

CHAPTER 6
APPLICABLE LAWS, REGULATIONS, AND OTHER
REQUIREMENTS

6.0 APPLICABLE LAWS, REGULATIONS, AND OTHER REQUIREMENTS

Chapter 6 provides an update to the laws, regulations, agreements, and consultations that relate to environmental protection at the Los Alamos National Laboratory (LANL).

As part of the National Environmental Policy Act (NEPA) process, an agency must consider whether an action could threaten a violation of any Federal, state, or local law or requirement (40 *Code of Federal Regulations* [CFR] 1508.27) or require a permit, license, or other entitlement (40 CFR 1502.25). This chapter identifies and summarizes the major environmental requirements, agreements, and permits that could be required to support the *Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico* (SWEIS).

A number of Federal environmental laws affect environmental protection, health, safety, compliance, and consultation at every U.S. Department of Energy (DOE) location. In addition, certain environmental requirements have been delegated to state authorities for enforcement and implementation and state legislatures have passed laws to protect human health and safety and the environment. It is DOE policy to conduct its operations in a manner that ensures the protection of public health, safety, and the environment through compliance with all applicable Federal and state laws, regulations, DOE Orders, and other requirements.

The alternatives analyzed in this SWEIS involve either the operation of existing DOE facilities or the construction and operation of new DOE facilities. Actions required to comply with laws, regulations, and other Federal and State of New Mexico requirements may depend on whether a facility is newly built (preoperational), operational, undergoing decontamination and decommissioning, or incorporated in whole or in part into an existing facility.

Requirements governing the continuation of LANL operations arise primarily from six sources: the Congress, Federal agencies, Executive Orders, legislatures of the affected states, state agencies, and local governments. In general, Federal statutes establish national policies, create broad legal requirements, and authorize Federal agencies to create regulations that conform to the statutes. Detailed implementation of these statutes is delegated to various Federal agencies such as DOE, the U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA). For many environmental laws under EPA jurisdiction, state agencies may be delegated responsibility for the majority of program implementation activities, such as permitting and enforcement, but EPA usually retains oversight of the delegated program.

Some applicable laws such as NEPA, the Endangered Species Act, and the Emergency Planning and Community Right-To-Know Act require specific reports and consultations rather than ongoing permits or activities. These are satisfied through the legal and regulatory process, including the preparation of this SWEIS.

Other applicable laws establish general requirements that must be satisfied, but do not include processes (such as the issuance of permits or licenses) that consider compliance prior to specific violations or other events that trigger their provisions. These include the Toxic Substances Control Act (TSCA) (affecting polychlorinated biphenyl transformers and other designated substances); the Federal Insecticide, Fungicide, and Rodenticide Act (affecting pesticide and herbicide applications); the Hazardous Materials Transportation Act; and (in the event of a spill of a hazardous substance) the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund).

Executive Orders establish policies and requirements for Federal agencies. Executive Orders are applicable to Executive branch agencies, but do not have the force of law or regulation.

In addition to implementing some Federal programs, state legislatures develop their own laws to supplement as well as implement Federal laws for protection of air and water quality and groundwater. State legislation in New Mexico addresses solid and hazardous waste management programs, locally rare or endangered species, and local resource, historic, and cultural values. The laws of local governments add a further level of protection of the public, often focusing on zoning, utilities, and public health and safety concerns.

Regulatory agreements and compliance orders also may be initiated to establish responsibilities and timeframes for Federal facilities to comply with provisions of applicable Federal and state laws. Other agreements, memoranda of understanding, and formalized arrangements also establish cooperative relationships and requirements.

The actions being considered in this SWEIS would be all located on LANL property controlled by the National Nuclear Security Administration (NNSA). NNSA has authority to regulate some environmental activities, as well as the health and safety aspects of nuclear facilities operations. The Atomic Energy Act of 1954, as amended, is the principal authority for DOE regulatory activities not externally regulated by other Federal or state agencies. Regulation of DOE activities is primarily established through the use of DOE Orders and regulations.

External environmental laws, regulations, and Executive Orders can be categorized as applicable to either broad environmental planning and consultation requirements or regulatory environmental protection and compliance activities, although some requirements are applicable to both planning activities and ongoing operations.

Section 6.1 of this chapter discusses major applicable Federal laws, regulations, and permits that impose nuclear safety and environmental protection requirements on the activities conducted at LANL. Each of the applicable regulations and statutes establishes how activities are to be conducted or how potential releases of pollutants are to be controlled or monitored. They include requirements for issuing permits or licenses for new operations or new emission sources and for amending existing permits or licenses to allow new types of operations at existing sources.

Section 6.2 discusses new or revised Executive Orders that may be applicable to LANL activities. Section 6.3 identifies DOE Orders for compliance with the Atomic Energy Act, the Occupational Safety and Health Act, and other environmental, safety, and health requirements that may be applicable to LANL activities. Section 6.4 identifies state and local laws, regulations, permits and ordinances, as well as local agreements that potentially impact LANL. Consultations with applicable agencies and federally recognized Native American Nations are discussed in Section 6.5.

6.1 Applicable Federal Laws, Regulations, and Permits

This section describes the Federal environmental, safety, and health laws and regulations and permits that could apply to LANL. These regulations address such areas as energy conservation, administrative requirements and procedures, nuclear safety, and classified information. Activities under all alternatives would need to be conducted in compliance with applicable Federal laws, regulations, and permits. Chapter 4 describes the resources at LANL that are potentially addressed by these laws, regulations, and permits. Chapter 5 discusses the potential impacts to those resources under each alternative. Consultations with applicable agencies and federally recognized Native American Nations as required by Federal laws and regulations are discussed in Section 6.5.

The major Federal laws and regulations, Executive Orders, and other requirements that currently apply or could apply in the future to the various alternatives analyzed in this SWEIS are identified in **Table 6–1**. For ease of identification, laws are identified in the table with a *United States Code* (U.S.C.) or Public Law citation; regulations are identified with a CFR citation; and Executive Orders are listed in italics. This table does not include DOE Orders, which are provided in Section 6.3, nor does it include state requirements, which are provided in Section 6.4.

American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)—This Act reaffirms American Indian religious freedom under the First Amendment and sets U.S. policy to protect and preserve the inherent and constitutional right of American Indians to believe, express, and exercise their traditional religions. The Act requires that Federal actions avoid interfering with access to sacred locations and traditional resources that are integral to the practice of religions.

Antiquities Act of 1906, as amended (16 U.S.C. 431 *et seq.*)—This Act protects historic and prehistoric ruins, monuments, and antiquities, including paleontological resources, on federally controlled lands from appropriation, excavation, injury, and destruction without permission.

Archaeological and Historic Preservation Act of 1960, as amended (16 U.S.C. 469 *et seq.* 469c-1)—The purpose of this Act is to preserve historical and archaeological data (including relics and specimens) that might otherwise be irreparably lost or destroyed as the result of Federal actions.

Table 6–1 Potentially Applicable Environmental, Safety, and Health Laws, Regulations, and Executive Orders

<i>Laws, Regulations, Orders, Other Requirements</i>	<i>Citation</i>
Radioactive Materials and Waste Management	
Atomic Energy Act of 1954, as amended	42 U.S.C. 2011 <i>et seq.</i>
“Byproduct Material”	10 CFR Part 962
“Environmental Radiation Protection Standards for Management of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Materials”	40 CFR Part 191
Low-Level Radioactive Waste Policy Act of 1980, as amended	42 U.S.C. 2021 <i>et seq.</i>
Waste Isolation Pilot Plant Land Withdrawal Act, as amended	Public Law 102-579
Ecological Resources	
Bald and Golden Eagle Protection Act of 1973, as amended	16 U.S.C. 668 <i>et seq.</i>
Endangered Species Act of 1973, as amended	16 U.S.C. 1531 <i>et seq.</i>
Fish and Wildlife Coordination Act	16 U.S.C. 661 <i>et seq.</i>
<i>Invasive Species</i>	Executive Order 13112
Migratory Bird Treaty Act of 1918, as amended	16 U.S.C. 703 <i>et seq.</i>
<i>Protection of Wetlands</i>	Executive Order 11990
Cultural and Paleontological Resources	
American Indian Religious Freedom Act of 1978	42 U.S.C. 1996
Antiquities Act of 1906, as amended	16 U.S.C. 431 <i>et seq.</i>
Archaeological and Historic Preservation Act of 1960, as amended	16 U.S.C. 469 <i>et seq.</i>
Archaeological Resources Protection Act of 1979, as amended	16 U.S.C. 470aa <i>et seq.</i>
<i>Consultation and Coordination with Indian Tribal Governments</i>	Executive Order 13175
Department of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1998	Public Law 105-119
<i>Indian Sacred Sites</i>	Executive Order 13007
Manhattan Project National Historical Park Study Act	Public Law 108-340
National Historic Preservation Act of 1966, as amended	16 U.S.C. 470 <i>et seq.</i>
<i>National Historic Preservation</i>	Executive Order 11593
Native American Graves Protection and Repatriation Act of 1990	25 U.S.C. 3001 <i>et seq.</i>
<i>Preserve America</i>	Executive Order 13287
“Protection of Historic and Cultural Properties”	36 CFR Part 800
Worker Safety and Health	
“Occupational Radiation Protection”	10 CFR Part 835
“Chronic Beryllium Disease Prevention Program”	10 CFR Part 850
“Worker Health and Safety Program”	10 CFR Part 851
Occupational Safety and Health Act of 1970	29 U.S.C. 651 <i>et seq.</i>
<i>Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction</i>	Executive Order 12699
Radiological Safety Oversight and Radiation Protection	
“Nuclear Safety Management”	10 CFR Part 830
Transportation	
Hazardous Materials Transportation Act of 1975, as amended	49 U.S.C. 5101 <i>et seq.</i>
“Packaging and Transportation of Radioactive Material”	10 CFR Part 71

<i>Laws, Regulations, Orders, Other Requirements</i>	<i>Citation</i>
Emergency Planning, Pollution Prevention, and Conservation	
<i>Assignment of Emergency Preparedness Responsibilities</i>	Executive Order 12656
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also known as Superfund)	42 U.S.C. 9601 <i>et seq.</i>
Emergency Planning and Community Right-to-Know Act	42 U.S.C. 11001 <i>et seq.</i>
<i>Energy Efficiency and Water Conservation at Federal Facilities</i>	Executive Order 12902
<i>Federal Compliance with Pollution Control Standards</i> , as amended by Executive Order 12580, <i>Superfund Implementation</i>	Executive Order 12088
<i>Federal Emergency Management</i> , as amended	Executive Order 12148
<i>Greening the Government through Efficient Energy Management</i>	Executive Order 13123
<i>Greening the Government through Leadership in Environmental Management</i>	Executive Order 13148
<i>Greening the Government through Waste Prevention, Recycling, and Federal Acquisition</i>	Executive Order 13101
Pollution Prevention Act of 1990	42 U.S.C. 13101 <i>et seq.</i>
<i>Proliferation of Weapons of Mass Destruction</i>	Executive Order 12938
<i>Right-to-Know Laws and Pollution Prevention Requirements</i>	Executive Order 12856
Environmental Justice and Protection of Children	
<i>Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</i>	Executive Order 12898
<i>Protection of Children from Environmental Health Risks and Safety Risks</i>	Executive Order 13045
Environmental Quality	
“Council on Environmental Quality National Environmental Policy Act Regulations”	40 CFR Part 1500 <i>et seq.</i>
National Environmental Policy Act of 1969	42 U.S.C. 4321 <i>et seq.</i>
“National Environmental Policy Act Implementing Procedures”	10 CFR Part 1021
<i>Protection and Enhancement of Environmental Quality</i>	Executive Order 11514
Air Quality and Noise	
Clean Air Act of 1970, as amended	42 U.S.C. 7401 <i>et seq.</i>
“National Emission Standards for Hazardous Air Pollutants”	40 CFR Part 61
“National Emission Standards for Hazardous Air Pollutants for Source Categories”	40 CFR Part 63
Noise Control Act of 1972, as amended	42 U.S.C. 4901 <i>et seq.</i>
Water Resources	
Clean Water Act of 1972, as amended	33 U.S.C. 1251 <i>et seq.</i>
“Compliance with Floodplain/Wetlands Environmental Review Requirements”	10 CFR Part 1022
“EPA-Administered Permit Programs: The National Pollutant Discharge Elimination System”	40 CFR Part 122
<i>Floodplain Management</i>	Executive Order 11988
“National Primary Drinking Water Regulations”	40 CFR Part 141
Safe Drinking Water Act of 1974, as amended	42 U.S.C. 300(f) <i>et seq.</i>
Hazardous Waste and Materials Management	
Federal Facility Compliance Act of 1992	42 U.S.C. 6961 <i>et seq.</i>
“Select Agents and Toxins”	42 CFR Part 73 (see Appendix C of this SWEIS)
Solid Waste Disposal Act of 1965, as amended, including Resource Conservation and Recovery Act of 1976, as amended	42 U.S.C. 6901 <i>et seq.</i>
Toxic Substances Control Act of 1976	15 U.S.C. 2601 <i>et seq.</i>

U.S.C. = *United States Code*, CFR = *Code of Federal Regulations*.

Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470aa *et seq.*)—

This Act requires a permit for any excavation or removal of archaeological resources from Federal or American Indian lands. Excavation must be undertaken to further archaeological knowledge in the public interest, and resources removed are to remain the property of the United States. The law requires that whenever any Federal agency finds that its activities may cause irreparable loss or destruction of significant scientific, prehistoric, or archaeological data, the agency must notify the U.S. Department of the Interior and may request that the Department of Interior undertake the recovery, protection, and preservation of such data. Consent must be obtained from the American Indian Tribe or Federal agency that has authority over the land on which a resource is located before issuance of a permit, and the permit must contain the terms and conditions requested by the Tribe or Federal agency.

Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*) as amended by the Price-Anderson Act and the Bob Stump National Defense Authorization Act—

The Act provides fundamental jurisdictional authority to DOE and the U.S. Nuclear Regulatory Commission (NRC) over governmental and commercial use of nuclear materials. The Atomic Energy Act authorizes DOE to establish standards to protect health or minimize dangers to life or property for activities under DOE jurisdiction. DOE has issued a series of Departmental Orders to establish an extensive system of standards and requirements to ensure safe operation of DOE facilities (see Section 6.3).

DOE regulations are found in Title 10 of the CFR. The DOE regulations that are most relevant to radioactive materials, waste management, and worker health and safety include:

- “Nuclear Safety Management” (10 CFR Part 830),
- “Occupational Radiation Protection” (10 CFR Part 835),
- “Chronic Beryllium Disease Prevention Program” (10 CFR Part 850),
- “Worker Health and Safety Program” (10 CFR Part 851), and
- “Byproduct Material” (10 CFR Part 962).

The Atomic Energy Act also gives EPA the authority to develop generally applicable standards for protection of the general environment from radioactive materials. EPA has promulgated several regulations under this authority. The EPA regulation that is relevant to the radioactive waste and materials management activities addressed by this SWEIS is the “Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes” (40 CFR Part 191). This regulation establishes radiation standards for the management and storage of spent nuclear fuel, high-level radioactive waste, and transuranic waste at facilities regulated by NRC or Agreement States, as well as radiation standards for management and storage of spent nuclear fuel, high-level radioactive waste, and transuranic waste at disposal facilities operated by DOE that are not regulated by NRC or Agreement States. The regulation also establishes limitations on radiation doses that might occur after closure of the disposal system. These standards include both individual protection requirements and groundwater protection standards.

The Price-Anderson Act – signed into law in 1957 as an amendment to the Atomic Energy Act of 1954—provides for payment of public liability claims in the event of a nuclear incident. The following are key features of this Act:

- Assures the availability of billions of dollars to compensate members of the public who suffer a loss as the result of a nuclear incident;
- Establishes a simplified claim process for the public to expedite recovery for losses;
- Provides for immediate emergency reimbursement for costs associated with any evacuation that may be ordered;
- Establishes liability limits for each nuclear incident involving commercial nuclear energy and government use of nuclear materials; and
- Guarantees that the Federal Government will review the need for compensation beyond that provided (NEI 2005).

The Bob Stump National Defense Authorization Act, enacted by the Congress in 2002, amended the Atomic Energy Act to add Section 234C requiring DOE to promulgate worker health and safety regulations to cover contractors with Price-Anderson indemnification agreements in their contracts. DOE promulgated regulations under this Act in February 2006 (71 FR 6857) as 10 CFR Part 851, “Worker Safety and Health Program.” The regulations codified and enhanced the DOE worker protection program.

Bald and Golden Eagle Protection Act of 1973, as amended (16 U.S.C. 668 *et seq.*)—The Bald and Golden Eagle Protection Act, as amended, makes it unlawful to take, pursue, molest, or disturb bald (American) and golden eagles, their nests, or their eggs anywhere in the United States. A permit must be obtained from the U.S. Department of the Interior to relocate a nest that interferes with resource development or recovery operations.

Clean Air Act of 1970, as amended (42 U.S.C. 7401 *et seq.*)—The Clean Air Act is intended to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” Section 118 of the Clean Air Act (42 U.S.C. 7418) requires that each Federal agency with jurisdiction over any property or facility engaged in any activity that might result in the discharge of air pollutants comply with “all Federal, state, interstate, and local requirements” regarding the control and abatement of air pollution.

Section 109 of the Clean Air Act (42 U.S.C. 7409 *et seq.*) directs EPA to set national ambient air quality standards for criteria pollutants. EPA has identified and set national ambient air quality standards under 40 CFR Part 50 for the following criteria pollutants: particulate matter, sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, and lead. Section 111 of the Clean Air Act (42 U.S.C. 7411) requires establishment of national standards of performance for new or modified stationary sources of atmospheric pollutants. Section 160 of the Clean Air Act (42 U.S.C. 7470 *et seq.*) requires that specific emission increases be evaluated prior to permit approval to prevent significant deterioration of air quality. Section 112 of the Clean Air Act (42 U.S.C. 7412) requires specific standards for releases of hazardous air pollutants (including radionuclides).

Emissions of air pollutants are regulated by EPA under 40 CFR Parts 50 through 99. Emissions of radionuclides and hazardous air pollutants from DOE facilities are regulated under the

National Emissions Standards for Hazardous Air Pollutants Program (40 CFR Part 61 and 40 CFR Part 63, respectively).

Clean Water Act of 1972, as amended (33 U.S.C. 1251 *et seq.*)—The Clean Water Act, which amended the Federal Water Pollution Control Act, was enacted to “restore and maintain the chemical, physical, and biological integrity of the Nation’s water.” The Clean Water Act prohibits the “discharge of toxic pollutants in toxic amounts” to navigable waters of the United States. Section 313 of the Clean Water Act requires all branches of the Federal Government engaged in any activity that might result in a discharge of runoff of pollutants to surface waters to comply with Federal, state, interstate, and local requirements.

Section 404 of the Clean Water Act gives the U.S. Army Corps of Engineers permitting authority over activities that discharge dredge or fill materials into waters of the United States, including wetlands.

The Clean Water Act also provides guidelines and limitations for effluent discharges from point-source discharges and establishes the National Pollutant Discharge Elimination System (NPDES) permit program. The NPDES program is administered by EPA, pursuant to regulations in 40 CFR Part 122 *et seq.*, and authority may be delegated to states. Sections 401 through 405 of the Water Quality Act of 1987 added Section 402(p) to the Clean Water Act, which requires EPA to establish regulations for permits for stormwater discharges associated with industrial activities, including construction activities disturbing 5 or more acres (2 hectares) (64 *Federal Register* [FR] 68721). After March 2003, the threshold for obtaining a permit was lowered to 1 acre (0.4 hectare). Stormwater provisions of the NPDES program are set forth at 40 CFR 122.26. Permit modifications are required if discharge effluent is altered. The State of New Mexico is now seeking authorization for the NPDES program so that it will have authority to administer the program instead of EPA. Currently, New Mexico is not authorized, and EPA Region 6 administers all LANL NPDES issues and permits. The State is expecting to be authorized by the end of 2006.

Many water-related permits for LANL have been issued or are awaiting approval (see **Table 6–2**). The EPA and DOE entered into a Federal Facility Compliance Agreement (Agreement) pursuant to the Clean Water Act (EPA 2005a). The purpose of the Agreement is to establish a compliance program for the regulation of stormwater discharges from Solid Waste Management Units and Areas of Concern at LANL until those sources are regulated by an individual stormwater permit issued by EPA pursuant to the NPDES. The purpose of the compliance program is to provide a schedule to ensure compliance with the NPDES stormwater-permitting program. The scope of this Agreement is limited to providing a compliance program for the regulation of stormwater discharges from solid waste management units (SWMUs) and Areas of Concern at LANL in lieu of LANL’s Stormwater Multi-Sector General Permit (EPA 2005a).

The discharge of stormwater at LANL is regulated by NPDES Stormwater Multi-Sector General Permit Numbers NMR05A734 (University of California) and NMR05A735 (DOE) (the “General Permit”), which became effective on December 23, 2000, pursuant to 65 FR 64746 (October 30, 2000). The point source discharges of stormwater regulated by the General Permit include LANL’s SWMUs (EPA 2005a).

Table 6–2 Federal Permits

<i>Category</i>	<i>Approved Activity</i>	<i>Issue Date</i>	<i>Expiration Date</i>
Clean Water Act/NPDES - Permit Number NM0028355	Discharge of industrial and sanitary liquid effluents. (This is a single permit covering many of LANL's industrial and sanitary discharges. The permit covers 17 total outfalls.)	August 1, 2007	July 31, 2012
Clean Water Act/NPDES Multi-Sector General Permit Number NMR05A734 (University of California) and NMR05A735 (DOE)	Multi-Sector General Permit-Stormwater discharges from industrial activities.	October 30, 2000	October 30, 2005 (Permit has been administratively continued pending issuance of a new permit, expected in 2007.)
Clean Water Act/NPDES	General Permit for Stormwater discharges from construction activities	Varies. A new General Construction Permit will be needed after 2008.	July 1, 2008
Clean Water Act Sections 404/401	Individual Dredge and Fill permits for work within perennial, intermittent, or ephemeral watercourses.	Varies	Varies
Toxic Substances Control Act Disposal Authorization	Disposal of polychlorinated biphenyls at Technical Area 54, Area G	June 25, 1996	June 25, 2001 (Permit has been administratively continued.)

NPDES = National Pollutant Discharge Elimination System.

Sources: EPA 2005a, LANL 2006h.

Since 2003, the General Permit has been in transition. Stormwater discharges from LANL SWMUs ultimately will be regulated under an individual NPDES permit specific to the SWMUs. LANL submitted the first part of the individual permit application in late 2004. When granted, this individual permit will replace existing SWMU coverage under the General Permit (see Table 6–2).

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601 *et seq.*) (also known as Superfund)—CERCLA provides among other things: (1) a program for emergency response to and reporting of a release or threat of a release of a hazardous substance to the environment; and (2) a statutory framework for remediation of hazardous substance releases from private, state, and Federal sites. Using the Hazard Ranking System, contaminated sites are ranked and may be included on the National Priorities List. Section 120 of CERCLA specifies requirements for investigations, remediation, and natural resource restoration, as necessary, at Federal facilities, and also provides reporting requirements for hazardous substance contamination on properties to be transferred. LANL is not on the National Priorities List. Potential release sites at LANL are investigated and remediated under state authorities (see Section 6.4 for further discussion).

Department of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1998 (Public Law 105-119)—Section 632 of the Act directed the Secretary of Energy to identify and convey to the Incorporated County of Los Alamos, New Mexico, or to the designee of Los Alamos County, and to transfer to the Secretary of the Interior in trust for the Pueblo of San Ildefonso, parcels of land under the jurisdictional administrative control of the Secretary at or in the vicinity of LANL that meet certain identified criteria. DOE prepared the *Final Environmental Impact Statement for the Conveyance and*

Transfer of Certain Land Tracts Administered by the U.S. Department of Energy and Located at Los Alamos National Laboratory, Los Alamos and Santa Fe Counties, New Mexico (DOE 1999d) to examine potential environmental impacts associated with conveyance and transfer of identified land parcels. A Record of Decision for this action was issued in December 1999. Remedial actions (required in some parcels) and conveyances and transfers are ongoing.

Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001 *et seq.*)—This amendment to CERCLA requires that facilities provide notice to and coordinate emergency planning with communities and government agencies concerning inventories and any unplanned releases of specific hazardous chemicals. EPA implements this Act under regulations found in 40 CFR Parts 355, 370, and 372. Under Subtitle A of this Act, Federal facilities are required to provide information to and coordinate with local and state emergency response planning authorities, to ensure that emergency plans are sufficient to respond to unplanned releases of hazardous substances. Implementation of the provisions of this Act at LANL began voluntarily in 1987, and chemical inventories and emissions have been reported annually since 1988.

Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*)—This Act is intended to prevent the further decline of endangered and threatened species and to restore these species and their habitats. Section 7 of the Act requires Federal agencies that have reason to believe that a prospective action may affect an endangered or threatened species or its habitat to consult with the U.S. Fish and Wildlife Service of the U.S. Department of the Interior or the National Marine Fisheries Service of the U.S. Department of Commerce to ensure the action does not jeopardize the species or destroy its habitat. If, despite reasonable and prudent measures to avoid or minimize such impacts, the species or its habitat would be jeopardized by the action, a review process is specified to determine whether the action may proceed as an incidental taking (50 CFR Part 17).

Federal Facility Compliance Act of 1992 (42 U.S.C. 6961 *et seq.*)—The Federal Facility Compliance Act, enacted on October 6, 1992, amended the Resource Conservation and Recovery Act (RCRA). The Act made Federal facilities subject to potential fines and penalties for violations of RCRA, the law that sets requirements for management of hazardous waste. Prior to its passage, mixed waste stored at DOE sites generally did not comply with RCRA mixed waste land-disposal restrictions because of a lack of treatment options. The Act required DOE to: (1) prepare and submit a national inventory report identifying its mixed waste volume, characteristics, treatment capacity, and available technologies; and (2) prepare and submit (to the appropriate state or EPA regulators) Site Treatment Plans for developing or using the needed treatment capacity along with schedules for treating the mixed waste at each DOE site.

LANL's approved Site Treatment Plan is enforced by a Compliance Order issued by the New Mexico Environment Department in October 1995. It is available for review at the DOE Headquarters reading room, the DOE Center for Environmental Management Information, and the LANL reading room (see Section 6.4 for further discussion).

Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*)—The Fish and Wildlife Coordination Act promotes effective planning and cooperation between Federal, state, public, and private agencies for the conservation and rehabilitation of the Nation's fish and wildlife and

authorizes the U.S. Department of the Interior to provide assistance. This Act requires consultation with the U.S. Fish and Wildlife Service on the possible effects to wildlife from construction, projects, or activities affecting bodies of water in excess of 10 acres (approximately 4 hectares) in surface area. This Act also requires consultation with the head of the state agency that administers wildlife resources in the affected state.

Hazardous Materials Transportation Act of 1975, as amended (49 U.S.C. 5101 *et seq.*)—The Hazardous Materials Transportation Act of 1975, as amended, requires the U.S. Department of Transportation to prescribe uniform national regulations for transportation of hazardous materials (including radioactive materials). Most state and local regulations regarding such transportation that are not substantively the same as the U.S. Department of Transportation regulations are preempted (49 U.S.C. 5125). This, in effect, allows state and local governments to enforce only the Federal regulations, not to change or expand upon them.

This program is administered by the Research and Special Programs Administration of the U.S. Department of Transportation, which, when covering the same activities, coordinates its regulations with NRC (under the Atomic Energy Act) and EPA (under RCRA). The U.S. Department of Transportation regulations, which may be found under 49 CFR Parts 171 through 178 and 49 CFR Parts 383 through 397, contain requirements for identifying a material as hazardous or radioactive. These regulations interface with the NRC regulations for identifying material, but U.S. Department of Transportation hazardous material regulations govern the hazard communication (such as marking, labeling, vehicle placarding, and emergency response information) and shipping requirements. Requirements for transport by rail, air, and public highway are included. In addition, EPA regulations at 40 CFR Part 262 apply to offsite transportation of hazardous wastes from LANL.

Public access to many portions of the LANL facility is controlled at all times through the use of gates and guards. Onsite transportation of hazardous materials, wastes, and contaminated equipment that is conducted entirely on DOE property is subject to applicable DOE directives and safety requirements set forth in 10 CFR Part 830 Subpart B. Offsite transportation of hazardous materials, wastes, and contaminated equipment from LANL over public highways is subject to applicable U.S. Department of Transportation and EPA regulations, as well as to applicable DOE directives.

The NRC Packaging and Transportation of Radioactive Material (10 CFR Part 71) regulations include detailed packaging design requirements and package certification testing requirements. Complete documentation of design and safety analysis and the results of required certification tests are submitted to NRC to certify the package for use. This certification testing involves the following components: heat, physical drop onto an unyielding surface, water submersion, puncture by dropping the package onto a steel bar, and gas tightness.

Low-Level Radioactive Waste Policy Act of 1980, as amended (42 U.S.C. 2021 *et seq.*)—This Act amended the Atomic Energy Act to specify that the Federal Government is responsible for disposal of low-level radioactive waste generated by certain activities, and that each state is responsible for disposal of other low-level radioactive waste generated within its borders. It provides for and encourages interstate compacts to carry out state responsibilities. As a result of

this Act, low-level radioactive waste owned or generated by DOE remains the responsibility of the Federal Government.

Manhattan Project National Historical Park Study Act (Public Law 108-340)—This Act was written to direct the Secretary of the Interior to conduct a study on the preservation and interpretation of the historic sites of the Manhattan Project for potential inclusion in the National Park System (October 18, 1998).

Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 *et seq.*)—The Migratory Bird Treaty Act, as amended, is intended to protect birds that follow common migration patterns across the United States, Canada, Mexico, Japan, and Russia. It regulates the harvest of migratory birds by specifying conditions such as mode of harvest, hunting seasons, and bag limits. The Act stipulates that it is unlawful, unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, . . .any migratory bird . . .or any part, nest, or egg of any such bird.” Although no permit for this project is required under the Act, DOE is required to consult with the U.S. Fish and Wildlife Service regarding impacts on migratory birds and to avoid or minimize these effects in accordance with the U.S. Fish and Wildlife Service Mitigation Policy. A split of authority currently exists between Federal courts regarding whether this Act applies to Federal agencies.

National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 *et seq.*)—The purposes of NEPA of 1969, as amended, are to: (1) declare a national policy that will encourage productive and enjoyable harmony between man and his environment, (2) promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, (3) enrich the understanding of the ecological systems and natural resources important to the Nation, and (4) establish a Council on Environmental Quality (CEQ). NEPA establishes a national policy requiring that Federal agencies consider the environmental impacts of major Federal actions significantly affecting the quality of the human environment before making decisions and taking actions to implement those decisions. Implementation of NEPA requirements in accordance with CEQ regulations (40 CFR Parts 1500 to 1508) can result in a categorical exclusion, an environmental assessment and Finding of No Significant Impact, or an environmental impact statement. This SWEIS was prepared in accordance with NEPA requirements, CEQ regulations (40 CFR Part 1500 *et seq.*), and DOE provisions for implementing the procedural requirements of NEPA (10 CFR Part 1021; DOE Order 451.1B, Change 1). It discusses reasonable alternatives and their potential environmental consequences.

National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 *et seq.*)—The Act provides that sites with significant national historic value be placed on the National Register of Historic Places, which is maintained by the Secretary of the Interior. The major provisions of the Act for DOE consideration are Sections 106 and 110. Both sections aim to ensure that historic properties are appropriately considered in planning Federal initiatives and actions. Section 106 is a specific, issue-related mandate to which Federal agencies must adhere. It is a reactive mechanism driven by a Federal action. Section 110, in contrast, sets out broad Federal agency responsibilities with respect to historic properties. It is a proactive mechanism that emphasizes ongoing management of historic preservation sites and activities at Federal facilities. No permits or certifications are required under the Act.

Section 106 requires the head of any Federal agency with direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking to ensure compliance with the provisions of the Act. It compels Federal agencies to “take into account” the effect of their projects on historical and archaeological resources and to give the Advisory Council on Historic Preservation the opportunity to comment on such effects. Section 106 mandates consultation during Federal actions if the undertaking has the potential to affect a historic property. This consultation normally involves State or Tribal Historic Preservation Officers, or both, and may include other organizations and individuals such as local governments and American Indian Tribes. If an adverse effect is found, the consultation often ends with the execution of a memorandum of agreement that states how the adverse effect will be resolved.

The regulations implementing Section 106, found in 36 CFR Part 800, were revised on December 12, 2000, to modify the process by which Federal agencies consider the effects of their undertakings on historic properties and provide the Advisory Council on Historic Preservation with a reasonable opportunity to comment on such undertakings, as required by Section 106 of the Act. In promulgating the new regulations, the Council sought to better balance the interests and concerns of various users of the Section 106 process, including Federal agencies, State Historic Preservation Officers, Tribal Historic Preservation Officers, American Indians and Native Hawaiians, industry, and the public.

Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 *et seq.*)—

This Act establishes a means for Native Americans to request the return or repatriation of human remains and other cultural items presently held by Federal agencies or federally assisted museums or institutions. The Act also contains provisions regarding the intentional excavation and removal of, inadvertent discovery of, and illegal trafficking in Native American human remains and cultural items. Major actions under this law include: (1) establishing a review committee with monitoring and policymaking responsibilities; (2) developing regulations for repatriation, including procedures for identifying lineal descent or cultural affiliation needed for claims; (3) providing oversight of museum programs designed to meet the inventory requirements and deadlines of this law; and (4) developing procedures to handle unexpected discoveries of graves or grave goods during activities on Federal or Tribal lands. All Federal agencies that manage land or are responsible for archaeological collections obtained from their lands or generated by their activities must comply with the Act. DOE managers of ground-disturbing activities on Federal and Tribal lands are to be aware of the statutory provisions treating inadvertent discoveries of Native American remains and cultural objects. Regulations implementing the Act are found at 43 CFR Part 10.

Noise Control Act of 1972, as amended (42 U.S.C. 4901 *et seq.*)—Section 4 of the Noise Control Act of 1972, as amended, directs all Federal agencies to carry out “to the fullest extent within their authority” programs within their jurisdictions that further the national policy of promoting an environment free from noise that jeopardizes health and welfare. Federal, state, and local agencies enforce the standards and requirements of this Act to regulate noise at facilities such as LANL. DOE must comply with the Act for any of the activities being considered under this SWEIS.

Occupational Safety and Health Act of 1970 (29 U.S.C. 651 *et seq.*)—Section 4(b)(1) of the Occupational Safety and Health Act exempts DOE and its contractors from the occupational safety requirements of the Occupational Safety and Health Administration. However, 29 U.S.C. 668 requires Federal agencies to establish their own occupational safety and health programs for their places of employment, consistent with Occupational Safety and Health Administration standards. DOE Order 440.1A, “Worker Protection Management for DOE Federal and Contractor Employees,” states that DOE will implement a written worker protection program that: (1) provides a place of employment free from recognized hazards that are causing or are likely to cause death or serious physical harm to their employees, and (2) integrates all requirements contained in paragraphs 4a to 4l of DOE Order 440.1A; 29 CFR Part 1960, “Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters;” and other related site-specific worker protection activities.

Pollution Prevention Act of 1990 (42 U.S.C. 13101 *et seq.*)—The Pollution Prevention Act establishes a national policy for waste management and pollution control. Source reduction is given first preference, followed by environmentally safe recycling, with disposal or releases to the environment as a last resort. In response to the policies established by the Pollution Prevention Act, DOE committed to participation in the Superfund Amendments and Reauthorization Act, Section 313, EPA 33/50 Pollution Prevention Program. The goal for facilities involved in compliance with Section 313 was to achieve a 33-percent reduction (from a 1993 baseline) in the release of 17 priority chemicals by 1997. On November 12, 1999, then-U.S. Secretary of Energy Bill Richardson established 14 pollution prevention and energy efficiency goals for DOE to build environmental accountability and stewardship into DOE’s decisionmaking process. Under these goals, DOE will strive to minimize waste and maximize energy efficiency as measured by continuous cost-effective improvements in the use of materials and energy, using the years 2005 and 2010 as interim measurement points.

Safe Drinking Water Act of 1974, as amended (42 U.S.C. 300(f) *et seq.*)—The primary objective of the Safe Drinking Water Act is to protect the quality of public drinking water supplies and sources. The implementing regulations, administered by EPA unless delegated to the states, establish standards applicable to public water systems. These regulations include maximum contaminant levels (including those for radioactivity) in public water systems, which are defined as water systems with at least 15 service connections that are used by year-round residents or regularly serve at least 25 year-round residents. EPA regulations implementing the Safe Drinking Water Act are found in 40 CFR Parts 141 through 149. For radioactive material, the regulations specify that the average annual concentration of beta particles and photon energy from manmade radionuclides in drinking water, as delivered to the user by such a system, shall not produce a dose equivalent to the total body or an internal organ greater than 4 millirem per year. They further specify a concentration limit for gross alpha particle activity (excluding radon and uranium) of 15 picocuries per liter and for uranium of 0.03 milligrams per liter (40 CFR 141.66). Other programs established by the Safe Drinking Water Act include the Sole Source Aquifer Program, the Wellhead Protection Program, and the Underground Injection Control Program.

