work Control Process describes the steps for identifying, prioritizing, planning, scheduling, testing, and acceptance of work performed. The MOC's computerized maintenance management system is used to track the status of outstanding maintenance activities.

13.2 PLANNED ACTIONS

A maintenance training program has been established through the central site training organization. The training organization supports maintenance training programs that meet the intent of established industrial guidelines and address specific WIPP project needs.

The infrastructure and equipment of the WIPP facility are required to be maintained by a proper balance of preventive, corrective, and predictive maintenance; procedures and standards; and configuration management. The action request, submitted in accordance with WP 10-WC3011, Work Control Process is the fundamental form used for initiating work. The Work Control process and other supporting procedures address:

- Job planning and analysis,

- Permits,

- Work performance standards,

- Priority system,

- Scheduling,

- Construction program interface, and

- Post maintenance/modification testing.

Maintenance activities in support of this LMP will be performed, when needed, to the same criteria as established for the base facility (PPA). The expanded maintenance work scope as it pertains to land management activities includes, but is not limited to:

- Maintenance of roads inside the WLWA.

- Maintenance of the WIPP rail spur easement and the corresponding frontage/service road.

- Maintenance of DOE signs inside the WLWA.

- Maintenance of signs outside the WIPP boundary on properties used in the operation of the WIPP facility (e.g., WIPP Bypass Road).

- Maintenance of other access roads.

- Construction and maintenance of cattle guards inside the WLWA.

Construction and maintenance of cattle guards outside the WLWA on roads used expressly for WIPP facility operations.

Construction and maintenance of security/safety fences within the WLWA (e.g., the fence surrounding the EUA, and the fences that parallel the access roads that prevent livestock from wandering on the road) or at remote locations outside the WLWA used in the operation of the WIPP facility.

Construction and maintenance of groundwater surveillance well pads and corresponding access roads inside the WLWA.

Construction and maintenance of groundwater surveillance well pads and corresponding access roads outside the WLWA. (Note: Roads outside the WLWA, identified as part of the WIPP facility maintenance work scope, are limited to those which are intended exclusively for WIPP-related activities. Road maintenance of existing easements or rights-of-way, not constructed expressly for WIPP facility uses, but used as convenient access routes for WIPP-related activities, is not the responsibility of the DOE).

APPENDIX A

LAND MANAGEMENT PLANNING AND RESPONSIBILITIES

LAND MANAGEMENT PLANNING AND RESPONSIBILITIES

1.0 SCOPE

The Waste Isolation Pilot Plant (WIPP) Land Use Coordinator (LUC) and Carlsbad Field Office (CBFO) National Environmental Policy Act (NEPA) Compliance Officer provide policy guidance to the U.S. Department of Energy (DOE) in areas involving coordination of the management and oversight of lands included within the boundaries of the WIPP Land Withdrawal Area (WLWA) and those lands outside the WIPP boundary used in the operation of the WIPP site. This includes compliance with applicable regulatory requirements relating to activities which occur or are likely to occur within the boundaries of those lands used in the operation of the WIPP facility. These include (but are not limited to) regulations referenced in the WIPP Land Management Plan (DOE/WIPP-93-004), Joint Powers Agreement(s) (JPA), and the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM) - DOE Memorandum of Understanding (MOU) incorporating regulatory requirements and directives contained therein.

2.0 RESPONSIBILITIES

The responsibilities of the LUC and the CBFO NEPA Compliance Officer include:

- Meet regularly to discuss land management topics.

- Evaluate and establish positions on issues or proposals for consideration and register individual concurrence or nonconcurrence.

- Establish and maintain lines of communication among participant entities which, at any time, may have reason to utilize lands under the jurisdiction of the WIPP site.

- Obtain recommendations and guidance from appropriate federal and state agencies, as well as appropriate regulatory experts and stakeholders.

- Provide recommendations and guidance to federal and state agencies, as appropriate.

- Monitor DOE compliance with applicable implementation of new state or federal regulatory requirements as they pertain to lands under the jurisdiction of the WIPP Project.

- Review of any unusual occurrences involving potential or existing safety concerns, contamination release, environmental noncompliance, nonconformance(s) with the Documented Safety Analysis, and the like as they pertain to land management concerns.

Track Land Use Requests (LUR) from inception to project culmination, to include modifications, longevity, and decommissioning.

Evaluate other pertinent issue/policy agenda items.

3.0 KEY EXTERNAL STAKEHOLDERS

- Agency for Conservation Archaeology (ACA)
- City of Carlsbad, New Mexico
- Eddy County, New Mexico
- New Mexico Energy, Minerals, and Natural Resources Department (EMNRD)
- Forestry Division of EMNRD
- New Mexico Department of Cultural Affairs (DCA)
- Lea County, New Mexico
- Mills Ranch, Mr. Stacey Mills, Operator
- New Mexico Department of Game and Fish (NMDGF)
- New Mexico Department of Homeland Security and Emergency Management
- New Mexico Environment Department (NMED) - DOE/WIPP Oversight
- Department of Cultural Affairs (DCA) Historic Preservation Division
- Oil Conservation Division of the EMNRD (OCD)
- Sandia National Laboratories (SNL)
- Smith Ranch, Mr. Jay Dee Logan, Operator
- New Mexico State Historic Preservation Officer (SHPO)
- New Mexico State Land Office (NMSLO)
- U.S. Department of the Interior, Bureau of Land Management (BLM)
- U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS)

- New Mexico State Engineer Office
- U.S. Federal Bureau of Investigation (FBI)
- State Police; New Mexico Department of Public Safety
- New Mexico Department of Agriculture
- U.S. Department of Agriculture
- Carlsbad Field Office (CBFO) of the DOE
- U.S. Department of Justice (DOJ)
- Department of Homeland Security

APPENDIX B

GUIDE FOR THE COMPLETION OF A LAND USE REQUEST

GUIDE FOR THE COMPLETION OF A LAND USE REQUEST

Acceptance or denial of a Land Use Request (LUR) is contingent on the intent, purpose, accuracy, and completeness of the LUR submittal. An LUR will be assigned a number by the LUC in format yymmddx (date code of two-digit year, month, day and sequential letters of alphabet to differentiate LURs with same date code). An LUR submittal consists of three basic elements or steps. These are:

- 1: Complete the Land Use Request (LUR) abstract for the proposed project. The abstract must provide a detailed, narrative description of the proposed activities for evaluation by the LUC, NEPA/ER Coordinator, and CBFO NEPA Compliance Officer. The Environmental Compliance Review Form (ECR), EA02EC3801-1-0, will be required for WIPP-related projects (related to fulfilling WIPP's mission). The project abstract covers:

Disclosure of the individual or company scheduled to perform the proposed action and contact info,

The intent or purpose for project/activity,

Anticipated start date and time lines for completion,

Impacts if the LUR was denied,

Alternatives,

Detailed reclamation/restoration plans,

What are the visual impacts and how will this be corrected.

NEPA checklist, (The following information can be used to assist in filling out the NEPA section of the abstract. The site NEPA coordinator will be able to assist if there are any questions about this section.)

Will the project impact biological resources, other natural resources, or land use?

If at all possible the results of an informal consultation with the USFWS utilizing the IPaC online tool should be provided. This includes the IPaC map and printout for the project location along with the consultation letter from USFWS that is auto-generated once the species and habitat-related questions are answered. The results of the consultation letter normally indicate if further consultation is required. Appendix D. Item F.3.e requires that BLM provide these data for their T&E species review.

Guidance for Evaluation of Potential Lesser Prairie Chicken
(LPC) Habitat

On August 26, 2025 BLM sent WIPP an electronic message indicating that the BLM Carlsbad Field Office is working under the Record of Decision and Approved Resource Management Plan Amendment (RPMA) protections for for LPC. The RPMA refers to the Special Status Species Environmental Impact Statement(EIS). Appendix J of the EIS contains the LPC habitat suitability criteria to evaluate projects. Requesters should be familiar with these criteria and address them if there is potential LPC habitat for a proposed project area at WIPP.

Will the project impact surface or subsurface water resources or water quality?

At the WIPP facility there are no surface water resources in the LWA. All of the salt storage, storm water and facultative lagoon system ponds are lined making WIPP a zero discharge facility. Infiltration is not expected to penetrate the Mescalero Caliche.

The distance to any drainage path and livestock ponds should be given. The depth to and travel time to the uppermost underlying groundwater formations should be given if known.

If the project will generate any discharge(s) requiring wastewater treatment or modification of any existing wastewater collection infrastructure please provide information on expected wastewater volume and discharge rates.

Will the project impact air quality?

Indicate whether or not the project will result in open burning, smoke or visible emissions, generation of fugitive dusts, emissions from fuel combustion or oil-burning equipment, or hazardous air pollutant emissions.

Indicate hours or length of operation expected from these sources for the duration of the project. For spark ignition and compression ignition engines, provide the brake horsepower rating.

Will the project impact human health?

Locations outside the PPA are generally occupied briefly during planned activities. As such project activities, chemical usage and any necessary PPE will be evaluated in terms of WIPP health and safety requirements through the work planning, ARVR , SDS review and approval processes.

Will the project impact waste generation and disposal?

Generation of waste streams that are not currently managed in the site-generated waste program (see Attachment 3 in WP 02-EC3801)?

If the waste stream is not included in Attachment 3, provide data on hazardous material (SDS) and the process that is the source of the waste, and the expected waste generation rate/quantity.

Appendix D. Item F.3.c requires that BLM provide these data for their applications.

Will the project impact archaeological or historic cultural resources?

Appendix D. Item F.3.f requires BLM to provide these data for their applications. Add an appropriate statement here about what data from Section 4 would be reviewed to determine this and who would determine if additional surveys are needed.

