

**ANNUAL SITE ENVIRONMENTAL REPORT
FOR CALENDAR YEAR 2006**



United States Department of Energy
Western Area Power Administration
Environment
12155 W. Alameda Parkway
Lakewood, Colorado 80228

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*Western Area Power Administration
2006 Annual Site Environmental Report*

2006 ANNUAL SITE ENVIRONMENTAL REPORT

WESTERN AREA POWER ADMINISTRATION

EXECUTIVE SUMMARY

This document outlines the accomplishments and status of the environmental program of Western Area Power Administration (Western) for calendar year 2006.

Western submitted 257 reports to State and local emergency response personnel as required under the Emergency Planning and Community Right-to-Know Act. These reports identify the hazardous substances contained at each site. At sites where potential oil spills could harm surrounding ecosystems and waterways, Western prepares Spill Prevention, Control, and Countermeasure (SPCC) plans. These plans identify measures to prevent spills from harming the environment, such as identifying the need for secondary containment at facilities. Western currently has SPCC plans for 147 facilities in 13 states. In 2006, Western updated 22 SPCC plans and prepared five new plans. Western operated under 96 environmental permits. Western completed inspection of 246 facilities to assure conformance to Federal, State, and local environmental laws and regulations. Western completed a Management Review of its Environmental Management System.

Western evaluates the impact of its planned actions on the environment by preparing National Environmental Policy Act documentation. Western completed, or was working on, 74 categorical exclusions, 12 environmental assessments, and 10 environmental impact statements. Western issued two Findings of No Significant Impact and prepared two Mitigation Action Plans. Western held several public workshops/meetings and consulted with 70 American Indian tribes for various projects. Under the Endangered Species Act, 13 Section 7 consultations had been completed or were in progress in 2006.

Western recycled about 2,320 metric tons of electrical equipment, mineral oil dielectric fluid, asphalt, fluorescent and metal halide light bulbs, wood poles and crossarms, and other items, as well as office waste. It also recycled 11.6 metric tons of polychlorinated biphenyls (PCB) contaminated equipment. Western made \$326,802 worth of purchases containing recovered content materials.

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List of Acronyms and Abbreviations

ADEQ	Arizona Department of Environmental Quality
CAA	Clean Air Act (42 U.S.C. § 7401 et seq. (1970))
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. § 9601 et seq. (1980))
CFC	chlorofluorocarbon
CRSP	Colorado River Storage Project
CWA	Clean Water Act (33 U.S.C. § 1251 et seq. (1977))
CX	categorical exclusion
DOE	U.S. Department of Energy
EA	environmental assessment
EIS	environmental impact statement
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11011 et seq. (1986))
EPRI	Electric Power Research Institute
ESA	Endangered Species Act (7 U.S.C. 136; 16 U.S.C. 460 et seq. (1973))
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 135 et seq. (1972))
FONSI	Finding of No Significant Impact
GIS	Geographical Information System
GSA	Government Service Administration
HazMat	hazardous and toxic material
HMTA	Hazardous Material Transportation Act (49 U.S.C. § 5101 et seq. (1994))
HSWA	Hazardous and Solid Waste Amendments of 1984 [see RCRA]
IVM	integrated vegetation management
kV	kilovolt
MAP	mitigation action plan
MBTA	Migratory Bird Treaty Act (16 U.S.C. § 703 et seq. (1917))
MTBE	methyl tertiary-butyl ether
MOSES	Mineral Oil Spill Evaluation System
MWh	megawatthour

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NAGPRA	Native American Graves Protection and Repatriation Act (25 USC § 3001 et sec (1990))
NEPA	National Environmental Policy Act (42 U.S.C. § 4321 et sec (1969))
NHPA	National Historic Preservation Act (16 U.S.C. § 470a, et seq. (1966))
PCB	polychlorinated biphenyls
PCE	perchloroethylene
RCRA	Resource Conservation and Recovery Act (42 U.S.C. § 321 et seq. (1976))
REC	renewable energy certificate
Reclamation	U.S. Bureau of Reclamation
ROD	Record of Decision
ROW	right-of-way
SARA	Superfund Amendments and Reauthorization Act (42 U.S.C. § 9601 et seq. (1986))
SCEMD	Sacramento County Environmental Management Department
SHPO	State Historic Preservation Officer
SF ₆	sulfur hexafluoride gas
SPCC	spill prevention, control, and countermeasures
TCE	trichloroethylene
THPO	Tribal Historic Preservation Officer
TSCA	Toxic Substances Control Act (15 U.S.C. § 2601 et seq. (1976))
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
Western	Western Area Power Administration

1.0 Introduction

Western Area Power Administration (Western) was established December 21, 1977, under the U.S. Department of Energy (DOE) Organization Act (Section 302 of Public Law 95-91). Western markets Federal electric power in 15 western states, encompassing a 1.3 million-square-mile geographic area (Figure 1).

Western operates and maintains about 17,000 miles of transmission, 296 substations and various other power facilities in its service territory. Western markets about 10,000 megawatts of power generated at 56 hydroelectric power-generating plants in the western United States that are operated by the U.S. Bureau of Reclamation (Reclamation), the U.S. Army Corps of Engineers, and the U.S. Section of the International Boundary and Water Commission. Western also markets the United States' entitlement from the Navajo coal-fired power plant near Page, Arizona.

In Fiscal Year 2006, Western sold about 39.0 billion kilowatt hours of electricity and generated \$879.5 million in power and transmission revenues. Western sells power to 751 wholesale power customers, who, in turn, provide service to millions of retail consumers. Western's customers include rural cooperatives, municipalities, public utility districts, Federal and State agencies, irrigation districts, Native American tribes, and project use customers. Customers are located in Arizona, California, Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, Texas, Utah, and Wyoming.

Western is managed from its Corporate Services Office in Lakewood, Colorado; four regional Customer Service Offices located in Billings, Montana (Upper Great Plains Region); Phoenix, Arizona (Desert Southwest Region); Loveland, Colorado (Rocky Mountain Region); and Folsom, California (Sierra Nevada Region); and the Colorado River Storage Project (CRSP) Management Center, in Salt Lake City, Utah, as shown in Figure 1. Through its power marketing and transmission program, Western secures revenues to recover operating, maintenance, and purchase power expenses to repay the Federal investment in generation and transmission facilities.

Western Area Power Administration
CUSTOMER SERVICE TERRITORIES

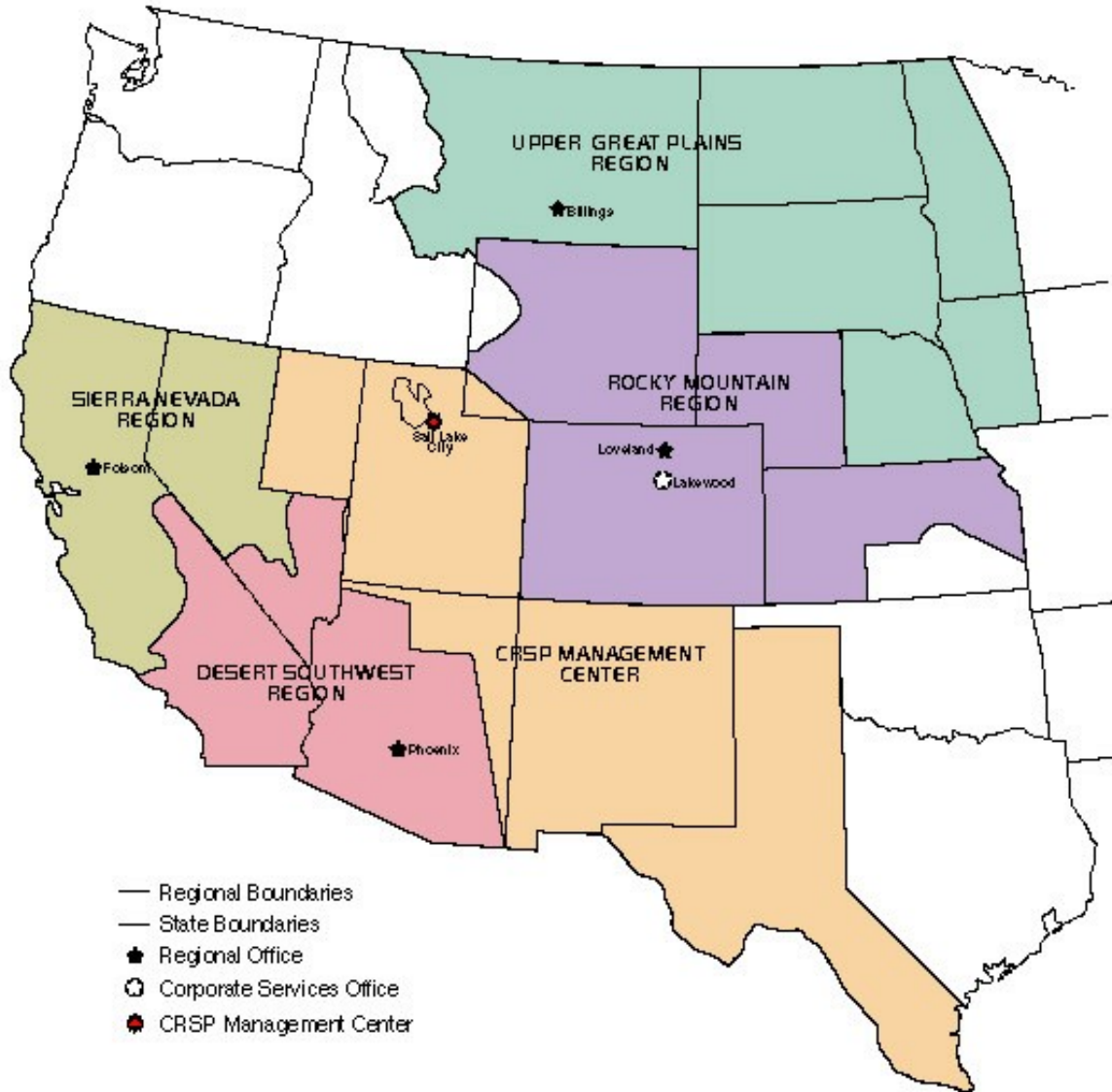


Figure 1: Western's Territory and Regional Office Location

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Western's environmental program spans a broad range of environmental concerns due to the varied geographical locations and types of activities routinely performed. Western falls within the jurisdiction of six Environmental Protection Agency (EPA) regions, as well as the 15 State and numerous local jurisdictions where Western's facilities are located.

Western's facilities generate hazardous and non-hazardous waste as a byproduct of maintaining electrical equipment, warehouses, and maintenance and office facilities. Western's substations and maintenance facilities house equipment containing dielectric oil, hazardous gasses, petroleum, and other pollutants that may affect water, soil, and air resources. Western's transmission lines cross a variety of ecosystems such as forests, wetlands, grasslands, and deserts. Maintaining these transmission lines could affect sensitive biological and cultural resources. Western's Environmental Policy Statement directs employees to prevent, control, and abate environmental pollution at their facilities and when possible, enhance the environment.

Western also provides environmental review for interconnections under its Open Access Transmission Tariff (63 Federal Register 521).

This Annual Site Environmental Report meets the requirements of DOE Order 231.1A, Environment, Safety and Health Reporting.

2.0 Compliance Summary

2.1 Introduction

Many Federal and State environmental protection laws and regulations apply to Western's activities. Western's Environmental Policy directs employees on environmental matters to ensure that we conform to all regulatory requirements, and to achieve our pollution prevention goals and objectives. To better achieve our environmental goals, Western formalized its environmental program by developing an Environmental Management System (EMS).

2.2 Environmental Policy Statement

In 2006, Western revised its Environmental Policy to include EMS principles as a means for achieving the goals of the Policy. The Policy states that:

Western will conduct its business of marketing and delivering reliable, cost-based hydroelectric power and related services in an environmentally sound manner, using the principles of environmental management systems to efficiently and effectively comply with the letter, spirit, and intent of applicable environmental statutes, regulations and standards. We believe that protecting the environment is sound business practice. We are committed to pollution prevention and waste minimization.

Western will use effective planning to mitigate the environmental impacts of its actions. We are committed to continual improvement of environmental performance by regularly assessing policies, programs, and services.

Environmental protection is everyone's responsibility.

The Policy became effective on April 11, 2006.

2.3 Major Environmental Regulations

Environmental regulations that require the greatest expenditure of resources are summarized here:

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides guidelines and procedures to respond to releases and threatened releases of hazardous substances, pollutants or contaminants, as well as to clean up closed and abandoned hazardous waste sites. CERCLA was reauthorized in 1986 with the Superfund Amendments and Reauthorization Act (SARA). Title III of SARA includes the Emergency Planning and Community Right-to-Know Act (EPCRA), which was designated to help local communities protect public health, safety, and the environment from chemical hazards.

As part of its compliance with EPCRA requirements, Western facilities submit information under EPCRA Sections 311 and 312 (Tier I and Tier II reports) annually to State and local response entities. These reports notify State and local agencies of the inventory of hazardous chemicals at each reported facility, as well as provide emergency response information.

Section 120(h) of CERCLA requires that Federal agencies transferring real property to a nonfederal entity include a covenant in the deed of transfer warranting that all remedial action necessary to protect human health and the environment has been taken prior to the date of transfer with respect to any hazardous substances remaining on the property. Western includes an environmental review in all land transfers.

Resource Conservation and Recovery Act

Western produces hazardous and non-hazardous waste as a byproduct of its operations. These wastes are managed following applicable waste management laws and regulations, such as those outlined in the Resource Conservation and Recovery Act (RCRA), Hazardous and Solid Waste Amendments of 1984 (HSWA), Hazardous Material Transportation Act (HMTA), and State hazardous waste and transportation programs.

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Under RCRA, Western prepares an annual Waste Minimization/Pollution Prevention report and Affirmative Procurement report. This report includes Western's effort to reduce the amount of materials sent to landfills by recycling materials as much as possible and purchasing recycled-content materials.

EPA amended RCRA in 1995 with the Universal Waste Rule, which is designed to reduce the amount of hazardous waste in the municipal solid waste stream, encourage recycling and proper disposal of certain common hazardous wastes, and reduce the regulatory burden on businesses that generate these wastes. In 1999, EPA added used fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide lamps that contain mercury and lead to the rule. In 2006, Western applied this new rule to used batteries (lead acid, nickel-cadmium, and lithium), lamp disposals, aerosol cans, fluorescent tubes, electronic devices, mercury, and other waste products. See Section 5.5 for additional information on recycled materials.

Clean Air Act

The Clean Air Act (CAA) provides the principal framework for national, State, and local efforts to protect air quality. Western's primary concern is reducing air pollutants from construction activities, including the use of dust suppression and asbestos removal. Because of the age of many of our facilities, asbestos surveys are conducted prior to construction activities or removal. Emergency generators and above ground petroleum/diesel tanks may require county or State air permits.

Clean Water Act

The primary goal of the Clean Water Act (CWA) is protecting the nation's water supply from pollutants, including planned discharges, runoff, and prevention of accidental contamination. Within the CWA requirements, Western evaluates the potential for discharges to water sources from construction and routine maintenance activities. When required, Western prepares Spill Prevention, Control, and Countermeasures (SPCC) plans for new facilities and evaluates and updates SPCC plans every three years for existing facilities.

Section 404 of the CWA governs disposal of dredged or fill material in waters of the United States. Western applies to the USACE for a permit for activities that would impact waters of the United States. Western is required to prepare storm water pollution prevention plans as part of a National Pollutant Discharge Elimination System permit for construction and maintenance activities that disturb one to five acres of land subject to the Federal Phase II Storm Water Regulations. Western monitors compliance with storm water pollution prevention plans during construction to ensure that Federal, State, and local regulations are followed.

Toxic Substances Control Act

A significant law affecting Western operations continues to be the Toxic Substances Control Act (TSCA), which regulates polychlorinated biphenyls (PCB). PCBs have historically been a component of dielectric oil used in electrical equipment. Western's policy since 1979 has been to eliminate PCBs from its system wherever economically and operationally possible. This lessens the impact of PCB regulations on operations and the potential impact of PCBs on the environment. EPA issued a final rule on May 2, 2001, that reclassified PCB and PCB-contaminated electrical equipment. This rule required Western to re-evaluate, test and re-label our electrical equipment containing PCBs.

National Environmental Policy Act

Western follows the Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA, 40 CFR parts 1500-1508) and DOE Procedures for Implementing NEPA (10 CFR part 1021). DOE has delegated Western the authority to approve its own environmental assessments (EA) and many environmental impact statements (EIS). In September 1998, Western was delegated cooperating agency determination authority, which allows Western to adopt other agency EISs where Western is a cooperating agency. Three regional managers and the CRSP manager have been delegated the authority to approve their own EAs. These delegations have shortened the environmental process and provided for project decisions to be made closer to the project level. Most of Western's routine activities are covered by categorical exclusions (CX).

Western prepares NEPA documents for contracts, rate changes, construction activities, routine maintenance, interconnections, and other activities. Western's environmental planning process includes early public, agency, and tribal involvement in proposed projects. This, along with early internal scoping of environmental issues, helps to identify potentially significant impacts. The National Historic Preservation Act (NHPA), Endangered Species Act (ESA), and Migratory Bird Treaty Act (MBTA), and other regulations are addressed when a NEPA document is prepared for a project, where appropriate.

2.4 *Executive Orders*

As a Federal agency, Western is required to comply with Executive Orders (EO) issued by the President of the United States. Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management, was issued in January 2007. This EO combines many of the environmental EOs (13101, 13123, 13148, and 13149) into one comprehensive environmental order. Western will be working to comply with this order in 2007. A summary of some of the significant orders that impact Western are presented here:

EO 11988, Floodplain Management and EO 11990, Protection of Wetlands

These EOs requires Federal agencies to conserve wetlands and manage floodplains if they could be affected by proposed actions. DOE requires notification of Floodplain/Wetland involvement on all appropriate projects, usually as part of the NEPA process.

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This EO is designed to focus Federal attention on the environmental and human health conditions in minority and low-income communities with the goal of achieving environmental justice. Western addresses this EO in NEPA actions where appropriate.

EO 13101, Greening the Government through Waste Prevention, Recycling and Federal Acquisition

This EO mandates that Federal agencies establish systems, schedules, plans, and goals for waste prevention, recycling, and acquisition. Western responds to this EO through pollution prevention plans, reports, and affirmative procurement actions.

EO 13123, Greening the Government through Efficient Energy Management

This EO requires Federal agencies to efficiently manage energy to minimize impacts to the environment. Western has established goals and procedures to minimize internal use of energy, maximize the use of green energy and evaluate various sources of energy to determine relative environmental impacts.

EO 13148, Greening the Government through Leadership in Environmental Management

This EO requires Federal agencies to improve environmental performance through the use of management systems and aggressive pollution prevention initiatives. Western self-declared its EMS in December 2005, and has a formal pollution prevention plan. The order also requires the 50-percent reduction of certain chemicals at Federal agencies by December 31, 2006. DOE is working with a multi-federal agency task force to finalize the list of chemicals.

EO 13149, Greening the Government through Federal Fleet and Transportation Efficiency

This EO requires Federal agencies to exercise leadership to reduce petroleum consumption through fuel efficiencies, alternative fuel vehicles, and transportation strategies. Western leases alternative fuel vehicles and stocks renewable-based fuels at some locations.

EO 13175, Consultation and Coordination with Indian Tribal Governments

This EO requires Federal agencies to establish regular and meaningful consultation and collaboration with tribal officials in developing Federal policies that have tribal implications. Western has many facilities on tribal lands and coordinates with numerous Native American tribes for projects on tribal lands, or where tribal cultures may be impacted.

EO 13212, Actions to Expedite Energy Projects, and its Amendment, EO 13302

This EO requires Federal agencies to expedite their review of permits or take other actions to speed up such projects, while maintaining safety, public health, and environmental protections. This EO applies to Western's interconnection projects, where proponents request to connect to the energy grid through Western's transmission system. Western has worked with the California Energy Commission and other Federal agencies to coordinate and streamline the environmental process for interconnections in California.

EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management

This EO establishes a policy for Federal agencies to conduct their environmental, transportation, and energy-related activities in an "environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner." It also establishes goals for Federal agencies to meet for environmental, transportation and energy-related activities.

2.5 Department of Energy Requirements

Western complies with DOE Orders and Guidelines. Applicable environmental Orders include:

DOE Order 231.1A, Environment, Safety, and Health Reporting

This DOE Order sets forth the requirements and responsibilities for DOE elements to prepare annual summary reports to the Secretary of Energy on the results of environment, safety, and health assessments conducted in the previous year. These activities include NEPA planning summaries and progress on mitigation measures, as well as an Annual Site Environmental Report. Western also developed environmental incident reporting procedures as required by the order.

DOE Order 450.1, Environmental Protection Program

This DOE Order requires Western to implement sound environmental stewardship practices that protect air, water, land, and other natural and cultural resources, while cost

effectively meeting or exceeding compliance with applicable environmental, public health, and resource protection laws, regulations, and DOE requirements. This is accomplished by implementing an EMS. DOE Order 450.1 has placed an increased emphasis on pollution prevention, which Western has formally adopted.

DOE Order 451.1B, National Environmental Policy Act Compliance Program

This DOE Order establishes internal requirements and responsibilities for implementing NEPA, the CEQ Regulations Implementing the Procedural Provisions of NEPA, and the DOE NEPA Implementing Procedures.

DOE Order 5480.4, Environmental Protection, Safety, and Health Protection Standards

This DOE Order specifies the requirements for environmental protection, safety, and health.

2.6 *Western Requirements*

WAPA Order 450.1A, Environmental Considerations in the Planning, Design, Construction, and Maintenance of Power Facilities and Activities

This Western Order establishes policy, assigns responsibilities and delegates authority to ensure that marketing and rate-setting activities and activities associated with planning, design, construction, operation, and maintenance of power facilities by Western comply with Federal, State, and local environmental laws and regulations.

Environmental Management System Handbook

The EMS Handbook outlines how the environmental policy is carried out throughout the organization. The EMS Handbook describes roles and responsibilities for environmental performance for all employees. The EMS Handbook was approved in April 2004.

2.7 *Compliance Cleanup Agreements*

Western did not operate under any Compliance Cleanup Agreements in 2006.

2.8 Environmental Violations

In 2006, county environmental health and air quality departments inspected six Western facilities in California, but did not note any violations.

2.9 Reportable Occurrences

Although measures are taken to prevent releases of hazardous substances, occasionally equipment fails, resulting in a spill. In 2006, reportable occurrences of releases of regulated materials occurred at three locations. All spills were cleaned up and closed. These spills are discussed further in Section 3.2.

2.10 Self-Assessments or Audits

Western conducts different types of environmental assessments in accordance with its Auditing and Corrective Action Program Plan to ensure compliance with Federal and State environmental laws and regulations including audits or assessments of EMS programs, contractor audits, and facility inspections. Corrective actions are taken to assure continuous improvement of Western's environmental programs. Additionally, a review of the EMS is conducted annually to ensure the EMS meets Western's mission, culture, and strategic plan. In 2006, Western inspected 246 facilities, began an audit of the EMS, and prepared an EMS Management Review. Additional information is provided in Section 5.1.

2.11 Existing Permits

Information on existing permits is provided in Section 4.0. Ninety-six permits were obtained in 2006.

2.12 Voluntary Actions to Control Greenhouse Gases

The Intergovernmental Panel on Climate Change has identified sulfur hexafluoride (SF₆) as an extremely potent greenhouse gas. SF₆ is used as an insulator in some types of electrical equipment. EPA believes that reducing emissions of this gas will help to address global climate change and has developed a voluntary program in which Western is participating. Western is taking voluntary action to reduce the amount of SF₆ lost to the

atmosphere from system operation and maintenance. Western detects SF₆ leaks by using a special laser camera that makes leaks visible. An annual SF₆ emissions reduction report is prepared and distributed internally and externally, including to EPA. Western's efforts to control this greenhouse gas are discussed in Section 3.3.

2.13 State and Local Environmental Requirements

Western has facilities in 15 western States. EO 13148, Greening the Government through Leadership in Environmental Management, requires Federal agencies to comply with EPA and State and local environmental regulations. Examples of the regulations enforced at State and local levels include RCRA, community right-to-know, pesticide application, and storage tank regulations. Most of the States in Western's service area regulate generation, transportation, treatment, storage, and disposal of hazardous and toxic materials. Community right-to-know legislation and hazardous waste clean-up laws, enacted by numerous States, are increasing the control of tracking hazardous and toxic materials.