Solid Waste Disposal Act of 1965, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments of 1984

(42 U.S.C. 6901 *et seq.*)—The Solid Waste Disposal Act of 1965, as amended, governs the transportation, treatment, storage, and disposal of hazardous waste and nonhazardous waste (that is, municipal solid waste). Under the RCRA of 1976, which amended the Solid Waste Disposal Act of 1965, EPA defines and identifies hazardous waste; establishes standards for its transportation, treatment, storage, and disposal; and requires permits for persons engaged in hazardous waste activities. Section 3006 of RCRA (42 U.S.C. 6926) allows states to establish and administer these permit programs with EPA approval.

The EPA regulations implementing RCRA are found in 40 CFR Parts 260 through 283. The New Mexico Environment Department is authorized to administer the RCRA program in New Mexico and issued LANL's RCRA operating permit (see Section 6.4). Regulations imposed on a generator or on a treatment, storage, or disposal facility vary according to the type and quantity of hazardous waste generated, treated, stored, or disposed of and the methods of treatment, storage, and disposal.

Toxic Substances Control Act of 1976 (15 U.S.C. 2601 *et seq.*)—TSCA provides EPA with the authority to require testing of chemical substances entering the environment and to regulate them as necessary. The law complements and expands existing toxic substance laws, such as Section 112 of the Clean Air Act and Section 307 of the Clean Water Act. The Act requires compliance with the inventory reporting and chemical control provisions of the legislation to protect the public from risks of exposure to chemicals.

The Act also imposes strict limitations on the use and disposal of polychlorinated biphenyls, chlorofluorocarbons, asbestos, dioxins, certain metal-working fluids, and hexavalent chromium. EPA issued the disposal authorization documents to LANL for management of its polychlorinated biphenyls waste disposal facility at Technical Area 54.

Waste Isolation Pilot Plant Land Withdrawal Act (Public Law 102-579) and the Waste Isolation Pilot Plant Land Withdrawal Act Amendments (Public Law 104-201)—The Waste Isolation Pilot Plant Land Withdrawal Act withdrew land from the public domain for the purpose of creating and operating the Waste Isolation Pilot Plant (WIPP), the geologic repository in New Mexico designated as the national disposal site for defense transuranic waste. The Act also defined the characteristics and amount of waste that will be disposed of at the facility. Amendments to the Act exempt waste to be disposed of at WIPP from the RCRA land disposal restrictions. Prior to sending any transuranic waste from LANL to WIPP, DOE would have to determine whether the waste meets all statutory and regulatory requirements for disposal at WIPP.

6.2 Executive Orders

This section identifies environment-, health-, and safety-related Executive Orders applicable to LANL operations. Activities under all alternatives would need to be conducted in compliance with applicable Executive Orders. Chapter 4 describes the resources at LANL that are addressed by Executive Orders, and Chapter 5 discusses the potential impacts to those resources under each alternative. Consultations with applicable agencies and federally recognized Native American Nations as required by these Executive Orders are discussed in Section 6.5.

Executive Order 11514, *Protection and Enhancement of Environmental Quality*

(March 5, 1970)—This Executive Order requires Federal agencies to continually monitor and control their activities to: (1) protect and enhance the quality of the environment, and (2) develop procedures to ensure the fullest practicable provision of timely public information and understanding of the Federal plans and programs that may have potential environmental impact so that views of interested parties can be obtained. DOE has issued regulations (10 CFR Part 1021) and DOE Order 451.1B to comply with this Executive Order.

Executive Order 11593, *National Historic Preservation* (May 13, 1971)—This Order directs Federal agencies to locate, inventory, and nominate properties under their jurisdiction or control to the National Register of Historic Places if they qualify. This process requires DOE to provide the Advisory Council on Historic Preservation an opportunity to comment on the possible impacts of proposed activities on any potentially eligible or listed resources.

Executive Order 11990, *Protection of Wetlands* (May 24, 1977)—This Order (implemented by DOE in 10 CFR Part 1022) requires Federal agencies to avoid any short- or long-term adverse impacts on wetlands wherever there is a practicable alternative. Each agency must also provide opportunities for early public review of any plans or proposals for new construction in wetlands.

Executive Order 11988, *Floodplain Management* (May 24, 1977)—This Order (implemented by DOE in 10 CFR Part 1022) requires Federal agencies to establish procedures to ensure that the potential effects of flood hazards and floodplain management are considered for any action undertaken in a floodplain, and that floodplain impacts are avoided to the extent practicable.

Executive Order 12088, *Federal Compliance with Pollution Control Standards*, (October 13, 1978) as amended by Executive Order 12580, *Superfund Implementation* (January 23, 1987)—This Order directs Federal agencies to comply with applicable administrative and procedural pollution control standards established by, but not limited to, the Clean Air Act, the Noise Control Act, the Clean Water Act, the Safe Drinking Water Act, TSCA, and RCRA.

Executive Order 12148, *Federal Emergency Management* (July 20, 1979), as amended by the Homeland Security Act of 2002 (Public Law 107-296) and Section 301 of Title 3 U.S.C.—This Order transfers functions and responsibilities associated with Federal emergency management to the Director of the Federal Emergency Management Agency. The Order assigns the Director the responsibility to establish Federal policies for, and to coordinate all civil defense and civil emergency planning, management, mitigation, and assistance functions of, Executive

branch agencies. The amendment replaces the name, Federal Emergency Management Agency, wherever it appears with the name, Department of Homeland Security.

Executive Order 12656, *Assignment of Emergency Preparedness Responsibilities* (November 18, 1988)—This Order assigns emergency preparedness responsibilities to Federal departments and agencies.

Executive Order 12699, *Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction* (January 5, 1990)—This Order requires Federal agencies to reduce risks to occupants of buildings owned, leased, or purchased by the Federal Government, or buildings constructed with Federal assistance, and to persons who would be affected by failures of Federal buildings in earthquakes; to improve the capability of existing Federal buildings to function during or after an earthquake; and to reduce earthquake losses of public buildings, all in a cost-effective manner. Each Federal agency responsible for the design and construction of a Federal building shall ensure that the building is designed and constructed in accordance with appropriate seismic design and construction standards.

Executive Order 12856, *Right-to-Know Laws and Pollution Prevention Requirements* (August 3, 1993)—Executive Order 12856 directs Federal agencies to reduce and report toxic chemicals entering any waste stream; improve emergency planning, response, and accident notification; and meet the requirements of the Emergency Planning and Community Right-to-Know Act.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994)—This Order requires each Federal agency to identify and address the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

The CEQ, which oversees the Federal Government’s compliance with Executive Order 12898 and NEPA, has developed guidelines to assist Federal agencies in incorporating the goals of Executive Order 12898 into the NEPA process. This guidance, published in 1997, is intended to “...assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.” As part of this process, DOE conducted an analysis to determine whether implementing any of the proposed alternatives would result in disproportionately high or adverse impacts on minority and low-income populations. The results of this analysis are discussed in the environmental justice sections of Chapter 4 of this SWEIS for each of the alternatives under consideration.

Executive Order 12902, *Energy Efficiency and Water Conservation at Federal Facilities* (March 8, 1994)—This Order requires Federal agencies to develop and implement a program to conserve energy and water resources. As part of this program, agencies are required to conduct comprehensive facility audits of their energy and water use.

Executive Order 12938, *Proliferation of Weapons of Mass Destruction*

(November 14, 1994)—This Order states that the proliferation of nuclear, biological, and chemical weapons (“weapons of mass destruction”) and the means of delivering such weapons constitute an unusual and extraordinary threat to the national security, foreign policy, and economy of the United States, and that a national emergency would be declared to deal with that threat.

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996)—This Order directs Federal agencies, to the extent practicable, as permitted by law, and not clearly inconsistent with essential agency functions, to: (1) accommodate access to and ceremonial use of American Indian sacred sites by their religious practitioners, and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are to maintain the confidentiality of sacred sites.

Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 21, 1997), as amended by Executive Order 13229 (October 9, 2001)—This Order requires each Federal agency to give high priority to identifying and assessing environmental health risks and safety risks that may disproportionately affect children and to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

Executive Order 13101, *Greening the Government through Waste Prevention, Recycling, and Federal Acquisition* (September 14, 1998)—This Order requires each Federal agency to incorporate waste prevention and recycling in its daily operations and to work to increase and expand markets for recovered materials. This Order states that it is national policy to prefer pollution prevention, whenever feasible. Pollution that cannot be prevented should be recycled; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner. Disposal should be employed only as a last resort.

Executive Order 13112, *Invasive Species* (February 3, 1999)—This Order requires Federal agencies to prevent the introduction of invasive species, to provide for their control, and to minimize their economic, ecological, and human health impacts.

Executive Order 13123, *Greening the Government through Efficient Energy Management* (June 8, 1999)—This Order sets goals for agencies to expand their use of renewable energy sources and to reduce greenhouse gas emissions from facility energy use, energy consumption per gross square foot of facilities, energy consumption per gross square foot or unit of production, use of petroleum within facilities, overall energy use, and water consumption and associated energy requirements.

Executive Order 13148, *Greening the Government through Leadership in Environmental Management* (April 21, 2000)—This Order requires agencies to integrate environmental accountability into day-to-day decisionmaking and long-term planning processes. The Order sets goals for implementing environmental management systems and audits, reporting pollution releases to the public, preventing pollution or reducing it at the source, and reducing toxic releases and transfers of toxic chemicals, use of toxic chemicals and hazardous substances, and generation of hazardous and radioactive waste types. It also sets goals for phasing out the use of Class I ozone-depleting substances and promoting environmentally sound landscaping practices.

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*

(November 6, 2000)—This Order supplements the Executive Memorandum (dated April 29, 1994) entitled, “Government-to-Government Relations with Tribal Governments,” and states that each Executive branch department and agency shall consult, to the greatest extent practicable and to the extent permitted by law, with Tribal Governments prior to taking actions that affect federally recognized Tribal Governments. This Order also states that each Executive branch department and agency shall assess the impact of Federal Government plans, projects, programs, and activities on Tribal trust resources and assure that Tribal Government rights and concerns are considered during the development of such plans, projects, programs, and activities.

Executive Order 13287, *Preserve America* (March 3, 2003)—The goals of the initiative addressed by this Order include a greater shared knowledge about the Nation's past, strengthened regional identities and local pride, increased local participation in preserving cultural and natural heritage assets, and support for the economic vitality of our communities. The Order establishes Federal policy to provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal Government and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties.

6.3 Applicable DOE Orders

The Atomic Energy Act authorizes DOE to establish standards to protect health and minimize the dangers to life or property from activities under DOE's jurisdiction. Through a series of DOE Orders and regulations, an extensive system of standards and requirements has been established to ensure safe operation of DOE facilities. A number of DOE Orders have been issued in support of environmental, safety, and health programs. Many of these were revised and reorganized to reduce duplication and eliminate obsolete provisions. The new DOE Directives System is organized by series, with each Order identified by three digits, and is intended to include all DOE Orders, policies, manuals, requirement documents, notices, and guides. Existing DOE Orders (identified by four digits) are expected to be revised and converted to the new DOE numbering system. The major DOE Orders pertaining to the alternatives in this SWEIS are listed in **Table 6-3**.

DOE Order 151.1C, *Comprehensive Emergency Management System* (November 2, 2005)—

This Order establishes policy to assign and describe roles and responsibilities for the DOE Emergency Management System. The Emergency Management System provides the framework for development, coordination, control, and direction of all emergency planning, preparedness, readiness assurance, response, and recovery actions. The Emergency Management System applies to DOE and to NNSA.

DOE Order 231.1A, *Environment, Safety, and Health Reporting* (August 19, 2003;

Change 1, June 3, 2004)—This Order establishes responsibilities and requirements to ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that DOE and NNSA are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public, the workers, or the environment; the intended purpose of DOE facilities; or the credibility of DOE.