Will the project impact noise levels?

New Mexico does not have an environmental noise regulation. Eddy County does not have a noise ordinance or a nuisance ordinance that includes noise criteria. Project noise levels will not be allowed to exceed OSHA Permissible Noise Exposure Levels in 29 CFR 1910.95(b)(2), Table G-16 or applicable MSHA noise criteria.

Available manufacturer noise data for the equipment and vehicles used during the project should be presented. Published Federal Highway Administration data for equipment and vehicles can be used if manufacturer data is not available.

Facilities Information Management System (FIMS)-related impacts of tracking of U.S. Department of Energy (DOE) property (applies ONLY to specific DOE-owned property/equipment), and

Signatures.

- 2: Provide a map depicting the location(s) of the proposed action. An electronic kmz file is also requested.
- 3: Provide the LUR abstract, ECR Form (as applicable), and map to the WIPP LUC.

LAND USE REQUEST (LUR) – PROJECT ABSTRACT

LUR #: _____
[LUC-assigned]

Project Title: _____

Note: For completion of the LUR abstract, bulleted items marked with an asterisk (*) are optional for WIPP-related activities as these items will be captured on the ECR Form that is required for WIPP-related LURs.

INDIVIDUAL(S)/COMPANY(S) SCHEDULED TO PERFORM WORK
ASSOCIATED WITH THE LAND USE REQUEST AND CONTACT INFO

INTENT OR PURPOSE FOR PROJECT/ACTIVITY*

ANTICIPATED START DATE AND TIMELINES FOR COMPLETION

IMPACTS IF THE LUR WERE DENIED

ALTERNATIVES

RECLAMATION/RESTORATION PLANS

NEPA CHECKLIST* (Provide details for any potential impacts)

Will the project impact biological resources, other natural resources, or land use?

Will the project impact surface or subsurface water resources or water quality?

Will the project impact air quality?

Will the project impact human health?

Will the project impact waste generation and disposal?

Will the project impact archaeological or historic cultural resources?

Will the project impact noise levels?

FACILITY INFORMATION MANAGEMENT SYSTEM (FIMS) IMPACTS (Applies ONLY to specific DOE-owned property/equipment; indicate N/A if not applicable)

SIGNATURES*

Requestor

NEPA/ER Coordinator Approval

Land Use Coordinator Approval

APPENDIX C

MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. DEPARTMENT OF ENERGY AND THE U.S. DEPARTMENT OF INTERIOR

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE U.S. DEPARTMENT OF ENERGY
AND
THE U.S. DEPARTMENT OF INTERIOR

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**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE U.S. DEPARTMENT OF ENERGY
AND
THE U.S. DEPARTMENT OF THE INTERIOR**

**(Updated December 2012, minor editorial changes
not requiring resigning as agreed by both parties)**

I. PARTIES

The parties to this Memorandum of Understanding (MOU) are the U.S. Department of Energy (DOE), represented by its Waste Isolation Pilot Plant (WIPP) Carlsbad Field Office and the U.S. Department of the Interior (DOI) represented by its Bureau of Land Management (BLM), Carlsbad Field Office.

II. BACKGROUND AND PURPOSE

The WIPP is authorized under Section 213 of the DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980, Public Law (Pub. L.) 96–164. The WIPP is authorized for the express purpose of providing a research and development facility, to demonstrate the safe disposal of radioactive wastes resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission.

The WIPP Land Withdrawal Act of 1992, Pub. L. 102–579 (“the LWA”), withdrew 10,240 acres of land in Eddy County, New Mexico, from the operation of the public land laws and reserved those lands for the construction, experimentation, operation, repair and maintenance, disposal, shutdown, monitoring, decommissioning, and other authorized activities associated with the purposes of the WIPP as set forth in Section 213 of Pub. L. 96–164.

Section 4 of the LWA makes the Secretary of Energy responsible for the management of the withdrawal, consistent with the Federal Land Policy and Management Act of 1976. The LWA directs the Secretary, in consultation with the Secretary of the Interior and the State of New Mexico, to develop a land management plan (DOE/WIPP 93-004) for the use of the withdrawal area until the end of the decommissioning phase. It further directs the Secretary and the Secretary of the Interior to enter into an MOU to implement the management plan.

III. AUTHORITY

This MOU is entered into pursuant to the authority of, and is consistent with, the LWA. Further, it is consistent with and subject to certain other appropriate statutory authorities, including the Department of Energy Organization Act, Pub. L. 95–91; the Energy Reorganization Act of 1974, Pub. L. 93–438; and the Economy Act of 1932, as amended by Pub. L. 98–216.

IV. MANAGEMENT

This MOU envisages direct communication between officials of the DOE and the BLM in consultation with other federal and state land management agencies which are involved in managing the resources within or activities impacting the surrounding areas of the WIPP withdrawal area. This MOU sets forth the cooperative arrangements and procedures for addressing land management within the withdrawal area. These cooperative arrangements and procedures implement the WIPP Land Management Plan for the withdrawal area and are consistent with the WIPP Land Management Plan's concept of multiple-use management.

The responsibilities and duties listed pursuant to this MOU relate to those shared by the DOE and the DOE. For additional land management issues not found in this MOU, consult the WIPP Land Management Plan (DOE/WIPP-93-004).

This MOU will be administered on behalf of the DOE by the Manager, Carlsbad Field Office, P.O. Box 3090, Carlsbad, New Mexico 88221.

This MOU will be administered on behalf of the DOI by the Field Manager, Carlsbad Field Office, BLM, 620 E. Greene Street, Carlsbad, New Mexico 88220-6292.

V. FUNDING

The details of the levels of funding to be furnished to one signatory organization by the other will be developed in specific interagency agreements, subject to the availability of funds. This MOU shall not be used to obligate or commit funds or as the basis for the transfer of funds. The DOE and the DOI will provide each other mutual support in budget justification to the Office of Management and Budget and in hearings before the Congress with respect to the programs described in the WIPP Land Management Plan and implemented through this MOU.

VI. RESPONSIBILITIES OF PARTICIPATING PARTIES

Cultural Resources

It is the intent of the DOE to manage cultural resources within the withdrawal area pursuant to Sections 106 and 110 of the National Historic Preservation Act, Archaeological Resource Protection Act, Native American Graves Protection and Repatriation Act, and applicable DOE Orders to ensure that scientific and sociocultural use by present and future generations shall not be diminished.

The DOE agrees to:

- Retain responsibility for management of cultural resources within the withdrawal area.

- Inventory and evaluate cultural resources prior to surface-disturbing activities.

- Use avoidance as the primary mitigation measure.

The DOI agrees to:

- Provide recommendations to the DOE in developing mitigation measures when avoidance of historic property is not possible.

Grazing Management

The withdrawal area includes portions of two grazing allotments administered by the BLM. The DOE's intent is to continue current management practices.

The DOE agrees to:

- Retain responsibility for grazing management decisions affecting the two grazing allotments within the withdrawal area.

The DOI agrees to:

- Provide proposed grazing management changes and/or plans to the DOE for review and comment.

- Provide grazing management of the grazing allotments within the withdrawal area in accordance with applicable grazing laws including the Taylor Grazing Act, the Federal Land Policy and

Management Act, and the Public Rangelands Improvement Act.

Continue BLM-funded vegetative monitoring program to determine if range management goals and objectives established for the grazing allotments are being achieved. As a minimum, the monitoring program will include collecting data on actual livestock use, wildlife habitat and population trends, degree of utilization of the key forage species, climatic conditions, and rangeland ecological conditions and trends.

Wildlife

The DOE intends to manage wildlife habitat within the withdrawal area for ungulates, raptors, upland game, and any special-status plant or animal species occupying the withdrawal area.

The DOE agrees to:

Retain responsibility for management decisions affecting wildlife habitat and the habitat of any special-status plant or animal species found occupying the withdrawal area.

Upon receipt of the draft copy of the recovery plan (see Part 2a, below), the DOE shall review, comment, and transmit the draft copy of the recovery plan back to the BLM within 30 days.

The DOI agrees to:

Develop a recovery plan in cooperation with the U.S. Fish and Wildlife Service and appropriate state agencies for any threatened or endangered plant and animal species found occupying the WIPP withdrawal area to ensure its success and survival.

Consult with the DOE to ensure that any range improvement developments (e.g., installation of livestock watering units) will be designed to accommodate wildlife needs.

Fire Management

It is the intent of the DOE to provide a fire management program that will ensure a timely, well-coordinated, and cost-effective response to suppress wildfire within the withdrawal area.

The DOE agrees to:

Employ full suppression strategy of a wildfire within the withdrawal area by utilizing the WIPP incident commander to coordinate fire management activities.

The DOI agrees to:

Provide full firefighting support within the withdrawal area should the WIPP incident commander request such support.

Commit necessary additional fire suppression resources should local BLM fire suppression resources be insufficient. The additional resources to be committed will be negotiated based upon the severity and behavior of the fire.

Mining and Gas and Oil Production

It is the intent of the DOE to ensure that mining and gas and oil activities do not encroach upon the withdrawal area. Adherence to this MOU is crucial to protecting the repository from inadvertent human intrusion. The DOE is an offset owner to all gas and oil leases adjacent to the withdrawal boundary and will exercise the right to provide input on proposed activities of adjacent offset operators requesting an exception to applicable New Mexico Oil Conservation Division (NMOCD) rules and regulations.

In accordance with Section 4(b)(5)(A) or the LWA, no surface or subsurface mining or oil or gas production, including slant drilling from outside the boundaries of the withdrawal, shall be permitted at any time (including after decommissioning) on lands on or under the withdrawal.