Western cooperates with State and local environmental regulators to help ensure compliance with applicable laws, statutes, regulations, and ordinances. Environmental audits of Western facilities address applicable State and local requirements in addition to those imposed by the Federal government. Additionally, Western's regional environmental staff developed annual chemical inventory programs and provide CERCLA Section 311 and 312 reports to local emergency response entities.

3.0 Compliance Status

This section provides an overview of Western's compliance status for calendar year 2006.

3.1 Comprehensive Environmental Response, Compensation, and Liability Act

Superfund Amendments and Re-authorization Act

The Federal Agency Hazardous Waste Compliance Docket is a list of facilities under Federal control that have the potential for environmental releases that could adversely affect human health or the environment. Western had two sites remaining on the Docket in 2006, the Liberty Substation in Buckeye, Arizona, and the Foundry Site in Gering, Nebraska. Site assessments conducted in the 1990s show that these sites pose no risk to human health or the environment. Western continues to work with EPA to have these facilities removed from the Docket.

In 2006, Western performed a facility evaluation under Section 120(h) of CERCLA at the Ellendale Substation in North Dakota in anticipation of transfer of a building to another Federal agency. In addition, a phase one and phase two environmental assessment of a mineral oil pump and treatment facility in North Dakota was conducted prior to demolition. No CERCLA issues were identified at these sites.

Emergency Planning, Community Right-to-Know Act

Western conducts annual inventories of chemicals at facilities throughout its service area. The information gathered is used to prepare Sections 311 and/or 312 (Tier I and II) reports to State and local emergency response entities. In 2006, Western submitted Tier II reports for 257 facilities, listed in Appendix A. This list includes 47 facilities in California where Hazardous Material Business Plans are used to meet Tier II reporting requirements. These inventories are also used to verify that Western does not manufacture, process, or otherwise use threshold quantities of any of the chemicals identified in Section 313 of EPCRA (Tier III), and thus does not report under that section.

3.2 Resource Conservation and Recovery Act

Under RCRA, Western is required to manage hazardous and non-hazardous materials and waste to protect human health and the environment.

Hazardous and Solid Waste Amendments of 1984

HSWA-based regulations affect most Western facilities, which are classified as conditionally exempt, small-quantity generators of hazardous waste. HSWA also impacts Western operations by prohibiting the land disposal of hazardous wastes and by setting standards for used-oil management, underground storage tanks, and recycling hazardous wastes. Western has increased recycling of these types of wastes, and continues to look for opportunities to recycle. A discussion of Western's recycling activities is included in Section 5.5 of this report.

Universal Waste

In 2006, Western continued recycling materials from its facilities under the Universal Waste Rule. Items such as fluorescent lamps and tubes, metal halide lamps, vapor mercury lamps, small rechargeable batteries, lead acid, Ni-Cad and lithium batteries, aerosol cans, mercury containing devices, electronic devices, and pesticide residuals were recycled in 2006. A discussion of Western's recycling activities is included in Section 5.5 of this report.

Western's Upper Great Plains Region also eliminated the use of solvent-based parts cleaners with aqueous non-hazardous self-treating units and put into place a Universal Waste Management process using a mail back program in South Dakota. The Region also disposed of 200 gallons of old paint.

Underground Storage Tanks

Western has two Underground Storage Tanks (UST), one in Arizona and one in Colorado, which require annual permits to comply with State regulations. Western complies with the EPA's UST upgrade and monitoring requirements for these facilities.

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Hazardous Material Spills

Western responded to four spills of hazardous materials in 2006, as listed in Table 3-1. Western takes immediate action to clean up spills and notifies the appropriate State and Federal agencies for spills above reportable limits. Western also routinely cleans up small leaks and drips around oil-filled equipment on an as-needed basis. Waste from spills is recycled, placed in a landfill or at a RCRA-permitted facility.

Table 3-1: 2006 Hazardous Material Spills

Month	Contaminant/ Amount	Location	Status	Notifications
January	Two 4,725 pound metering units failed and caught fire; 37.68 tons of contaminated soil	Tracy Substation, Tracy, California	Cleaned up	Local Fire Department
August	8,000 gallons transformer oil; 900 cubic yards of contaminated soil	Huron Substation, Huron, South Dakota	Cleaned up	South Dakota Department of Environmental and Natural Resources
August	100 gallons hydraulic fluid	Approximately 7 miles north of Paonia, Colorado	Cleaned up	Colorado Department of Public Health and Environment; Gunnison National Forest
November	40 gallons of hydraulic oil	In a farm slough north of Bisbee, North Dakota	Cleaned up	National Response Center, EPA, and the State of North Dakota

The largest spill occurred at the Tracy Substation during an explosion of equipment and subsequent fire at a metering unit site. Oil and insulator parts spread a large distance from the initial explosion. The fire was watched carefully, and 55-gallon drums were placed on the ground below to contain as much oil leaking from the metering units as possible in a safe manner. Once the fire had gone out, the area was marked and covered with plastic sheeting to prevent additional spreading of the spilled material.

Regulatory Inspections

Western had six regulatory inspections of its facilities in 2006, all in California; no violations were noted.

- On November 27, 2006, the Contra Costa County Environmental Health Department Inspected the Vollmer Peak Microwave Facility. No violations were noted.
- On October 6, 2006, the Shasta County Environmental Health Department inspected the Coleman Fish Hatchery Substation. A request for an updated Chemical Inventory form, Emergency Response & Contingency Plan, Facility Site Plan/Storage Map, and SPCC assessment was requested. Western submitted the requested forms within 30 days as required.
- On October 4, 2006, the Mendocino County Environmental Health Department inspected the Ukiah Metering Units. An updated Business/Owner Operator form was requested. No violations were noted. Western submitted the requested forms within 30 days as required.
- On July 27, 2006, the Yolo County Environmental Health Department inspected the California-Oregon Transmission Project Rumsey Communication Facility. No violations were noted.
- On July 25, 2006, the Glenn County Air Quality Management District inspected the Logan Creek Communication Facility. No violations were noted.
- On April 3, 2006, the Calaveras County Environmental Health Department inspected the New Melones Substation. The county requested that the Chemical Material Inventory be updated. Western submitted the required forms within 30 days as required.

3.3 *Clean Air Act*

Several potential sources of air emissions that are regulated under the CAA exist at Western facilities. These emissions include dust during construction activities, friable asbestos during building renovation or demolition, and volatile organic compounds from gasoline dispensing facilities. Additionally, Western has taken steps to control emissions of greenhouse gasses from its facilities and operations, including the phase-out of ozone depleting substances and reducing vehicle emissions through the use of alternative fuels. Western also purchases green energy to reduce greenhouse gasses, which is reported in Section 5.7.

Construction Activities

Western's construction specifications require practical methods and devices to control, prevent, and minimize emissions or discharges of air contaminants during construction activities. Particulate emissions from construction activities along access and haul roads are controlled by periodic watering of disturbed soils, where required.

Asbestos

Regulatory requirements applicable to the disposal of asbestos and asbestos-containing material affect Western when activities are planned to modify or demolish existing buildings or equipment. Western personnel notify all appropriate regulatory agencies when planning any renovation and demolition project that might include asbestos and obtain appropriate permits for asbestos removal. In addition to Federal regulations, State and local laws and regulations are followed to assure proper disposal of asbestos containing material.

In 2006, Western sampled for asbestos-containing material in the floor tile and mastic in a building north of Poplar, Montana, which was given to the Bureau of Indian Affairs, Fort Peck Reservation. Samples indicated that there was no asbestos present. Additionally, a 9-foot-by-9-foot building at the Jamestown Substation in North Dakota was sampled and tested positive for asbestos-containing material in the floor tile and mastic. Originally, the floor tile was to remain in place during demolition. However, environmental personnel discovered that the concrete was going to be removed and disposed of in a concrete crushing machine and reused for aggregate. This could have been a serious issue if not caught in time. All floor tile and mastic was removed prior to demolition.

In Colorado, asbestos sampling occurred at three facilities so that the materials may be handled and/or disposed of properly in the future. Sampling included a floor tile in an old microwave building at the Hayden Substation, which tested positive for asbestos; several floor tiles at the Weldona microwave building, which tested negative for asbestos; and a heat shield on a welding table at the Loveland Power Maintenance and Operations Center, which tested positive for asbestos.

Volatile Organic Compounds

Western has diesel and gasoline dispensing facilities at four locations. These facilities are permitted under State regulations and are inspected annually to ensure tank integrity so that the tanks do not have leaks that could result in releases of volatile organic compounds.

Western has emergency generators at many communication and operation facilities. In California, these generators require permits to operate. In September 2006, Western received a Permit to Construct from the Sacramento Metropolitan Air Quality Management District for the Sacramento Power Operations Facility to upgrade the existing emergency generator with a new, more efficient and air-friendly model. Western also applied for a Permit to Construct with the North Coast Unified Air Quality Management District for the new Trinity Substation Emergency Generator. The Permit to Construct was approved and issued on January 22, 2007. After receiving approval, Western received a letter on July 19, 2007, indicating that the North Coast Unified Air Quality Management District no longer requires permits to operate for these types of emergency generators. Therefore, no permit to operate is required at this facility.

Ozone-Depleting Substances

EO 13148, Greening the Government through Leadership in Environmental Management, DOE Order 450.1, Environmental Protection Program, and DOE guidance (Guidance on the DOE Facility Phaseout of Ozone-Depleting Substances) require Western to phase out the use, where practical, of ozone-depleting substances. This is to be accomplished through cost-effective procurement practices and substituting safe alternative substances. The phaseout of ozone-depleting substances affects Western's operations associated with refrigeration and air conditioning, solvent use, and fire protection. As equipment is replaced, ozone-depleting substances are recovered from air conditioning, refrigeration systems, and fire suppression systems before final disposal or dismantling. Older appliances containing icemakers using R-12 (Freon) gas are replaced with chlorofluorocarbon (CFC)-free units where practicable. In 2006, recovered Freon gas from air conditioning units and water fountains from the Desert Southwest Region was recycled. One air conditioning unit was

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replaced in the Upper Great Plains Region. Air conditioning units and other equipment containing Class I refrigerants are routinely replaced with Class II or non-ozone-depleting substances during maintenance or replacement activities. Technician certification is required for all individuals who maintain, service, repair, or dispose of appliances, equipment, or motor vehicle air conditioners containing Class I or Class II refrigerants.

The use of solvents containing ozone-depleting substances has also been drastically reduced. Almost all past inventories have been eliminated or disposed of appropriately.

The Corporate Services Office and most of the regional offices have phased out halon-containing fire extinguishing equipment for all but a few uses. These fire suppression systems and equipment were replaced with carbon dioxide, dry chemical extinguishers, and other approved chemical replacements. One facility in Watertown, South Dakota, still contains a halon-based, large fire suppression system. In 2006, extinguishers containing Halon 1211 were sold in the Desert Southwest Region.

Sulfur Hexafluoride Gas Emissions

Western has approximately 750 SF₆ gas-filled circuit breakers in use. In 2000, EPA invited Western, along with other electric utilities, to take part in a voluntary program to reduce SF₆ gas emissions. Western determined the best way to participate was to develop an alternative plan to proactively find and stop SF₆ leaks rather than just report SF₆ emissions as is outlined in the EPA program. In 2006, Western continued evaluating equipment, locating several leaks, and either immediately repairing them, or scheduling repairs or replacement. Tracking systems have been developed at three regional offices to track the amount of SF₆ gas leaking to the atmosphere from Western's equipment, and a database is being finalized to improve the ease of tracking. An annual SF₆ emissions reduction report is prepared and distributed internally and externally, including a report to the EPA. A copy of this report is included in Appendix B.

Vehicle Emissions

Western has taken many steps to reduce vehicle carbon emissions. Western has purchased numerous alternative-fuel vehicles for general use. Western uses low-sulfur bio-diesel and ethanol fuel when it is available. Western continues to expand its alternative-fuel vehicle fleet and use alternative fuels as sources become available.

3.4 Clean Water Act

Spill Prevention, Control, and Countermeasure Plans

Western continues to evaluate facilities to meet SPCC requirements under the CWA. In 2006, Western had 147 SPCC plans in 13 states. SPCC plans are periodically reviewed for necessary revisions based on new site-specific information, construction or other modifications to the sites, or revised inventories of oil-filled equipment. In 2006, Western updated 22 SPCC plans and prepared five new SPCC plans. The Sierra Nevada and Desert Southwest regions have combined SPCC plans with their Hazardous Waste Business Plans for California. A list of facilities with SPCC plans is provided in Appendix A.

SPCC regulations require visual inspection of shop-built, above ground storage tanks, such as gasoline dispensing tanks. Western conducts ultrasound inspections of the storage tanks to ensure integrity.

Mineral Oil Spill Evaluation System

The Mineral Oil Spill Evaluation System (MOSES) software developed by the Electric Power Research Institute (EPRI) assists in determining the need for secondary containment and SPCC plans at Western's facilities. Design, installation, and periodic inspection of secondary containment are incorporated into regional facility maintenance programs. Containment structures are repaired as needed.

In 2006, Western evaluated four facilities for potential water impacts using the MOSES model. Results of the model identified that the DeVaul Substation in North Dakota requires secondary containment. The other three sites (New Melones Substation in

California, and the Oak Creek and Windsor substations in Colorado) did not require secondary containment or a SPCC Plan.

Erosion Control

Western evaluates sites for erosion and erects berms, water flow diversions, matting, and other control devices to control or direct water flow at substations, rights-of-way (ROW), and access roads. These measures are taken during construction projects and are part of Western's routine maintenance program. Occasionally, these activities require a CWA Section 404 permit from the USACE for fill of waters of the United States. No new Section 404 permits were issued in 2006.

3.5 *Safe Drinking Water Act*

Underground Injection Control

Western continues to cooperate with EPA regions and States to obtain permission to permanently close and abandon all Class V underground injection control wells as they are discovered. In 2006, Western received an inquiry from EPA concerning Class V wells at four facilities in Montana that had been closed prior to 1994. Neither Western nor EPA could locate records concerning closure of these wells. Western responded by inspecting and verifying closure of two of the wells. The other two sites had been previously closed but during the inspection, it was noted that the plugs had been removed. Western re-plugged these wells and forwarded closure documentation to EPA. No other Class V underground injection control wells were permanently closed or abandoned.

Groundwater Monitoring

In 2006, the Sierra Nevada Region continued monitoring groundwater at the Elverta Maintenance Facility for methyl tertiary-butyl ether, commonly known as MTBE. The groundwater was contaminated from a spill of gasoline during removal of a UST in 1997. Western submitted four quarterly monitoring reports to the Sacramento County Environmental Management Department (SCEMD) in 2006. Sampling results in 2006 indicate that the MTBE level in one well continued to be elevated. Based on the monitoring

results, the SCEMD requested that one well be re-drilled from a 2-inch diameter to a 4-inch diameter. Western continues to work closely with SCEMD to arrive at an acceptable level of remediation for the site.

Additionally, groundwater monitoring wells at Western's maintenance facility in Phoenix, Arizona, were sampled by the Arizona Department of Environmental Quality (ADEQ). The sampling was conducted for ADEQ's West Van Buren Study. Sample results indicated the presence of trichloroethylene (TCE) and perchloroethylene (PCE), which are used as metal degreasers. The groundwater at the site is not used for drinking water purposes. There is no ongoing consultation or any planned remediation.

3.6 Toxic Substances Control Act

Western continued the removal and proper disposal of mineral oil, dielectric fluid, soil, and equipment containing PCBs from facilities during 2006.

Western disposed of 11.66 metric tons of TSCA wastes (equipment, debris, and soil) in 2006. Low-level PCB contaminated oils were burned for energy recovery at EPA-permitted facilities or were chemically treated and recycled. Oils with higher concentrations of PCBs were disposed of at EPA-certified incinerators. Contaminated equipment carcasses were decontaminated and sold as scrap when possible. Items too heavily contaminated for recycling as scrap were disposed of at permitted PCB waste landfills or incinerators.

Prior to demolition of the Jamestown oil treatment and pumping station, PCB samples were collected from the buildings concrete and paint. Paint is not typically tested for PCBs'; however, paint testing was conducted because specifications from the 1950's and 1960's sometimes incorporated "fire resistant paint" and the building contained an old fire suppression system. The paint tested positive for low levels of PCBs. All PCB contaminated material was properly disposed of.

3.7 Federal Insecticide, Fungicide, and Rodenticide Act

Western is required to comply with the pesticide use, storage, and disposal regulations contained in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), State regulations, and some tribal pesticide management regulations. Pesticides are used by

Western to control plant and animal pests and for wood preservation. Western has two manuals for implementation of FIFRA, the “Integrated Vegetation Management (IVM) Environmental Guidance Manual” and the “Pest Control Manual.” Western’s IVM program promotes the use of combined methods to control unwanted vegetation. IVM combines biological, cultural, physical, and chemical tools to minimize economic, health, and environmental risks. IVM de-emphasizes the exclusive use of chemical control. No significant FIFRA activities occurred in 2006.

3.8 Hazardous Materials Transportation Act

Almost all of the hazardous and toxic material (HazMat) transported for Western is shipped by audited and permitted commercial hazardous materials haulers. However, trained and qualified Western employees occasionally transport hazardous materials. Western’s environmental staff provides training on Federal and State hazardous material transportation requirements to maintenance crews, which includes marking, labeling, placarding, manifesting, and emergency response. HazMat workers also receive appropriate training required by Occupational Safety and Health Standards (29 CFR 1910).

Hazardous materials transportation requirements for the California Department of Toxic Substances Control, North Dakota Department of Health, and Minnesota Pollution Control Agency are more extensive than those of the U.S. Department of Transportation. Sierra Nevada and Desert Southwest regions must have waste haulers’ permits to transport PCBs in California. The Upper Great Plains Region maintains permits for hauling all solid waste.

3.9 National Environmental Policy Act

Western continued to review activities for environmental impacts under NEPA. Environmental planning activities fall under three categories:

- (1) Western projects, including construction, maintenance, and upgrades of Western’s transmission lines and facilities, power marketing actions, and rate changes;
- (2) Cooperating agency projects, where Western acts as a cooperating agency to review other Federal agency actions; and

- (3) Work requested by public or private parties, such as transmission system interconnections and use of Western’s transmission towers for telecommunication systems.

Western’s NEPA activities are reported in our 2006 Annual NEPA Planning Summary submitted to DOE in January 2006 (Appendix C). A list of CXs completed in 2006 is found in Appendix D. Table 3-2 summarizes Western’s 2006 NEPA activities.

Table 3-2: 2006 Summary of NEPA Actions

NEPA Action	Western Projects	Cooperating Agency Projects	Private Proponent Projects	Total
CXs completed	74	0	0	74
EAs completed	1	0	1	2
EAs in progress	7	1	2	10
EISs completed	0	1	0	1
EISs in progress	4	2	3	9
Record of Decision (ROD) issued	0	0	0	0
Finding of No Significant Impact (FONSI) issued	1	0	1	2

Western was a cooperating agency on the EIS for the Operation of Flaming Gorge Dam. Reclamation was the lead agency for this EIS, which addressed the Upper Colorado River Endangered Fish Recovery Program. Reclamation issued its Record of Decision (ROD) for this project in February 2006. Western did not issue a ROD for this project.

Western completed EAs and issued Finding of No Significant Impact (FONSI) for the Cheyenne-Miracle Mile and Ault-Cheyenne Transmission Line Rebuild Project, located in Carbon, Albany, and Laramie counties, Wyoming, and Weld County, Colorado (FONSI issued September 2006); and the Buffalo Ridge to White Transmission Project, located in South Dakota and Minnesota (FONSI issued September 2006).

3.10 Cultural Resources

Western complies with the NHPA by performing cultural and historical resource inventories for construction, maintenance, and interconnection activities. These inventories include record searches for previously identified resources and, where necessary, on-site

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surveys. In 2006, Western initiated or continued previous cultural resource compliance efforts for a number of projects. In accordance with Section 106 of the NHPA, as amended, Western consults on findings from these inventories with the appropriate land-managing agencies, State Historic Preservation Officers (SHPO), Native American Tribal Historic Preservation Officers (THPO), and tribes. Western engaged in consultations and coordination with 70 tribes during the conduct of preservation and cultural compliance and government-to-government consultations in 2006. In areas where significant cultural resources are identified, monitors assure that cultural and/or historical resources are not disturbed. Native American monitors worked with Western staff on several projects. In Arizona, California, Colorado, Nebraska, Utah, and Wyoming, Western and the SHPOs have agreed on Section 106 measures for routine maintenance activities through programmatic agreements. These agreements streamline the consultation process for projects with a “no effect” determination. On large projects, Western and other affected parties, along with the SHPOs and Native American tribes enter into project specific programmatic agreements. These agreements outline actions to be taken during construction activities to comply with cultural and historical resource preservation laws. In 2006, programmatic agreements were executed for the Blythe Transmission Project and the Valley County Wind Energy Project.

One transmission maintenance project site was mitigated using the California Archaeological Resource Identification and Data Acquisition Program.

In 2001, Western received a claim for damages to cultural resources from the Quechan Indian Tribe. This issue had yet to be resolved in 2006.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) requires consultation with Indian tribes on repatriation issues. In 2006, Western had no projects on Western fee-owned lands that required NAGPRA consultations.

3.11 Government-to-Government Relations with Indian Tribes

Western seeks to fully comply with the spirit and letter of DOE's American Indian and Alaska Native Tribal Government Policy. This policy sets forth the principles to be followed by departmental officials, staff, and contractors regarding fulfillment of trust obligations and other responsibilities that are based on the U.S. Constitution, treaties, Supreme Court decisions, EOs, statutes, existing Federal policies, tribal laws, and the dynamic political relationship between Indian nations and the Federal government. Western is actively working to establish and maintain positive and mutually beneficial working relationships with Federally recognized tribes within its service territory.

3.12 Endangered Species Act

Western consults on Federal, Tribal, and State species of concern with the appropriate agencies for all listed, proposed or candidate wildlife and plants as required by the Endangered Species Act (ESA). These consultations include actions ranging from routine maintenance activities to major construction projects. Most of these projects are done in conjunction with a NEPA review and under informal consultation with the U.S. Fish and Wildlife Service (USFWS). In 2006, Western was working on or had completed 11 Section 7 consultations under the ESA, including formal consultations for the following projects:

- Trinity Public Utility Upgrade Project, California
- Sacramento Voltage Support Project, California
- Headgate Rock-Blythe Pole Replacement Project, California
- No Name-Firehouse Transmission Line Project, California and Arizona
- Mead-Davis Transmission Line Rebuild, Nevada and Arizona
- San Luis Rio Colorado Power Plant and Transmission Project, Sonora Mexico and Arizona
- Gore Pass-Muddy Pass Reroute Project, Colorado
- Big Stone II Power Plant Project, South Dakota and Minnesota
- White Wind Farm (Navitas Wind Farm), South Dakota
- Buffalo Ridge Wind Farm, Minnesota and South Dakota

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- Burleigh County Wind Farm, North Dakota
- Jamestown-Grand Forks Transmission Line Rebuild Project, North Dakota
- Havre-Rainbow Transmission Line Rebuild, Montana.

Consultations for smaller projects include: Sacramento Valley ROW Maintenance Project, California; Groton Power Generation Project, South Dakota; Hazard Tree Removal Project on the Coconino National Forest, Arizona; and Shiprock-Four Corners Transmission Line Maintenance Project, Arizona and New Mexico.

Mitigation Action Plans (MAP) were developed for the Sacramento Valley ROW maintenance project and the Delta Mendota Canal-California Aqueduct Intertie Project. The latter is a Bureau of Reclamation 69-kilovolt transmission line project that Western has agreed to design, construct, and maintain.

Western's Upper Great Plains Region continued to fund research on the recovery efforts of the pallid sturgeon in the Missouri River basin. The research included several basin-wide workshops to discuss the needs and direction of research, restocking efforts, and natural history of the sturgeon. Western also funded studies on the soft-shelled turtle in the Yellowstone River. This turtle's population in the Yellowstone River has diminished in recent years, and there have been moves to list the species.