Table 6-3 Applicable DOE Orders and Directives (as of December 8, 2006)

<i>DOE Order/Number</i>	<i>Subject (date)</i>
Leadership/Management/Planning	
O 151.1C	Comprehensive Emergency Management System (11/02/05)
Information and Analysis	
O 231.1A	Environment, Safety, and Health Reporting (08/19/03; Change 1, 06/03/04)
Work Process	
O 413.3A	Program and Project Management for the Acquisition of Capital Assets (07/28/06)
O 414.1C	Quality Assurance (06/17/05)
O 420.1B	Facility Safety (12/22/05)
O 425.1C	Startup and Restart of Nuclear Facilities (03/13/03)
O 430.1B	Real Property Assessment Management (09/24/03)
O 433.1	Maintenance Management Program for DOE Nuclear Facilities (06/01/01)
O 435.1	Radioactive Waste Management (07/09/99; Change 1, 08/28/01)
O 440.1B	Worker Protection Management for DOE Federal and Contractor Employees (05/17/07)
O 450.1	Environmental Protection Program (01/15/03; Change 2, 12/07/05; Admin. Change 1, 01/03/07)
O 451.1B	National Environmental Policy Act Compliance Program, (10/26/00; Change 1, 09/28/01)
O 460.1B	Packaging and Transportation Safety (04/04/03)
O 460.2A	Departmental Materials Transportation and Packaging Management (12/22/04)
O 461.1A	Packaging and Transfer or Transportation of Materials of National Security Interest (04/26/04)
O 470.2B	Independent Oversight and Performance Assurance Program (10/31/02)
O 470.4	Safeguards and Security Program (08/26/05)
External Relationships	
O 1230.2	American Indian Tribal Government Policy (04/08/92) – as revised by DOE Notice 144.1 (10/20/06)
Environmental Quality and Impact	
O 5400.5	Radiation Protection of the Public and the Environment (02/08/90; Change 2, 01/07/93)
O 5480.19	Conduct of Operations Requirements for DOE Facilities (07/09/90; Change 1, 05/18/92; Change 2, 10/23/01)
O 5480.20A	Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities (11/15/94; Change 1, 07/12/01)
Emergency Preparedness	
O 5530.3	Radiological Assistance Program (01/14/92; Change 1, 04/10/92)
O 5530.5	Federal Radiological Monitoring and Assessment Center (07/10/92; Change 1, 12/02/92)
Office of National Nuclear Security Administration	
O 5660.1B	Management of Nuclear Materials (05/26/94)

DOE Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets (July 28, 2006)*—This Order provides DOE, including NNSA, project management direction for the acquisition of capital assets that are delivered on schedule, within budget, and fully capable of meeting mission performance and environmental, safety, and health standards.

DOE Order 414.1C, *Quality Assurance (June 17, 2005)*—The objectives of this Order are to ensure that DOE, including NNSA, products and services meet or exceed customers' expectations and to achieve quality assurance for all work based upon the following principles:

- That quality is assured and maintained through a single, integrated, effective quality assurance program (management system);
- That management support for planning, organization, resources, direction, and control is essential to quality assurance;
- That performance and quality improvement require thorough, rigorous assessment and corrective action;
- That workers are responsible for achieving and maintaining quality; and
- That environmental, safety, and health risks and impacts associated with work processes can be minimized while maximizing reliability and performance of work products.

DOE Order 420.1B *Facility Safety (December 22, 2005)*—This Order establishes facility safety requirements related to nuclear safety design, criticality safety, fire protection, and mitigation of hazards related to natural phenomena.

DOE Order 425.1C, *Startup and Restart of Nuclear Facilities (March 13, 2003)*—This Order establishes DOE requirements for startup of new nuclear facilities and restart of existing nuclear facilities that have been shut down. The requirements specify a readiness review process that must demonstrate that it is safe to start (or restart) the subject facility. The facility must be started (or restarted) only after documented independent reviews of readiness have been conducted and the approvals specified in the Order have been received.

DOE Order 430.1B, *Real Property Asset Management (September 24, 2003)*—This Order establishes a corporate, holistic, and performance-based approach to real property life-cycle asset management that links real property asset planning, programming, budgeting, and evaluation to program mission projections and performance outcomes. This Order also identifies requirements and establishes reporting mechanisms and responsibilities for real property asset management. Planning for disposition must be initiated when real property assets are identified as no longer required for current or future programs. Disposition includes stabilizing, preparing for reuse, deactivating, decommissioning, decontaminating, dismantling, demolishing, and disposing of real property assets.

DOE Order 433.1, *Maintenance Management Program for DOE Nuclear Facilities (June 1, 2001)*—This Order defines the program for the management of cost-effective maintenance of DOE nuclear facilities. Guidance for compliance with this Order is contained in

DOE Guide 433.1-1, “Nuclear Facility Maintenance Management Program Guide for Use with DOE Order 433.1,” which references Federal regulations, DOE directives, and industry best practices using a graded approach to clarify requirements and guidance for maintaining DOE-owned government property.

DOE Order 435.1, *Radioactive Waste Management (July 9, 1999)*—This Order and its associated manual and guidance establish responsibilities and requirements for the management of DOE high-level radioactive waste, transuranic waste, low-level radioactive waste, and the radioactive component of mixed waste. These documents provide detailed radioactive waste management requirements, including waste incidental to reprocessing determinations; waste characterization, certification, and treatment, storage, and disposal; and radioactive waste facility design and closure.

DOE Order 440.1B, *Worker Protection Management for DOE Federal and Contractor Employees (May 17, 2007)*—This Order establishes the framework for an effective worker protection program that reduces or prevents injuries, illnesses, and accidental losses by providing safe and healthful DOE Federal and contractor workplaces.

DOE Order 450.1, *Environmental Protection Program (January 15, 2003; Change 2, December 7, 2005; Admin. Change 1, January 3, 2007)*—Under DOE Order 450.1, it is DOE policy to conduct its operations in a manner that ensures the protection of public health, safety, and the environment through compliance with applicable Federal and state laws, regulations, Orders, and other requirements. The objective of this Order is to implement sound stewardship practices that protect the air, water, land, and other natural and cultural resources impacted by DOE operations. This objective is to be accomplished by implementing environmental management systems at DOE sites. An environmental management system is a continuing cycle of planning, implementing, evaluating, and improving processes and actions undertaken to achieve environmental goals.

DOE Order 451.1B, *National Environmental Policy Act Compliance Program (October 26, 2000; Change 1, September 28, 2001; DOE Notice 451.1, October 10, 2006)*—The purpose of this Order is to establish DOE internal requirements and responsibilities for implementing NEPA, the CEQ Regulations Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500 to 1508), and the DOE NEPA Implementing Procedures (10 CFR Part 1021). The goal is to ensure efficient and effective implementation of DOE NEPA responsibilities through teamwork. A key responsibility for all participants is to control the cost and time for the NEPA process while maintaining its quality.

DOE Order 460.1B, *Packaging and Transportation Safety (April 14, 2003)*—This Order sets forth DOE policy and assigns responsibilities for proper packaging and transporting of DOE offsite shipments and onsite transfers of hazardous materials and for modal transport.

DOE Order 460.2A, *Departmental Materials Transportation and Packaging Management (December 22, 2004)*—This Order requires DOE operations to comply with all applicable international, Federal, state, local, and Tribal laws, rules, and regulations governing materials transportation that are consistent with Federal regulations, unless exemptions or alternatives are approved. This Order also states that it is DOE policy that shipments will comply with the

U.S. Department of Transportation 49 CFR 100 through 185 requirements, except those that infringe on maintenance of classified information.

DOE Order 461.1A, *Packaging and Transfer or Transportation of Materials of National Security Interest* (April 26, 2004)—This Order establishes requirements and responsibilities for offsite shipments of naval nuclear fuel elements, Security Category I and II special nuclear material, nuclear explosives, nuclear components, special assemblies, and other materials of national security interest; onsite transfers of naval nuclear fuel elements, Security Category I and II special nuclear material, nuclear components, special assemblies and other materials of national security interest; and certification of packages for Security Category I and II special nuclear material, nuclear components, and other materials of national security interest.

DOE Order 470.2B, *Independent Oversight and Performance Assurance Program* (October 31, 2002)—This Order establishes the Independent Oversight Program to enhance DOE safeguards and security; cyber security; emergency management; and environment, safety, and health programs by providing DOE, contractor managers, the Congress, and other stakeholders with an independent evaluation of the adequacy of DOE policy and the effectiveness of line management performance in these and other critical functions as directed by the Secretary.

DOE Order 470.4, *Safeguards and Security Program* (August 26, 2005)—This Order establishes the roles and responsibilities for the DOE Safeguards and Security Program, which consists of six key elements: (1) program planning and management, (2) physical protection, (3) protective force, (4) information security, (5) personnel security, and (6) nuclear material control and accountability. Specific requirements for each of the key elements are contained in their respective programmatic manuals. The requirements identified in these manuals are based on national policy promulgated in laws, regulations, and Executive Orders to prevent unacceptable adverse impacts on national security, the health and safety of DOE and contractor employees, the public, and the environment.

DOE Order 1230.2, *American Indian Tribal Government Policy* (April 8, 1992) as revised by DOE Notice 144.1 (October 20, 2006)—This Order establishes responsibilities and transmits the DOE American Indian and Alaska Native Policy. The policy outlines the principles to be followed by DOE in its interactions with federally recognized American Indian Tribes. It is based on Federal policy treaties, Federal law, and DOE’s responsibilities as a Federal agency to ensure that Tribal rights and interests are identified and considered pertinent during decisionmaking.

DOE Order 5400.5, *Radiation Protection of the Public and the Environment* (February 8, 1990; Change 2, January 7, 1993)—This Order establishes standards and requirements for DOE operations to protect members of the public and the environment against undue risk from radiation. It is DOE policy to implement legally applicable radiation protection standards and to consider and adopt, as appropriate, recommendations by authoritative organizations; for example, the National Council on Radiation Protection and Measurements and the International Commission on Radiological Protection. It is also DOE policy to adopt and implement standards generally consistent with those of NRC for DOE facilities and activities that are not subject to NRC licensing authority.

DOE Order 5480.19, *Conduct of Operations Requirements for DOE Facilities* (July 9, 1990; Change 1, May 18, 1992; Change 2, October 23, 2001)—This Order provides requirements and guidelines for Departmental Elements including NNSA, to use in developing directives, plans, or procedures relating to the conduct of operations at DOE facilities.

DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities* (November 15, 1994; Change 1, July 12, 2001)—This Order establishes the selection, qualification, and training requirements for DOE contractor personnel involved in the operation, maintenance, and technical support of DOE nuclear reactors and nonreactor nuclear facilities. DOE objectives under this Order are to ensure the development and implementation of contractor-administered training programs that provide consistent and effective training for personnel at DOE nuclear facilities. The Order contains minimum requirements that must be included in training and qualification programs.

DOE Order 5530.3, *Radiological Assistance Program* (January 14, 1992; Change 1, April 10, 1992)—This Order establishes DOE policy, procedures, authorities, and responsibilities for its Radiological Assistance Program. Through this program, DOE provides assistance to state, local, and Tribal jurisdictions in preparing for a radiological emergency. The Order requires DOE to establish response plans, maintain resources, and assist Federal, state, local, and Tribal governments in the event of a real or potential emergency.

DOE Order 5530.5, *Federal Radiological Monitoring and Assessment Center* (July 10, 1992; Change 1, December 2, 1992)—This Order establishes DOE policy, procedures, authorities, and requirements for the establishment of a Federal Radiological Monitoring and Assessment Center, as set forth in the Federal Radiological Emergency Response Plan (50 FR 46542).

DOE Order 5660.1B, *Management of Nuclear Materials* (May 26, 1994)—This Order establishes requirements and procedures for the management of nuclear materials within the DOE.

6.4 Applicable State of New Mexico and Local Statutes, Regulations, and Agreements

Certain environmental requirements have been delegated to state authorities for implementation and enforcement. It is DOE policy to conduct its operations in an environmentally safe manner that complies with all applicable statutes, regulations, and standards, including state laws and regulations. A list of applicable State of New Mexico and local statutes, regulations, agreements, and Orders are provided in **Table 6-4**.

Since the last SWEIS was published, the State of New Mexico has entered into a Compliance Order on Consent (Consent Order) with DOE and the University of California pursuant to Section 74-4-10 of the Hazardous Waste Act and 74-9-36(D) of the Solid Waste Act. The Consent Order requires DOE and the University of California (or its successor) to conduct a site-wide investigation and cleanup of contamination at LANL in accordance with the procedures and schedules set forth in the Consent Order. The Consent Order sets forth requirements to investigate and remediate a large number of potential release sites and areas of concern, including, but not limited to, several former material disposal areas.