In accordance with Section 4(b)(5)(B) of the LWA, existing rights under Federal Oil and Gas Leases No. NM 02953 and No. NM 02953C shall not be affected unless the Administrator of the Environmental Protection Agency determines, after consultation with the Secretary of Energy and the Secretary of the Interior, that the acquisition of such leases by the Secretary of Energy is required to comply with the disposal regulations or with the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).

The DOE agrees to:

Coordinate with the BLM to provide input and recommendations in determining a BLM permit issuance for oil and gas extraction and mining activity on federal lands within one mile of the WIPP withdrawal boundary.

Provide the technical expertise to interpret, review, and verify oil and gas activity calculations performed by the BLM.

The DOI agrees to:

Forward applications for Permit to Drill and mining and reclamation plans to the DOE for review and comment in determining issuance of any oil and gas extraction or mining permit within one mile of the WIPP withdrawal boundary. The BLM shall resolve any DOE comments prior to approval of such applications and plans.

Include the following as a Special Condition of Approval for oil and gas activity on federal lands at 330 feet or closer to the WIPP withdrawal boundary:

- (1) Shall require the operator to provide daily drilling reports to the BLM and designated DOE representative at the WIPP site until a total vertical depth of 7,000 feet is reached. These reports, at a minimum, will detail rate of penetration and have a clearly marked section showing the deviation for each 500-foot interval.
- (2) Shall require the operator to provide daily drilling reports on wells that could deviate to within 100 feet of the withdrawal boundary to the BLM and DOE representative at the WIPP site until a total vertical depth of 7,000 feet is reached. These reports at a minimum will detail rate of penetration and have a clearly marked section showing the deviation for each interval 500- or 100-foot intervals. Should these daily drilling reports indicate that the deviation is toward the withdrawal, the BLM shall require a deviation survey at 100-foot intervals until such time as data could indicate that the bottom hole location at total depth would not exceed ten degrees from vertical or could result in a borehole or bottom hole location less than 100 feet from the withdrawal boundary. Should deviation direction continue towards the withdrawal boundary during the BLM monitoring of the 100-foot directional survey intervals, the BLM shall require the operator to take corrective measures (i.e., side tracking) or cease drilling activity.
- (3) Shall provide expertise as required on evaluating the deviation survey.

- (4) Shall require the operator to submit a complete directional survey to both organizations upon completion of the well.
- (5) Shall provide the DOE with the aforesaid directional surveys within three days of receipt and completion, alternate use, and/or plugging and abandonment reports within five days of receipt.

Realty/Lands/Rights-of-Way

Land use management within the WIPP withdrawal boundary is the sole responsibility of the DOE. It is the intent of the DOE to monitor any land use proposal affecting the withdrawal area.

The DOE agrees to:

Consult with the BLM regarding future DOE right-of-way actions needed outside the withdrawal area.

Review and comment on applications and proposals received by the BLM for any land uses affecting, but not solely contained within, the WIPP withdrawal boundary.

Submit comments relative to any land uses affecting, but not solely contained within, the WIPP withdrawal boundary to the BLM's Carlsbad Field Manager, or their representative, within 30 days of receipt from the BLM.

The DOI agrees to:

Forward applications and proposals for land uses affecting, but not solely contained within, the WIPP withdrawal boundary to the DOE.

Assume responsibility, when designated as the lead agency, for the preparation of the National Environmental Policy Act documentation for land uses affecting, but not solely contained within, the WIPP withdrawal boundary. The BLM shall obtain the review and approval of the DOE (the contributing agency) in regard to the BLM issuance of a Record of Decision.

Incorporate any DOE- and/or WIPP-specific compliance requirements when preparing documentation for land uses

affecting, but not solely contained within, the WIPP withdrawal boundary.

Reclamation

The DOE intends to return land disturbed by the WIPP activities to a stable ecological state that will assimilate with the surrounding undisturbed ecosystem.

The DOE agrees to:

Reclaim land disturbed by the WIPP activities in accordance with the Environmental Protection Implementation Plan (DOE/WIPP-90-050); the Federal Land Policy and Management Act, 1976 (Pub. L. 94-579); the WIPP Disposal Phase Final Supplemental Environmental Impact Statement (SEIS-II) (DOE/EIS-0026-3-2, September 1997); the WIPP Final Supplement Environmental Impact Statement (DOE/EIS-0026-FS, Jan.90); the WIPP Final Environmental Impact Statement (DOE/EIS-0026, Oct.80); EPA requirements regarding disposal regulations; future Environmental Impact Statements; and land withdrawal requirements.

Consult with the BLM in advance of reclamation activities to ensure compliance with applicable DOE reclamation commitments.

The DOI agrees to:

Review DOE-proposed reclamation actions to ensure compliance with applicable DOE reclamation commitments.

VII. PUBLIC INFORMATION COORDINATION

Subject to the Freedom of Information Act, Title 5 U.S.C 553, decisions by either party on disclosure of information to the public regarding projects and programs developed pursuant to this MOU shall be made only after consultation between the parties.

VIII. PATENTS AND TECHNICAL DATA

Appropriate patent and other intellectual property provisions shall be included in interagency agreements and any other agreements entered into by the parties in order to implement this MOU. DOE patent and intellectual property policies shall apply to any such work performed by a contractor (including any subcontractor) which is funded in whole or in part by the DOE. Rights to inventions made by U.S. government employees shall be determined by the employing agency.

IX. REVIEW, AMENDMENT, AND TERMINATION

The DOE and the DOI, in consultation with other federal and state agencies involved in managing the resources within the withdrawal, shall review the MOU on an annual basis to determine whether it remains current and whether it effectively and appropriately implements the WIPP Land Management Plan for the WIPP withdrawal.

In the event that the DOE and the DOI determine that this MOU should be revised or amended, such revision or amendment shall be accomplished only upon written agreement between the parties. Any revisions or amendments to this MOU shall be developed in consultation with the State of New Mexico.

This MOU may be terminated by mutual agreement of the DOE and the BLM, or by either party upon a 30-day written notice to the other party.

This MOU shall remain in effect until the end of the decommissioning phase of the WIPP, as that phase is defined in the LWA.

X. EFFECTIVE DATE

This MOU shall become effective upon the latter date of signature of the parties.

U.S. DEPARTMENT OF ENERGY

BY: David C. Moody - Signature on File

DATE: 9/28/10

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BY: Jim Stovall - Signature on File

DATE: 10/25/10

APPENDIX D

WASTE ISOLATION PILOT PLANT STATEMENT OF WORK FOR THE BUREAU OF LAND MANAGEMENT

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STATEMENT OF WORK

FOR

THE BUREAU OF LAND MANAGEMENT

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WASTE ISOLATION PILOT PLANT
STATEMENT OF WORK
FOR
THE BUREAU OF LAND MANAGEMENT
(Updated December 2012)

The Bureau of Land Management (BLM) shall perform the following specific tasks identified by the U.S. Department of Energy (DOE) as being necessary to the management of the Waste Isolation Pilot Plant's (WIPP) 16 section withdrawal area.

The parties to this Statement of Work (SOW) are the DOE, represented by its WIPP Carlsbad Field Office, and the U.S. Department of the Interior (DOI), represented by its BLM, Carlsbad Field Office.

This SOW supports the WIPP Land Management Memorandum of Understanding executed between the DOE and the DOI.

This SOW will be administered on behalf of the DOE by the Manager, Carlsbad Field Office, P.O. Box 3090, Carlsbad, New Mexico 88221.

This SOW will be administered on behalf of the DOI by the District Manager, Carlsbad Field Office, BLM, 620 E. Greene Street, Carlsbad, New Mexico 88220-6292.

RESPONSIBILITIES OF THE BLM

A. Cultural Resources

The BLM shall:

1. Provide recommendations to the DOE, within 30 days of request, in developing mitigation measures when avoidance of an historic property area is not possible.

B. Grazing Management

The BLM shall:

1. Provide proposed grazing management changes and/or plans to the DOE for review and comment.
2. Have the responsibility for all traditional administration of range resources afforded under the Taylor Grazing Act, the Federal Land Policy Management Act, and the Public Rangelands Improvement Act. Duties

include, but are not limited to, the collection of grazing fees, project design and planning for development of range improvements, and development of Allotment Management Plans.

3. Continue BLM-funded vegetative monitoring program to determine if range management goals and objectives established for the grazing allotments are being achieved. As a minimum, the monitoring program shall include collecting data on actual livestock use, wildlife habitat and population trends, degree of utilization of the key forage species, climatic conditions, and rangeland ecological conditions and trends.

C. Wildlife

The BLM shall:

1. Prepare in cooperation with the U.S. Fish and Wildlife Service and appropriate state agencies a recovery plan for any threatened or endangered plant and animal species found occupying the WIPP withdrawal area to ensure its success and survival.
2. Provide the DOE, within 30 days of report completion, a draft copy of the recovery plan for review and comment.
3. Consult with the DOE to ensure that any range improvement developments (e.g., installation of livestock watering units) will be designed to accommodate wildlife needs.

D. Fire Management

The BLM shall:

1. Provide full fire-fighting support within the withdrawal area should the WIPP incident commander request such support.
2. Commit necessary additional fire suppression resources should local BLM fire suppression resources be insufficient. The additional resources to be committed will be negotiated based upon the severity and behavior of the fire.
3. Negotiate with the DOE for monetary compensation required by the DOI for commitment of fire-fighting resources within the withdrawal area on a case-by-case basis.