In addition, monitoring Mesa-verde cacti populations for access road maintenance for the transmission lines in the Four Corners area of Arizona, Colorado, Utah, and New Mexico, was done again in 2006.

Programmatic Biological Opinion for Routine Maintenance Activities

The Sierra Nevada Region conducts maintenance activities under three programmatic biological opinions: (1) construction and maintenance of the California-Oregon Transmission Project (1988); (2), maintenance of the Central Valley Project rights-of-way and facilities (1998); and, (3) the 2005 biological opinion that updates the maintenance program for the Central Valley Project rights-of-way and facilities within the Sacramento area. Multiple maintenance projects have been completed under these biological opinions. Most of the projects include various forms of vegetation management using mechanical, chemical (herbicides), and manual methods. Other activities involve maintenance of the

lines, towers, and facilities, which include inspections, replacement of equipment, and maintenance of existing roads.

A programmatic biological opinion is currently being developed for an update for the maintenance program for the entire California-Oregon Transmission Project as well as for the Central Valley Project rights-of-way and facilities in northern California. Completion of this biological opinion is not expected until 2008.

Additionally, the Sierra Nevada Region started the groundwork for the 26.6-acre valley elderberry longhorn beetle mitigation project that was discussed in the 2005 programmatic biological opinion.

3.13 Migratory Bird Treaty Act

Western continued its participation in sage-grouse workgroup meetings in Colorado and Montana to represent the electric utility industry in developing a plan to help sage-grouse recover before the bird needs Federal listing. Issues that are thought to contribute to population decline include farming, ranching, oil development, mining, and power lines.

Bird Studies

Western, in conjunction with Bonneville Power Administration, the Avian Power Line Interaction Committee, EPRI, USFWS, U.S. Department of Agriculture Rural Utility Service, U.S. Department of Agriculture Wildlife Services, several State agencies, and numerous other electric utilities continued a multi-year study of bird collisions along the Snake Creek Embankment in central North Dakota in April 2001. A Technical Advisory Group was established that includes environmental organizations, all the above entities, and electric utilities on five continents. The study has identified the spans where collisions are most common. Using this information, those spans will be fixed with a bird strike indicator to identify collisions on the line. Western will begin testing devices to alert birds to the presence of an obstacle (power lines) in 2007.

In 2003, Western joined the National Wind Coordinating Committee's Wildlife Working Group to help resolve bird collisions with wind turbines. This group meets at least

twice a year. In 2006, Western participated in conference calls to discuss the effects of wind farms on grassland birds, birds in general, and bats.

Western has been a member of the Avian Power Line Interaction Committee since 1999. This group works in partnership with utilities, resource agencies, and the public to: develop and provide educational resources; identify and fund research; develop and provide cost-effective management options; and serve as the focal point for avian interaction utility issues. Western attended both meetings held in 2006.

Line Marking Devices

Western is working with various vendors to test transmission line marking devices designed to minimize bird collisions. These tests are to determine the efficacy of installing the devices, weathering characteristics, and longevity. In 2006, line-marking devices were installed on lines in Colorado, California, and North Dakota and South Dakota.

Removal and Relocation of Bird Nests

In 2006, Western received four permits from the USFWS to remove and/or relocate bird nests from electrical equipment and transmission line structures. Two permits were to remove nuisance birds from transmission line structures, substations and/or storage areas at maintenance facilities in Arizona and South Dakota. These permits were for one year only.

In the Sierra Nevada Region, a raptor was found dead at a switch pole along the Friant Tap line. The cause of death was electrocution, probably while perched on the pole. The issue was remedied by adding a wooden perch on top of the pole and out of the way of dangerous electrical parts. A bird nest was also found on top of a metering pole. In order to avoid emergency removal of the nest while it was active, the nest was removed before eggs were laid and devices were added to the pole to deter future nesting.

3.14 Floodplain and Wetland Assessments

Under DOE's Floodplain and Wetland Regulations (10 CFR Part 1022), EO 11988, Floodplain Management and EO 11990, Protection of Wetlands, Western evaluates the impact of its actions on floodplains and wetlands. These evaluations are usually performed as part of the NEPA impact analysis for projects. In 2006, Western completed a

floodplain/wetland evaluation for the Cheyenne-Miracle Mile and Ault-Cheyenne Transmission Line Rebuild Project.

3.15 Mitigation

Western has compiled a list of standard mitigation measures (Appendix E) and construction standards (Appendix F) to assure compliance with environmental laws and regulations. These measures are based on Western's experience with impacts associated with transmission line construction, operation, and maintenance. Along with site-specific cultural resource information, programmatic agreements, and biological opinions, they are used to develop MAPs, mitigation requirements for CXs, and contractor requirements for construction activities.

MAPs for the Cheyenne-Miracle Mile and Ault-Cheyenne Transmission Line Rebuild Project, and the Buffalo Ridge to White Transmission Project were developed in 2006. These MAPs are included in Appendices G and H respectively.

4.0 Summary of Permits

Western is required to obtain a variety of permits, including those for above-ground and underground storage tanks, PCB transportation and storage, hazardous waste storage, gasoline dispensing, and pollution discharge elimination system permits for point source and storm water discharge. A full list of permits obtained is listed in Appendix I. Table 4-1 summarizes the list by type and number.

Table 4-1: Summary of 2006 Permits by Type

Type of Permit	Number
404 Permit (Clean Water Act)	0
Migratory Bird Treaty Act/Eagle Protection Act	2
Hazardous Waste Transportation	3
Underground Storage Tanks	3
Hazardous Materials	75
Water Quality	3
Air Quality	3
Fuel Dispensing	6
Total	95

5.0 Environmental Program Information

5.1 Environmental Management System

Self-declaration of Western's EMS was forwarded to DOE on December 21, 2005. This met the requirement of EO 13148, Greening the Government through Leadership in Environmental Management and DOE Order 450.1 for DOE offices to have an EMS in place by December 31, 2005.

The EMS Handbook, which outlines a systematic process that ensures implementation of environmental requirements and continuous improvement, was approved by Western's senior management team in April 2004. In 2006, Western developed its Environmental Planning and Protection Program Plan, which was approved in 2007.

Western had four EMS environmental performance goals for 2006: 1) Complete formal documentation of Environmental Program Plans, 2) complete documentation of guidance manuals, procedures, and other supporting documentation, 3) roll out the revised Pollution Prevention Program Plan, and 4) implementation of the Assessment and Corrective Action Program Plan.

The performance date of the first goal was extended to 2007 due to staffing constraints and a realignment of priorities. Western's Pollution Prevention Program Plan was revised in 2006, and the draft Environmental Planning and Protection Program Plan was revised (it was approved in 2007).

Western prepared supporting documentation for the EMS for goal two; this activity is ongoing. The Pollution Prevention Program Plan was revised in 2006 to meet additional goals established by DOE, and Western began planning implementation of the program as part of goal three.

Under goal four, Western conducted EMS audit training in 2006 as a corrective action for a 2005 assessment finding and work began on a gap analysis of the Pollution Prevention Program. The purpose of the gap analysis is to identify deficiencies in the EMS and to aid in improvements for rolling out the Pollution Prevention Program.

In 2006, Western received a yellow on the Facility EMS scorecard, a government-wide rating system of environmental performance. Deficiencies identified include only

partial completion of documentation of operational controls and scheduling, and not completing the EMS Management Review. Correction of the first deficiency is ongoing. Western completed its first Management Review of the EMS in early 2007. The Management Review covered all aspects of the EMS and identified areas for improvement. Items for improvement will be incorporated into 2007 or future performance plans.

5.2 *Environmental Auditing Program*

Western established an environmental auditing/inspection program in 1980. The major purposes of the auditing program are:

- Discover noncompliance with applicable local, State, and Federal regulations.
- Reduce environmental risks.
- Improve communication with facility staff.
- Improve overall environmental performance.
- Provide assistance and discuss compliance alternatives for problem areas.
- Accelerate development of good environmental management practices.
- Ensure worker safety when working with hazardous materials.
- Provide management with a tool for evaluating the priority of compliance issues.

In 2006, environmental staff conducted 246 facility inspections to ensure facilities conform to Federal, State, and local environmental laws and regulations. Six instances of non-conformance were noted, and corrective actions have been completed or are in process.

Western's EMS requires that periodic audits be conducted of the EMS. The audits evaluate the level of implementation and operational effectiveness of processes, procedures, programs, controls, and also to evaluate progress made on EMS objectives and goals. In 2005, an EMS Auditor Training Desk Audit was conducted. The audit surveyed all environmental staff to obtain baseline information on the level of staff auditing experience and capability. The results of the audit indicated that formal EMS audit training for all environmental staff should be done so that sufficient staff would be available to participate in

future EMS audits. Formal training was completed in 2006 for 83% of environmental staff. Additionally, an EMS assessment of the Pollution Prevention Program began in 2006.

5.3 *Environmental Protection Training*

In 2006, Western continued to provide craft workers (electricians, linemen, meter and relay, communications, heavy equipment operators, vehicle mechanics), engineers, construction managers, property managers, new employees, and management with guidance and training on environmental protection and compliance in accordance with their level of responsibility. Information and summaries of specific regulations, statutes, and compliance issues are covered in non-legal terms to enhance understanding. Training subjects included:

- environmental responsibilities and management systems
- environmental standard operating procedures
- hazardous waste
- universal waste
- used oil
- hazardous materials transportation
- storm water pollution prevention
- local air quality regulations
- PCB management
- spill prevention and cleanup and SPCC requirements
- pollution prevention and waste minimization and affirmative procurement
- first responder refresher
- inspection protocols
- NEPA requirements
- cultural resources awareness
- vegetation management
- threatened and endangered species, and migratory bird and wildlife resources awareness.

5.4 Geographical Information Systems

Western continues to develop and implement a Geographical Information System (GIS) to aid in ROW management and construction activities. The GIS is being used to provide data for environmental staff and maintenance crews to manage cultural, biological, water, and other issues within the ROW and access roads. It is also being used to prepare NEPA and cultural resource documents for new construction projects. Data is shared with Federal, State, and local government agencies as the need arises.

In 2006, environmental data continued to be added to the GIS database for all regions, including fire management data during the fire season. Efforts in the Upper Great Plains Region were expanded. A cross-regional GIS standards committee was formed to standardize GIS data sets and input parameters and metadata. Several interagency data sharing agreements were developed with Federal, State, and local agencies.

5.5 Waste Minimization, Pollution Prevention, and Affirmative Procurement

In accordance with DOE Order 450.1, and WAPA Order 450.1A, Western developed a Pollution Prevention Program Plan. This plan provides guidance to develop and implement a facility-wide, multimedia pollution prevention program within Western.

Specific activities required to meet the plan goals include:

- Conducting pollution prevention opportunity assessments on facilities and operations
- Incorporating pollution prevention considerations into the acquisition process (e.g. affirmative procurement of recovered content products)
- Developing a workplace ethic to support pollution prevention and increasing awareness of pollution prevention
- Adopting the revised DOE Order 450.1 to incorporate its five performance-based pollution prevention and sustainable environmental stewardship goals
- Reporting annually to DOE on the status of Western's Pollution Prevention Program and evaluation of progress toward the Plan goals

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Pollution prevention is incorporated into existing training so that goals, projects, and ideas are part of training curriculum or meeting agendas. Western's work results in the production of some potentially toxic byproducts and generation of several types of wastes. Western's construction, demolition, and replacement activities generate waste electrical equipment and scrap metal. Western reduces the generation of contaminants, wastes, and other regulated materials through source reduction and recycling programs.

Recycling

In 2006, Western recycled 2,319.4 metric tons of waste material, including paper products, scrap metal, oils, batteries, utility poles, transformers, concrete and other materials. SF₆ breakers have replaced oil-filled circuit breakers at several sites. The oil and metal from these replacements have been recycled. Quantities of hazardous waste and recycled and reused waste were collected and are reported in Western's 2006 Annual Report on Waste Generation and Pollution Prevention Progress (Appendix J).

PCB Wastes

Since 1977, Western has reduced the use of PCBs and minimized waste generation through retro-filling equipment and processing to remove PCBs and reusing the oil. Although PCBs have not been completely eliminated, Western continues PCB removal as opportunities are found and budget considerations permit. In 2006, Western disposed of 11.66 metric tons of PCB-contaminated waste. Changes in EPCRA Section 313 regulations, regarding persistent bio-accumulative toxics, have added impetus to this removal.

Affirmative Procurement

EO 13101, Greening the Government through Waste Prevention, Recycling and Federal Acquisition, requires Federal agencies to purchase products listed by the EPA that contain post consumer recycled content materials. These affirmative procurement categories include paper products, construction materials, and non-paper office supplies.

An annual report is submitted to DOE for all listed non-GSA purchased products. Government Service Administration (GSA) reports Western's GSA purchases directly. A

summary report is included in Appendix K. In fiscal year 2006, Western reported \$326,802 in purchases of products containing recovered material content, which represents 51.7 percent of all purchases.

5.6 Environmental Risk Assessment and Management

Western completed evaluation of all environmental program elements during the EMS self-assessment process. Part of each self-assessment included an analysis of risk and liability for each recommendation identified. Western used this information to evaluate and prioritize recommendations, which have been incorporated into EMS documentation. Western also used this information to make corrections and updates as necessary to improve compliance. The self-assessments have also been used in the development of EMS aspects and impacts. Western's Management Review of the EMS also identifies areas of risk and identifies improvements to the EMS to manage risks.

5.7 Renewable Energy Purchasing - Western's Green Tag Program

Western and the DOE's Federal Energy Management Program launched the Renewable Resources for Federal Agencies Program in 2002 to help Federal agencies meet renewable energy goals. Agencies can purchase renewable energy and its benefits through this Program, which can help them comply with the requirements of Section 203 of the Energy Policy Act of 2005; and Executive Order 13423, to reduce emissions and foster new markets for emerging technologies.

Agencies find that obtaining renewable resources through Western is easy and cost effective. Western can procure renewable resources from suppliers through a request for proposals and pass the energy and/or benefits on to the agency. All costs associated with renewable resource purchases are passed on to the agencies requesting service; and in some cases, costs are covered by the DOE Federal Energy Management Program. Three renewable products are available through this Program, including:

- Renewable energy certificates (RECs) for any Federal agency. RECs, also known as green tags, are the intangible benefits associated with generating one megawatt-hour (MWh) of electric energy by a renewable resource. They don't require the energy to

be physically delivered to the buyer, but instead offset the difference between the cost of the renewable power and power from fossil energy sources.

- Renewable energy delivered to the agency's site for Federal agencies within Western's service territory footprint.
- Use of Western's Power Marketing Authority for on-site renewable resource project development for Federal agencies within Western's service territory footprint.

While not specifically part of the program for Federal agencies, Western can also purchase RECs for Western's firm power customers that request the service. The growth of State and locally-adopted standards along with Western's goal of promoting renewable resource development are among the reasons this service is made available to requesting firm power customers.

In 2006, Western purchased more than 496,508 MWh of RECs and energy on behalf of the following:

- Department of Defense (Air Force & Army) – 89,491 MWh
- DOE (multiple agencies) – 84,492 MWh
- EPA – 18,775 MWh
- Department of Agriculture (Forest Service) – 550 MWh
- Non-Federal agencies – 300,000 MWh

Western has participated in the REC purchase program and is purchasing enough RECs to cover 82 percent of its own energy usage. This significantly exceeds the 7.5 percent required by 2013 as established by Executive Order 13423. In addition to purchasing RECs, Western has several photovoltaic (solar) systems installed on its own buildings and is in the process of calculating the renewable energy these systems produce.

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APPENDIX A

**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLANS
AND CERCLA TIER II REPORTS
Calendar Year 2006**

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**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLANS
AND EPCRA TIER II REPORTING OF THE
WESTERN AREA POWER ADMINISTRATION
CALENDAR YEAR 2006**

Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Arizona					
Davis Dam Substation	Mohave	Yes	Yes	Yes	Yes
Gila Substation	Yuma	Yes			
Glenn Canyon Substation	Coconino	Yes	Yes	Yes	Yes
Griffith Substation	Mohave	Yes			
Liberty Substation	Maricopa	Yes			
North Havasu Substation	Mohave	Yes			
Phoenix Operations and Maintenance Facility	Maricopa	Yes			
Pinnacle Peak Substation	Maricopa	Yes			
Spook Hill Substation	Maricopa	Yes	Yes	Yes	Yes
Test Track Substation	Pinal	Yes			
Tucson Substation	Pima	Yes			
California¹					
Airport Substation	Shasta	HMBP	Yes		
Arvin Edison Metering Unit	Kern	HMBP			
Banta Carbona Metering Unit	San Joaquin	HMBP			
Bear Springs Microwave Facility	Shasta	HMBP			
Berryessa Peak Microwave Facility	Yolo	HMBP			
Big Valley Microwave Facility	Lassen	HMBP			
Carr Substation	Shasta	HMBP			
Coleman Fish Hatchery Substation	Shasta	HMBP			
Corning Microwave Facility	Tehama	HMBP			
Corning Substation	Tehama	HMBP			
Coyote Substation	Santa Clara	HMBP			
Davis Microwave Facility	Yolo	HMBP/			
Elverta Maintenance Facility/Substation	Sacramento	HMBP	Yes		
Folsom Substation	Sacramento	HMBP	Yes		
Happy Camp Microwave Facility	Modoc	HMBP			
Highland Peak Microwave Facility	Contra Costa	HMBP			
Hooker Creek Microwave Facility	Tehama	HMBP			
Howard Ranch Microwave Facility	Merced	HMBP			
Keswick Substation	Shasta	HMBP	Yes		
Lawrence Livermore Substation	Alameda	HMBP			
Logan Creek Microwave Facility	Glenn	HMBP			
Manzanita Lake Microwave Facility	Shasta	HMBP			

¹ SPCC Plans are included in Hazardous Material Business Plans required by the State of California. Business Plans developed for California meet the EPCRA reporting requirements and separate Tier II reports are not required. Western has 60 facilities in California that submit Business Plans.

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Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Maxwell Substation	Colusa	HMBP			
Mount Oso Microwave Facility	Stanislaus	HMBP			
New Melones Substation	Calaveras	HMBP			
O'Banion Substation	Sutter	HMBP			
Olinda Substation	Shasta	HMBP			
O'Neill Pumping Plant	Merced	HMBP			
Pacheco Substation	Merced	HMBP			
Parker Dam Substation	San Bernardino	HMBP	Yes	Yes	Yes
Pleasant Valley Substation	Fresno	HMBP			
Pixley Microwave Facility	San Joaquin	HMBP			
Redding Maintenance Facility	Shasta	HMBP	Yes		
Roseville Substation	Placer	HMBP	Yes		
Round Mountain Microwave Facility	Tehama	HMBP			
Rumsey Microwave Facility	Yolo	HMBP			
Sacramento Power Operations Facility/Substation	Sacramento	HMBP	Yes		
San Luis Gianelli Pumping Plant	Merced	HMBP			
Shasta Substation	Shasta	HMBP			
Sites Microwave Facility	Colusa	HMBP			
Skeggs Point Microwave Facility	San Mateo	HMBP			
Stampede Metering Units	Sierra	HMBP			
Sugarloaf Microwave Facility	Napa	HMBP			
Timber Mountain Microwave Facility	Modoc	HMBP			
Tracy Substation & Maintenance Facility	Alameda	HMBP	Yes		
Vollmer Peak Microwave Facility	Contra Costa	HMBP			
Whiskeytown Substation	Shasta	HMBP			
Widow Mountain Microwave Facility	Lassen	HMBP			
Wintu Substation	Shasta	HMBP			
Colorado					
Ault Substation	Weld	Yes			
Bald Mountain Microwave	Larimer	Yes			
Bears Ears Substation	Moffat	Yes			
Blue Mesa Substation	Gunnison	Yes	Yes		
Brighton Substation	Weld	Yes			
Brush Maintenance Office and Beaver Creek Substation	Morgan	Yes			
Brush Substation	Morgan	Yes			
Cathedral Bluff Microwave	Rio Blanco	Yes			
Curecanti Substation	Montrose	Yes	Yes		
Deer Peak Microwave	Custer	Yes			
Derby Hill Substation	Larimer	Yes			
Dove Creek Pumping Plant Substation	Dolores	Yes			
Estes Park Substation	Larimer	Yes	Yes		
Flatiron Substation	Larimer	Yes	Yes		
Fleming Substation	Logan	Yes	Yes		
Fort Morgan West Substation	Morgan	Yes			
Frenchman Creek Substation	Phillips	Yes	Yes		

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Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Granby (Farr) Pumping Plant Switchyard	Grand	Yes	Yes		
Granby Substation	Grand	Yes			
Great Cut Pumping Plant Substation	Montezuma	Yes	Yes		
Haxtun Substation	Phillips	Yes			
Hayden Substation	Routt	Yes			
Holyoke Substation	Phillips	Yes			
Hoyt Substation	Morgan	Yes			
Hygiene Substation	Boulder	Yes			
Island Lake Microwave Site	Mesa	Yes			
Julesburg Substation	Sedgwick	Yes			
Kiowa Creek Substation	Morgan	Yes			
Kremmling Substation	Grand	Yes			
Limon Substation	Lincoln	Yes			
Magnetic Mountain Microwave	Rio Blanco	Yes			
Midway Substation	El Paso	Yes			
Montrose Craft Training Center	Montrose	Yes	Yes		
Montrose Maintenance Office	Montrose	Yes	Yes	Yes	
Nunn Substation	Weld	Yes			
Pole Hill Substation	Larimer	Yes	Yes		
Poncha Springs Substation	Chaffee	Yes	Yes		
Poudre Substation	Larimer	Yes	Yes		
Prospect Valley Substation	Weld	Yes			
Rifle Substation	Garfield	Yes	Yes		
Rocky Mountain Region Power Marketing and Control Center	Larimer	Yes	Yes		
Salida Substation	Chaffee	Yes			
Sheeps Knob Microwave Site	Montrose	Yes			
Sterling Substation	Logan	Yes	Yes		
Wauneta Substation	Yuma	Yes			
Weld Substation	Weld	Yes	Yes		
Wiggins Substation	Morgan	Yes			
Willow Creek Pumping Plant Switchyard	Grand	Yes	Yes		
Woodrow Substation	Washington	Yes			
Wray Substation	Yuma	Yes			
Yuma Substation	Yuma	Yes			
Iowa					
Creston Substation	Union	Yes	Yes		
Dennison Substation	Crawford	Yes	Yes		
Sioux City (230 kV yard) Substation	Plymouth	Yes	Yes		
Sioux City (345 kV yard) Substation	Plymouth	Yes	Yes		
Spencer Substation	Clay	Yes	Yes		
Minnesota					
Granite Falls Substation	Chippewa	Yes	Yes		
Morris Substation	Stevens	Yes	Yes		

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Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Montana					
Bole Substation	Teton	Yes	Yes		
Circle Substation	McCone	Yes	Yes		
Conrad Substation	Ponder	Yes	Yes		
Crossover Substation	Big Horn	Yes	Yes		
Custer Substation	Yellowstone	Yes	Yes		
Dawson County Substation	Dawson	Yes	Yes		
Fallon Pump	Prairie		Yes		
Fallon Relift	Prairie		Yes		
Frazer Substation	Valley		Yes		
Glendive Substation	Dawson	Yes	Yes		
Glendive Pump 1	Prairie		Yes		
Glendive Pump 2	Prairie	Yes	Yes		
Havre Substation	Hill	Yes	Yes		
Miles City 1 Substation	Custer	Yes	Yes		
Miles City 2 Substation	Custer	Yes	Yes		
Miles City 4 Substation (Miles City Converter)	Custer	Yes	Yes		
O'Fallon Creek Substation	Prairie	Yes	Yes		
Rainbow Substation	Cascade	Yes	Yes		
Richland Substation	Richland	Yes	Yes		
Rudyard Substation	Hill	Yes	Yes		
Savage Pump	Richland		Yes		
Savage Substation	Richland		Yes		
Shelby Substation	Toole	Yes	Yes		
Shelby Substation #2	Toole	Yes	Yes		
Shirley Substation	Custer	Yes	Yes		
Terry Pump	Prairie		Yes		
Terry Tap	Prairie		Yes		
Tiber Dam Substation	Liberty	Yes	Yes		
Valley Pump Substation	Valley		Yes		
Whately Substation	Valley	Yes	Yes		
Wolf Point Substation	Roosevelt	Yes	Yes		
Yellowtail Substation	Big Horn	Yes	Yes		
Nebraska					
Alliance Substation	Box Butte	Yes			
Bridgeport Substation	Morrill	Yes	Yes		
Chadron Substation	Dawes	Yes			
Chappell Substation	Deuel	Yes			
Dunlap Substation	Dawes	Yes			
Gering Substation and Maintenance Facility	Scotts Bluff	Yes	Yes		
Grand Island Substation	Merrick	Yes	Yes		
Kimball Substation	Kimball	Yes			
Ogallala Substation	Keith	Yes			
Sidney Substation	Cheyenne	Yes			
Stegall Substation	Scotts Bluff	Yes			