Table 6–4 State and Local Requirements

<i>Activity</i>	<i>Citation</i>	<i>Requirements</i>
Endangered Plant Species	New Mexico Administrative Code (NMAC), Title 19, Chapter 21, Endangered Plants (revised November 30, 2006).	Establishes plant species list and rules for collection.
Environmental Oversight and Monitoring Agreement	Agreement in Principle Between DOE and the State of New Mexico, November 2000.	Provides DOE support for state activities in environmental oversight, monitoring, access, and emergency response.
Federal Facility Compliance Order	October 1995 (issued to both DOE and LANL).	Order used by the New Mexico Environment Department to enforce the Federal Facility Compliance Act. It requires compliance with the approved LANL Site Treatment Plan, which documents the development and use of treatment capacities and technologies, as well as use of offsite facilities for treating mixed radioactive waste stored at LANL.
Los Alamos County Noise Restrictions	Los Alamos County Code, Chapter 8.28.	Imposes noise restrictions and makes provisions for exceedances.
Environmental Improvement Act	New Mexico Statutes Annotated (NMSA) 1978, Sections 74-1-1 through 74-1-15; NMAC, 20.5.1 through 20.5.17, August 15, 2003. The New Mexico Environment Department recently changed their regulations for storage tanks, combining the regulations for aboveground and underground storage tanks into the Petroleum Storage Tank regulations. Petroleum Storage Tank regulations found in 20.5.1 NMAC through 20.5.17 NMAC; filed for publication in the <i>New Mexico Register</i> on July 16, 2003; effective August 15, 2003.	Aboveground tank regulations were modified to include requirements for the registration, installation, modification, repair, and closure or removal of aboveground storage tanks, as well as release detection, record-keeping, and financial responsibility in the State of New Mexico.
New Mexico Air Quality Control Act	NMSA, Chapter 74, “Environmental Improvement,” Article 2, “Air Pollution” (revised 10/31/02), and implementing regulations at NMAC Title 20, “Environmental Protection,” Chapter 2, “Air Quality” (revised October 31, 2002).	Establishes air quality standards and requires a permit prior to construction or modification of an air contaminant source. Also requires an operating permit for major producers of air pollutants and imposes emission standards for hazardous air pollutants.
New Mexico Cultural Properties Act	NMSA, Chapter 18, “Libraries and Museums,” Article 6, “Cultural Properties.”	Establishes the State Historic Preservation Office and requirements to prepare an archaeological and historic survey and consult with the State Historic Preservation Office.
New Mexico Groundwater Protection Act	NMSA, Chapter 74, Article 6B, “Groundwater Protection.”	Establishes state standards for protection of groundwater from leaking underground storage tanks.
New Mexico Hazardous Chemicals Information Act	NMSA, Chapter 74, Article 4E-1, “Hazardous Chemicals Information.”	Implements the hazardous chemical information and toxic release reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (SARA Title III) for covered facilities.

<i>Activity</i>	<i>Citation</i>	<i>Requirements</i>
New Mexico Hazardous Waste Act	NMSA, Chapter 74, Article 4, "Hazardous Waste," and implementing regulations found in NMAC Title 20, "Environmental Protection," Chapter 4, "Hazardous Waste" (revised June 14, 2000).	Establishes permit requirements for construction, operation, modification, and closure of a hazardous waste management facility and establishes state standards for cleanup of releases from leaking underground storage tanks.
New Mexico Endangered Plant Species Act	NMSA, Chapter 75, Miscellaneous Natural Resource Matters, Article 6, "Endangered Plants."	Requires coordination with the State.
New Mexico Night Sky Protection Act	NMSA, Chapter 74, Article 12 "Night Sky Protection:" 74-12-1 to 74-12-10) (House Bill 39/A, March 1, 1999).	Regulates outdoor night lighting fixtures to preserve and enhance the State's dark sky while promoting safety, conserving energy, and preserving the environment for astronomy.
New Mexico Radiation Protection Act	NMSA, Chapter 74, Article 3, "Radiation Control" and implementing regulations found in NMAC Title 20 Chapter 3, "Radiation Protection" (revised April 15, 2004) "Environmental Protection."	Establishes state requirements for worker protection.
New Mexico Raptor Protection Act	NMSA, Chapter 17, Article 2-14.	Makes it unlawful to take, attempt to take, possess, trap, ensnare, injure, maim, or destroy any of the species of hawks, owls, and vultures.
New Mexico Solid Waste Act	NMSA, Chapter 74, Article 9, Solid Waste Act, and implementing regulations found in NMAC Title 20, "Environmental Protection," Chapter 9, Solid Waste (revised November 27, 2001).	Requires permit prior to construction or modification of a solid waste disposal facility.
New Mexico Water Quality Act	NMSA, Chapter 74, Article 6, "Water Quality," and implementing regulations found in NMAC, Title 20, "Environmental Protection," Chapter 6, "Water Quality" (revised February 16, 2006).	Establishes water quality standards and requires a permit prior to the construction or modification of a water discharge source.
New Mexico Wildlife Conservation Act	NMSA, Chapter 17, Game and Fish, Article 2, Hunting and Fishing Regulations, Part 3, Wildlife Conservation Act.	Requires a permit and coordination if a project may disturb habitat or otherwise affect threatened or endangered species.
Compliance Order on Consent	March 1, 2005 (entered into by the State of New Mexico, DOE, and the University of California) (NMED 2005).	Requires site investigations of known or potentially contaminated sites at LANL and cleanup in accordance with a specified process and schedule.
Pueblo Accords	DOE 2006 Restatement of Accords with each of four Pueblos (Pueblos of Cochiti, Jemez, Santa Clara, and San Ildefonso).	Set forth the specifications for maintaining a government-to-government relationship between DOE and each of the four Pueblos closest to LANL.
Threatened and Endangered Species of New Mexico	NMAC Title 19, "Natural Resources and Wildlife," Chapter 33, "Threatened and Endangered Species," 19.33.6.8 (revised December 29, 2006).	Establishes the list of threatened and endangered species.

Table 6-5 lists the state permits that have been issued to LANL. Certain open burning permits that were previously included on this table were withdrawn from the regulatory authority (LANL 2006c).

Table 6–5 State Environmental Permits

<i>Category/Approved Activity</i>	<i>Permit</i>	<i>Date Issued</i>	<i>Expiration Date</i>
Air Permits			
Facilities with emissions greater than 100 tons per year of nitrogen oxide, volatile organic compound, and carbon monoxides (NMAC Operating Permit)	Operating Permit Number P100 M1	June 15, 2006	April 30, 2009
Beryllium Machining at TA-3-141	Construction Permit Number 634-M2	October 30, 1998	None
Beryllium Machining at TA-35-213	Construction Permit Number 632	December 26, 1985	None
Beryllium Machining at TA-55-4	Construction Permit Number 1081-M1-R6	July 1, 1994 (revised May 12, 2006)	None
TA-3 Power Plant	Construction Permit Number 2195-B-M1	July 30, 2004	None
TA-33 Generator	Construction Permit Number 2195-F	October 10, 2002	None
Asphalt Plant	Construction Permit Number GCP-3-2195G	October 29, 2002	None
Data Disintegrator	Construction Permit Number 2195-H	October 22, 2003	None
Chemistry and Metallurgy Research Replacement Facility, Radiological Laboratory, Office Building, and Utility Building	Construction Permit Number 2195-N	September 16, 2005	None
Hazardous Waste Permits			
Hazardous Waste Facility Permit and Mixed-Waste Storage and Treatment Permit	Permit Number NM0890010515	November 1989	November 1999 (Permit has been administratively continued)
TA-50 Part B Permit Renewal Application Revision 3.0	Permit Number NM0890010515	August 2002	None
General Part B Permit Renewal Application, Revision 2.0	Permit Number NM0890010515	August 2003	None
TA-54 Part B Permit Renewal Application, Revision 3.0	Permit Number NM0890010515	June 2003	None
TA-16 Part B Permit Renewal Application, Revision 4.0	Permit Number NM0890010515	June 2003	None
TA-55 Part B Permit Application, Revision 2.0	Permit Number NM0890010515	September 2003	None
General Part A Permit Application, Revision 4.0	Permit Number NM0890010515	December 2004	None
RCRA Corrective Activities	Permit Number NM0890010515	March 1990	December 1999 (Permit has been administratively continued)
Groundwater Discharge Permits			
Groundwater Discharge Plan, TA-46 Sanitary Wastewater Systems Plant	Not applicable	January 7, 1998	January 7, 2003 (Permit has been administratively continued)
Groundwater Discharge Plan, TA-50, Radioactive Liquid Waste Treatment Facility	Not applicable	Submitted August 20, 1996, approval pending	None

NMAC = New Mexico Administrative Code, TA = technical area, RCRA = Resource Conservation and Recovery Act.
Source: LANL 2006h.

6.5 Consultations

6.5.1 Consultation Requirements

Certain laws, such as the Endangered Species Act, the U.S. Fish and Wildlife Coordination Act, and the National Historic Preservation Act, require DOE to consult and coordinate with other governmental entities including other Federal agencies, state and local agencies, and federally recognized Native American Governments. In addition, the DOE American Indian and Alaska Native Tribal Government Policy requires DOE to consult with any Native American or Alaska Native Tribal Government regarding any property to which the Tribe attaches religious or cultural importance that might be affected by a DOE action. The following sections describe consultations and other interactions that took place during the preparation of this SWEIS.

6.5.1.1 Ecological Resources

Biotic resource consultations generally pertain to the potential for activities to disturb sensitive species or habitats. Under the terms of the LANL *Threatened and Endangered Species Habitat Management Plan* (LANL 2000b), NNSA submitted a *Biological Assessment of the Continued Operation of Los Alamos National Laboratory on Federally Listed Threatened and Endangered Species* (LANL 2006b) to the U.S. Fish and Wildlife Service on February 22, 2006. The U.S. Fish and Wildlife Service response to NNSA's consultation request is presented in Section 6.5.2.

6.5.1.2 Cultural Resources

Cultural resource consultations relate to the potential for disruption of important cultural resources and archaeological sites. As required by NEPA and Section 106 of the National Historic Preservation Act, DOE consults with the Advisory Council on Historic Preservation, the appropriate State Historic Preservation Officers, and Tribal Historic Preservation Officers. Under the terms of the *Programmatic Agreement for Management of Historic Properties at Los Alamos National Laboratory* (DOE 2006b), a copy of the Draft SWEIS was submitted to the State Historic Preservation Officer. The response to NNSA's request for consultation with the New Mexico State Historic Preservation Officer is presented in Section 6.5.2.

6.5.1.3 Tribal Consultations

Native American consultations are concerned with the potential for impacts on any rights and interests, including disturbance of Native American ancestral sites, sacred sites, and traditional and religious practices, or natural resources of importance to Native Americans. DOE is committed to meeting its responsibilities in maintaining its government-to-government relationships with federally recognized Native American Tribes. **Table 6-6** lists Executive Memoranda and DOE direction regarding government-to-government relations with Native American Tribal Governments.

Table 6-6 Government-to-Government Relationships with Tribal Governments

<i>Date</i>	<i>Title</i>
January 20, 2006	Memorandum for the Head of Departmental Elements from Secretary Samuel W. Bodman. DOE reaffirms government-to-government relationships with Tribal Governments (references American Indian and Alaska Natives Tribal Government Policy).
September 23, 2004	Memorandum for the Heads of Executive Departments and Agencies Government-to-Government Relationship with Tribal Governments (references Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, and Executive Order 13336, entitled “American Indian and Alaska Native Education”). This complements and partially supersedes the similar executive memorandum of April 29, 1994.
August 21, 2001	Secretary Abraham reaffirms DOE’s Government-to-Government Relations with Native American Tribal Governments (references American Indian and Alaska Natives Tribal Government Policy).
April 29, 1994	Memorandum for the Heads of Executive Departments and Agencies, Government-to-Government Relations with Native American Tribal Governments.

DOE undertook an extensive effort to consult with Native American Tribal Governments during preparation of the 1999 *Site-Wide Environmental Impact Statement for the Continued Operation of the Los Alamos National Laboratory, Los Alamos, New Mexico (1999 SWEIS)* (DOE/EIS-0238). DOE has initiated consultations with the appropriate Native American Tribal Governments, as required by Executive Memoranda and DOE Order 1230.2, “American Indian Tribal Government Policy,” as revised by DOE Notice 144.1. NNSA continued its consultations with the pueblos during the preparation of this SWEIS.