E. Mining and Gas and Oil Production

The BLM shall:

1. Forward applications for Permit to Drill and mining and reclamation plans to the DOE within ten days of receipt for review and comment in determining issuance of any drilling or mining permit on federal lands within one mile of the withdrawal boundary. Drilling or mining permits for this area will not be issued by the BLM until DOE recommendations have been received.
2. Include the following as a Special Condition of Approval for oil and gas activity on federal lands at 330 feet or closer to the WIPP withdrawal boundary:
 - a. Shall require the operator to provide daily drilling reports to the BLM and designated DOE representative at the WIPP site until a total vertical depth of 7,000 feet is reached. These reports at a minimum will detail rate of penetration and have a clearly marked section showing the deviation for each 500 foot interval.
 - b. Shall require the operator to provide daily drilling reports on wells that could deviate to within 100 feet of the withdrawal boundary to the BLM and DOE representative at the WIPP site until a total vertical depth of 7,000 feet is reached. These reports at a minimum will detail rate of penetration and have a clearly marked section showing the deviation for each interval 500 or 100 foot intervals. Should these daily drilling reports indicate that the deviation is toward the withdrawal, the BLM shall require a deviation survey at 100 foot intervals until such time as data could indicate that the bottom hole location at total depth would not exceed ten degrees from vertical or could result in a borehole or bottom hole location less than 100 feet from the withdrawal boundary. Should deviation direction continue towards the withdrawal boundary during the BLM monitoring of the 100 foot directional survey intervals, the BLM shall require the operator to take corrective measures (i.e., side tracking) or cease drilling activity.
 - c. Shall provide expertise as required on evaluating the deviation survey.
 - d. Shall require the operator to submit a complete directional survey to both organizations upon completion of the well.
 - e. Provide the DOE with the aforesaid directional surveys within three days of receipt and completion, alternate use, and/or plugging and abandonment reports within five days of receipt.

F. Realty/Lands/Rights-of-Way

The BLM shall:

1. Forward applications and proposals for land uses affecting, but not solely contained within, the WIPP withdrawal boundary to the DOE within ten days of the BLM receipt of a completed application.
2. Assume the responsibility, when designated as lead agency, for the preparation of the National Environmental Policy Act documentation for land uses affecting, but not solely contained within, the WIPP withdrawal boundary and any DOE and/or WIPP specific compliance requirements documentation. The BLM shall obtain the review and approval of the DOE (the contributing agency) of the aforesaid documents in determining issuance of a Record of Decision by the BLM.
3. Incorporate DOE- and/or WIPP-specific compliance requirements when preparing documentation for land uses affecting, but not solely contained within, the WIPP withdrawal boundary.

These requirements shall include at a minimum:

- a. A safety plan that includes a job hazard analysis
- b. A list of all hazardous materials
- c. A description of methods used to manage and dispose of solid and hazardous waste
- d. Detailed project design drawings to include specific areas of impact
- e. A copy of their threatened and endangered species review (wildlife study)
- f. A copy of the archaeology study

ISSUED

Waste Isolation Pilot Plant Land Management Plan

DOE/WIPP-93-004, Reprint J

G. Reclamation

The BLM shall:

1. Within ten days of receipt from the DOE, review and comment on the DOE proposed reclamation actions to ensure compliance with applicable DOE reclamation commitments.

U.S. DEPARTMENT OF ENERGY

BY: David C. Moody - Signature on File

DATE: 9/28/10

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BY: Jim Stovall - Signature on File

DATE: 10/25/10

APPENDIX E

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
UNITED STATES DEPARTMENT OF ENERGY
WASTE ISOLATION PILOT PLANT
CARLSBAD FIELD OFFICE
AND THE NEW MEXICO DEPARTMENT OF
HOMELAND SECURITY AND EMERGENCY MANAGEMENT
CONCERNING EMERGENCY RESPONSE**

Michelle Lujan-Grisham
Governor



DHSEM
New Mexico

Jackie White
Cabinet Secretary

**DEPARTMENT OF HOMELAND SECURITY
AND EMERGENCY MANAGEMENT**

**MEMORANDUM OF UNDERSTANDING BETWEEN THE
UNITED STATES DEPARTMENT OF ENERGY**

**WASTE ISOLATION PILOT PLANT
CARLSBAD FIELD OFFICE
AND THE
NEW MEXICO DEPARTMENT OF HOMELAND SECURITY AND EMERGENCY
MANAGEMENT CONCERNING EMERGENCY RESPONSE**

This Memorandum of Understanding (MOU) is between the United States Department of Energy (DOE), Waste Isolation Pilot Plant (WIPP), represented by the Carlsbad Field Office (CBFO) and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management (DHSEM).

WHEREAS, both parties have certain responsibilities for protecting workers, the general public, the environment and property, and have developed and maintain capabilities to accomplish these responsibilities; and

WHEREAS, the Waste Isolation Pilot Plant, Carlsbad, New Mexico is managed and operated for DOE under a Management and Operating contract, and in that capacity the contractor has responsibility for and maintains certain emergency response capabilities; and

WHEREAS, the DOE is authorized to enter into this agreement by Department of Energy Organization Act (42 U.S.C 7256); and

WHEREAS, the DHSEM is authorized to enter into this agreement on behalf of the State of New Mexico to the extent provided by NMSA 9-28-1 through 9-28-7.

This agreement replaces applicable emergency management coordination and support contained in the Memorandum of Understanding between the United States Department of Energy and the New Mexico Department of Public Safety Concerning Mutual Assistance and Emergency Management, dated January 27, 2016.

Memorandum of Understanding between the United States Department of Energy, Waste Isolation Pilot Plant, represented by the Carlsbad Field Office, and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management Page 1

PROVISIONS

The provisions of this MOU apply to any actual or potential emergency or incidents that:

- Involve a significant threat to employees of the WIPP and / or the general public; and
- Involve property under the control or jurisdiction of either the WIPP or the State of New Mexico; and
- Involve a threat to the human health, safety, or the environment at, or related to the operations of WIPP which is reportable to an offsite agency; and
- Require the combined resources of the DOE/WIPP and the State of New Mexico to resolve; and
- Require a resource that the DOE/WIPP has which the State of New Mexico does not have, or a resource that the State of New Mexico has which the DOE/WIPP does not have; or
- Has and is expected to exhaust the available resources of either the DOE/WIPP or the State of New Mexico

The provisions of this MOU also apply to any other incident for which a joint determination has been made by the DOE/CBFO and the State of New Mexico that the provisions of this MOU will apply.

For the purpose of this MOU, DOE/CBFO and DHSEM intend to:

1. Provide emergency response support in the above-described circumstances.
2. Permit emergency management personnel access to the respective Emergency Operations Centers for the purpose of operational coordination, and operational communication among responding agencies.
3. Establish and maintain communications capabilities to ensure compatibility between the parties during an emergency.
4. Provide mutual support in training, drills and exercises.
5. Provide liaisons when requested between the parties for planning, preparedness, and response / recovery from an emergency.
6. Provide orientation training to emergency response personnel on emergency response procedures.
7. Notify the other party of any actual or potential situation that may impact the other party's emergency management resources.

In performing this MOU, DOE/CBFO and DHSEM will:

1. Provide emergency notification to and between DOE/CBFO and DHSEM Emergency Operations Centers (EOC) in accordance with directives or procedures.
2. Coordinate the timely release of joint information, when applicable, to the public during an emergency.
3. Comply with all applicable security regulations and requirements during training, drills, exercises and real events.

Memorandum of Understanding between the United States Department of Energy, Waste Isolation Pilot Plant, represented by the Carlsbad Field Office, and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management Page 2

4. Act in accordance with respective statutory, regulatory or other legal authorities, duties or obligations.
5. Utilize the National Incident Management System during joint emergency operations.

NOTIFICATION

1. DOE/CBFO will promptly notify DHSEM through the Central Monitoring Room (CMR) or EOC of any actual or potential emergency or incident classified in accordance with DOE Order 151.ID, and of any other actual or potential incident which in the determination of the WIPP EOC Crisis Manager or Incident Commander, may impact the State, or for which it is determined that DHSEM may need to be informed.
2. DHSEM will promptly notify DOE/CBFO through the State EOC of any actual or potential emergency or incident which, in the determination of the State ERO on duty or the Director of the State EOC, may impact the DOE or for which it is determined that the DOE/WIPP may need to be informed.
3. The **Attachment 1** flowchart displays the order of notification to include the contact information for both WIPP and the State that shall be used in making all notifications required by this MOU. **Attachment 1** will be revised as changes occur and reviewed annually by all parties.
4. Both DHSEM and DOE/CBFO should agree to provide ongoing status reports or situational updates regarding the incident or event until the termination of such activity is determined by either party.

LIABILITY

1. This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations, or individuals.
2. This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.
3. This MOU is strictly for internal management purposes for each of the parties. Nothing in this Agreement creates a right of action against any Party or a right of review of an action of a party.
4. Subject to the Freedom of Information Act (5 U.S.C. 552), decisions on disclosure of DOE/ information to the public regarding projects and programs referenced in the MOU shall be made by DOE/ following consultation with the other party.

Memorandum of Understanding between the United States Department of Energy, Waste Isolation Pilot Plant, represented by the Carlsbad Field Office, and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management

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AMENDMENT AND TERMINATION

This MOU may be amended by written agreement between DOE/CBFO and DHSEM. This agreement may be terminated by either party at any time upon 90 day written notice to the other party. The parties agree that this agreement is mutually beneficial to both parties and that termination of the agreement should be avoided unless it is replaced by a new agreement.

EFFECTIVE DATE AND TERM

This MOU will become effective when the last party has executed this MOU and the other party has received the fully executed MOU. The effective date will be the last signature date of the fully executed MOU. It will remain in effect for a 5-year term from the effective date, unless terminated earlier as provided herein.