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Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Virginia Smith Converter Station	Cheyenne	Yes			
New Mexico					
Shiprock Substation	San Juan	Yes			
Waterflow Substation	San Juan	Yes	Yes		
Nevada					
Amargosa Substation	Clark	Yes	Yes	Yes	Yes
Mead Substation	Clark	Yes			
North Dakota					
Belfield Substation	Stark	Yes	Yes		
Bisbee Substation	Towner	Yes	Yes	Yes	
Bismarck Substation	Burleigh	Yes	Yes	Yes	
Buford-Trenton Substation	Williams	Yes	Yes		
Carrington Substation	Foster	Yes	Yes	Yes	
Custer Trail Substation	Morton	Yes	Yes	Yes	
Denbigh Tap	McHenry	Yes			
DeVaul Substation	Grant	Yes	Yes	Yes	
Devil's Lake Substation	Ramsey	Yes	Yes		
Edgeley Substation	LaMoure	Yes	Yes	Yes	
Fargo Substation	Cass	Yes	Yes		
Foreman Substation	Sargent	Yes	Yes	Yes	
Hilken Switching Station	Burleigh	Yes			
Killdeer Substation	Dunn	Yes	Yes	Yes	
Jamestown Substation	Stutsman	Yes	Yes	Yes	
Lakota Substation	Nelson	Yes	Yes	Yes	
Leeds Substation	Benson	Yes	Yes	Yes	
Penn Tap	Ramsey	Yes			
Rolla Substation	Rolette	Yes	Yes	Yes	
Rugby Substation	Pierce	Yes	Yes	Yes	
Snake Creek Substation	McLean	Yes	Yes		
Valley City Substation	Barnes	Yes	Yes	Yes	
Ward Substation	Ward	Yes			
Washburn Substation	McLean	Yes	Yes	Yes	
Watford Substation	McKenzie	Yes	Yes	Yes	
Williston Substation	Williams	Yes	Yes		
South Dakota					
Armour Substation	Charles-Mix	Yes	Yes		
Beresford Substation	Union	Yes	Yes		
Bonesteel Substation	Gregory	Yes	Yes		
Brookings Substation	Brookings	Yes	Yes		
Eagle Butte Substation	Ziebach	Yes	Yes		
Ellsworth Air Force Base Substation	Rapid City	Yes	Yes		
Faith Substation	Meade	Yes	Yes		
Flandreau Substation	Moody	Yes	Yes		
Fort Thompson Substation	Buffalo	Yes	Yes		
Gregory Substation	Gregory	Yes	Yes		

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Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Groton Substation	Brown	Yes	Yes		
Huron Substation	Beadle	Yes	Yes		
Irv Simmons Substation	Stanley		Yes		
Martin Substation	Bennett	Yes	Yes		
Maurine Substation	Meade	Yes	Yes		
Midland Substation	Haakon	Yes	Yes		
Mission Substation	Todd	Yes	Yes		
Mount Vernon Substation	Davison	Yes	Yes		
Newell Substation	Meade	Yes	Yes		
New Underwood Substation	Pennington	Yes	Yes		
Philip Substation	Haakon	Yes	Yes		
Pierre Substation	Hughes	Yes	Yes		
Rapid City Substation	Pennington	Yes	Yes		
Sioux Falls Substation	Minnehaha	Yes	Yes		
Summit Substation	Roberts	Yes	Yes		
Tyndall Substation	Bon Homme	Yes	Yes		
Wall Substation	Pennington	Yes	Yes		
Watertown Maintenance Facility	Codington	Yes	Yes		
Watertown PCB Storage	Codington		Yes		
Watertown Substation	Codington	Yes	Yes		
Watertown Substation (Static Variance)	Codington	Yes	Yes		
White Substation	Brookings	Yes	Yes		
Wicksville Substation	Pennington	Yes	Yes		
Winner Substation	Tripp	Yes	Yes		
Witten Substation	Tripp	Yes	Yes		
Woonsocket Substation	Jerauld	Yes	Yes		
Yankton Substation	Yankton	Yes	Yes		
Utah					
Cliff Ridge Microwave	Uintah	Yes			
Flaming Gorge Switchyard	Daggett	Yes	Yes		
Tyzack Substation	Uintah	Yes	Yes		
Vernal Substation	Uintah	Yes	Yes		
Wyoming					
Alcova Switchyard	Natrona	Yes	Yes		
Archer Substation	Laramie	Yes			
Badwater Substation	Fremont	Yes	Yes		
Basin Substation	Big Horn	Yes			
Big George Substation	Park	Yes			
Boysen Substation	Fremont	Yes			
Casper Field Office	Natrona	Yes			
Casper Mountain Microwave Site	Natrona	Yes			
Casper Substation	Natrona	Yes	Yes		
Cheyenne Substation	Laramie	Yes			
Copper Mountain Substation	Fremont	Yes	Yes		
Garland Substation	Park	Yes			

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Facility Name	County	Tier II	SPCC	Revised 2006	New SPCC
Glendale Substation	Park	Yes	Yes		
Glendo Substation	Platte	Yes	Yes		
Heart Mountain Substation	Park	Yes	Yes		
Limestone Substation	Platte	Yes	Yes		
Lingle Substation	Goshen	Yes	Yes		
Lovell Substation	Big Horn	Yes			
Lusk Rural Substation	Niobrara	Yes			
Lusk Substation	Niobrara	Yes	Yes		
Lyman Substation	Goshen	Yes			
McCullough peak Microwave Site	Park	Yes			
Medicine Bow Substation	Carbon	Yes			
Meeteetse Substation	Park	Yes			
Miracle Mile Substation	Carbon	Yes			
Muddy Ridge Substation	Fremont	Yes			
North Cody Substation	Park	Yes			
Pilot Butte Substation	Fremont	Yes	Yes		
Pinebluffs Substation	Laramie	Yes			
Raderville Substation	Natrona	Yes			
Ralston Substation	Park	Yes			
Spence Substation	Natrona	Yes			
Thermopolis Substation	Hot Springs	Yes			
Torrington Substation	Goshen	Yes			
Warren Air Force Substation	Laramie	Yes			
Whiterock Substation	Platte	Yes			
TOTAL		257	147	22	5

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APPENDIX B

SF6 Emissions Report to the Environmental Protection Agency for 2006

*Western Area Power Administration
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**WESTERN AREA POWER ADMINISTRATION SF₆ EMISSIONS
REPORT TO ENVIRONMENTAL PROTECTION AGENCY FOR 2006
April 4, 2007**

INTRODUCTION:

In 2006, Western Area Power Administration (Western) made progress in their program of reducing SF₆ related emissions to the environment. Three of Western's four regions are tracking emissions. Western is committed to reducing emissions to protect the environment, and provide top service to our customers through minimization of electrical outages.

SUMMARY OF SF₆ EMISSIONS

Desert Southwest Region: The reported losses were 523 pounds. The total nameplate capacity is 62,480 pounds. The leakage rate is 523/62,480 or 0.8%. The bottles were weighed before and after gas was added to each breaker and the totals were summed.

Rocky Mountain Region: The reported losses were 1,371 pounds. The total nameplate capacity is 31,360 pounds. The leakage rate is 1371/31,360 or 4.4 %. The bottles were weighed before and after gas was added to each breaker and the totals were summed.

Sierra Nevada Region: The Sierra Nevada Region will begin tracking and reporting SF₆ emissions to the State of California in 2008.

Upper Great Plains Region:

For the Montana Maintenance Division, the reported losses were 18 pounds. The total nameplate capacity is 6,195 pounds. The leakage rate is 18/6,195 or 0.3 %.

For the North Dakota Maintenance Division, the reported losses were 71 pounds. The total nameplate capacity is 9,546 pounds. The leakage rate is 71/9,546 or 0.7 %.

For the South Dakota Maintenance Division, the reported losses were 710 pounds. The total nameplate capacity is 26,761 lbs. The leakage rate is 710/26,761 or 2.7 %.

Western overall: For the three regions reporting for Western Area Power Administration, the total emissions were 2,693 pounds. The total nameplate capacity = 136,342 pounds. The leakage rate is 2,693/136,342 or 2.0 %.

Comparison of this year's emissions to last year's: Last year, Western's leakage rate was 2.8 %, with emissions of 3,597 pounds and a nameplate capacity of 126,837 pounds. A total improvement of 0.8 % less emission has been achieved.

Sulfur Hexafluoride (SF₆) Gas Loss Record for CY 2006

Western Area Power Administration
Desert Southwest Region

2006		SF-6 Losses	Total amount	Leakage
<u>Substation/Tap</u>	<u>Abbreviation</u>	<u>in Lbs</u>	<u>in lbs of SF-6</u>	<u>Percentage</u>
Amargosa	AMR		482	0
Apache	APE		55	0
Boulder City Tap	BTP		15	0
Buck Boulevard	BKB		1320	0
Blythe	BLY		924	0
Black Mesa	BMA		396	0
Casa Grande	CAG	10	496	0.02016129
Coolidge	COL	2	1823	0.001097093
Davis Dam	DAD		250	0
Del Back Switching Station	DLB		198	0
Eastside Switchyard	EAS		528	0
ED4	ED4		110	0
ED5	ED5		2	0
Flagstaff	FLG	23	226.8	0.101410935
Glen Canyon	GC	101	3520	0.028693182
Gila	GLA	5.4	596	0.009060403
Gavilan Peak	GPK		396	0
Griffith	GTH		1320	0
Headgate	HDR		717	0
Harcuvar	HCR		242	0
Henderson Switchyard	HEN		540	0
Hilltop	HLT		396	0
Kayenta	KAY	30	152	0.197368421
Knob	KNB		528	0
Kofa	KOF	21	660	0.031818182
Liberty	LIB		1990.4	0
Lone Butte	LOB	30	792	0.037878788
Maricopa	MAR	48	30	1.6
McConnico	MCI		717	0
Mead 500 kV Yard	MDE	28	3506.3	0.007985626
Mead	MED	51	21297.64	0.002394632
Nogales	NGL		174	0
North Havasu	NHV		396	0
Newport Switchyard	NPT		660	0
Oracle	ORA		256	0
Parker Dam	PAD		1313	0
Peacock	PCK		1260	0
Phoenix	PHX		252	0
Pinnacle Peak	PPK	156.5	6789.7	0.023049619
Prescott	PRS		264	0
Rogers	RGS		1750	0
Rattlesnake Tap	RSK		58	0
Raceway	RWY		405	0
Saguaro	SGR		345	0
Senator Wash	SEW		75	0

Sonora	SON	17.1	50	0.342
Spook Hill	SPH		220	0
Sundance	SUD		792	0
Topock	TOP		1452	0
Test Track	TTT		396	0
Valley Farms	VAF		441	0
Wellton-Mohawk	WMS		125	0
Wellton-Mohawk Ligurta	WML		730	0
Wellton-Mohawk 1	WM1		25	0
Wellton-Mohawk 3	WM3		25	0
Total		523	62479.84	0.0083707

Sulfur Hexafluoride (SF₆) Gas Loss Record for CY 2006

Western Area Power Administration
Rocky Mountain Region

The Rocky Mountain Region has 265 SF₆ filled electrical devices totaling a nameplate weight of 31,360 lbs. in 55 facilities. The following table indicates where losses of SF₆ gas were found. The losses shown were classified as loss due to leakage, maintenance activities, or other.

Facility	Lbs of Gas Lost Due to Leakage	Lbs of Gas Lost Due to Maintenance Activities	Lbs of Gas Lost Due to Other Causes	Total Lbs of Gas Lost
Alcova	20.5	0	0	20.5
Archer	115	0	0	115
Ault	460	345 ¹	0	805 ¹
Basin	8	0	0	8
Beaver Creek	73.5	0	0	73.5
Fort Morgan West	18	0	0	18
Gering Service Center	13.3	30	0	43.3
Hayden	13.5	0	0	13.5
Shiprock	30	16	0	46 ²
Spence	107	0	0	107
Sterling	10	0	0	10
Thermopolis	20	0	0	20
Virginia Smith Converter	81	0	0	81
Yellowtail	10	0	0	10
Totals:	979.8	391	0	1370.8

¹ 345 Lbs. lost during Breaker 696 rebuild.

² Replaced cracked bushings on Breakers 282 & 482 to prevent further losses.

There were no leak testing activities undertaken by the RMR in 2006.

Sulfur Hexafluoride (SF₆) Gas Loss Record for CY 2006

Western Area Power Administration
Upper Great Plains Region – Montana Maintenance Division

Annual Reporting Form

Gregory Liebelt	Company Name:	Western Area Power Administration
MMO Environmental Protection Specialist	Report Year:	2006
406-526-8515	Date Completed:	2/8/2007

Change in Inventory (SF₆ contained in cylinders, not electrical equipment)

Invent. (in original cylinders beginning 2005 yr, not equip)	AMOUNT (lbs.)	Comments
1. Beginning of Year	1,407.50	
2. End of Year	1,389.50	
A. Change in Inventory (1 - 2)	18.00	

Purchases/Acquisitions of SF₆

	AMOUNT (lbs.)	Comments
3. SF ₆ purchased from producers or distributors in cylinders or leftover in cylinders once new equipment filled	26	Custer 16# Cylinder located at CU Rudyard 10# - Cylinder returned to Whse - send to Mitsubishi
4. SF ₆ provided by equipment manufacturers with/inside equipment	160.00	Custer & Rudyard
5. SF ₆ returned to the site after off-site recycling		
B. Total Purchases/Acquisitions (3+4+5)	186.00	

Sales/Disbursements of SF₆

	AMOUNT (lbs.)	Comments
6. Sales of SF ₆ to other entities, including gas left in equipment that is sold		
7. Returns of SF ₆ to supplier		
8. SF ₆ sent to destruction facilities		
9. SF ₆ sent off-site for recycling		
C. Total Sales/Disbursements (6+7+8+9)		

Change in Nameplate Capacity and new cylinders that came with new equipment

	AMOUNT (lbs.)	Comments
10. Amount of SF ₆ gas left in new cylinders	26	Added 2 cylinders (Cu & RY)
11. Total nameplate capacity (proper full charge) of new equipment	160.00	CU & RY
12. Total nameplate capacity (proper full charge) of retired or sold equipment		

D. Change in Capacity (10 + 11) - 12	186.00	
---	--------	--

Total Annual Emissions

	lbs. SF ₆	Tonnes CO2 equiv. (lbs.SF ₆ x23,900/2205)
E. Total Emissions (A+B-C-D)	18.00	195.10

Emission Rate (optional)

	AMOUNT (lbs.)	Comments
Total Nameplate Capacity at End of Year	6,195.00	Total from Active Equipment Report
	PERCENT (%)	
F. Emission Rate (Emissions/Capacity)	0.3%	

Prepared by: Susan Garsjo, PMO

Sulfur Hexafluoride (SF₆) Gas Loss Record for CY 2006
 Western Area Power Administration
 Upper Great Plains Region – North Dakota Maintenance Division

Annual Reporting Form			
Name:	Cheryl J. Arndt	Company Name:	DOE, WAPA, UGP, North Dakota Maintenance
Title:	Property Management Specialist	Report Year:	Calendar Year 2006
Phone:	701-221-4513	Date Completed:	1/30/2007
Change in Inventory (SF₆ contained in cylinders, not electrical equipment)			
	Inventory (in cylinders, not equipment)	AMOUNT (lbs.)	Comments
	1. Beginning of Year	915.00	see below "c1"
	2. End of Year	962.40	
	A. Change in Inventory (1 - 2)	(47.40)	
Purchases/Acquisitions of SF₆			
		AMOUNT (lbs.)	Comments
	3. SF ₆ purchased from producers or distributors in cylinders	-	Returned from Paradyme (They used 19.5) - reported cye2005 Borrowed. Included in line 4.
	4. SF ₆ provided by equipment manufacturers with/inside equipment	873.90	New Equipment Nameplate + amount remaining in cylinder (added to STOR's) after initial fill.
	5. SF ₆ returned to the site after off-site recycling	-	
	B. Total Purchases/Acquisitions (3+4+5)	873.90	
Sales/Disbursements of SF₆			
		AMOUNT (lbs.)	Comments
	6. Sales of SF ₆ to other entities, including gas left in equipment that is sold	-	
	7. Returns of SF ₆ to supplier	-	
	8. SF ₆ sent to destruction facilities	-	
	9. SF ₆ sent off-site for recycling	-	
	C. Total Sales/Disbursements (6+7+8+9)	-	
Change in Nameplate Capacity			
		AMOUNT (lbs.)	Comments
	10. Total nameplate capacity (proper full charge) of new equipment	762.50	Breakers 746.0; Interrupters 16.5
	11. Total nameplate capacity (proper full charge) of retired or sold equipment	6.50	Interrupters

	D. Change in Capacity (10 - 11)	756.00	
	Total Annual Emissions		
		lbs. SF ₆	Tonnes CO2 equiv. (lbs.SF ₆ x23,900/2205)
	E. Total Emissions (A+B-C-D)	70.50	764.15
	Emission Rate (optional)		
		AMOUNT (lbs.)	Comments
	Total Nameplate Capacity at End of Year	9,545.90	Breakers 9,481.5; Interrupters 64.4
		PERCENT (%)	
	F. Emission Rate (Emissions/Capacity)	0.74%	
c1:	cye2005 = 910.00 - Less .05 discrepancy - recorded ending balance incorrectly; plus 5.5 recorded ending balance of last issue on a cylinder; however, the issue did not take place until January 3 (cy2006 starting = 2005 balance previous to last issue).		
			Tonnes CO2 equiv. (lbs.SF ₆ x23,900/2205)
	Note: Actual issued to existing equipment:	51	552.79
	F. Emission Rate (Emissions/Capacity)	0.53%	
			(63 - 12 reported on cye 2005 Report)

Sulfur Hexafluoride (SF₆) Gas Loss Record for CY 2006
 Western Area Power Administration
 Upper Great Plains Region – South Dakota Maintenance Division

Annual Reporting Form			
Name:	Tom Borkowski	Company Name:	DOE, WAPA, UGP, South Dakota Maintenance
Title:	Property Management Specialist	Report Year:	Calender Year 2006
Phone :	605-353-2651	Date Completed:	29-Mar-07
Change in Inventory (SF₆ contained in cylinders, not electrical equipment)			
	Inventory (in cylinders, not equipment)	AMOUNT (lbs.)	Comments
	1. Beginning of Year	5,715.40	SF ₆ purchased during the year
	2. End of Year	5,663.00	SF ₆ in inventory at the present time
	A. Change in Inventory (2 - 1)	-52.40	Change in inventory during the year
Purchases/Acquisitions of SF₆			
		AMOUNT (lbs.)	Comments
	3. SF ₆ purchased from producers or distributors in cylinders	909.00	SF ₆ purchased from Linweld during the year
	4. SF ₆ provided by equipment manufacturers with/inside equipment	561.00	Installed 7 High Voltage circuit breakers with a combined capacity of 561 pounds of gas.
	5. SF ₆ returned to the site after off-site recycling	-	None
	B. Total Purchases/Acquisitions (3+4+5)	1,470.00	
Sales/Disbursements of SF₆			
		AMOUNT (lbs.)	Comments
	6. Sales of SF ₆ to other entities, including gas left in equipment that is sold		none
	7. Returns of SF ₆ to supplier		none
	8. SF ₆ sent to destruction facilities		none
	9. SF ₆ sent off-site for recycling		none
	C. Total Sales/Disbursements (6+7+8+9)	-	

Change in Nameplate Capacity

	AMOUNT (lbs.)	Comments
10. Total nameplate capacity (proper full charge) of new equipment	561.00	Installed 7 High Voltage circuit breakers with a combined capacity of 561 pounds of gas.
11. Total nameplate capacity (proper full charge) of retired or sold equipment	-	None
D. Change in Capacity (10 - 11)	561.00	
Total Annual Emissions		
	lbs. SF ₆	Tonnes CO2 equiv. (lbs.SF ₆ x 23,900/2205)
E. Total Issues	709.50	7,690.27

Emission Rate (optional)

	AMOUNT (lbs.)	Comments
Total Nameplate Capacity at End of Year	26,761.00	
	PERCENT (%)	
F. Emission Rate (Emissions/Capacity)	2.7%	

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APPENDIX C

2006 ANNUAL NEPA PLANNING SUMMARY

*Western Area Power Administration
2006 Annual Site Environmental Report*

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Annual NEPA Planning Summary Status of Ongoing NEPA Compliance Activities: Environmental Assessments

*Western Area Power Administration
January 2006*

*Title, Location	Estimated Cost	Estimated Schedule (**NEPA Milestones)		Description
Blythe-Headgate Rock No. 1, 161-kV Transmission Line Pole Replacement Blythe, CA DOE/EA-1427	\$ 143,000	Determination Date:	3/7/2002	The purpose of the pole replacement project is to extend the life of the Headgate Rock-Blythe 161-kV transmission line by replacing the transmission line support structures in order to allow continued electrical transmission to customers in California and Arizona.
		Transmittal to State:	9/1/2005	
		EA Approval:	1/20/2006	
		FONSI:	1/20/2006	
Parker-Gila 161-kV Transmission Line Relocation, Arizona DOE/EA-1487	\$ 63,000	Determination Date:	11/20/2003	Western owns, operates, and maintains the Parker-Gila 161-kV Transmission Line. Western proposes to reroute this portion of the transmission line to enhance public health and safety, improve electrical service reliability, and prevent future ROW encroachments in this area.
		Transmittal to State:	12/23/2004	
		EA Approval:	12/22/2005	
		FONSI:	12/22/2005	
Granby Pumping Plant-Windy Gap Transmission Line Rebuild Project, Grand County, Colorado DOE/EA-1520	\$ 200,000	Determination Date:	12/10/2004	Western proposes to rebuild and upgrade the Granby Pumping Plant-Windy Gap 60-kV transmission line, between the Windy Gap Substation and the Granby Pumping Plant, a distance of 11.7 miles. The project is located in Grand County, Colorado.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Cheyenne-Miracle Mile and Ault-Cheyenne Transmission Line Rebuild Project, WY DOE/EA-1456	\$ 1,000,000	Determination Date:	9/30/2002	Western proposes to rebuild the Cheyenne-Miracle Mile and Ault-Cheyenne 115-kV transmission lines, and construct a new substation at Laramie, Wyoming. The project is located in Carbon, Albany and Laramie counties, Wyoming and Weld County, Colorado.
		Transmittal to State:	10/1/2007	
		EA Approval:	10/1/2007	
		FONSI:	10/1/2007	
Charlie Creek-Williston Fiber Optic Overhead Ground Wire Installation, ND DOE/EA-1389	\$ 120,000	Determination Date:	3/20/2001	Western is preparing an EA to address its proposal to replace transmission structures and install optical overhead ground wire between Charlie Creek and Williston substations in North Dakota. The structures need to be replaced due to deterioration and the need for additional clearance for the ground wires.
		Transmittal to State:	4/7/2004	
		EA Approval:	4/6/2006	
		FONSI:	4/6/2006	
Havre-Rainbow Transmission Line Rebuild, Montana DOE/EA-1424	\$ 350,000	Determination Date:	12/12/2001	Western is preparing an EA to address its proposal to replace transmission structures and install optical overhead ground wire between Havre and Rainbow substations in Montana. Portions of the transmission line would be rerouted to reduce land use conflicts.
		Transmittal to State:	3/1/2006	
		EA Approval:	4/15/2006	
		FONSI:	4/15/2006	

Annual NEPA Planning Summary Status of Ongoing NEPA Compliance Activities: Environmental Assessments Continued