As part of its Government-to-Government interactions, restatements of four Pueblo Accords were signed by the Governor of each pueblo (Cochiti, San Ildefonso, Jemez, and Santa Clara) and the Secretary of Energy in 2005 and 2006. Twice yearly, executive meetings are held among the Los Alamos Site Office Manager, the LANL Director, and the respective Accord Pueblo Governors. In addition, the Los Alamos Site Office Manager meets monthly with each governor of the two pueblos closest to LANL (San Ildefonso and Santa Clara) and with the other Accord Pueblo Governors on a less frequent basis. In both the executive meetings and the private meetings, the Los Alamos Site Office Manager discussed the SWEIS and the importance of the pueblos participating in the SWEIS preparation process.

The NNSA NEPA Document Manager requested the involvement of pueblo representatives during the SWEIS preparation period. In the spring of 2004 the Document Manager notified the Four Accord Pueblos of NNSA’s intention to prepare a Supplement Analysis of the *1999 SWEIS* to determine whether a new or supplemental SWEIS should be prepared, and attended meetings at the four Accord Pueblos to brief Pueblo representatives on how the Supplement Analysis would be prepared.

When NNSA made the decision in late 2004, to prepare a supplement to the *1999 SWEIS*, the NNSA NEPA Document Manager sent notification letters inviting each of the Four Accord Pueblos to become Cooperating Agencies. Two pueblos (San Ildefonso and Santa Clara) responded that they wished to be involved. While neither signed formal agreements, over the next year both pueblos continued to participate in internal working meetings during preparation of the Draft SWEIS including review of sections and chapters of the document.

On January 5, 2005, NNSA issued a *Federal Register* Notice of Intent to prepare a *Supplemental Environmental Impact Statement to the Final Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory (Supplemental SWEIS)* (70 FR 807). In the Notice of Intent, NNSA invited public comment on the *Supplemental SWEIS* proposal and listed the issues initially identified by NNSA for evaluation in the *Supplemental SWEIS*. The four Accord Pueblos were also invited to comment on the scope of the proposed action. A public scoping meeting was held in Pojoaque, New Mexico, on January 19, 2005. The public scoping period ended February 17, 2005.

A post-scoping internal working meeting was held on March 8, 2005, to discuss the scoping comments and proposed project reviews. The Four Accord Pueblos were invited to send representatives and two of the Accord Pueblos participated in the meeting.

The Draft SWEIS was issued to the public and LANL stakeholders, including approximately 23 American Indian Tribes who had expressed interest in LANL, on July 7, 2006, followed by a public comment period extending through September 20, 2006. During the review period, the Santa Clara Pueblo hosted a meeting to which the Eight Northern Pueblos and the two Accord Pueblos that are not members of the Eight Northern Pueblos (the Pueblo of Cochiti and the Pueblo of Jemez) were invited. The purpose of this meeting was for the Los Alamos Site Office Manager, the NNSA Document Manager, and LANL staff to discuss the Draft SWEIS. Several pueblos submitted comments on the Draft LANL SWEIS that were considered in completing the final document.

6.5.2 Consultation Letters

Consultation letters associated with this SWEIS are attached at the end of this section and include correspondence from the New Mexico Department of Cultural Affairs and the U.S. Fish and Wildlife Service. Letters from the latter organization are in response to the request for Section 7 consultation under the Endangered Species Act made by NNSA upon its transmittal of a biological assessment for continued operation of LANL (LANL 2006b).

Consultation Letters



BILL RICHARDSON
Governor

STATE OF NEW MEXICO
**DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION**

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

November 17, 2006

John Isaacson, Ph.D.
SWEIS and C&T Project leader
Environmental Division M887
Los Alamos National Laboratory
Los Alamos, NM 87544

Re: Draft SWEIS for Continued Operation of LANL, Los Alamos; HPD Log
78716.

Dear Dr. Isaacson:

Thank you for sending our office a copy of the June 2006 *Draft Site-Wide Environmental Impact Statement [SWEIS] for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico*. We look forward to receiving the Final document.

Currently, our Section 106 reviews follow the terms of the Programmatic Agreement (LA-UR-06-1975) between the U.S. Department of Energy, the National Nuclear Security Administration, the Los Alamos Site Office, the New Mexico State Historic Preservation Officer and the Advisory Council on Historic Preservation. This agreement and the management plan for cultural heritage at Los Alamos National Laboratory dated February 2006 guide the management for the historic properties of Los Alamos National Laboratory and our consultation process.

Thank you again, and we look forward to receiving the Final SWEIS.

Sincerely,

A handwritten signature in cursive script that reads "Katherine A. Slick".

Katherine A. Slick
State Historic Preservation Officer



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

March 20, 2006

Cons. # 22420-2006-I-0066

Ms. Elizabeth R. Withers
ESA Program Manager
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

Dear Ms. Withers:

Thank you for your February 22, 2006, Biological Assessment (BA) of the Continued Operation of Los Alamos National Laboratory (LANL) on Federally Listed Threatened and Endangered Species. LANL reviewed eighteen projects that had not received U.S. Fish and Wildlife Service (Service) consultation or concurrence, as well as the two aspects of ongoing operations, ecological risk from legacy contaminants and the Outfall Reduction Project were determined to have the potential to affect Federally Listed species. Your letter requesting consultation for the proposed projects and their effects on the threatened Mexican spotted owl (owl) (*Strix occidentalis lucida*) and the threatened bald eagle (*Haliaeetus leucocephalus*) and the endangered southwestern willow flycatcher (flycatcher) (*Empidonax trailii extimus*) was received by the Service on February 22, 2006. You determined that proposed projects listed on Tables 1 and 2 “may affect, is not likely to adversely affect” the bald eagle, the flycatcher, and the owl, and requested concurrence.

LANL produced a Threatened and Endangered Species Habitat Management Plan (HMP) (LANL 1999). The HMP is a comprehensive plan that balances current LANL operations and future development with habitat of listed species. The HMP facilitates Department of Energy compliance with the Endangered Species Act of 1973, as amended (Act). The HMP defines site plans and monitoring plans for species that may occur on LANL. The owl, bald eagle, and flycatcher habitat is labeled areas of environmental interest (AEIs). As such, the HMP provides a list of activities named reasonable and prudent alternatives (RPAs), which, if they are conducted, will not adversely affect these species. The projects listed below adhere to the activities identified in the HMP. Our concurrences are listed for the owl, bald eagle, and flycatcher (Tables 1 and 2).

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Table 1. LANL project determinations and concurrences for the bald eagle and flycatcher.

Project	Bald Eagle determination	Concurrence rationale:	Flycatcher determination	Concurrence rationale:
Ecological risk from legacy contaminants	May affect, not likely to adversely affect	1) RPAs will be applied. 2) LANL may consider a new bald eagle risk assessment.	May affect, not likely to adversely affect	1) LANL will continue to monitor/survey potential breeding sites, and evaluate areas that could develop into suitable habitat. 2) Available evidence indicates LANL does not contribute excess adverse risk to the flycatcher from environmental contaminants. 3) RPAs will be applied.
Science complex	May affect, not likely to adversely affect	1) The proposed project site is not near the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied.		
TA-3 Replacement Office Buildings	May affect, not likely to adversely affect	1) The proposed project site is more than 4.6 miles from the bald eagle AEI. 2) Bald eagle foraging		

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Project	Bald Eagle determination	Concurrence rationale:	Flycatcher determination	Concurrence rationale:
		habitat RPAs will be applied.		
Nuclear Materials Safeguards and Security Upgrade	May affect, not likely to adversely affect	1) The proposed project site is 6.6 miles from the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied.		
Security-Driven Transportation Modification	May affect, not likely to adversely affect	1) The proposed project site is more than 5.5 miles from the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied		
Security-Driven Transportation Modifications Options	May affect, not likely to adversely affect	1) The proposed project site is more than 5.9 miles from the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied.		
TA-48 Radiological Science Institute	May affect, not likely to adversely affect	1) The proposed project site is more than 4 miles from the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied.		
Radioactive	May affect, not	1) The		

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Project	Bald Eagle determination	Concurrence rationale:	Flycatcher determination	Concurrence rationale:
Liquid Waste Treatment Facility Replacement	likely to adversely affect	proposed project site is not near the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied.		
TA-72 Warehouse and Truck Inspection Station	May affect, not likely to adversely affect	1) The proposed project site is more than 4.3 miles from the bald eagle AEI. 2) Bald eagle foraging habitat RPAs will be applied.		
Disposition of the Flood Retention Structure and Steel Diversion Wall in Pajarito Canyon			May affect, not likely to adversely affect	1) The flycatcher AEI is 0.75 miles (downstream) from the proposed project site. 2) An RPA will ensure implementation of storm water protection plan measures to mitigate downstream impacts. 3) The proposed actions will not remove flycatcher foraging habitat.
Decontamination, Decommissioning,			May affect, not likely to	1) The proposed

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Project	Bald Eagle determination	Concurrence rationale:	Flycatcher determination	Concurrence rationale:
and Demolition of TA-18			adversely affect	project is 890 feet from flycatcher AEI. 2) The proposed action will not remove any flycatcher foraging habitat. 3) An RPA will ensure that erosion does not occur into wetlands downstream.
Remediation of MDAs G, H, and L at TA-54			May affect, not likely to adversely affect	1) No suitable foraging or nesting habitat will be lost or compromised due to the proposed action. 2) Predicted noise levels are not likely to exceed 6 decibels above background in flycatcher AEI. 3) Surveys will be conducted and if a flycatcher is found, work will cease and the Service will be contacted and consultation reinitiated if

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Project	Bald Eagle determination	Concurrence rationale:	Flycatcher determination	Concurrence rationale:
				needed. 4) RPAs will be followed.
DynEX Assembly Chamber	May affect, not likely to adversely affect	1) The proposed project site is not near the bald eagle AFI. 2) Bald eagle foraging habitat RPAs will be applied.		
Remediation of MDA D at TA-33	May affect, not likely to adversely affect	1) The proposed project site is in core and buffer habitat but it is already developed. 2) No roost trees will be disturbed. 3) Back-up indicators on trucks will be muted within safety standards. 3) Reseeding and erosion protection will follow where needed. 4) Bald eagle foraging habitat RPAs will be applied		

Table 2. LANL project determinations and concurrences for the owl.

Project	Owl determination	Concurrence rationale:
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Project	Owl determination	Concurrence rationale:
Ecological risk from legacy contaminants	May affect, not likely to adversely affect	RPAs will be applied.
Science complex	May affect, not likely to adversely affect	1) No suitable nesting habitat would be removed. 2) Owls have not been detected in Los Alamos Canyon. 3) Consultation will be reinitiated if owls are found.
TA-3 Replacement Office Buildings	May affect, not likely to adversely affect	1) RPAs will be applied. 2) The project would remove approximately 11 acres of buffer habitat. 3) Owls have not been detected in Los Alamos Canyon
Nuclear Materials Safeguards and Security Upgrade	May affect, not likely to adversely affect	1) RPAs plus additions and qualifications identified in the BA for this project would be implemented. 2) The project would remove approximately 7 acres of buffer habitat. 3) Owls were detected in Mortandad Canyon (2004 and 2005). 4) No core habitat would be developed.
TA-48 Radiological Science Institute	May affect, not likely to adversely affect	1) RPAs will be applied. 2) Most of the new construction would not be in owl habitat.
Characterization and Remediation of MDA C	May affect, not likely to adversely affect	1) Proposed project would not remove suitable roosting or nesting habitat.
Radioactive Liquid Waste Treatment Facility Replacement	May affect, not likely to adversely affect	1) Approximately 75 percent of the project area has been disturbed

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Project	Owl determination	Concurrence rationale:
		by other construction. 2) RPAs will be applied. 3) Noise levels should attenuate below limits set in the HMP. 4) Project activities would take place within or adjacent to developed areas.
Disposition of the Flood Retention Structure and Steel Diversion Wall in Pajarito Canyon	May affect, not likely to adversely affect	RPAs will be applied. 2) Owls have not been detected within the proposed project area. 3) No trees greater than 8 inches diameter at breast height would be removed. 4) Owl core habitat is protected from disturbance by the mesa that separates Pajarito and Three-Mile canyons.
Decontamination, Decommissioning, and Demolition of TA-18	May affect, not likely to adversely affect	1) Noise disturbance would be temporary and short duration. 2) All disturbed soils would be reseeded with native seeds. 3) No trees greater than 8 inches diameter at breast height would be removed. 4) Back-up indicators on all trucks and heavy equipment would be muted consistent with the safety of human workers.
Remediation of MDAs A, T, and U at TA-21	May affect, not likely to adversely affect	1) RPAs from the BA (Appendix B) would be implemented. 2) No suitable foraging or

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Project	Owl determination	Concurrence rationale:
		nesting habitat will be lost; 3) The proposed project area is already highly disturbed. 4) Owls have not been detected in Los Alamos Canyon. 5) If owls are detected the Service would be contacted and reinitiation would be needed.
Decontamination, Decommissioning, and Demolition of TA-21	May affect, not likely to adversely affect	1) RPAs from the BA (Appendix B) would be implemented. 2) No suitable foraging or nesting habitat will be lost. 3) The proposed project area is already highly disturbed. 4) Owls have not been detected in Los Alamos Canyon. 5) If owls are detected the Service would be contacted and reinitiation would be needed.
DynEX Assembly Chamber	May affect, not likely to adversely affect	1) No suitable roosting or nesting habitat will be lost. 2) Owl surveys in Canon de Valle would continue. 3) Approximately 2 acres would be developed. 4) RPAs from the BA (Appendix B) would be implemented. 5) If owls are detected within 0.25 mile of the construction site, activities would be suspended until September 1.