This agreement shall be reviewed at least biennially by both parties. Any additions, deletions, or modifications made to the agreement either as a result of the biennial review or at any time between the biennial reviews shall require written approval of both parties and shall become effective upon such written approval. If no changes are required, the parties shall exchange written communications indicating such. Failure of the parties to perform the biennial review described above shall not terminate the agreement.

THIRD PARTIES

Nothing in the MOU, expressed or implied, is intended or shall be construed to confer any rights, remedies, claims, cause of action, or interests upon any person or entity.

Memorandum of Understanding between the United States Department of Energy, Waste Isolation Pilot Plant, represented by the Carlsbad Field Office, and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management Page 4

ENTIRE AGREEMENT

This MOU represents the entire understanding between the parties and supersedes any prior agreements or understandings with respect to the subject matter of this MOU
Accepted on the behalf of:

U.S. DEPARTMENT OF ENERGY
WASTE ISOLATION PILOT PLANT
CARLSBAD FIELD OFFICE

By: Todd Schrader Date: 4/28/19
Todd Schrader
Manager

NEW MEXICO DEPARTMENT OF HOMELAND SECURITY
AND EMERGENCY MANAGEMENT

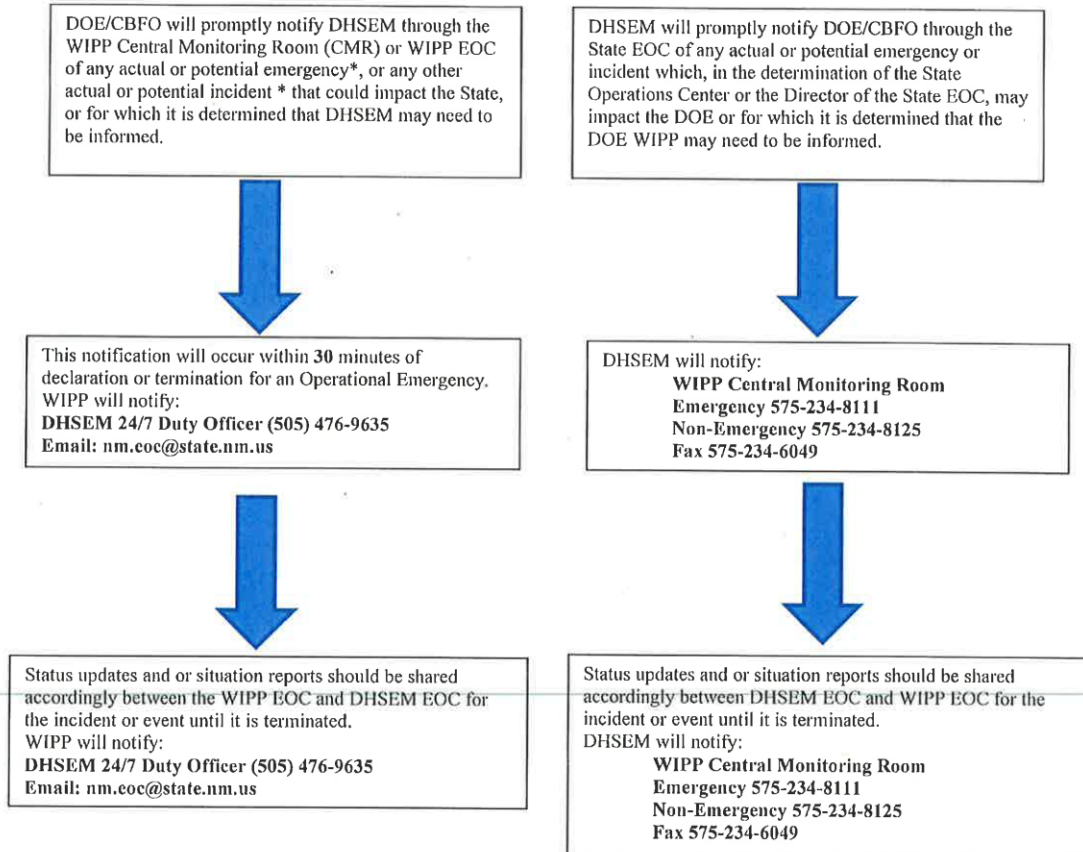
By: Jackie White Date: Apr 22, 2019
Jackie White
Cabinet Secretary

Attach (1)

Memorandum of Understanding between the United States Department of Energy, Waste Isolation Pilot Plant, represented by the Carlsbad Field Office, and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management Page 5

Attachment 1

The flowchart is designed to represent the order of notification for actual or potential emergencies or incidents as classified in accordance with DOE Order 151.1D.



* The definitions below are to serve as an aid for the DHSEM Duty Officer. These will act as triggers in determining their operational readiness for an incident or emergency as reported from the Central Monitoring Room (CMR), or WIPP EOC.

Definitions (DOE O 151.1D)

1. **Incident:** An unexpected occurrence, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wildland and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes/tropical storms, tornadoes, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.
2. **Event:** A scheduled nonemergency activity (e.g., weather event, demonstration, change in normal operations, etc.). The Incident Command System can be used as the management system for a wide range of events, e.g., parades, concerts, or sporting events.
3. **Severe Incident:** An incident expected to cause major disruptions/damage to site-wide and offsite infrastructure, as well as, increased risk to onsite personnel, possibly resulting in injuries and fatalities. These incidents could potentially isolate a facility or site from onsite/offsite response assistance and infrastructure support.

Levels of DOE Emergencies (DOE O 151.1D)

1. **Operational Emergency:** For all activities, except Office of Secure Transportation (OST) activities, the following definition applies:
 - a. A major unplanned or abnormal incident or condition that involves or affects DOE facilities and activities by causing or having the potential to cause serious health and safety or environmental impacts and requires additional resources to supplement the planned initial response offsite.

For non-OST DOE offsite shipments:

 - b. Any accident/incident involving an offsite DOE shipment containing hazardous materials that causes the initial responders to initiate protective actions at locations beyond the immediate/affected area.
2. **Alert:** A condition in which an actual or potential substantial degradation in the level of control over hazardous materials exists.
3. **General Emergency:** A condition in which the radiation dose from any release of radioactive material or a concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Criterion at or beyond the site boundary.
4. **Site Area Emergency:** A condition in which the radiation dose from any release of radioactive material, or concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Criterion at or beyond the facility boundary. The Protective Action Criterion is not expected to be exceeded at or beyond the site boundary.

Memorandum of Understanding between the United States Department of Energy, Waste Isolation Pilot Plant, represented by the Carlsbad Field Office, and the State of New Mexico, represented by the Department of Homeland Security and Emergency Management

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**ATTACHMENT
TO THE
MEMORANDUM OF UNDERSTANDING BETWEEN THE
UNITED STATES DEPARTMENT OF ENERGY
WASTE ISOLATION PILOT PLANT
CARLSBAD FIELD OFFICE
AND THE NEW MEXICO DEPARTMENT OF HOMELAND SECURITY
AND EMERGENCY MANAGEMENT CONCERNING
EMERGENCY RESPONSE**

		EMERGENCY NOTIFICATION		OTHER
		8 a.m. - 4 p.m.	Other Hours	
STATE	ERO *	827-9126	827-9126	
	EOC			827-9236 827-9126 827-9247
DOE	AL EOC *	845-4667	845-4667	
	KAO Duty Officer	845-0142-1153	845-0142-1153	
	LAAO Duty Officer	FTS 843-6211 Com. 667-6211	FTS 843-7080 Com. 667-7080	
	SNL EOC			845-8150 845-4667
	LANL EOC			FTS 843-6211 Com. 667-6211 FTS 843-7080 Com. 667-7080
	WIPP EOC			887-8111 887-8100
	ITRI EOC			844-1169 845-4264
	Ross Dispatch			845-5728
	KAO			845-5575 845-5224

* First Notification

EOC	Emergency Operations Center
EMB	Emergency Management Bureau
ERO	Emergency Response Officer
DOE	Department of Energy
AL	Albuquerque Field Office
ITRI	Inhalation Toxicology Research Institute
SNL	Sandia National Laboratories
WIPP	Waste Isolation Pilot Plant
LANL	Los Alamos National Laboratory
LAAO	Los Alamos Area Office
KAO	Kirtland Area Office

APPENDIX F

IMPLEMENTING REGULATIONS REGARDING CULTURAL RESOURCES

IMPLEMENTING REGULATIONS REGARDING CULTURAL RESOURCES

Antiquities Act of 1906 (Pub. L. 59–209)

Archaeological Resources Protection Act of 1979, Pub. L. 96–095, as amended.

Archeological and Historic Preservation Act of 1960, Pub. L. 86–523, as amended. With broadening amendments, this act became known as the Archeological Recovery Act.

Executive Order 11593 (1971), Protection and Enhancement of Cultural Environments

Executive Order 13007 (1996), Indian Sacred Sites

Executive Order 13175 (2000), Consultation and Coordination with Indian Tribal Governments

Historic Sites, Buildings, and Antiquities Act of 1935, Pub. L. 74–292, as amended.

National Environmental Policy Act of 1969, Pub. L. 91–190, as amended.

National Historic Preservation Act of 1966, Pub. L. 89–665, as amended.