Blythe Energy Project Phase II Transmission Project, CA DOE/EA-1522	Applicant Funded	Determination Date:	11/30/2004	Blythe Energy, LLC, proposes to build two new transmission lines in the vicinity of its 520-MW Blythe Power Plant, west of the City of Blythe, Calif. The proposed transmission line project will increase the capability of the transmission paths between the Blythe Power Plant and the transmission system serving Southern California electric load centers. The proposed project consists approximately 74 miles of new 230-kV transmission line on concrete poles. .
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Blythe Energy Project Phase II, CA DOE/EA-1526	Applicant Funded	Determination Date:	3/9/2005	The Blythe Energy Project Phase II would be located next to the Blythe Energy Project facility that the California Energy Commission approved in 2001. The proposed combined-cycle power plant would have a nominal rating of 520 MW and consist of two 170-MW combustion turbine generators, one 180-MW steam turbine generator and supporting equipment.
		Transmittal to State:	4/7/2004	
		EA Approval:	2/15/2007	
		FONSI:	2/15/2007	
North Area Right-of-Way Maintenance, CA DOE/EA-1539	\$1,200,000	Determination Date:	2/22/2005	Western is preparing an EA in response to proposed changes in operation and maintenance procedures along Western's North Area transmission right-of-way (ROW) in California. Western proposes to change the current vegetation maintenance procedures to include the expanded use of herbicides in combination with manual and mechanical removal methods in an effort to promote low-growing plant communities. The EA will support further Endangered Species Act Section 7 consultation required when Western conducts maintenance activities that are beyond those covered in its maintenance Biological Opinion.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Buffalo Ridge-White 115-kV Transmission Line Interconnection DOE/EA-unassigned at this time	Applicant Funded	Determination Date:	1/27/2005	Xcel Energy proposes to construct a new 115-kV transmission line and associated structures and electrical equipment to connect the Buffalo Ridge Substation in Lincoln County, Minnesota with Western's White Substation in Brookings County, South Dakota.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Valley County Wind Energy Project DOE/EA-unassigned at this time	Applicant Funded	Determination Date:	6/29/2005	Wind Hunter, LLC proposes to construct a 400-MW wind farm in northern Montana and obtain transmission service from Western. The Bureau of Land Management would be the lead agency. Western is a cooperating agency and would adopt BLM's EA process.
		Transmittal to State:		
		EA Approval:		
		FONSI:		

Annual NEPA Planning Summary Environmental Assessments Expected to be Prepared in the Next 12 Months

*Western Area Power Administration
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GroWind Wind Energy Project, Rock River, Albany County, Wyoming	Applicant Funded	Determination Date:		This is a proposed Wind Farm that would be interconnected with Western's transmission system. The expected generation capacity is below 50 Average Megawatts.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
PPM Wind Energy Project, Limon, Lincoln County, Colorado	Applicant Funded	Determination Date:		This is a proposed Wind Farm that would be interconnected with Western's transmission system. The expected generation capacity is below 50 Average Megawatts.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
PPM Wind Energy Project, Akron, Yuma County, Colorado	Applicant Funded	Determination Date:		This is a proposed Wind Farm that would be interconnected with Western's transmission system. The expected generation capacity is below 50 Average Megawatts.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Invenergy Wind Farm, Spencer, Iowa	Applicant Funded	Determination Date:		This is a proposed Wind Farm that would be interconnected with Western's transmission system. The expected generation capacity is below 50 Average Megawatts.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Coolidge-Rodgers ROW Perfection, Arizona	\$ 50,000	Determination Date:		Western proposes to perfect its rights-of-way across the Gila River Indian Community, Arizona. The Bureau of Indian Affairs will participate in the EA process.
		Transmittal to State:		
		EA Approval:		
		FONSI:		
Davis-Mead Reconductoring, Arizona and Nevada	\$ 75,000	Determination Date:		Western proposed to reductor the Davis-Mead transmission line with aluminum composite conductor. The line is located in Arizona and Nevada
		Transmittal to State:		
		EA Approval:		
		FONSI:		

Annual NEPA Planning Status of Ongoing NEPA Compliance Activities: Environmental Impact Statements

*Western Area Power Administration
January, 2006*

*Title, Location	Estimated Cost	Estimated Schedule (**NEPA Milestones)		Description
Operation of Flaming Gorge Dam, Colorado River Storage Project, Colorado River, UT DOE/EIS-0351	N/A	Determination Date:	6/6/2000	Western is a cooperating agency with the Bureau of Reclamation for the Upper Colorado River Endangered Fish Recovery Program
		NOI:	6/6/2000	
		Scoping:	7/11-19/2000	
		Draft	8/29/2004	
		Hearings	10/12-21/2004	
		Final	11/15/2005	
		ROD		
Caithness Big Sandy Project, Wikieup, AZ DOE/EIS-0315	Applicant Funded	Determination Date:	3/3/2000	Project is on hold at the request of the applicant.
		NOI:	4/18/2000	
		Scoping:	5/3/2000	
		Draft	6/22/2001	
		Hearings	7/24/2001	
		Final		
		ROD		
SEIS on Caithness Big Sandy Project DOE/EIS-0315-S1	Applicant Funded	Supplemental Analysis:	5/29/2002	
		Determination Date:	12/28/2001	
		Approval:		
Welton-Mohawk 520 MW Generating Facility, AZ DOE/EIS-0358	Applicant Funded	Determination Date:	4/2/2003	The Welton-Mohawk 520-MW Generating Facility located in Wellton Arizona. Western is the lead agency and the Bureau of Land Management and Bureau of Reclamation are cooperating agencies.
		NOI:	5/19/2003	
		Scoping:	6/3-4/2003	
		Draft	7/22/2005	
		Hearings	8/17-18/2005	
		Final		
		ROD		

Annual NEPA Planning Status of Ongoing NEPA Compliance Activities: Environmental Impact Statements Continued

Platte River Cooperative Agreement PEIS, NE, WY, CO DOE-EIS-0295	N/A	Determination Date:	2/5/1998	Western is a cooperating agency with the Fish and Wildlife Service for the Platte River Cooperative Agreement Programmatic EIS.
		NOI:	2/10/1998	
		Scoping:	2/25/-4/7/1998	
		Draft	1/26/2004	
		Hearings	7/26/2004- 8/10/2004	
		Final	Winter -06	
		ROD	Spring-06	
Windy Gap Firing Project, CO DOE/EIS-0370	N/A	Determination Date:	7/1/2003	Western is a cooperating agency with the Bureau of Reclamation for the Windy Gap Firing Project, Colorado. The EIS will address options for rerouting a transmission line that would be affected by the project.
		NOI:	9/8/2003	
		Scoping:	9/30/-10/2/2003	
		Draft	6/5/2005	
		Hearings		
		Final		
ROD				
Sacramento Voltage Support, CA DOE/EIS-0323-S	\$1,200,000 (estimated final costs)	Determination Date:	3/7/2005	Western proposes transmission system additions and improvements to resolve voltage support problems occurring on the transmission system in Sacramento area of California. The supplemental EIS is being prepared to address new routing alternatives and local customer participation.
		NOI:		
		Scoping:		
		Draft		
		Hearings		
		Final		
ROD				
Construction and Operation of the Proposed White Wind Farm Project, Brookings County, South Dakota DOE/EIS-0376	Applicant Funded	Determination Date:	2/10/2005	Navitas Energy proposes to build up to 200 MW of wind generation over 31 square miles of land in eastern Brookings County, near the city of White, South Dakota. The project would interconnect to Western's White Substation. The proposed project consists of up to 102 wind turbine generators rated at 2 MW each, connected by an electrical and communication collection system that would feed into a collector substation near White Substation.
		NOI:	2/18/2005	
		Scoping:	3/1/2005	
		Draft		
		Hearings		
		Final		
ROD				

Annual NEPA Planning Status of Ongoing NEPA Compliance Activities: Environmental Impact Statements Continued

Eastern Plains Transmission Project DOE/EIS-0390	Customer Funded	Determination Date	12/21/2005	The EPTP Transmission Project consists of approximately 700 miles of high voltage transmission lines and related facilities. The project is an undertaking developed and funded by one of Western's customers. Western proposes to participate in order to obtain transmission capacity and to improve system reliability. The project is located in eastern Colorado and western Kansas.
		NOI:	July-06	
		Scoping:	August-06	
		Draft	July-07	
		Hearings	August-07	
		Final	January-08	
		ROD	February-08	
Big Stone II Power Plant and Transmission Project, SD and MN DOE/EIS-0377	Applicant Funded	Determination Date:	4/12/2005	The Big Stone II Project involves the construction of a 600-MW, coal-fired generating facility near Milbank, in Grant County, S.D. The Big Stone II generating unit would be located next to the existing Big Stone Plant, and would require new or upgraded transmission lines in the area. Approximately 120 miles of new transmission lines are proposed in South Dakota and Minnesota.
		NOI:	5/27/2005	
		Scoping:	6/14-16/05	
		Draft	April-06	
		Hearings	May-06	
		Final	October-06	
		ROD	November-06	
Trinity County Public Utility District Direct Interconnection Project, CA DOE/EIS-0389	\$ 200,000	Determination Date:	12/2/2005	Western Proposes to provide a direct interconnection with the Trinity Public Utility District by constructing a transmission line between Trinity Dam and Weaverville, CA.
		NOI:		
		Scoping:		
		Draft		
		Hearings		
		Final		
		ROD		

Annual NEPA Planning Summary Environmental Impact Statements Expected to be Prepared in the Next 24 Months

*Western Area Power Administration
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*Title, Location	Estimated Cost	Estimated Schedule (**NEPA Milestones)		Description
Dolan Springs Wind Farm, Arizona	Applicant Funded	Determination Date:	6/5/2007	Development of a 400-MW wind farm near Dolan Springs, Arizona. Western would be a cooperating agency and the Bureau of Land Management would be the lead Federal agency. Western plans to adopt the BLM Programmatic Wind EIS to support its review.
		NOI:	7/5/2007	
		Scoping:	8/5/2007	
		Draft	1/6/2008	
		Hearings	2/6/2008	
		Final	7/6/2008	
		ROD	9/6/2008	

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APPENDIX D

2006 CATEGORICAL EXCLUSIONS UNDER NEPA

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CATEGORICAL EXCLUSIONS COMPLETED IN CALENDAR YEAR 2005

CATEGORICAL EXCUSIONS¹	DATE
<i>Desert Southwest Region</i>	
Armargosa Substation. Replacement of Two Motor Operated Interrupters	1/13/2006
Revised Rate Methodologies for Network Integration Transmission Service	2/23/2006
Removal of Overhead Groundwire, North Gila-Senator Wash 69-kilovolt (kV) Transmission Line Structures 4/7 & 5/1	3/23/2006
Replacement of a Grouping of 3 Structures on the Gila-Sonora/Araby 69-kV Transmission Line	3/31/2006
Replacement of Four Gila-Sonora 69-kV Transmission Line Structures (4/12, 4/13, 4/14 & 4/15)	5/26/2006
Amended Navajo Power Marketing Plan	6/19/2006
Replacement of Coolidge-Oracle 115-kV Transmission Line Structure 1/3	11/3/2006
Relay Protection of Arizona Public Service's Oracle-Saddlebrooke Ranch 115-kV Transmission Line with the Replacement of Relays & the Installation of Fiber Optic Cable at Western's Oracle Substation	12/20/2006
Coolidge-Oracle 115-kV Transmission Line Structure 0-4 Crossarm Replacement Maintenance Project	12/15/2006
Replacement of Two Electrical Brakers & Trenching to the Braker Pads at Parker Dam Substation	12/5/2006
Repair of Damaged Static Wire/Fiber Optic Between Structures 48/5 to 50/1 on the Davis-Parker #2, 230-kV Transmission Line	4/17/2006
Removal of Dead Orchard Trees Beneath the Rogers to Coolidge Transmission Line	10/24/2006
Clark Tie Metering Installation	9/13/2006
<i>Rocky Mountain Region</i>	
Ault-Craig and Archer-Hayden Canyon Lakes Tree Cutting	9/11/2006
Ault-Craig and Archer-Hayden Cow Creek Tree Cutting	9/9/2006
Hayden-Gore 230-kV Tree Cutting	8/10/2006
Blue Mesa-Curecanti 115-kV Tree Cutting	8/8/2006
Farmstead Tree Cutting (Various lines)	6/20/2006
North Gunnison-Salida Access Road Repairs	6/19/2006
Flaming Gorge-Vernal 115-kV Tree Removal	6/8/2006
Poncha-Midway 230-kV Tree Removal	6/5/2006
Malta-Mount Elbert Tree Cutting	5/25/2006
Shiprock-Waterflow 13.8-kV Access Road Repairs	5/11/2006
Casper-Glendo North 115-kV Structure Replacements	3/31/2006
Lovell-Thermopolis 115-kV Structure Replacements and Access Road Repairs	3/24/2006
Curecanti-Montrose 115-kV Access Road Repairs	3/28/2006
Kayenta-Shiprock Access Road Repairs (160/3 to 174/2)	1/31/2006
Canyon City West-Poncha Access Road Repairs (83/4 to 92/4)	3/16/2006
Poncha-Midway 230-kV Repairs at Structure 131/5	2/16/2006
Installation of Aerial Fiber Cable on the Big Thompson to Flatiron Substation 13.8-kV Transmission Line, and Fiber Optic Overhead Ground Wire on Sections of the Estes Substation to Lyons Substation 115-kV Transmission Line	1/27/2006
North Gunnison-Salida Vegetation Removal 16/14 to 20/6	3/9/2006
Curecanti Sub Fiber Optics Installation	5/11/2006
Curecanti-Montrose 115-kV Tree Cutting between 5/1 and 5/2	6/12/2006
North Gunnison-Salida Vegetation Removal 16/14 to 20/6	6/19/2006
Guernsey Reservoir Passive Repeater Installation	6/30/2006

¹ The Colorado River Storage Project Management Center did not prepare any CX's in 2005.

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CATEGORICAL EXCUSIONS	DATE
<i>Sierra Nevada Region</i>	
Modesto Irrigation District 230-kV 2nd Bay Project at Tracy Substation	1/23/2006
Integrated Vegetation Management (IVM) on California-Oregon Transmission Project (COTP) Captain Jack-Olinda Towers 657-660 and Keswick-Obanion Towers 15/4-16/2 and Cottonwood-Olinda Towers 7/4-8/2	2/21/2006
Placer County Water Agency American River Pump Station 12.5-kV Distribution Line	4/3/2006
Herbicide Application at Communication Sites	4/24/2006
Berryessa Peak Communication Site Access Road Repair and Erosion Control	4/24/2006
COTP Route 2 Communication System Renovation	4/24/2006
Herbicide Application At Communication Sites - Amendment	6/28/2006
IVM on Shasta-Cottonwood #1 & #2 & Flannigan-Keswick Flanagan-Keswick 2/3-4/2	7/25/2006
Routine Road Maintenance Along Western's Transmission Lines between Olinda and Cottonwood Substation	8/30/2006
Emergency and Routine Road Maintenance on Tracy-Carr Carr-Keswick Transmission Lines in Whiskeytown Park	10/2/2006
Trinity Substation Categorical Exclusion - Amendment	11/21/2006
<i>Upper Great Plains Region</i>	
Philip - Martin - Mission - Gregory Fiber Installation	1/30/2006
Martin - Philip Structure Replacement and Access Road Maintenance	2/24/2006
New Underwood - Philip Structure Replacement	2/24/2006
Woonsocket Substation Expansion	3/30/2006
Burleigh County Wind Energy Center Operations and Maintenance Building and Meteorological Tower	3/20/2006
Fort Peck - Circle - Dawson County Fiber Installation	3/6/2006
VT Hanlon - Sioux Falls Fiber Installation	3/23/2006
Towner Substation Buried Fiber	4/25/2006
Custer Trail Substation Expansion	4/13/2006
Carrington - Jamestown Fiber Installation	5/18/2006
Jamestown Relay Site Disposal	4/5/2006
Fargo Substation Pole Storage Expansion	5/26/2006
Bismarck - Jamestown #1 Foundation Replacement	10/3/2006
Garrison - Jamestown Foundation Replacement	10/3/2006
Watertown - Brookings Fiber Installation	6/12/2006
Exira III	7/21/2006
Cogswell Tap Access Road Maintenance	6/29/2006
Winner Substation Underground Fiber	9/12/2006
Devils Lake Communications Fiber Regeneration	11/17/2006
Philip Junction Microwave Site	8/10/2006
Benedictine - WJ Neal Fiber Installation	9/21/2006
Huron - Watertown Foundation Replacement	12/15/2006

APPENDIX E

**STANDARD MITIGATIVE MEASURES
FOR CONSTRUCTION, OPERATION, AND MAINTENANCE
OF WESTERN FACILITIES**

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**WESTERN AREA POWER ADMINISTRATION
STANDARD MITIGATIVE PRACTICES**

Mitigation Measures:

1. The contractor shall limit the movement of its crews and equipment to the right-of-way (ROW), including access routes. The contractor shall limit movement on the ROW so as to minimize damage to grazing land, crops, or property, and shall avoid marring the land.
2. When weather and ground conditions permit, the contractor shall obliterate all contractor-caused deep ruts that are hazardous to farming operations and to movement of equipment. Such ruts shall be leveled, filled, and graded, or otherwise eliminated in an approved manner. In hay meadows, alfalfa fields, pastures, and cultivated productive lands, ruts, scars, and compacted soils shall have the soil loosened and leveled by scarifying, harrowing, discing, or other approved methods. Damage to ditches, tile drains, terraces, roads, and other features of the land shall be corrected. Before final acceptance of the work in these agricultural areas, all ruts shall be obliterated, and all trails and areas that are hard-packed as a result of contractor operations shall be loosened, leveled, and reseeded. The land and facilities shall be restored as nearly as practicable to their original conditions.
3. Water bars or small terraces shall be constructed across all ROW and access roads on hillsides to prevent water erosion and to facilitate natural revegetation.
4. The contractor shall comply with all Federal, State, and local environmental laws, orders, and regulations. Prior to construction, all supervisory construction personnel and heavy equipment operators will be instructed on the protection of cultural and ecological resources.
5. The contractor shall exercise care to preserve the natural landscape and shall conduct its construction operations so as to prevent any unnecessary destruction, scarring, or

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defacing of the natural surroundings in the vicinity of the work. Except where clearing is required for permanent works, approved construction roads, or excavation operations, all trees, native shrubbery, and vegetation shall be preserved and shall be protected from damage by the contractor's construction operations and equipment. The edges of clearings and cuts through tree, shrubbery, or other vegetation shall be irregularly shaped to soften the undesirable visual impact of straight lines. Where such clearing occurs in the Lake Mead National Recreation Area, the contractor shall consult with the on-site Park Representative.

6. On completion of the work, all work areas except access roads shall be scarified or left in a condition which will facilitate natural revegetation, provide for proper drainage, and prevent erosion. All destruction, scarring, damage, or defacing of the landscape resulting from the contractor's operations shall be repaired by the contractor.
7. Construction staging areas shall be located and arranged in a manner to preserve trees and vegetation to the maximum practicable extent. On abandonment, all storage and construction buildings, including concrete footings and slabs, and all construction materials and debris shall be removed from the site. The area shall be regraded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.
8. Borrow pits shall be excavated so that water will not collect and stand therein. Before being abandoned, the sides of borrow pits shall be brought to stable slopes, with slope intersections shaped to carry the natural contour of adjacent undisturbed terrain into the pit or borrow area giving a natural appearance. Waste piles shall be shaped to provide a natural appearance.
9. Construction activities shall be performed by methods that will prevent entrance, or accidental spillage, of solid matter contaminants, debris, any other objectionable pollutants and wastes into streams, flowing or dry watercourses, lakes, and underground water sources. Such pollutants and waste include, but are not restricted to refuse,

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garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailing, mineral salts, and thermal pollution.

10. Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or watercourses, shall be conducted in a manner to prevent muddy water and eroded materials from entering the streams or watercourses by construction of intercepting ditches, bypass channels, barriers, settling ponds, or by other approved means.
11. Excavated material or other construction materials shall not be stockpiled or deposited near or on stream banks, lake shorelines, or other watercourse perimeters where they can be wasted away by high water or storm runoff or can in any way encroach upon the actual watercourse itself.
12. Waste waters from concrete batching, or other construction operations shall not enter streams, watercourses, or other surface waters without the use of such turbidity control methods as settling ponds, gravel-filter entrapment dikes, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Any such waste waters discharged into surface waters shall be essentially free of settleable material. For the purpose of these specifications, settleable material as defined as that material which will settle from the water by gravity during a 1-hour quiescent detention period.
13. The contractor shall utilize such practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.
14. The emission of dust into the atmosphere will not be permitted during the manufacture, handling, and storage of concrete aggregate, and the contractor shall use such methods and equipment as necessary for the collection and disposal, or prevention, of dust during

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- these operations. The contractor's methods of storing and handling cement and pozzolans shall also include means of eliminating atmospheric discharges of dust.
15. Equipment and vehicles that show excessive emissions of exhaust gases due to poor engine adjustments, or other inefficient operating conditions, shall not be operated until repairs or adjustments are made.
 16. The contractor shall prevent any nuisance to persons or damage to crops, cultivated fields, and dwellings from dust originating from his operations. Oil and other petroleum derivatives shall not be used for dust control. Speed limits shall be enforced, based on road conditions, to reduce dust problems.
 17. To avoid nuisance conditions due to construction noise, all internal combustion engines used in connection with construction activity shall be fitted with an approved muffler and spark arrester.
 18. Burning or burying waste materials on the ROW or at the construction site will be permitted if allowed by local regulations. The contractor shall remove all other waste materials from the construction area. All materials resulting from the contractor's clearing operations shall be removed from the ROW.
 19. The contractor shall make all necessary provisions in conformance with safety requirements for maintaining the flow of public traffic and shall conduct its construction operations to offer the least possible obstruction and inconvenience to public traffic.
 20. Western will apply necessary mitigation to eliminate problems of induced currents and voltages onto conductive objects sharing a ROW, to the mutual satisfaction to the parties involved.
 21. Structures will be carefully located to avoid sensitive vegetative conditions, including wetlands, where practical.

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22. ROW will be located to avoid sensitive vegetation conditions including wetlands where practical, or, if they are linear to cross them at the least sensitive feasible point.
23. Removal of vegetation will be minimized to avoid creating a swath along the ROW.
24. Topsoil will be removed, stockpiled, and respread at all heavily disturbed areas not needed for maintenance access.
25. All disturbed areas not needed for maintenance access will be reseeded using mixes approved by the landowner or land management agency.
26. Erosion control measures will be implemented on disturbed areas, including areas that must be used for maintenance operations (access ways and areas around structures).
27. The minimum area will be used for access ways (12 feet to 15 feet wide, except where roadless construction is used).
28. Structures will be located and designed to conform with the terrain. Leveling and benching of the structure sites will be the minimum necessary to allow structure assembly and erection.
29. ROW will be located to utilize the least steep terrain and, therefore, to disturb the smallest area feasible.
30. Careful structure location will ensure spanning of narrow flood prone areas.
31. Structures will not be sited on any potentially active faults.
32. Structure sites and other disturbed areas will be located at least 300 feet, where practical, from rivers, streams (including ephemeral streams), ponds, lakes, and reservoirs.
33. New access ways will be located at least 300 feet, where practical, from rivers, ponds, lakes, and reservoirs.