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Project	Owl determination	Concurrence rationale:
Remediation of MDAs N and Z at TA-15	May affect, not likely to adversely affect	1) The proposed project would not remove nesting or roosting habitat. 2) Owl surveys would continue. 3) Approximately 2 acres of owl habitat would be disturbed. 4) RPAs from the BA (Appendix B) would be implemented. 5) If owls are detected within 0.25 mile of the construction site, activities would be suspended until September 1.

Cumulative effects were not analyzed by the Service for this letter of concurrence because under section 7 of the Act, those effects are future State and private activities, not involving Federal activities that are reasonably certain to occur within the action area of the Federal action subject to consultation. This definition applies only to section 7 analyses and should not be confused with the broader use of this term in the National Environmental Policy Act or other environmental laws. Cumulative effects under section 7 will be analyzed in a subsequent biological opinion for the Outfall Reduction Project, the Security-Driven Transportation Modifications Project, and the Security-Driven Transportation Modifications Options Project.

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. In the appendix, we enclose conservation recommendations for the bald eagle, the flycatcher, and other migratory birds.

This concludes the informal consultation for the Continued Operation of Los Alamos National Laboratory on Federally Listed Threatened and Endangered Species. Please contact the Service if: (1) new information reveals effects of the agency action that may affect the species to an extent not considered in this consultation; (2) the agency action is subsequently modified in a manner that causes an effect to the species that was not considered by the proposed action, (3) owls or bald eagles or flycatchers are detected within any project area, and (4) a new species is listed or critical habitat designated that may be affected by the proposed project.

Ms. Elizabeth R. Withers

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We appreciate the thorough analyses provided in the letter and the EA and your efforts to protect endangered and threatened species. In future communications regarding this consultation please refer to consultation #22420-2006-1-0066. If we can be of further assistance, please contact Santiago R. Gonzales or Nancy Baczek of my staff at (505) 761-4755 or (505) 761-4711, respectively.

Sincerely,



Russ Holder
Acting Field Supervisor

Enclosure

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division,
Santa Fe, New Mexico

Ms. Elizabeth R. Withers

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Appendix A.

Species Specific Conservation Recommendations for BA of Continued Operation of Los Alamos National Laboratories

Flycatcher

- Cease project activity during May, the time period in which flycatchers most frequently migrate through LANL.
- Develop a habitat management plan to eradicate and control non-native invasive riparian/wetland vegetation. (Tamarisk sp., Russian Olive, and Siberian Elm)
- Enhance native riparian/wetland vegetation following drought and project impacts.
- A new state-wide assessment is recommended for the flycatcher and contaminants, considering that contaminant data, safe limits, and other modeling parameters have changed considerably. (RE: p.170 of BA)

Bald Eagle

- Develop an avian protection plan for power lines and towers. (RE: p. 171 of BA)
- Because contaminant data reflective of the terrestrial portion (mostly carrion) of resident bald eagles diets have changed considerably since the last modeling assessment, and safe limits and other modeling parameters have changed considerably, consideration should be made for a new risk assessment on the bald eagle.

Migratory Birds

- Use “bird-glass” in new buildings and replacement of old glass.
- Use window blinds to shut out lab/office-light from night environment.
- Habitat disruption/removal should only take place during migratory bird non-nesting season, or following negative surveys.



United States Department of the Interior

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New Mexico Ecological Services Field Office
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Phone: (505) 346-2525 Fax: (505) 346-2542

June 20, 2006

Cons. # 22420-2006-I-0091

Ms. Elizabeth R. Withers
ESA Program Manager
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

Dear Ms. Withers:

Thank you for your February 22, 2006, biological assessment (BA) of the Continued Operation of Los Alamos National Laboratory on Federally Listed Threatened and Endangered Species – Outfall Reduction Project. The Los Alamos National Laboratory (LANL) proposes to eliminate seven industrial effluent outfalls. Your letter requesting consultation for the proposed project and its effects for the threatened Mexican spotted owl (owl) (*Strix occidentalis lucida*) was received by the U.S. Fish and Wildlife Service (Service) on February 22, 2006. The LANL has determined that proposed project “may affect, is likely to adversely affect” the owl.

You concluded that the Outfall Reduction Project may adversely affect the abundance and diversity of prey species along approximately 400 feet of perennial and intermittent stream by eliminating outfall discharges. It is our understanding that your determination is centered upon potential indirect impacts (eliminating outfalls may impact prey species habitat). We appreciate that you are taking a conservative approach for this project in your determination of “may affect likely to adversely affect” the owl. Nevertheless, we respectfully disagree with your conclusion for the following reasons: 1) the proposed elimination of an outfall is located within restricted habitat and will not directly affect owl; 2) nesting has not been documented in Mortandad-Sandia Canyon; 3) a perennial stream is present in the action area; 4) the closure of outfall 03A027 is not likely to have a substantial negative impact on the Sandia wetland; 5) outfall 03A130 contributes to a wetland that has no perennial streams or other outfalls; 6) reasonable and prudent alternatives would be implemented to reduce or avoid potential impacts; 7) effects from the proposed project are not expected to be adverse in the Canon de Valle Area of Environmental Interest (AEI); and 8) although 1.36 acres of wetland and 400 feet of perennial stream would be impacted in Mortandad-Sandia Canyon, we do not anticipate the owl or its prey will be adversely affected. For these reasons we conclude that, as described, the effects to the owl from the elimination of outfalls in Mortandad-Sandia Canyon will be insignificant and discountable, and will not result in adverse effects to the owl.

This concludes the informal consultation for the Outfall Reduction Project. Please contact the Service if: (1) new information reveals effects of the agency action that may affect the species to


Ms. Elizabeth R. Withers

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an extent not considered in this consultation; (2) the agency action is subsequently modified in a manner that causes an effect to the species that was not considered by the proposed action, and (3) a new species is listed or critical habitat designated that may be affected by the proposed project.

We appreciate the thorough analyses provided in the letter and the BA and your efforts to protect endangered and threatened species. In future communications regarding this consultation please refer to consultation #22420-2006-I-0091. If we can be of further assistance, please contact Santiago R. Gonzales of my staff at (505) 761-4755.

Sincerely,


for Wally Murphy
Acting Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

Director, New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division,
Santa Fe, New Mexico



United States Department of the Interior

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June 20, 2006

Cons. # 22420-2006-I-0092

Ms. Elizabeth R. Withers
ESA Program Manager
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

Dear Ms. Withers:

Thank you for your February 22, 2006, biological assessment (BA) of the Continued Operation of Los Alamos National Laboratory on Federally Listed Threatened and Endangered Species – Security-Driven Transportation Modifications Project. The Los Alamos National Laboratory (LANL) proposes to upgrade and enhance security in the Pajarito Corridor West area. Construction of parking lots, pedestrian walkways, roads, and bridges associated with the proposed project would result in some temporary noise levels near new roads from construction equipment and activities and permanent increases in noise levels from vehicular and pedestrian traffic. There would be permanent light sources associated with the parking lots, walkways and roads. Your letter requesting consultation for the proposed project and its effects for the threatened Mexican spotted owl (owl) (*Strix occidentalis lucida*) was received by the U.S. Fish and Wildlife Service (Service) on February 22, 2006.

You concluded that the Security-Driven Transportation Modifications Project may adversely affect the owl foraging and nesting habitat. It is our understanding that your determination is centered upon potential indirect impacts (removal of approximately 20 acres of undeveloped habitat). We appreciate that you are taking a conservative approach for this project in your determination of “may affect likely to adversely affect” the owl. Nevertheless, we respectfully disagree with your conclusion for the following reasons: 1) the parking lot in TA-48 would be approximately 11 acres and would not be located in listed species habitat; 2) the parking lot at TA-63 would total approximately 20 acres and currently consists on open field and junipers and ponderosa pine woodland; and 3) reasonable and prudent alternatives would be implemented to reduce or avoid potential impacts. For these reasons we conclude that, as described, the effects to the owl from the construction activities associated with the proposed project will be insignificant and discountable, and will not result in adverse effects to the owl.

This concludes the informal consultation for the Security-Driven Transportation Modifications Project. Please contact the Service if: (1) new information reveals effects of the agency action that may affect the species to an extent not considered in this consultation; (2) the agency action is subsequently modified in a manner that causes an effect to the species that was not considered


Ms. Elizabeth R. Withers

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by the proposed action, and (3) a new species is listed or critical habitat designated that may be affected by the proposed project.

We appreciate the thorough analyses provided in the letter and the BA and your efforts to protect endangered and threatened species. In future communications regarding this consultation please refer to consultation #22420-2006-I-0092. If we can be of further assistance, please contact Santiago R. Gonzales of my staff at (505) 761-4755.

Sincerely,


Wally Murphy
Acting Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division,
Santa Fe, New Mexico



United States Department of the Interior

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June 22, 2006

Cons. # 22420-2006-I-0093

Ms. Elizabeth R. Withers
Document Site-wide EIS Manager
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

Dear Ms. Withers:

Thank you for your February 22, 2006, biological assessment (BA) of the Continued Operation of Los Alamos National Laboratory on Federally Listed Threatened and Endangered Species – Security Transportation Modifications (Optional Actions) Project. The Los Alamos National Laboratory (LANL) proposes Option A: Paving Sigma Mesa Road with a bridge over Mortandad Canyon and Option B: Bridge Over Sandia Canyon. Your letter requesting formal consultation for the proposed options and their effects on the threatened Mexican spotted owl (owl) (*Strix occidentalis lucida*) was received by the U.S. Fish and Wildlife Service (Service) on February 22, 2006.

The BA describes two options: 1) Paving Sigma Mesa Road with a bridge over Mortandad Canyon and 2) a bridge over Sandia Canyon. However, the BA does not identify which alternative LANL has selected. The BA also does not identify a specific location of the bridge crossing, nor does it describe the design of the bridge over Mortandad Canyon or Sandia Canyon. The Service cannot analyze the affects of these two options because LANL has not selected the preferred alternative. When LANL determines, through a biological assessment or other review, which action will be proposed, LANL should submit to the Service a request for consultation. The BA should only analyze the effects of your preferred alternative, not both alternatives.

The Service recommends bridge placement over Sandia Canyon and not over Mortandad Canyon. We believe that a bridge placement over Sandia Canyon would avoid adverse affects to the owl, whereas a bridge over Motandad Canyon would be place directly over the area where resident owls have been located and could cause adverse affects to the owl. Please contact the Service when you decide on the bridge placement and timetable for implementation of the proposed bridge project.

We appreciate the analyses provided in the BA and your efforts to protect endangered and threatened species. In future communications regarding this consultation please refer to

Ms. Elizabeth R. Withers

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consultation #22420-2006-I-0093. If we can be of further assistance, please contact Santiago R. Gonzales of my staff at (505) 761-4755.

Sincerely,

A handwritten signature in black ink that reads "Wally Murphy". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Wally Murphy
Acting Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division,
Santa Fe, New Mexico