Native American Graves Protection and Repatriation Act of 1990, and its implementing regulations and guidelines

President's Memorandum on Environmental Quality and Water Resources Management (1978)

36 CFR Part 60 - National Register of Historic Places

36 CFR Part 63 - Determinations of Eligibility for Inclusion in the National Register of Historic Places

36 CFR Part 65 - National Historic Landmarks Program

36 CFR Part 78 - Waiver of Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act

36 CFR Part 800 - Protection of Historic Properties

43 CFR Part 7 - Protection of Archaeological Resources

IMPLEMENTING REGULATIONS REGARDING CULTURAL RESOURCES

Additional Guidance

U.S. Department of Energy Policy 141.1 - Department of Energy Management of Cultural Resources

U.S. Department of the Interior documents to include:

- a. Archeology and Historic Preservation: Secretary of Interior's Standards and Guidelines, [48 FR 44716](#)
- b. The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act, [63 FR 20496](#)
- c. The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings
- d. Carlsbad Resource Area – Resource Management Plan
- e. Standard Discovery Plan, Appendix F of the State Protocol Between the New Mexico Bureau of Land Management and the New Mexico State Historic Preservation Officer

APPENDIX G

**JOINT POWERS AGREEMENT
AMONG**

**UNITED STATES DEPARTMENT OF ENERGY,
NEW MEXICO DEPARTMENT OF GAME AND FISH,
NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES,
NEW MEXICO OFFICE OF CULTURAL AFFAIRS, AND
NEW MEXICO STATE LAND OFFICE**

**ON
MANAGEMENT OF THE WIPP WITHDRAWAL AREA**

97-521.01-186

**JOINT POWERS AGREEMENT
AMONG
UNITED STATES DEPARTMENT OF ENERGY,
NEW MEXICO DEPARTMENT OF GAME AND FISH,
NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES,
NEW MEXICO OFFICE OF CULTURAL AFFAIRS, AND
NEW MEXICO STATE LAND OFFICE
ON
MANAGEMENT OF THE WIPP WITHDRAWAL AREA**

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**JOINT POWERS AGREEMENT
AMONG
UNITED STATES DEPARTMENT OF ENERGY,
NEW MEXICO DEPARTMENT OF GAME AND FISH,
NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT,
NEW MEXICO OFFICE OF CULTURAL AFFAIRS, AND
NEW MEXICO STATE LAND OFFICE
ON
MANAGEMENT OF THE WIPP WITHDRAWAL AREA**

THIS AGREEMENT is made and entered into by the U.S. Department of Energy (DOE), represented by its Waste Isolation Pilot Plant (WIPP) Carlsbad Area Office; the New Mexico Department of Game and Fish (DGF); the New Mexico Energy, Minerals and Natural Resources Department (EMNRD); the New Mexico Office of Cultural Affairs (OCA), represented by its Historic Preservation Division; and the New Mexico State Land Office (SLO), represented by its Oil, Gas & Minerals Division. The common powers to be exercised are:

WHEREAS, all parties are public agencies, as defined in the Joint Powers Agreements Act, Section 11-1-1 et sea NMSA 1978, and are authorized by law to enter into this Agreement, and

WHEREAS, this Agreement is consistent with and subject to certain other appropriate statutory authorities, including the Department of Energy Organization Act, Pub. L. 95-91; the Energy Reorganization Act of 1974, Pub. L. 93-438; and the Economy Act of 1932, as amended by Pub. L. 98-216, and

WHEREAS, the Director of the DGF is authorized under the Wildlife Conservation Act, Sections 17-2-37 through 17-2-46 NMSA 1978, to conduct investigations and establish program, within the limits of its authority, relating to conservation and management of fish or wildlife in New Mexico, and

WHEREAS, the Secretary of EMNRD, or her designee, is a statutory member of the Radioactive Waste Consultation Task Force (Task Force), as authorized by the Radioactive and Hazardous Materials Act, Sections 74-4A-2 through 74-4A-14 NMSA 1978, and

WHEREAS, the Task Force is empowered under the Radioactive and Hazardous Materials Act, Sections 74-4A-7 and 74-4A-8 NMSA 1978, to address issues and

concerns in areas relating to the operation of new federal disposal facilities for radioactive waste, including the WIPP in southeastern New Mexico, and

WHEREAS, the EMNRD Secretary currently chairs the Task Force and the EMNRD Office of the Secretary provides for its primary staff support and coordination, and

WHEREAS, the EMNRD Forestry Division is authorized under section 75-6-1 NMSA 1978 to conduct investigations and establish programs, within the limits of its authority, relating to conservation and management of endangered species of plants in New Mexico, and is authorized under Section 68-2-6 NMSA 1978 to enter into agreements with federal agencies to prevent or suppress grass, brush and forest fires, and is authorized under Section 68-2-8 NMSA 1978 to cooperate with federal, state and local agencies in the development of systems and methods for the prevention, control, suppression and prescribed use of fires on rural lands and within rural communities, and

WHEREAS, the Director of the EMNRD Mining and Minerals Division is authorized by Section 69-36-9 NMSA 1978: to exercise all powers of enforcement and administration arising under the New Mexico Mining Act, Sections 69-36-1 through 69-36-20 NMSA 1978, not otherwise expressly delegated therein to the New Mexico Mining Commission (Mining Commission), Section 69-36-6 NMSA 1978; to execute and administer the Mining Commission's regulations; and to coordinate the review and issuance of permits for new and existing mining operations and exploration with all other state or federal permit processes applicable to the proposed operations, and

WHEREAS, the EMNRD Oil Conservation Division has, pursuant to the Oil and Gas Act, Sections 70-2-1 through 70-2-36 NMSA 1978, jurisdiction and authority over all matters relating to the conservation of oil and gas and the prevention of waste of potash as a result of oil and gas operations in New Mexico, and

WHEREAS, the OCA State Historic Preservation Division is authorized under the Cultural Properties Act, Sections 18-6-1 through 18-6-17 NMSA 1978, to conduct investigations and establish programs, within the limits of its authority, relating to the identification, acquisition, restoration and protection of historic and cultural properties in New Mexico, and

WHEREAS, the SLO has, by virtue of the power vested in the Commissioner of Public Lands under Article XIII of the New Mexico Constitution and Chapter 19, NMSA 1978, jurisdiction and authority over all matters relating to the management, care, custody, control and disposition of State Trust Lands in New Mexico, including the leasing of such lands for exploration, development, and production of natural resources, and

WHEREAS, the WIPP is authorized under Section 213 of the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980, Pub. L. 96–164, for the express purpose of providing a research and development facility to demonstrate the safe disposal of radioactive wastes resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission, and

WHEREAS, the WIPP Land Withdrawal Act of 1922, Pub. L. 102–579 as amended (LWA), withdrew 10,240 acres of federal land in Eddy County, New Mexico (WIPP withdrawal area), from all forms of entry, appropriation, and disposal under the public land laws and reserved those lands for the use of the DOE Secretary for various authorized activities associated with the purposes of the WIPP as set forth in Section 213 of Pub. L. 96–164, and the LWA, and

WHEREAS, Section 4 of the LWA makes the DOE Secretary responsible for the management of the WIPP withdrawal area, consistent with the Federal Land Policy and Management Act of 1976, as amended, and

WHEREAS, the DOE Secretary has developed, pursuant to the LWA and in consultation with the Secretary of the U.S. Department of the Interior (DOI) and the State of New Mexico, a WIPP Land Management Plan (DOE/WIPP-93-004), which provides a comprehensive framework for the management and coordination of land uses within and adjacent to the WIPP withdrawal area until the end of the WIPP Project's decommissioning phase, and

WHEREAS, DOE and the DOI have executed, pursuant to the LWA, a Memorandum of Understanding (MOU), effective July 19, 1994, to assist in implementing the WIPP Land Management Plan, and

WHEREAS, all parties recognize significant advantage in executing a similar Agreement to establish formal relationships and specify responsibilities and protocols

between DOE and New Mexico State government with respect to WIPP land management,

NOW, THEREFORE, IT IS MUTUALLY AGREED AMONG THE PARTIES:

Section 1. Scope of Work

a. Management/Administration of the Agreement

This Agreement envisions and encourages direct communication among the parties and with other appropriate federal and state agencies involved in managing the resources within, or activities impacting the areas adjacent to, the WIPP withdrawal area. It sets forth cooperative arrangements and procedures for addressing land management within and adjacent to the withdrawal area. These cooperative arrangements and procedures are intended to enhance implementation of the WIPP Land Management Plan, and to complement the corresponding Memorandum of Understanding executed between DOE and the DOI.

The lead agency for the State of New Mexico is the EMNRD. As lead agency, EMNRD shall have as its responsibility:

- (1) Overall management of the Agreement to provide assurance of compliance.
- (2) Organization of appropriate meetings for consultation on issues of land management in the WIPP withdrawal area.
- (3) Provision of emergency consultation between the state and federal agencies party to the Agreement.
- (4) Record keeping with respect to the Agreement.
- (5) Serving as the single point-of-contact for the State of New Mexico regarding implementation of the Agreement.

This Agreement will be administered by the respective representatives of each party as specified in Appendix I to this Agreement. Appendix I will be reviewed and, as necessary, updated annually by EMNRD beginning in January 1998, with copies distributed to the other parties by January 31 of each year. An amendment to this Agreement will not be required in order to update Appendix I on an annual basis.

b. Funding

No funding is associated with this Agreement. The Agreement shall not be used to obligate or commit funds or as the basis for the transfer of funds.

c. Cultural Resources

It is the intent of the DOE to manage cultural resources within the WIPP withdrawal area pursuant to Sections 106 and 110 of the National Historic Preservation Act, Archaeological Resource Protection Act, Native American Graves Protection and Repatriation Act, and applicable DOE orders to ensure that scientific, educational, and sociocultural use by present and future generations shall not be diminished.

(1) The DOE agrees to:

- (A) Retain responsibility for management of cultural resources within the WIPP withdrawal area.
- (B) To the maximum extent possible, use avoidance as the primary mitigation measure within the WIPP withdrawal area.
- (C) Notify the OCA Historic Preservation Division of plans to conduct surface disturbing activities in the WIPP withdrawal area, at least sixty (60) days prior to commencement of such activities, on properties that have not received prior archaeological clearance.
- (D) Inventory and evaluate, in consultation with the OCA Historic Preservation Division, cultural resources prior to commencement of surface disturbing activities within the WIPP withdrawal area.