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34. At crossings of perennial streams by new access ways, culverts of adequate size to accommodate the estimated peak flow of the stream will be installed. Construction areas will minimize disturbance of the stream banks and beds during construction. The mitigation measures listed for soil/vegetation resources will be performed on areas disturbed during culvert construction.
35. If the banks of ephemeral stream crossings are sufficiently high and steep that breaking them down for a crossing would cause excessive disturbance, culverts will be installed using the same measures as for culverts on perennial streams.
36. Blasting will not be allowed.
37. Power line structures will be located, where practical, to span small occurrences of sensitive land uses, such as cultivated areas. Where practicable, construction access ways will be located to avoid sensitive conditions.
38. ROW will be purchased at fair market value and payment will be made of full value for crop damages or other property damage during construction or maintenance.
39. The Power line will be designed to minimize noise and other effects from energized conductors.
40. The precise location of all structure sites, ROW, and other disturbed areas will be determined in cooperation with landowners or land management agencies.
41. Crossing of operating railroads by construction vehicles or equipment in a manner that would cause delays to railroad operations will be avoided. Construction will be coordinated with railroad operators. Conductors and overhead wire string operations would use guard structures to eliminate delays.
42. Before construction, Western will perform a Class III (100 percent of surface) cultural survey on all areas to be disturbed, including structure sites and new access ways. These surveys will be coordinated with the appropriate land owner or land management

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agency. A product of the survey will be a Cultural Resources Report recording findings and suggesting mitigation measures. These findings will be reviewed with the State Historic Preservation Offices and other appropriate agencies, and specific mitigation measures necessary for each site or resource will be determined. Mitigation may include careful relocation of access ways, structure sites, and other disturbed areas to avoid cultural sites that should not be disturbed, or data recovery.

43. The contractor will be informed of the need to cease work in the location if cultural resource items are discovered.
44. Construction activities will be monitored or sites flagged to prevent inadvertent destruction of any cultural resource for which the agreed mitigation was avoidance.
45. Construction crews will be monitored to the extent possible to prevent vandalism or unauthorized removal or disturbance of cultural artifacts or materials from sites where the agreed mitigation was avoidance.
46. Should any cultural resources that were not discovered during the Class III Survey be encountered during construction, ground disturbance activities at that location will be suspended until the provisions of the National Historic Preservation Act and enabling legislation have been carried out.
47. Construction activities will be monitored or significant locations flagged to prevent inadvertent destruction of any paleontological resource for which the agreed mitigation was avoidance.
48. Clearing for the access road will be limited to only those trees necessary to permit the passage of equipment.
49. The access road will follow the lay of the land rather than a straight line along the ROW where steep features would result in a higher disturbance.

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APPENDIX F

ENVIRONMENTAL CONSTRUCTION STANDARDS

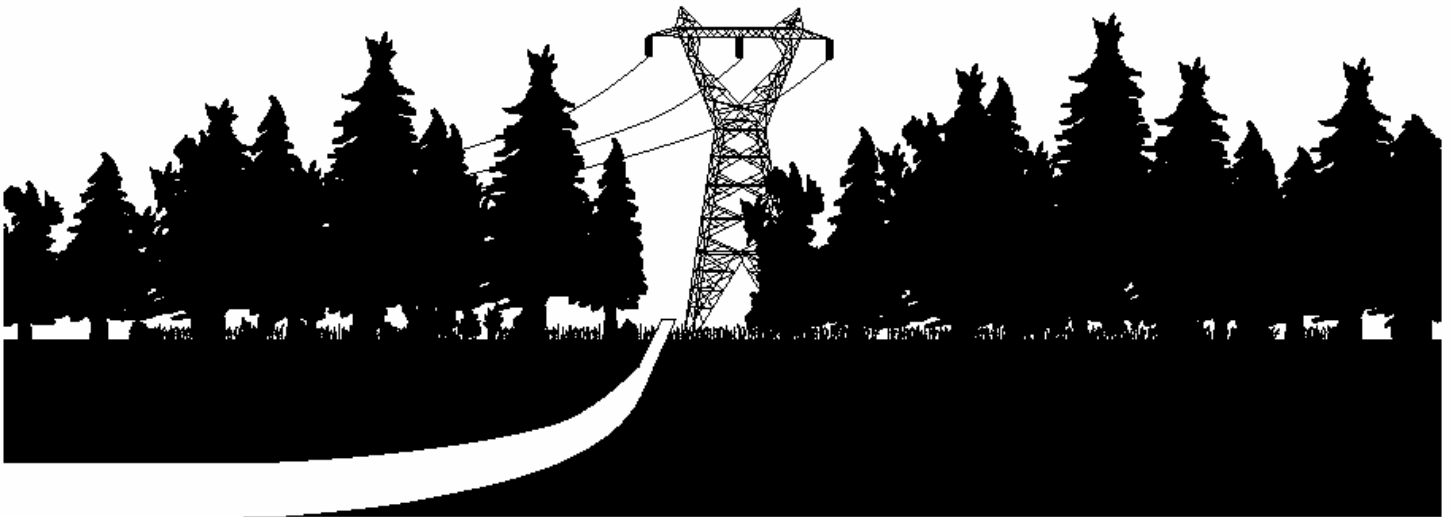
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CONSTRUCTION STANDARDS

STANDARD 13 ENVIRONMENTAL QUALITY PROTECTION



July 2005

SAFETY
A HABIT TO LIVE BY

A graphic element consisting of several curved lines that sweep upwards and to the right, positioned below the text "SAFETY".

STANDARD 13 - ENVIRONMENTAL QUALITY PROTECTION

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SECTION 13.1--CONTRACTOR FURNISHED DATA

1. RECYCLED MATERIAL QUANTITY REPORT: Submit quantities for recycled material listed in Section 13.6, "Recycled Material Quantities", to the COR after completion and prior to submittal of final invoice.
2. PRODUCTS CONTAINING RECOVERED MATERIAL REPORT: Provide the COR the following information for purchases of items listed in Section 13.7, "Use of Products Containing Recovered Material":
 - (1) Quantity and cost of listed items with recovered material content and quantity and cost of listed items without recovered material content after completion and prior to submittal of final invoice.
 - (2) Written justification 7 days prior to purchase of listed items if recovered material content products are not available: 1) competitively within a reasonable time frame; 2) that meet performance criteria defined in the Standards or Project Specifications; or 3) at a reasonable price.
3. RECLAIMED REFRIGERANT RECEIPT: A receipt from the reclaimer stating that the refrigerant was reclaimed, the amount and type of refrigerant, and the date shall be submitted to the COR after completion and prior to submittal of final invoice in accordance with Section 13.8.5, "Refrigerants And Receipts".
4. WASTE MATERIAL QUANTITY REPORT: Submit quantities of total project waste material disposal as listed below to the COR after completion and prior to submittal of final invoice in accordance with Section 13.8.8, "Waste Material Quantity Report".
 - (1) Sanitary Wastes: Volume in cubic yards or weight in pounds.
 - (2) Hazardous or Universal Wastes: Weight in pounds.
 - (3) PCB Wastes: Weight in pounds.
 - (4) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).
5. SPILL PREVENTION NOTIFICATION AND CLEANUP PLAN (Plan): Submit the Plan as described in Section 13.10.2, "Spill Prevention Notification and Cleanup Plan", to the COR for approval 14 days prior to start of work. Approval of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations.
6. TANKER OIL SPILL PREVENTION AND RESPONSE PLAN: Submit the Plan as described in Section 13.10.3, "Tanker Oil Spill Prevention and Response Plan", to the COR for approval 14 days prior to start of work. Approval of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations.
7. PESTICIDE USE PLAN: Submit two copies of a pesticide use plan as described in Section 13.11.3, "Pesticide Use Plan", to the COR for approval 14 days prior to use. Approval of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations. Within seven days

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after application, submit a written report in accordance with Standard 2 – Sitework, Section 2.1.1.5, “Soil-Applied Herbicide”.

8. **TREATED WOOD POLE AND MEMBERS RECYCLING CONSUMER INFORMATION RECEIPT:** Submit treated wood pole and members consumer receipt forms to the COR after completion and prior to submittal of final invoice (see 13.12, “Treated Wood Poles and Members Recycling or Disposal”).
9. **PREVENTION OF AIR POLLUTION:** Submit a copy of permits, if required, from Federal, State, or local agencies to the COR 14 days prior to the start of work.
10. **ASBESTOS LICENSES OR CERTIFICATIONS:** Submit a copy of licenses and/or certifications for asbestos work as described in 13.14, “Handling and Management of Asbestos Containing Material” paragraph a., to the COR prior to work. Submit copies of certificates of disposal and/or receipts for waste to the COR after completion and prior to submittal of final invoice.
11. **LEAD PAINT NOTICES:** Submit a copy of lead paint notices as described in 13.15, “Material with Lead-based Paint” paragraph b., to the COR upon completion and prior to submittal of final invoice. Submit copies of certificates of disposal and/or receipts for waste to the COR after completion and prior to submittal of final invoice.
12. **WATER POLLUTION PERMITS:** Submit copies of any water pollution permits as described in 13.16, “Prevention of Water Pollution” paragraph b., to the COR prior to work.
13. **PCB TEST REPORT:** Submit a PCB test report as described in 13.17, “Testing, Draining, Removal, and Disposal of Oil-filled Electrical Equipment” paragraph b., prior to draining, removal, or disposal of oil or oil-filled equipment that is designated for disposal.
14. **OIL AND OIL-FILLED ELECTRICAL EQUIPMENT RECEIPT:** Obtain and submit a receipt for oil and oil-filled equipment transported and disposed, recycled, or reprocessed as described in 13.17, “Testing, Draining, Removal, and Disposal of Oil-filled Electrical Equipment”, to the COR upon completion and prior to submittal of final invoice.
15. **OSHA PCB TRAINING RECORDS:** Submit employee training documentation records to the COR 14 days prior to the start of work as described in 13.18.1.
16. **CLEANUP WORK MANAGEMENT PLAN:** Submit a Cleanup Work Management Plan as described in 13.18, “Removal of Oil-contaminated Material” paragraph b., to the COR for approval 14 days prior to the start of work. Approval of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations.
17. **POST CLEANUP REPORT:** Submit a Post-Cleanup Report as described in 13.18, “Removal of Oil-contaminated Material” paragraph g., to the COR upon completion and prior to submittal of final invoice.

SECTION 13.2--ENVIRONMENTAL REQUIREMENTS

Comply with Federal, State, and local environmental laws and regulations. The sections in this Standard further specify the requirements.

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SECTION 13.3--LANDSCAPE PRESERVATION

1. GENERAL: Preserve landscape features in accordance with the contract clause titled "Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements."
2. CONSTRUCTION ROADS: Location, alignment, and grade of construction roads shall be subject to the COR's approval. When no longer required, construction roads shall be restored to their original condition. Surfaces of construction roads shall be scarified to facilitate natural revegetation, provide for proper drainage, and prevent erosion. If revegetation is required, then use regionally native plants.
3. CONSTRUCTION FACILITIES: Shop, office, and yard areas shall be located and arranged in a manner to preserve trees and vegetation to the maximum practicable extent and prevent impact on sensitive riparian areas and flood plains. Storage and construction buildings, including concrete footings and slabs, shall be removed from the site prior to contract completion. The area shall be regraded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion. If revegetation is required, then use regionally native plants.

SECTION 13.4--PRESERVATION OF CULTURAL AND PALEONTOLOGICAL RESOURCES

1. GENERAL: Do not remove or alter cultural artifacts or paleontological resources (fossils). Cultural artifacts are of potential scientific or cultural importance and include bones, tools, historic buildings, and features. Paleontological resources can be of scientific importance and include mineralized animals and plants or trace fossils such as footprints. Both cultural and paleontological resources are protected by Federal Regulations during Federal construction projects.
2. KNOWN CULTURAL OR PALEONTOLOGICAL SITES: Following issuance of notice to proceed, Western will provide two sets of plan and profile drawings showing sensitive areas located on or immediately adjacent to the transmission line right-of-way and/or facility. These areas shall be considered avoidance areas. Prior to any construction activity, the avoidance areas shall be marked on the ground in a manner approved by the COR. Instruct employees, subcontractors, and others that vehicular or equipment access to these areas is prohibited. If access is absolutely necessary, first obtain approval from the COR. Ground markings shall be maintained throughout the duration of the contract. Western will remove the markings during or following final cleanup. For some project work, Western will require an archaeological, paleontological or tribal monitor at or near cultural or paleontological site locations. The contractor shall work with the monitor to identify avoidance areas.
3. UNKNOWN CULTURAL OR PALEONTOLOGICAL SITES: On rare occasions cultural or paleontological sites may be discovered during excavation or other earth-moving activities.
 - (1) Reporting: If evidence of a cultural or paleontological site is discovered, immediately notify the COR and give the location and nature of the findings. Stop all activities within a 50-foot radius of the discovery and do not proceed with work within that radius until directed to do so by the COR.
 - (2) Care of Evidence: Do not damage artifacts or fossils uncovered during construction.
4. CONTRACT ADJUSTMENTS: Where appropriate by reason of delays caused by a discovery, the Contracting Officer may make adjustments to contract requirements.

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SECTION 13.5--NOXIOUS WEED CONTROL

1. GENERAL: Comply with Federal, state, and local noxious weed control regulations. Provide a "clean vehicle policy" while entering and leaving construction areas to prevent transport of noxious weed plants and/or seed. Transport only construction vehicles that are free of mud and vegetation debris to staging areas and the project right-of-way.

SECTION 13.6--RECYCLED MATERIAL QUANTITIES

1. GENERAL: Record quantities of the following material by category that is salvaged, recycled, reused, or reprocessed:
 - (1) Transformers, Breakers: Weight without oil.
 - (2) Electrical Conductors: Length in feet and Type (for example, ACSR, Copper, and gauge).
 - (3) Structural Steel: Weight in pounds or tons.
 - (4) Aluminum Buswork: Weight in pounds or tons.
 - (5) Other Metals: Weight in pounds or tons.
 - (6) Oil: Gallons (separate by type - less than 2 ppm PCB, 2 to 50 ppm PCB, and 50 or greater ppm PCB).
 - (7) Gravel, Asphalt, Or Concrete: Weight in pounds or tons.
 - (8) Batteries: Weight in pounds.
 - (9) Wood Poles and Crossarms: Weight in pounds.
 - (10) Cardboard. Weight in pounds.
 - (11) Porcelain insulators. Weight in pounds.
2. RECYCLED MATERIAL QUANTITY REPORT: Submit quantities for recycled material listed above to the COR after completion and prior to submittal of final invoice.

SECTION 13.7--USE OF PRODUCTS CONTAINING RECOVERED MATERIAL AND BIOBASED PRODUCTS

1. PRODUCTS CONTAINING RECOVERED MATERIAL: If the products listed below are obtained as part of this project, purchase the items with the highest recovered material content possible unless recovered material content products are not available: 1) competitively within a reasonable time frame; 2) that meet performance criteria defined in the Standards or Project Specifications; or 3) at a reasonable price.
 - (1) Construction Products:
 - Building Insulation Products
 - Carpet
 - Carpet cushion
 - Cement and concrete containing coal fly ash, ground granulated blast furnace slag, cenospheres, or silica fume

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- Consolidated and reprocessed latex paint
 - Floor Tiles
 - Flowable fill
 - Laminated Paperboard
 - Modular threshold ramps
 - Nonpressure pipe
 - Patio Blocks
 - Railroad grade crossing surfaces
 - Roofing materials
 - Shower and restroom dividers/partitions
 - Structural Fiberboard
- (2) Landscaping Products:
- Compost made from yard trimmings or food waste
 - Garden and soaker hoses
 - Hydraulic Mulch
 - Lawn and garden edging
 - Plastic lumber landscaping timbers and posts
- (3) Non-paper Office Products:
- Binders, clipboards, file folders, clip portfolios, and presentation folders
 - Office furniture
 - Office recycling containers
 - Office waste receptacles
 - Plastic desktop accessories
 - Plastic envelopes
 - Plastic trash bags
 - Printer ribbons
 - Toner cartridges
- (4) Paper and Paper Products:
- Commercial/industrial sanitary tissue products
 - Miscellaneous papers
 - Newsprint
 - Paperboard and packaging products
 - Printing and writing papers
- (5) Park and Recreation Products:
- Park benches and picnic tables
 - Plastic fencing
 - Playground equipment
 - Playground surfaces
 - Running tracks
- (6) Transportation Products:
- Channelizers
 - Delineators
 - Flexible delineators
 - Parking stops

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- Traffic barricades
 - Traffic cones
- (7) Vehicular Products:
- Engine coolants
 - Rebuilt Vehicular Parts
 - Re-refined lubricating oils
 - Retread tires
- (8) Miscellaneous Products:
- Awards and plaques
 - Bike racks
 - Blasting grit
 - Industrial drums
 - Manual-grade strapping
 - Mats
 - Pallets
 - Signage
 - Sorbents
- (9) For a complete listing of products and recommendations for recovered content, see <http://www.epa.gov/cpg/products.htm>
2. PRODUCTS CONTAINING RECOVERED MATERIAL REPORT: Provide the COR the following information for purchases of those items listed above:
- (1) Quantity and cost of listed items with recovered material content and quantity and cost of listed items without recovered material content after completion and prior to submittal of final invoice.
- (2) Written justification 7 days prior to purchase of listed items if recovered material content products are not available: 1) competitively within a reasonable time frame; 2) that meet performance criteria defined in the Standards or Project Specifications; or 3) at a reasonable price.
3. BIOBASED PRODUCTS: If the products listed below are obtained as part of this project, purchase the items with the highest biobased content possible and no less than the percent indicated for each product unless biobased products: 1) are not available within a reasonable period of time, 2) fail to meet performance criteria defined in the Standards or Project Specifications, or 3) are available only at an unreasonable price.
- (1) Mobile Equipment Hydraulic Fluids (minimum 24% biobased content)
 - (2) Urethane Roof Coatings (minimum 62% biobased content)
 - (3) Water Tank Coatings (minimum 62% biobased content)
 - (4) Diesel Fuel Additives (minimum 93% biobased content)
 - (5) Penetrating Lubricants (minimum 71% biobased content)
 - (6) Bedding, Bed Linens, and Towels (minimum 18% biobased content)
- (7) For additional information regarding biobased products, see <http://www.biobased.oce.usda.gov>
4. BIOBASED PRODUCTS REPORT: Provide the COR the following information for purchases of those biobased items listed above:

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- (1) Quantity and cost of listed items with biobased content and quantity and cost of listed items without biobased content after completion and prior to submittal of final invoice.
- (2) Written justification 7 days prior to purchase of listed items if biobased products: 1) are not available within a reasonable period of time, 2) fail to meet performance criteria defined in the Standards or Project Specifications, or 3) are available only at an unreasonable price.

SECTION 13.8--DISPOSAL OF WASTE MATERIAL

1. GENERAL: Dispose or recycle waste material in accordance with applicable Federal, State and Local regulations and ordinances. In addition to the requirements of the Contract Clause "Cleaning Up", remove all waste material from the construction site. No waste shall be left on Western property, right-of-way, or easement. Burning or burying of waste material is not permitted.
2. HAZARDOUS, UNIVERSAL, AND NON-HAZARDOUS WASTES: Manage hazardous, universal, and non-hazardous wastes in accordance with State and Federal regulations.
3. USED OIL: Used oil generated from the Contractor activities shall be managed in accordance with used oil regulations.
4. RECYCLABLE MATERIAL: Reduce wastes, including excess Western material, by recycling, reusing, or reprocessing. Examples of recycling, reusing, or reprocessing include reprocessing of solvents; recycling cardboard; and salvaging scrap metals.
5. REFRIGERANTS AND RECEIPTS: Refrigerants from air conditioners, water coolers, refrigerators, ice machines and vehicles shall be reclaimed with certified equipment operated by certified technicians if the item is to be disposed. Refrigerants shall be reclaimed and not vented to the atmosphere. A receipt from the reclaimer stating that the refrigerant was reclaimed, the amount and type of refrigerant, and the date shall be submitted to the COR after completion and prior to submittal of final invoice.
6. HALONS: Equipment containing halons that must be tested, maintained, serviced, repaired, or disposed must be handled according to EPA requirements and by technicians trained according to those requirements.
7. SULFUR HEXAFLUORIDE (SF6): SF6 shall be reclaimed and not vented to the atmosphere.
8. WASTE MATERIAL QUANTITY REPORT: Submit quantities of total project waste material disposal as listed below to the COR after completion and prior to submittal of final invoice.
 - (1) Sanitary Wastes: Volume in cubic yards or weight in pounds.
 - (2) Hazardous or Universal Wastes: Weight in pounds.
 - (3) PCB Wastes: Weight in pounds.
 - (4) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).

SECTION 13.9--CONTRACTOR'S LIABILITY FOR REGULATED MATERIAL INCIDENTS

1. GENERAL: The Contractor is solely liable for all expenses related to spills, mishandling, or incidents of regulated material attributable to his actions or the actions of his subcontractors. This includes all

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response, investigation, cleanup, disposal, permitting, reporting, and requirements from applicable environmental regulation agencies.

2. **SUPERVISION:** The actions of the Contractor employees, agents, and subcontractors shall be properly managed at all times on Western property or while transporting Western's (or previously owned by Western) regulated material and equipment.

SECTION 13.10--POLLUTANT SPILL PREVENTION, NOTIFICATION, AND CLEANUP

1. **GENERAL:** Provide measures to prevent spills of pollutants and respond appropriately if a spill occurs. A pollutant includes any hazardous or non-hazardous substance that when spilled, will contaminate soil, surface water, or ground water. This includes any solvent, fuel, oil, paint, pesticide, engine coolants, and similar substances.
2. **SPILL PREVENTION NOTIFICATION AND CLEANUP PLAN (Plan):** Provide the Plan to the COR for approval 14 days prior to start of work. Approval of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations. Include the following in the Plan:
 - (1) **Spill Prevention measures.** Describe the work practices or precautions that will be used at the job site to prevent spills. These may include engineered or manufactured techniques such as installation of berms around fuel and oil tanks; Storage of fuels, paints, and other substances in spill proof containers; and management techniques such as requiring workers to handle material in certain ways.
 - (2) **Notification.** Most States and the Environmental Protection Agency require by regulation, that anyone who spills certain types of pollutants in certain quantities notify them of the spill within a specific time period. Some of these agencies require written follow up reports and cleanup reports. Include in the Plan, the types of spills for which notification would be made, the agencies notified, the information the agency requires during the notification, and the telephone numbers for notification.
 - (3) **Employee Awareness Training.** Describe employee awareness training procedures that will be implemented to ensure personnel are knowledgeable about the contents of the Plan and the need for notification.
 - (4) **Commitment of Manpower, Equipment and Material.** Identify the arrangements made to respond to spills, including the commitment of manpower, equipment and material.
 - (5) **If applicable, address all requirements of 40CFR112 pertaining to Spill Prevention, Control and Countermeasures Plans.**
3. **TANKER OIL SPILL PREVENTION AND RESPONSE PLAN:** Provide a Tanker Oil Spill Prevention and Response Plan as required by the Department of Transportation if oil tankers with volume of 3,500 gallons or more are used as part of the project. Submit the Tanker Oil Spill Prevention and Response Plan to the COR for approval 14 days prior to start of work. Approval of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations.

SECTION 13.11--PESTICIDES

1. **GENERAL:** The term "pesticide" includes herbicides, insecticides, rodenticides and fungicides. Pesticides shall only be used in accordance with their labeling.

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2. ENVIRONMENTAL PROTECTION AGENCY REGISTRATION: Use EPA registered pesticides.
3. PESTICIDE USE PLAN: The plan shall contain: 1) a description of the pesticide to be used, 2) where it is to be applied, 3) the application rate, 4) a copy of the label, and 5) a copy of required applicator certifications. Submit two copies of the pesticide use plan to the COR for approval 14 days prior to the date of intended application. Approval of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations. Within seven days after application, submit a written report in accordance with Standard 2 – Sitework, Section 2.1.1.5, "Soil-Applied Herbicide".

SECTION 13.12--TREATED WOOD POLES AND MEMBERS RECYCLING OR DISPOSAL

Whenever practicable, treated wood poles and members removed during the project shall be recycled or transferred to the public for some uses. Treated wood poles and members transferred to a recycler, landfill, or the public shall be accompanied by a written consumer information sheet on treated wood as provided by Western. Obtain a receipt form, part of the consumer information sheet, from the recipient indicating that they have received, read, and understand the consumer information sheet. Treated wood products transferred to right-of-way landowners shall be moved off the right-of-way. Treated wood product scrap or poles and members that cannot be donated or reused shall be properly disposed in a landfill that accepts treated wood and has signed Western's consumer information sheet receipt. Submit treated wood pole and members consumer receipt forms to the COR after completion and prior to submittal of final invoice.

SECTION 13.13--PREVENTION OF AIR POLLUTION

1. GENERAL: Ensure that construction activities and the operation of equipment are undertaken to reduce the emission of air pollutants. Submit a copy of permits, if required, from Federal, State, or local agencies to the COR 14 days prior to the start of work.
2. MACHINERY AIR EMISSIONS: The Contractor and subcontractor machinery shall have, and shall use the air emissions control devices required by Federal, State or Local Regulation or ordinance.
3. DUST ABATEMENT: Dust shall be controlled. Oil shall not be used as a dust suppressant. Dust suppressants shall be approved by the COR prior to use.

SECTION 13.14--HANDLING AND MANAGEMENT OF ASBESTOS CONTAINING MATERIAL

1. GENERAL: Obtain the appropriate Federal, State or local licenses or certifications prior to disturbing any regulated asbestos-containing material. Submit a copy of licenses and/or certifications for asbestos work to the COR prior to work. Ensure: 1) worker and public safety requirements are fully implemented and 2) proper handling, transportation, and disposal of asbestos containing material.
2. TRANSPORTATION OF ASBESTOS WASTE: Comply with Department of Transportation, Environmental Protection Agency, and State and Local requirements when transporting asbestos wastes.
3. CERTIFICATES OF DISPOSAL AND RECEIPTS: Obtain certificate of disposals for waste if the waste is a hazardous waste or receipts if the waste is a non-hazardous waste. Submit copies to the COR after completion and prior to submittal of final invoice.

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SECTION 13.15--MATERIAL WITH LEAD-BASED PAINT

1. **GENERAL:** Comply with all applicable Federal, State and local regulations concerning work with lead-based paint, disposal of material painted with lead-based paint, and management of these material. OSHA and General Industry Standards apply to worker safety and right-to-know issues. Federal EPA and State agencies regulate waste disposal and air quality issues.
2. **TRANSFER OF PROPERTY:** If lead-based paint containing equipment or material is to be given away or sold for reuse, scrap, or reclaiming, a written notice shall be provided to the recipient of the material stating that the material contains lead-based paint and the Hazardous Waste regulations may apply to the waste or the paint in some circumstances. The new owner must also be notified that they may be responsible for compliance with OSHA requirements if the material is to be cut, sanded, abraded, or stripped of paint. Submit a copy of lead paint notices to the COR upon completion and prior to submittal of final invoice.
3. **CERTIFICATES OF DISPOSAL AND RECEIPTS:** Obtain certificate of disposals for waste if the waste is a hazardous waste or receipts if the waste is a non-hazardous waste. Submit copies to the COR after completion and prior to submittal of final invoice.

SECTION 13.16--PREVENTION OF WATER POLLUTION

1. **GENERAL:** Ensure that surface and ground water is protected from pollution caused by construction activities and comply with applicable regulations and requirements.
2. **PERMITS:** Ensure that:
 - (1) Streams, and other waterways or courses are not obstructed or impaired, unless the appropriate Federal, State or local permits have been obtained;
 - (2) A National Pollutant Discharge Elimination System (NPDES) Permit is obtained if required by State or Federal regulation; and
 - (3) A dewatering permit is obtained from the appropriate agency if required for construction dewatering activities.
 - (4) Copies of any water pollution permits are submitted to the COR prior to work.
3. **EXCAVATED MATERIAL AND OTHER CONTAMINANT SOURCES:** Control runoff from excavated areas and piles of excavated material, construction material or wastes (to include truck washing and concrete wastes), and chemical products such as oil, grease, solvents, fuels, pesticides, and pole treatment compounds. Excavated material or other construction material shall not be stockpiled or deposited near or on streambanks, lake shorelines, ditches, irrigation canals, or other areas where run-off could impact the environment.
4. **MANAGEMENT OF WASTE CONCRETE OR WASHING OF CONCRETE TRUCKS:** Do not permit the washing of concrete trucks or disposal of excess concrete in any ditch, canal, stream, or other surface water. Concrete wastes shall be disposed in accordance with all Federal, State, and local regulations. Concrete wastes shall not be disposed on any Western property, right-of-way, or easement; nor on any streets, roads, or property without the owner's consent.
5. **STREAM CROSSINGS:** Crossing of any stream or other waterway shall be done in compliance with Federal, State, and local regulations. Crossing of some waterways may be prohibited by landowners, State or Federal agencies or require permits.

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SECTION 13.17--TESTING, DRAINING, REMOVAL, AND DISPOSAL OF OIL-FILLED ELECTRICAL EQUIPMENT

1. **SAMPLING AND TESTING OF INSULATING OIL FOR PCB CONTENT:** Sample and analyze the oil of electrical equipment for PCB's. Use analytical methods approved by EPA and applicable State regulations. Decontaminate sampling equipment according to documented good laboratory practices (these can be contractor developed or EPA standards). Use only laboratories approved by Western. The COR will furnish a list of approved laboratories.
2. **PCB TEST REPORT:** Provide PCB test reports that contain the information below for disposing of oil-filled electrical equipment. Submit the PCB test report prior to draining, removal, or disposal of oil or oil-filled equipment that is designated for disposal.
 - Name and address of the laboratory
 - Description of the electrical equipment (e.g. transformer, breaker)
 - Serial number for the electrical equipment.
 - Date sampled
 - Date tested
 - PCB contents in parts per million (ppm)
 - Unique identification number of container into which the oil was drained (i.e., number of drum, tank, tanker, etc.)
3. **OIL CONTAINING PCB:** Comply with the Federal regulations pertaining to PCBs found at Title 40, Part 761 of the U.S. Code of Federal Regulations (40 CFR 761).
4. **REMOVAL AND DISPOSAL OF INSULATING OIL AND OIL-FILLED ELECTRICAL EQUIPMENT:** Once the PCB content of the oil has been identified from laboratory results, the oil shall be transported and disposed, recycled, or reprocessed according to 40 CFR 761 (if applicable), Resource Conservation and Recovery Act (RCRA) "used oil", and other applicable regulations. Used oil may be transported only by EPA-registered used oil transporters. The oil must be stored in containers that are labeled "Used Oil." Use only U.S. transporters and disposal sites approved by Western.
5. **OIL AND OIL-FILLED ELECTRICAL EQUIPMENT RECEIPT:** Obtain and submit a receipt for oil and oil-filled equipment transported and disposed, recycled, or reprocessed to the COR upon completion and prior to submittal of final invoice.

SECTION 13.18--REMOVAL OF OIL-CONTAMINATED MATERIAL

1. **GENERAL:** Removing oil-contaminated material includes excavating, stockpiling, testing, transporting, cleaning, and disposing of these material. Personnel working with PCBs shall be trained in accordance with OSHA requirements. Submit employee training documentation records to the COR 14 days prior to the start of work.
2. **CLEANUP WORK MANAGEMENT PLAN:** Provide a Cleanup Work Management Plan that has been approved by applicable Federal, State, or Local environmental regulation agencies. Submit the plan to the COR for approval 14 days prior to the start of work. Approval of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State, and Local regulations. The plan shall address on-site excavation of contaminated soil and debris and include the following:
 - Identification of contaminants and areas to be excavated
 - Method of excavation
 - Level of personnel/subcontractor training

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- Safety and health provisions
 - Sampling requirements including quality control, laboratory to be used
 - Management of excavated soils and debris
 - Disposal methods, including transportation to disposal
3. EXCAVATION AND CLEANUP: Comply with the requirements of Title 40, Part 761 of the U.S. Code of Federal Regulations (40 CFR 761).
 4. TEMPORARY STOCKPILING: Excavated material, temporarily stockpiled on site, shall be stored on heavy plastic and covered to prevent wind and rain erosion at a location designated by the COR.
 5. SAMPLING AND TESTING: Sample contaminated debris and areas of excavation to ensure that contamination is removed. Use personnel with experience in sampling and, in particular, with experience in PCB cleanup if PCBs are involved. Use analytical methods approved by EPA and applicable State regulations.
 6. TRANSPORTION AND DISPOSAL OF CONTAMINATED MATERIAL: The Contractor shall be responsible and liable for the proper loading, transportation, and disposal of contaminated material according to Federal, State, and local requirements. Use only U.S. transporters and disposal sites approved by Western.
 7. POST CLEANUP REPORT: Provide a Post-Cleanup Report that describes the cleanup of contaminated soils and debris. Submit the report to the COR upon completion and prior to submittal of final invoice. The report shall contain the following information:
 - Site map showing the areas cleaned
 - Description of the operations involved in excavating, storing, sampling, and testing, and disposal
 - Sampling and analysis results including 1) Name and address of the laboratory, 2) sample locations, 3) sample dates, 4) analysis dates, 5) contents of contaminant (e.g. PCB or total petroleum hydrocarbons) in parts per million (ppm)
 - Certification by the Contractor that the cleanup requirements were met
 - Copies of any manifests, bills of lading, and disposal certificates
 - Copies of correspondence with regulatory agencies that support completion of the cleanup

SECTION 13.19—CONSERVATION OF NATURAL RESOURCES

1. GENERAL: Federal law prohibits the taking of endangered, threatened, proposed or candidate wildlife and plants, and destruction or adverse modification of designated Critical Habitat. Federal law also prohibits the taking of birds protected by the Migratory Bird Treaty Act. "Take" means to pursue, hunt, shoot, wound, kill, trap, capture or collect a protected animal or any part thereof, or attempt to do any of those things.
2. KNOWN OCCURRENCE OF PROTECTED SPECIES OR HABITAT: Following issuance of the notice to proceed, and prior to the start of construction, Western will provide training to all contractor and subcontractor personnel involved in the construction activity. Untrained personnel shall not be allowed in the construction area. Western will provide two sets of plan and profile drawings showing sensitive areas located on or immediately adjacent to the transmission line right-of-way and/or facility. These areas shall be considered avoidance areas. Prior to any construction activity, the avoidance areas shall be marked on the ground in a manner approved by the COR. If access is absolutely necessary, the contractor shall first obtain permission from the COR, noting that a Western and/or other government or tribal agency biologist may be required to accompany personnel and equipment. Ground markings shall be maintained through the duration of the contract. Western will remove the markings during or following final inspection of the project.

STANDARD 13 - ENVIRONMENTAL QUALITY PROTECTION

3. UNKNOWN OCCURRENCE OF PROTECTED SPECIES OR HABITAT: If evidence of a protected species is found in the project area, the contractor shall immediately notify the COR and provide the location and nature of the findings. The contractor shall stop all activity in the vicinity of the protected species or habitat and not proceed until directed to do so by the COR.
4. CONTRACT ADJUSTMENTS: Where appropriate by reason of delays caused by a discovery, the Contracting Officer may make adjustments to contract requirements.

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APPENDIX G

MITITAGION ACTION PLAN

**CHEYENNE-MIRACLE MILE AND AULT-CHEYENNE
TRANSMISSION LINE REBUILD PROJECT**

*Western Area Power Administration
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**Mitigation Action Plan
To Implement Mitigation Requirements for
Cheyenne-Miracle Mile and Ault-Cheyenne Transmission Line Rebuild Project,
Carbon, Albany, and Laramie Counties, Wyoming, and Weld County, Colorado**

September 2006

Action Plan for Standard Project Practices and Mitigation

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party for Implementing	Mitigation Action	Party Responsible for Monitoring and Ensuring Compliance
1	Land use, transportation	Construction Contractor Western Maintenance	The contractor will limit the movement of crews and equipment to the ROW, including access routes. The contractor will limit movement on the ROW to minimize damage to residential yards, grazing land, crops, orchards, and property and shall avoid marring the lands.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
	Land use, transportation	Construction Contractor Western Maintenance	The contractor will coordinate with the landowners to avoid impacting the normal function of irrigation devices during project construction and operation.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
2	Land use, transportation	Construction Contractor Western Maintenance	When weather and ground conditions permit, the contractor will obliterate all construction-caused deep ruts that are hazardous to farming operations and to movement of equipment. Such ruts shall be leveled, filled, and graded or otherwise eliminated in an approved manner. Ruts, scars, and compacted soils in hay meadows, alfalfa fields, pastures, and cultivated productive lands will have the soil loosened and leveled by scarifying, harrowing, disking, or other approved methods. Damage to ditches, tile drains, terraces, roads, and other features of the land will be corrected. At the end of each construction season and before final acceptance of the work in these agricultural areas, all ruts will be obliterated, and all trails and areas that are hard-packed as a result of construction operations will be loosened and leveled. The land and facilities will be restored as nearly as practicable to the original condition.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party for Implementing	Mitigation Action	Party Responsible for Monitoring and Ensuring Compliance
3	Soils, vegetation	Western Engineering Construction Construction Contractor	Water turnoff bars or small terraces shall be constructed across all ROW trails on hillsides to prevent water erosion and to facilitate natural revegetation on the trails.	Western Engineering Construction will identify locations and quantities of water bars for inclusion in the Project Specifications and Bid Schedule.
4	Soils, vegetation, wildlife, special status and sensitive species, cultural	Construction Contractor Western Maintenance	The contractor will comply with all Federal, state, and local environmental laws, orders, and regulations. Prior to construction, all supervisory construction personnel will be instructed on the protection of cultural and ecological resources. To assist in this effort, the construction contract will address a) Federal and state laws regarding antiquities and plants and wildlife, including collection and removal and b) the importance of these resources and the purpose and necessity of protecting them.	Western Environment will identify and map avoidance areas that the construction contractor is required to avoid. Western Engineering Construction will ensure avoidance is enforced during construction. Western Maintenance will ensure that avoidance is continued through life-of-project.
5	Soils, vegetation, visual resources	Construction Contractor Western Maintenance	The contractor will exercise care to preserve the natural landscape and will conduct construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Except where clearing is required for permanent works, approved construction roads, or excavation operations, vegetation will be preserved and shall be protected from damage by the contractor's construction operations and equipment.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
6	Soils, vegetation	Construction Contractor Western Maintenance	On completion of the work, all work areas except access trails shall be scarified or left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion. All destruction, scarring, damage, or defacing of the landscape resulting from the contractor's operations shall be repaired by the contractor.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party for Implementing	Mitigation Action	Party Responsible for Monitoring and Ensuring Compliance
7	Soils, vegetation	Construction Contractor	Construction trails not required for maintenance access shall be restored to the original contour and made impassable to vehicular traffic. The surfaces of such construction trails shall be scarified as needed to provide a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.	Western Engineering Construction
8	Soils, vegetation	Construction Contractor	Construction staging areas shall be located and arranged in a manner to preserve trees and vegetation to the maximum practicable extent. On abandonment, all storage and construction materials and debris shall be removed from the site. The area will be regraded, as required, so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.	Western Engineering Construction
9	Soils, vegetation, visual resources	Construction Contractor	Borrow pits shall be excavated so that water will not collect and stand therein. Before being abandoned, the sides of borrow pits will be brought to stable slopes, with slope intersections shaped to carry the natural contour of adjacent undisturbed terrain into the pit or borrow area, giving a natural appearance. Waste piles will be shaped to provide a natural appearance.	Western Engineering Construction

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party for Implementing	Mitigation Action	Party Responsible for Monitoring and Ensuring Compliance
10	Surface water, floodplains, wetlands, wildlife	Construction Contractor Western Maintenance	Construction activities will be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants, debris, and other objectionable pollutants and wastes into flowing streams or dry water courses, lakes, and underground water sources. A buffer zone of 500 ft from live waters and wetlands and 75 ft from ephemeral channels will be established in areas where staging, stockpiling, and refueling occur. Such pollutants and wastes include, but are not restricted to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
11	Surface water, floodplains, wetlands, wildlife	Construction Contractor Western Maintenance	Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or water courses will not be performed without prior notice to appropriate state agencies. A buffer zone of 500 ft from live waters and wetlands and 75 ft from ephemeral channels will be established in areas where staging, stockpiling, and refueling occur.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
12	Surface water, floodplains, wetlands, wildlife	Construction Contractor Western Maintenance	Excavated material or other construction materials will not be stockpiled or deposited near or on stream banks, lake shorelines, or other water course perimeters where they can be washed away by high water or storm runoff or can in any way encroach upon the actual water source itself. A buffer zone of 500 ft from live waters and wetlands and 75 ft from ephemeral channels will be established in areas where staging, stockpiling, and refueling occur.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party for Implementing	Mitigation Action	Party Responsible for Monitoring and Ensuring Compliance
13	Surface water, floodplains, wetlands, wildlife	Construction Contractor	Waste waters from construction operations will not enter streams, water courses, or other surface waters without use of such turbidity control methods as settling ponds, gravel-filter entrapment dikes, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Any such waste waters discharged into surface waters will be essentially free of settleable material. Settleable material is defined as material that will settle from the water by gravity during a 1-hour quiescent period.	Western Engineering Construction
14	Air quality	Construction Contractor	The contractor will utilize such practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.	Western Engineering Construction
15	Air quality	Construction Contractor	Equipment and vehicles that show excessive emissions of exhaust gases due to poor engine adjustments, or other inefficient operating conditions, will not be operated until corrective repairs or adjustments are made.	Western Engineering Construction
16	Air quality	Construction Contractor Western Maintenance	Burning or burying of waste materials on the ROW or at the construction site will not be allowed. The contractor shall remove all waste materials from the construction area. All materials resulting from the contractor's clearing operations will be removed from the ROW.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
17	Transportation	Construction Contractor Western Maintenance	The contractor shall make all necessary provisions in conformance with safety requirements for maintaining the flow of public traffic and will conduct construction operations so as to offer the least possible obstruction and inconvenience to public traffic.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party for Implementing	Mitigation Action	Party Responsible for Monitoring and Ensuring Compliance
18	Land use	Construction Contractor Western Engineering Construction Western Maintenance	Western Engineering Construction will apply necessary mitigation to eliminate problems of induced currents and voltages onto conductive objects sharing a ROW, to the mutual satisfaction of the parties involved. Western Engineering Construction will install fence grounds on all fences that cross or are parallel to the proposed line.	Western Engineering Construction (design phase) will quantify and include fence grounds and gates. Western Engineering Construction (during construction) Western Maintenance (during maintenance)
19	Floodplains, wetlands, vegetation	Construction Contractor Western Maintenance	The contractor will span riparian areas located along the ROW and avoid physical disturbance to riparian vegetation. A buffer zone of 500 ft from live waters and wetlands and 75 ft from ephemeral channels will be established in areas where staging, stockpiling, and refueling occur.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
	Floodplains, wetlands, vegetation	Construction Contractor Western Maintenance	Equipment and vehicles will not cross riparian areas on the ROW during construction and operation activities.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
	Floodplains, wetlands, vegetation	Construction Contractor Western Maintenance	Existing bridges or fords will be used to access the ROW on either side of riparian areas.	Western Engineering Construction (during construction) Western Maintenance (during maintenance)
20	Land use, socioeconomics	Western ROW Acquisition	ROW will be purchased at fair market value, and payment will be made for full value of crop damages or other property damage during construction or maintenance.	Western ROW Acquisition

¹ Per the EA for this project.

Action Plan for Project- and Site-Specific Mitigation Requirements

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
21	Wildlife	<p>Western Environment will identify exclusion areas and time periods to be avoided.</p> <p>Western Environment will present requirements to be included in the construction specifications.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor performance.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on the conditions of any exception granted by the BLM.</p>	<p>On the CH-MM portion of the project, construction would not occur within pronghorn, mule deer, or elk crucial winter range between November 15 and April 30 on all public and private lands unless an exception is granted by the BLM. Western Environment will also avoid construction in greater sage-grouse nesting habitat during the nesting season or will conduct nest surveys prior to construction each year and avoid any active nests.</p>	<p>Exceptions may be granted only by the BLM and must be requested in writing. BLM approval of any exceptions must be documented in writing.</p>

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
22	Special status and sensitive species	<p>Western Environment will identify the areas to be surveyed and conduct the necessary surveys prior to construction</p> <p>Western Environment will present requirements to be included in the construction specifications</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor performance.</p>	Western Environment will conduct an inventory prior to construction to determine if any existing structures occur in potential Preble's meadow jumping mouse habitat; these structures will be cut off at ground level to avoid disturbing Preble's meadow jumping mouse habitat.	None
23	Special status and sensitive species	Western Environment will identify the areas to be surveyed and conduct the necessary surveys prior to construction.	Western Environment will survey all areas to be disturbed and possible traffic ways for Ute ladies'-tresses during the appropriate time of year when the orchid is in flower, if any are found, will consult with the FWS to determine what actions are necessary to avoid or minimize impacts to Ute ladies'-tresses. During operations, traffic in potential Ute ladies'-tresses habitat will be restricted to existing roads.	None
24	Vegetation	<p>Western Engineering Construction will oversee implementation by monitoring construction contractor performance.</p> <p>Construction Contractor will implement measures as agreed to.</p>	Western Environment will minimize the introduction and/or spread of weeds by washing all equipment at a commercial facility prior to the start of construction each year, by avoiding vehicle traffic in known weedy areas, and by rewashing equipment if weeds are encountered.	None

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
	Vegetation	<p>Western Environment will map areas to be revegetated, provide the seed mix requirements.</p> <p>Western Engineering Construction will present requirements to be included in the construction specifications and estimated quantities for the bid schedule.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor performance.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	Western Environment will reclaim all disturbed areas as soon as practical after construction each year and will implement a weed control program (in consultation with the BLM and private landowners) if the project causes the spread of weeds.	None

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
25	Wildlife	<p>Western Environment will identify exclusion areas and time periods to be avoided.</p> <p>Western Environment will present requirements to be included in the construction specifications.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor performance.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	On the AU-CH portion, Western Environment will avoid construction in pronghorn winter ranges during critical winter periods, to be determined in consultation with the Colorado Division of Wildlife prior to construction each year.	Changes to this stipulation will be made only with the approval of the Colorado Division of Wildlife and will be documented in writing.