(2) The OCA Historic Preservation Division agrees to:

- (A) Consult with and assist the DOE in its efforts to inventory, evaluate, and benchmark cultural resources within the WIPP withdrawal area.
- (B) Provide to the DOE, within thirty (30) days of request, comments and recommendations on archaeological reports, including the development of mitigation measures when avoidance of a historic property within the WIPP withdrawal area is not possible.

d. Range Management

The WIPP withdrawal area includes portions of two grazing allotments administered by the DOI Bureau of Land Management. DOE intends to continue current range management practices.

- (1) The DOE agrees to:
 - (A) Retain responsibility for range management decisions within the WIPP withdrawal area, including those affecting the two grazing allotments therein. As stipulated in the Memorandum of Understanding between DOE and the DOI, the DOI Bureau of Land Management will provide for management of the grazing allotments within the WIPP withdrawal area in accordance with applicable grazing laws, including the Taylor Grazing Act, 43 U.S.C.315 et seq., the Federal Land Policy and Management Act, 43 U.S.C. 1751 et seq., and the Public Rangelands Improvement Act, 43 U.S.C. 1901 et seq.
 - (B) Provide to the EMNRD Forestry Division, upon receipt or development, grazing management changes and/or plans proposed for the WIPP withdrawal area.
 - (2) The EMNRD Forestry Division will:
 - (A) Provide to the DOE, within thirty (30) days of request, comments on grazing management changes and/or plans proposed for the WIPP withdrawal area. With respect to deliberations on such grazing management changes and/or plans, the EMNRD Forestry and Resources Conservation Division will be asked to serve on the WIPP Land Management Council.
- e. Wildlife (Fauna and Flora)
- The DOE intends to manage all habitat within the WIPP withdrawal area for ungulates, raptors, upland game, and any state and/or federally listed species of plant or animal occupying the WIPP withdrawal area.
- (1) The DOE agrees to:
 - (A) Retain responsibility for management decisions affecting wildlife habitat and the habitat of any state and/or federally listed species of plant or animal occupying the WIPP withdrawal area.
 - (B) Notify the EMNRD Forestry Division and the DGF, at least thirty (30) days prior to implementation, of any proposed projects or other

activities that have been determined by the Land Management Council to pose substantial risks to state and/or federally listed species of plant or animal occupying the WIPP withdrawal area.

- (2) The EMNRD Forestry Division will:
 - (A) Consult with and provide to the DOE, within thirty (30) days of request, comments on any proposed projects or other planned activities that have been determined by the Land Management Council to pose substantial risks to special status plant species occupying the WIPP withdrawal area.
- (3) The DGF agrees to:
 - (A) Consult with and provide to the DOE, within thirty (30) days of request, comments on any proposed projects or other planned activities that have been determined by the Land Management Council to pose substantial risks to special status animal species occupying the WIPP withdrawal area.
 - (B) Provide to the DOE, within the time frame specified under existing applicable laws and regulations, decisions on permit applications relating to wildlife research and education. Such decisions shall be based on sound scientific principles and include written justifications for any denials, modifications, or stipulations/limitations to permit requests.

f. Fire Management

The DOE will provide a fire management program that can coordinate a timely, well-integrated, and effective response to wildfires within the WIPP withdrawal area as resources and conditions will permit. Nothing in this Agreement will prevent the DOE from implementing prescribed fires in the WIPP withdrawal area, provided there is advance consultation with EMNRD Forestry Division.

- (1) The DOE agrees to:
 - (A) Make a good-faith effort to acquire and maintain in a state of readiness the necessary resources to affect appropriate response to wildfire incidents in the WIPP withdrawal area.

- (B) Provide notice to EMNRD Forestry Division, as soon as practicable, of wildfire that require response within the WIPP withdrawal area.
- (2) The EMNRD Forestry Division will:
 - (A) Provide, as requested and as it determines to be appropriate and available, fire suppression resources for any wildfire within the WIPP withdrawal area.
- g. Mining and Oil & Gas Activities

It is the intent of the DOE to ensure that mining and oil & gas activities do not encroach upon the WIPP withdrawal area. Adherence to the Memorandum of Understanding executed between DOE and the DOI for implementation of the WIPP Land Management Plan and adherence to this Agreement are crucial to protecting the repository from inadvertent human intrusion. The DOE is an offset owner to all oil and gas leases in sections immediately adjacent to the WIPP withdrawal area boundary and will exercise the right to provide input on proposed activities of adjacent offset operators requesting an exception to applicable EMNRD Oil Conservation Division rules and regulations.

In accordance with Section 4(b) (5) (A) of the LWA, no surface or subsurface mining or oil or gas production, including slant drilling from outside the boundaries of the WIPP withdrawal area, shall be permitted at any time (including after decommissioning) on lands on or under the WIPP withdrawal area.

In accordance with Section 4(b)(5)(B) of the LWA, existing rights under Federal Oil and Gas Leases No. NM 02953 and No. NM 02953C shall not be affected unless the Administrator of the U.S. Environmental Protection Agency determines, after consultation with the DOE Secretary and the Secretary of the Interior, that the acquisition of such leases by the DOE Secretary is required to comply with the final disposal regulations (40 CFR 191, Subparts B & C).

- (1) The DOE agrees to:

- (A) Forward to the EMNRD Oil Conservation Division, within one (1) week of receipt from or submittal to the DOI Bureau of Land Management:
- (i) any Applications for Permit to Drill (APDs) or other requests for approval of oil or gas exploration, development and production activities on federal lands located within one mile of the WIPP withdrawal area boundary;
 - (ii) any DOE comments developed on APDS and other requests alluded to in subsection (i), above;
 - (iii) any non-proprietary drill site downhole vertical deviation surveys and corresponding calculations of well bore deviation for each 500-foot drilling interval for oil or gas well bores located on federal lands at 330 feet or closer to the WIPP withdrawal area boundary;
 - (iv) any non-proprietary directional surveys performed to establish bottom hole location for oil or gas well bores located on federal lands at 330 feet or closer to the WIPP withdrawal area boundary which could deviate to within 100 feet of that boundary; and
 - (v) any non-proprietary sundry reports, including completion, alternate use, and/or plugging and abandonment reports, for oil or gas well bores located on federal lands at 330 feet or closer to the WIPP withdrawal area boundary.
- (B) Forward to the EMNRD Mining and Minerals Division, within one (1) week of receipt from or submittal to the DOI Bureau of Land Management:
- (i) any subsurface mining or reclamation plans applicable to federal lands located within one mile of the WIPP withdrawal area boundary; and

- (ii) any DOE comments developed on such mining or reclamation plans applicable to federal lands located within one (1) mile of the WIPP withdrawal area boundary.
 - (C) Review and, as it determines to be appropriate, comment on any lease or permit applications, as well as proposed modifications to existing leases and permits, for the exploration, development or production of minerals, including potash, on lands located within one (1) mile of the WIPP withdrawal area boundary, to the SLO Oil, Gas & Minerals Division and the EMNRD Mining and Minerals Division within thirty (30) days of receipt.
 - (D) Review and, as it determines to be appropriate, comment on any lease or permit applications, as well as proposed modifications to existing leases and permits, for the exploration, development or production of oil or gas on State Trust lands located within one (1) mile of the WIPP withdrawal area boundary, to the SLO Oil, Gas & Minerals Division and the EMNRD Oil Conservation Division, within thirty (30) days of receipt.
- (2) The EMNRD Oil Conservation Division agrees to:
- (A) Forward to the DOE, within one (1) week of receipt or development:
 - (i) any Applications for Permit to Drill (APDs) or other requests for approval of oil or gas exploration, development and production activities on State Trust Lands located within one (1) mile of the WIPP withdrawal area boundary. Final action on any such APDs or other requests will not be taken until DOE has been provided an opportunity to develop and submit comments thereon.
 - (ii) any state agency comments on such APDs or other requests alluded to in subsection (i), above;
 - (iii) any directional surveys for oil or gas well bores located on State Trust Lands at 330 feet or closer to the WIPP withdrawal area boundary; and

- (iv) any completion, alternate use, including production enhancement activities such as waterflooding and pressure fracturing, and/or plugging and abandonment reports for oil or gas well bores located on State Trust Lands within one (1) mile of the WIPP withdrawal area boundary.
- (B) Include the following as a Special Condition of Approval for oil or gas activities on State Trust Lands at 330 feet or closer to the WIPP withdrawal area:
 - (i) Ensure that the operator provides to the EMNRD Oil Conservation Division, within seven (7) days of acquiring the information, drill site downhole vertical deviation surveys for each 500-foot drilling interval;
 - (ii) Provide the technical expertise to calculate well bore deviation at each 500-foot interval of drilling to determine the degree of deviation and forward these results to the DOE for review and verification of calculations;
 - (iii) Require the operator, in accordance with EMNRD Oil Conservation Division Rule 111, to perform and provide to the EMNRD Oil Conservation Division a directional survey to establish bottom hole location on well bores that experience deviation angles of more than five (5) degrees from vertical in any 500-foot interval; and
 - (iv) Require the operator to perform and provide to the EMNRD Oil Conservation Division a directional survey to establish bottom hole location on well bores when the total cumulative degree of displacement, independent of direction, indicate that the well bore could deviate to within 100 feet of the WIPP withdrawal area boundary. Should the directional survey indicate deviation is toward that boundary, EMNRD Oil Conservation Division will require a directional survey at 100-foot intervals until such time as data would indicate the

bottom hole location at total depth would not exceed the (10) degrees from vertical or could result in a bottom hole location less than 100 feet from the WIPP withdrawal area boundary. Should deviation direction continue toward that boundary during its monitoring of the 100-foot directional survey intervals, the EMNRD Oil Conservation Division will require the operator to take corrective action (e.g., side tracking) or cease drilling activity.

- (3) The EMNRD Mining and Minerals Division agrees to:
 - (A) Notify the DOE and the SLO Oil, Gas & Minerals Division, within one (1) week of receipt, of any permit applications for the exploration, development or production of minerals on State Trust Lands located within one (1) mile of the WIPP withdrawal area boundary. Final action on any such permit applications will not be taken until DOE and the SLO Oil, Gas & Minerals Division have been provided an opportunity to develop and submit comments thereon.
 - (B) Review and, as it determines to be appropriate, comment on any lease or permit applications as well as proposed modifications to existing leases and permits, for the exploration, development or production of minerals, including potash, on State Trust Lands located within one mile of the WIPP withdrawal area boundary, to the SLO Oil, Gas & Minerals Division, within thirty (30) days of receipt.
- (4) The SLO Oil, Gas & Minerals Division agrees to:
 - (A) Notify the DOE and the EMNRD Office of the Secretary, within one (1) week of receipt, of any lease or permit applications, as well as proposed modifications to existing leases and permits, for the exploration, development or production of oil, gas, or minerals, including potash, on State Trust Lands located within one (1) mile of the WIPP withdrawal area boundary.
 - (B) Review and, as it determines to be appropriate, comment on any permit applications, as well as proposed modifications to existing

permits, or other requests for approval of oil, gas, or mineral exploration, development or production activities on State Trust Lands located within (1) mile of the WIPP withdrawal area boundary, to the EMNRD Mining and Minerals Division or Oil Conservation Division, as applicable, within thirty (30) days of receipt.

h. Realty/Lands/Rights-of-way

The DOE will monitor any land use proposal affecting the WIPP withdrawal area.

(1) The DOE agrees to:

- (A) Review and comment on applications or proposals received from the DOI Bureau of Land Management for any land uses affecting, but not solely contained within, the WIPP withdrawal area boundary.
- (B) Forward to the EMNRD Office of the Secretary, within one (1) week of receipt from or submittal to the DOI Bureau of Land Management:
 - (i) applications or proposals for any land uses affecting, but not solely contained within, the WIPP withdrawal area boundary; and
 - (ii) any DOE comments developed on such applications or proposals.

(2) The EMNRD Office of the Secretary agrees to:

- (A) Review and, as determined to be appropriate, coordinate the development of State agency comments on applications or proposals received from the DOE for any land uses affecting, but not solely contained within, the WIPP withdrawal area boundary.

i. Environmental Restoration and Reclamation

The DOE intends to reclaim lands disturbed or contaminated by WIPP-related activities, or by those activities taking place prior to DOE ownership or control. Regulatory driven requirements to mark the WIPP site after decommissioning with a system of passive institutional controls shall not be construed as failure to comply with this aspect of the Agreement.

(1) The DOE agrees to:

- (A) Reclaim land disturbed by WIPP-related activities and operations in accordance with the WIPP Land Management Plan (93-004) and other applicable laws, regulations and requirements in effect at the time of reclamation of the WIPP land withdrawal area.
- (B) Notify and consult with the EMNRD Mining and Minerals Division at least thirty (30) days in advance of initiating any NEPA (National Environmental Policy Act) Category II or III reclamation activities within or adjacent to the WIPP withdrawal area.

j. Patents and Technical Data

Appropriate patent and other intellectual property provisions shall be included in interagency agreements and any other agreements entered into by the parties in order to implement this Agreement. DOE patent and intellectual property policies shall apply to any such work performed by a contractor (including any subcontractor) which is funded in whole or in part by the DOE. Rights to inventions made by U.S. Government employees shall be determined by the employing agency.

Section 2. Term.

THIS AGREEMENT SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE SECRETARY OF THE NEW MEXICO DEPARTMENT OF FINANCE AND ADMINISTRATION (DFA). It shall expire one (1) year after the end of the decommissioning phase of the WIPP, as that phase is defined in the LWA, unless terminated earlier pursuant to Section 3, below.

Section 3. Termination.

This Agreement may be terminated by any party upon delivery of a written notice to all other parties at least ninety (90) days prior to the intended date of termination. By such termination, no party may nullify nor avoid any obligation required to have been performed prior to the actual date of termination.

Section 4. Annual Review and Amendment.

This Agreement shall be reviewed by the parties on an annual basis, beginning in 1998, to determine whether it remains current and whether it effectively and appropriately enhances implementation of the WIPP Land Management Plan. The annual review will be conducted by meeting or conference call, as may mutually be agreed to by the parties.

The Agreement shall not be altered, changed, or amended except by written instrument executed by the parties and approved by the Secretary of DFA.

Section 5. Subcontracting.

Any party may subcontract any portion of the services to be performed under this Agreement to any third party in order to meet its obligations and requirements contained herein.

Section 6. Equal Rights.

Benefits and obligations of this Agreement shall be executed without discrimination on account of race, color, religion, creed, sex, age, handicap or national origin.

Section 7. Appropriations.

The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the New Mexico State Legislature and/or the United States Congress for the performance hereof. If sufficient appropriation or authorization is not granted, this Agreement shall terminate upon written notice from EMNRD or DOE, as appropriate, to the other parties.

Section 8. Tort Claims.

Each party shall be solely responsible for the acts and omissions of its officers and employees resulting in damage or injuries to the same extent and limits that such party is responsible for under applicable law. Nothing herein shall be construed as a waiver of the New Mexico Tort Claims Act of the Federal Tort Claims Act.

Section 9. Waiver.

ISSUED

Waste Isolation Pilot Plant Land Management Plan

DOE/WIPP-93-004, Reprint J

Each party does hereby waive all claims in performance of its respective tasks under this Agreement against every other party for compensation for any loss, damage, personal injury, or death.

IN WITNESS WHEREOF, the parties have herein below set their hand.

FOR:
ENERGY, MINERALS and NATURAL
RESOURCES DEPARTMENT

By: Signature on File
(Authorized Representative/Title)

Date: 4/25/97

FOR:
DEPARTMENT OF GAME AND FISH

By: Signature on File
(Authorized Representative/Title)

Date: 5/5/97

FOR:
STATE LAND OFFICE

By: Signature on File
(Authorized Representative/Title)

Date: 6/11/97

FOR:
ENVIRONMENT DEPARTMENT

By: N/A
(Authorized Representative/Title)

Date: N/A

FOR:
OFFICE OF CULTURAL AFFAIRS

By: Signature on File
(Authorized Representative/Title)

Date: 5/9/97

FOR:
U.S. DEPARTMENT OF ENERGY
CARLSBAD AREA OFFICE

By: Signature on File
(Authorized Representative/Title)

Date: 6/17/97

Approved by the Secretary of the New Mexico Department of Finance & Administration:

By: Signature on File

Date: 6/26/97

APPENDIX H

**STATE/FEDERAL AGENCIES FOR THE JOINT POWERS AGREEMENT
ON
MANAGEMENT OF THE WIPP WITHDRAWAL AREA AND WIPP CONTACTS**

This list current as of August 2025. Contact information for these agencies are available on agency websites.

U.S. Department of the Interior Bureau of Land Management

Tye Bryson, Deputy Field Manager

New Mexico Energy, Minerals and Natural Resources Department

Eletha Trujillo, Manager

New Mexico Radioactive Waste Consultation Task Force

Laura McCarthy, State Forester
Forestry Division

Albert Chang, Director
Mining and Minerals Division

Gerasimos "Gerry" Razatos, Director
Oil Conservation Division

New Mexico Department of Game and Fish

Mike Sloan, Director

New Mexico State Land Office

Stephanie Garcia Richard
Commissioner of Public Lands

New Mexico Department of Cultural Affairs

Debra Garcia y Griego
Cabinet Secretary

Waste Isolation Pilot Plant Contacts

WIPP Information Center
4021 National Parks Highway
Carlsbad, NM 88220
1-800-336-WIPP (9477), Mon. to Thurs., 7 a.m. to 4 p.m (MT)
For environmental concerns, call 1-866-271-9640.

WIPP Central Monitoring Room
Emergencies: 575-234-8111
Non-emergencies: 575-234-8125 or 575-234-8457

WIPP Security Operations Center
575-234-8407

Daniel Sweet
Communications & Public Affairs Manager
Salado Isolation Mining Contractors, LLC
Email: dan.sweet@wipp.doe.gov

Michael Gerle
Director, Environmental Regulatory Compliance Division
U.S. Department of Energy
Carlsbad Field Office
P.O. Box 3090
Carlsbad, NM 88221-3090
Mobile: 575-988-5372
Fax: 575-234-7061
Email: michael.gerle@cbfo.doe.gov

Mark Lunsford
NEPA/ER Coordinator
LATA, Manager of Site Environmental Compliance
4021 National Parks Hwy – MS-452-09
Carlsbad, NM 88221-2078
Office: 575-234-8637
Fax: 575-234-6062
Email: mark.lunsford@wipp.doe.gov

David Ganaway
LATA, Manager of Environmental Monitoring & Hydrology
4021 National Parks Hwy – MS-452-09
Carlsbad, NM 88221-2078
Office: 575-234-8449
Mobile: 575-725-1739
Fax: 575-234-6062
Email: david.ganaway@wipp.doe.gov

Richard Jimenez
LATA, WIPP Land Use Coordinator
4021 National Parks Hwy – MS-452-09
Carlsbad, NM 88221-2078
Office: 575-234-8210
Mobile: 575-706-0171
Fax: 575-234-6062
Email: richard.jimenez@wipp.doe.gov