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
26	Special status and sensitive species	<p>Western Environment will identify off-ROW access around Colorado butterflyplant habitat and provide access information and maps in the construction specifications.</p> <p>Western Environment will discuss the requirement with Western Engineering Construction and/or the contractor during the preconstruction meeting.</p> <p>Western Engineering Construction will monitor the avoidance.</p>	Western Environment will span all 3.5 miles of known Colorado butterflyplant habitat along the ROW and will limit traffic to existing roads. Operations traffic in known or potential Colorado butterflyplant habitat will also be restricted to existing roads.	None
27	Floodplains, wetlands	<p>Western Engineering Construction will oversee implementation by monitoring construction contractor performance.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	If construction in floodplains and wetlands were to cause soil compaction or ruts, long-term impacts to wetland vegetation could occur. To avoid this impact, Western Environment will limit construction in floodplains and wetlands to periods when soils are dry or frozen and/or use measures to support construction equipment (e.g., oversized treads on equipment, tracked equipment, matting) to avoid compacting soils and creating ruts. A buffer zone of 500 ft from live waters and wetlands and 75 ft from ephemeral channels would be established in areas where staging, stockpiling, and refueling occur.	None

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
28	Wildlife	<p>Western Environment will conduct the necessary surveys and prepare a map and other information that identify the location and restrictions. This information will be included in the project construction specifications by Western Engineering Construction.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor compliance.</p>	<p>If construction is to occur in potential mountain plover habitat during the breeding and nesting season, Western Environment will survey potential habitat for the presence/absence of mountain plover nests and will avoid construction within 0.25 mile of nest sites until 37 days after the nest is discovered or 7 days post-hatching.</p>	<p>Surveys generally will be conducted between April 10 and July 10, although survey timing varies depending upon the type of survey to be conducted. Western Environment will consult with BLM well before April 10 to determine the appropriate survey method and window.</p>

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information																				
29	Cultural resources	<p>Western Environment will prepare a map and other information that identifies the location and restrictions. This information will be included in the project construction specifications by Western Engineering Construction.</p> <p>Western Engineering Construction will ensure that these restrictions are complied with by the construction contractor.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	<p>Removal of the existing wooden transmission line structures on eligible cultural sites will be accomplished by cutting the structures at ground surface, thus requiring no additional excavation of the surrounding area. The structures will be accessed using rubber-tire vehicles to minimize other associated impacts to the site. All structure removals will be monitored by a permitted archaeologist. This measure applies to four structures listed below and will minimize adverse effects caused by structure removal as much as possible.</p> <table border="1" data-bbox="919 654 1556 963"> <thead> <tr> <th data-bbox="919 654 1077 751">Site Number</th> <th data-bbox="1077 654 1293 751">Site Type</th> <th data-bbox="1293 654 1409 751">Owner</th> <th data-bbox="1409 654 1556 751">Structure to be removed</th> </tr> </thead> <tbody> <tr> <td data-bbox="919 751 1077 821">5WL2622</td> <td data-bbox="1077 751 1293 821">Historic homestead</td> <td data-bbox="1293 751 1409 821">Private</td> <td data-bbox="1409 751 1556 821">58-4</td> </tr> <tr> <td data-bbox="919 821 1077 891">5WL4830</td> <td data-bbox="1077 821 1293 891">Prehistoric tipi rings</td> <td data-bbox="1293 821 1409 891">Private</td> <td data-bbox="1409 821 1556 891">57-2</td> </tr> <tr> <td data-bbox="919 891 1077 927">48AB1405</td> <td data-bbox="1077 891 1293 927">Prehistoric</td> <td data-bbox="1293 891 1409 927">Private</td> <td data-bbox="1409 891 1556 927">71-4</td> </tr> <tr> <td data-bbox="919 927 1077 963">48CR8033</td> <td data-bbox="1077 927 1293 963">Prehistoric</td> <td data-bbox="1293 927 1409 963">Private</td> <td data-bbox="1409 927 1556 963">27-2</td> </tr> </tbody> </table>	Site Number	Site Type	Owner	Structure to be removed	5WL2622	Historic homestead	Private	58-4	5WL4830	Prehistoric tipi rings	Private	57-2	48AB1405	Prehistoric	Private	71-4	48CR8033	Prehistoric	Private	27-2	None
Site Number	Site Type	Owner	Structure to be removed																					
5WL2622	Historic homestead	Private	58-4																					
5WL4830	Prehistoric tipi rings	Private	57-2																					
48AB1405	Prehistoric	Private	71-4																					
48CR8033	Prehistoric	Private	27-2																					

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
30	Cultural resources	<p>Western Environment will prepare a map and other information that identify the location of important cultural resources and restrictions. This information will be included in the project construction specifications by Western Engineering Construction.</p> <p>Western Environment will develop a mitigation plan for those sites that cannot be avoided.</p> <p>Western Engineering Construction will ensure that the restrictions and the stipulations of the mitigation plan are complied with by the construction contractor.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	Impacts to eligible cultural sites caused by construction of new towers will be minimized by planning. Whenever possible, transmission structures will be planned outside of site boundaries. In cases where avoidance is not possible, a mitigation plan will be formulated. If new structures are planned within 150 feet of a site, an archaeological monitor will be present to ensure that the site is not impacted during structure construction.	None

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
31	Cultural resources	<p>Western Environment will prepare a map and other information that identify the location of important cultural resources and restrictions. This information will be included in the project construction specifications by Western Engineering Construction.</p> <p>Western Environment will develop a mitigation plan for those sites that cannot be avoided.</p> <p>Western Engineering Construction will ensure that the restrictions and the stipulations of the mitigation plan are complied with by the construction contractor.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	<p>Heavy trucks and other equipment will not cross eligible cultural sites when unimproved access roads are wet. Upgrading or maintenance of access roads within the boundaries of eligible sites will be avoided wherever possible. Where avoidance is not possible, a mitigation plan will be prepared and implemented prior to any construction or roadwork. The plan will include mitigation of adverse effects. These guidelines apply not only to roads surveyed as project access roads but also to roads beneath the transmission lines that were subsumed in the transmission line survey.</p>	None

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
32	Paleontology	<p>Western Environment will present the requirements to the construction contractor at the preconstruction conference.</p> <p>Western Engineering Construction will coordinate with Western Environment if suspected finds are made during construction activities.</p>	<p>The contractor will receive instructions from Western Environment regarding the potential presence of fossils in pole excavations and in areas excavated or disturbed for roadwork. The contractor will be notified of his obligation to report any suspected paleontologic finds to Western Environment. Western Environment will retain a paleontologist to assess the significance of the paleontological finds and make recommendations. The BLM maintains staff paleontologists to perform assessments of discoveries on lands managed by them.</p>	None
33	Wildlife, special status and sensitive species	<p>Western Engineering Construction will be responsible for design.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor compliance.</p> <p>Construction Contractor will construct the transmission line and install bird flight diverters in accordance with Western's specifications.</p> <p>Western Maintenance will be responsible for ongoing maintenance of installed devices.</p>	<p>Western Environment will design and construct the transmission line in conformance with Suggested Practices for Protection of Raptors on Powerlines : the State of the Art in 1996 (Avian Power Line Interaction Committee, 1996) to eliminate the potential for raptor electrocution. Western Environment will install bird flight diverters at the Rock Creek crossing on both the rebuilt CH-MM transmission line and the existing HJ-MM transmission line to mitigate the potential of future raptor collisions at the Rock Creek crossing.</p>	None

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
34	Visual resources	<p>Western Engineering Construction will be responsible for design.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor compliance.</p> <p>Construction Contractor will erect the structures in accordance with Western's specifications.</p>	<p>The 230-kV single-pole steel structures proposed along CH-MM Section 5 and AU-CH Section 1 and Section 2 will be a neutral non-reflective steel material. Non-reflective and compatible toned conductors and insulators will also be used in urban settings. Corten steel will not be used in these settings due to the strong contrasts that the darker steel tone would create in these open settings.</p>	None
35	Special status and sensitive species	<p>Western Engineering Construction will notify Western Environment of the discovery.</p> <p>Western Environment will define an exclusion area where construction is to cease until further notice. Western Environment will notify the USFWS and re-initiate Section 7 consultation.</p> <p>Western Environment will notify construction when it is authorized to proceed in the exclusion area.</p>	<p>In the event any threatened, endangered, candidate, or proposed species are found during construction of the proposed CH-MM and AU-CH transmission line, project-specific surface disturbance will be halted and the USFWS will be immediately notified. Section 7 consultation between Western Environment and USFWS will be re-initiated prior to restarting construction activities in the specific area.</p>	<p>Western Environment will be required to document all consultation with the USFWS regarding the discovery and the Section 7 process.</p>

Mitigation Action Identifier	Resources for Which the Mitigation Will Be Implemented	Responsible Party AND Action	Mitigation Action Description	Additional Information
36	Special status and sensitive species	<p>Western Environment will conduct the necessary surveys and prepare a map and other information that identify the location and restrictions. This information will be included in the project construction specifications by Western Engineering Construction.</p> <p>Western Engineering Construction will oversee implementation by monitoring construction contractor compliance.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	To minimize impacts to nesting bald eagles, Western Environment will conduct surveys prior to the initiation of construction-related activities within 1.0 mi of the construction corridor. No construction-related activities will occur within 1.0 mile of any active bald eagle nest from February 1 through July 31. If the nest is determined to be active, Western Environment will immediately notify the USFWS, and a raptor mitigation plan will be developed and implemented with the concurrence of the USFWS, the BLM, and the WGFD.	None
37	Special status and sensitive species	<p>Western Engineering Construction will oversee implementation by monitoring construction contractor compliance.</p> <p>Construction Contractor will implement measures as agreed to or as modified based on field conditions.</p>	Only those trees, tree tops, and limbs that are deemed to pose a hazard to operation and maintenance of the power line will be removed. Western Environment will minimize tree clearing, topping, and limb clearing, and these activities will only occur within the authorized ROW.	None

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APPENDIX H

MITITAGION ACTION PLAN

BUFFALO-RIDGE-WHITE TRANSMISSION PROJECT

*Western Area Power Administration
2006 Annual Site Environmental Report*

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MITIGATION ACTION PLAN

for the

**Buffalo Ridge – White Transmission Project
(DOE/EA-1559)**

WESTERN AREA POWER ADMINISTRATION

September 2006

Western Area Power Administration

Mitigation Action Plan

1.0 HISTORY AND BACKGROUND

Western Area Power Administration (Western) prepared an Environmental Assessment (EA) (DOE/EA-1427) for the Buffalo Ridge-White Transmission Project (Project). Based on the EA, Western determined that the proposed Project, when implemented under the conditions of this Mitigation Action Plan (MAP), would not result in any significant environmental impacts, and the preparation of an environmental impact statement (EIS) will not be required. The basis for this determination is described in the Finding of No Significant Impact (FONSI) issued concurrently with this document.

The Upper Great Plains Regional Office of the Western Area Power Administration (Western) received a request for interconnection from Northern States Power Company d/b/a Xcel Energy (Xcel). As part of the proposed interconnection, Western would make improvements to Western's White Substation, in Brookings County, South Dakota, and enter into an interconnection agreement with Xcel. Xcel's Buffalo Ridge-White Transmission Project includes the following components:

- improvements to Xcel's Buffalo Ridge Substation near Lake Benton, Minnesota;
- new Yankee Substation in Lincoln County, Minnesota;
- reroute of a 1.4-mile segment of the existing Lake Yankton-Pipestone 115-kV transmission line;
- new Brookings County Substation in Brookings County, South Dakota;
- new 28-mile, 115-kV transmission line between the Buffalo Ridge and Brookings County substations; and
- two new 0.4-mile, 345-kV transmission lines between the White and Brookings County substations.

A number of environmental protection measures are included with the proposed action to minimize potential adverse environmental effects.

The requirements for preparing a MAP are specified in 10 CFR part 1021 (Section 331 of the Department of Energy National Environmental Policy Act Implementing Procedures). These guidelines state that DOE shall prepare a MAP for commitments to mitigations that are essential to render the impacts of a proposed action not significant. The guidelines further state that the MAP shall also explain how mitigation will be planned and implemented. The EA analyzed the impacts of the proposed Project. Western has determined that mitigation measures are essential to render the impacts of the proposed action not significant.

2.0 FUNCTION AND ORGANIZATION OF THE MITIGATION ACTION PLAN

The following sections describe the plans and actions by which Western will implement and verify mitigation action commitments described above.

Section 3.0 describes the monitoring and verification of mitigation actions and the reporting requirements. Section 4.0 describes the mitigation commitments and action plans for the Project. The commitment to the mitigation is presented along with an action plan composed of the tasks, responsible party, and schedule anticipated for the mitigation.

3.0 MITIGATION ACTION PLAN MONITORING AND REPORTING SYSTEM

Section 5.d. (11)(f) of DOE Order 451.1B, National Environmental Policy Act Compliance Program, requires Western to report MAP activities in its Annual Site Environmental Report, published by January 31 of each year. This annual report will reflect new information or changed circumstances. If major changes to mitigation included in this MAP are necessary, these changes will be described in the annual report. The annual report will be made available to the public.

A member of Western's environmental staff will verify mitigation results and determine if the mitigation actions achieved their intended purpose. Existing organizational and administrative controls will be used to gather information regarding implementation and status of mitigation actions. Such controls include applicable reporting systems, inspection, and verification. The results of inspection and verification will be reported on the anniversary of the MAP in the Annual Report. When mitigation actions are completed and verified, the information will be included in the Annual Report.

4.0 MITIGATION COMMITMENTS AND ACTION PLANS

Mitigation practices were defined for the Project in the EA and were considered during the assessment of impacts of the Project. Environmental protection measures and best management practices were incorporated into the project description and must be observed by the applicant in the design, construction, and maintenance of the Project. These measures were identified to reduce or eliminate impacts on effected resources (see Chapter 2 in the EA). Measures not addressed as part of this MAP will be implemented as part of Project plan.

The following table outlines the mitigation measures to reduce impacts to less than significant and action items necessary to assure the mitigation is implemented to protect resources. Sensitive cultural and biological location information is not disclosed in the table.

Resource, Responsible Party, and Schedule		Actions Needed to Avoid Significant Impact
Cultural Resources	<p>Eligible Cultural Resources</p> <p>Schedule: Throughout project</p>	<p>Applicant shall comply with stipulations described in the letter from the South Dakota State Historic Preservation Officer, dated September 13, 2006.</p>
General	<p>Applicant shall provide Western with a report on implementation of all mitigation and protection measures contained in the EA and this MAP. Reporting shall be at least annually, to be received by January 31 each year. The annual reporting requirement shall continue until construction of the project is completed.</p>	

APPENDIX J

**2006 POLLUTION PREVENTION
AND WASTE MINIMIZATION REPORT**

*Western Area Power Administration
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Recycling Data Report (by site) for 2006 Year

Displaying Sites: Western Area Power Administration

Western Area Power Administration for 2006

Approved By: josh

Date 12/11/2006

Approved:

Recycle Category	Quantity
Paper Products:	
Office and Mixed Paper	62.83 mt
Corrugated cardboard	12.45 mt
Phone Books	1.99 mt
Newspapers/Magazines	4.12 mt
Scrap Metals:	
Stainless steel	1.35 mt
Copper	3.21 mt
Iron/Steel	319.71 mt
Aluminum	12.81 mt
Aluminum Cans	0.43 mt
Lead	0 mt
Zinc	0 mt
Other: (see discussion below)	0.56 mt
Precious metals:	
Silver	0 mt
Gold	0 mt
Platinum	0 mt
Other: (see discussion below)	0 mt
Other Items:	
Antifreeze	0.5 mt
Engine oils	4.61 mt
Toner cartridges	1.24 mt

Batteries	55.3 mt
Tires	4.35 mt
Food waste	0 mt
Concrete/Asphalt	174.52 mt
Fluorescent Bulbs	0.6 mt
Ballasts	0 mt
Glass	0 mt
Plastic	0.12 mt
Styrofoam	0 mt
Transformers	40.87 mt
Wood (chips, compost)	0.68 mt
*Other: (see discussion below)	1605.15 mt
*Explanation for other amounts:	
Other scrap metals: 0.56 brass; Other: woodpoles and crossarms 1243.07, mineral oil dielectric fluid 286.77, capacitors 1.58, freon 0.004, fuel 0.01, paint 0.07, misc. (trailers, furniture, etc.) 68.04, SF6 gas 0.01, solvent 0.22, aerosol cans 0.12, soil	
Sanitary Waste	
Routine	1409.26 mt
Cleanup/Stabilization	0 mt

Electronics Recycling:				
Desktop Computers with CRT Monitors	Desktop Computers with LCD Monitor	Desktop Computers with no Monitor	Additional Monitors (CRT or LCD)	Laptop Computers
Transfer or Donate for Reuse:	Transfer or Donate for Reuse:	Transfer or Donate for Reuse:	Transfer or Donate for Reuse:	Transfer or Donate for Reuse:
58	0	43	0	23
Sent for Recycling:	Sent for Recycling:	Sent for Recycling:	Sent for Recycling:	Sent for Recycling:
0	0	14	157	13
Sent for Disposal:	Sent for Disposal:	Sent for Disposal:	Sent for Disposal:	Sent for Disposal:
12	0	0	1	12

Electronics Recycling:	
Transfer or Donate for Reuse:	4 mt
Sent for Recycling:	8 mt
Sent for Disposal:	0 mt

Recycling Questions

How many offices/sites was your organization responsible for operating in FY 2006 ? 41

How many of these offices/sites had an active office products recycling program in FY 2006? 20

How many residential housing units did your organization/site operate in FY 2006? 0

How many of these residential housing units had an active household products recycling program in FY 2006? 0

How many demolition projects were managed by and/or contracted by your organization in FY 2006? 0

How many of these demolition projects included the recovery of construction materials in FY 2006? 0

Solid Waste Prevention Questions

Report solid waste prevention efforts for the facilities for which your organization is responsible.

Did you institute new solid waste prevention practices in FY 2006? No

Explanation: Practicable waste reduction processes are already in place. However, additional waste reduction activities identified during pollution prevention opportunity assessments are being implemented.

Waste Generation Data Report for 2006 Year

Selected Sites: Western Area Power Administration

Selected PSOs: PM

Selected Waste Types: All Waste Types

Western Area Power Administration for 2006 /PSO: PM

Approved By:

Date

Approved:

Waste Type	Rountine Waste	Cleanup/Stabilization Waste	Total Waste
High Level Waste	0 m3	0 m3	0 m3
Transuranic Waste	0 m3	0 m3	0 m3
Mixed Transuranic Waste	0 m3	0 m3	0 m3
Low Level Waste	0 m3	0 m3	0 m3
Mixed Low Level Waste	0 m3	0 m3	0 m3
RCRA Waste	1.21 mt	0 mt	1.21 mt
State Regulated Waste	14.31 mt	0 mt	14.31 mt
TSCA Waste	11.66 mt	0 mt	11.66 mt
Mixed TSCA Waste	0 mt	0 mt	0 mt

Explanation of 20% differences				
PSO	Waste Type	Explanation	2005	2006
PM	RTSCA	This number will always be variable at Western dependent upon the number of projects and maintenance activities for a given year. PCBs are routinely removed from our facilities as part of a systematic program to eventually remove all PCBs.	39.19	11.66

APPENDIX K

2006 AFFIRMATIVE PROCUREMENT REPORT

*Western Area Power Administration
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Power Administration-Western Area FY 2006 Data



Product Category Item	*Total Purchases	*Total Purchases with Recovered Content	*% with Recovered Content	*Adjusted Total	*Adjusted %
Construction	\$191,159	\$158,280	82.8%	\$191,159	100.0%
Building Insulation Products	\$28,300	\$28,300	100.0%	\$28,300	100.0%
Carpet	\$526	\$81	15.4%	\$526	100.0%
Carpet Cushion	\$0	\$0	n.a.%	\$0	n.a.%
Cement and Concrete	\$158,511	\$129,311	81.6%	\$158,511	100.0%
Consolidated and Reprocessed Latex Paint	\$3,092	\$21	0.7%	\$3,092	100.0%
Floor Tiles	\$0	\$0	n.a.%	\$0	n.a.%
Flowable Fill	\$78	\$0	0.0%	\$78	100.0%
Laminated Paperboard	\$63	\$0	0.0%	\$63	100.0%
Modular Threshold Ramps	\$0	\$0	n.a.%	\$0	n.a.%
Nonpressure Pipe	\$42	\$19	45.2%	\$42	100.0%
Patio Blocks	\$0	\$0	n.a.%	\$0	n.a.%
Railroad Grade Crossing Surfaces	\$0	\$0	n.a.%	\$0	n.a.%
Roofing Materials	\$547	\$547	100.0%	\$547	100.0%
Shower and Restroom Dividers/Partitions	\$0	\$0	n.a.%	\$0	n.a.%
Structural Fiberboard	\$0	\$0	n.a.%	\$0	n.a.%
Landscaping	\$132	\$132	100.0%	\$132	100.0%
Compost	\$132	\$132	100.0%	\$132	100.0%
Garden and soaker hoses	\$0	\$0	n.a.%	\$0	n.a.%
Hydraulic Mulch	\$0	\$0	n.a.%	\$0	n.a.%
Landscaping Timbers	\$0	\$0	n.a.%	\$0	n.a.%

Lawn and Garden Edging	\$0	\$0	n.a.%	\$0	n.a.%
Non-Paper Office	\$207,368	\$84,077	40.5%	\$207,368	100.0%
Binders	\$10,843	\$9,203	84.9%	\$10,843	100.0%
Office Furniture	\$10,857	\$8,858	81.6%	\$10,857	100.0%
Office Recycling Containers	\$1,059	\$1,059	100.0%	\$1,059	100.0%
Office Waste Receptacles	\$2,440	\$2,163	88.6%	\$2,440	100.0%
Plastic Clip Portfolios	\$0	\$0	n.a.%	\$0	n.a.%
Plastic Clipboards	\$0	\$0	n.a.%	\$0	n.a.%
Plastic Desktop Accessories	\$2,062	\$2,062	100.0%	\$2,062	100.0%
Plastic Envelopes	\$76	\$76	100.0%	\$76	100.0%
Plastic File Folders	\$34	\$34	100.0%	\$34	100.0%
Plastic Presentation Folders	\$0	\$0	n.a.%	\$0	n.a.%
Plastic Trash Bags	\$8,860	\$6,842	77.2%	\$8,860	100.0%
Printer Ribbons	\$324	\$324	100.0%	\$324	100.0%
Solid Plastic Binders	\$0	\$0	n.a.%	\$0	n.a.%
Toner Cartridges	\$170,813	\$53,457	31.3%	\$170,813	100.0%
Paper and Paper Products	\$95,162	\$67,412	70.8%	\$95,162	100.0%
Bristols	\$2,199	\$2,199	100.0%	\$2,199	100.0%
Coated Printing Papers	\$215	\$215	100.0%	\$215	100.0%
Commercial/Industrial Sanitary Tissue	\$17,796	\$7,157	40.2%	\$17,796	100.0%
Miscellaneous Paper Products (Tray Liners)	\$12,694	\$6,055	47.7%	\$12,694	100.0%
Newsprint	\$1,689	\$710	42.0%	\$1,689	100.0%
Paperboard and Packaging Products	\$2,760	\$2,240	81.2%	\$2,760	100.0%
Uncoated Printing and Writing Papers	\$57,810	\$48,836	84.5%	\$57,810	100.0%
Park and Recreation	\$0	\$0	n.a.%	\$0	n.a.%
Park Benches and Picnic Tables Containing Recovered Aluminum, Steel, Concrete, or Plastic	\$0	\$0	n.a.%	\$0	n.a.%
Plastic Fencing	\$0	\$0	n.a.%	\$0	n.a.%
Playground Equipment Containing Recovered Plastic, Steel, or Aluminum	\$0	\$0	n.a.%	\$0	n.a.%
Playground Surfaces	\$0	\$0	n.a.%	\$0	n.a.%
Running Track	\$0	\$0	n.a.%	\$0	n.a.%

Transportation	\$883	\$883	100.0%	\$883	100.0%
Channelizers	\$0	\$0	n.a.%	\$0	n.a.%
Delineators	\$0	\$0	n.a.%	\$0	n.a.%
Flexible Delineators	\$0	\$0	n.a.%	\$0	n.a.%
Parking Stops	\$658	\$658	100.0%	\$658	100.0%
Traffic Barriers	\$0	\$0	n.a.%	\$0	n.a.%
Traffic Cones	\$224	\$224	100.0%	\$224	100.0%
Vehicular	\$98,538	\$1,687	1.7%	\$98,538	100.0%
Re-refined Lubricating Oil	\$14,002	\$1,559	11.1%	\$14,002	100.0%
Rebuilt Vehicular Parts	\$335	\$0	0.0%	\$335	100.0%
Reclaimed Engine Coolants	\$1,577	\$128	8.1%	\$1,577	100.0%
Retread Tires	\$82,624	\$0	0.0%	\$82,624	100.0%
Miscellaneous	\$39,303	\$14,331	36.5%	\$39,303	100.0%
Awards and Plaques	\$11,927	\$11,633	97.5%	\$11,927	100.0%
Bike Racks	\$0	\$0	n.a.%	\$0	n.a.%
Blasting Grit	\$0	\$0	n.a.%	\$0	n.a.%
Industrial Drums	\$3,410	\$0	0.0%	\$3,410	100.0%
Manual-Grade Strapping	\$1,741	\$406	23.3%	\$1,741	100.0%
Mats	\$801	\$245	30.6%	\$801	100.0%
Pallets	\$1,296	\$1,296	100.0%	\$1,296	100.0%
Signages	\$17,236	\$751	4.4%	\$17,236	100.0%
Sorbents	\$2,892	\$0	0.0%	\$2,892	100.0%
TOTALS:	\$632,545	\$326,802	51.7%	\$632,545	100.0%

* Explanations for **% with Recovered Content, Adjusted Total, and Adjusted %**

% with Recovered Content = (Total purchases with recovered content/Total of all purchases)

Adjusted total = (Total purchases)-(Nonconform number)

Adjusted % = (Adjusted total) / (Total purchases)

Last updated January 25, 2006

Source: <https://www.hss.energy.gov/NuclearSafety/NSEP/p2/ap/sitedata2006.cfm>

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Regional Manager, G0000, Dessert Southwest Regional Office

Regional Manager, J0000, Rocky Mountain Regional Office

Regional Manager, N0000, Sierra Nevada Regional Office

Manager, L0000, Colorado River Storage Project Management Center

Environmental Manager, B0400, Upper Great Plains Regional Office

Environmental Manager, G0400, Dessert Southwest Regional Office

Environmental Manager, J0400, Rocky Mountain Regional Office

Environmental Manager, N1400, Sierra Nevada Regional Office

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Federal Facilities Compliance Office, Environmental Protection Agency, Region 8

Federal Facilities Compliance Office, Environmental Protection Agency, Region 9

Colorado Department of Public Health and Environment