Annual Site Environmental Report

Calendar Year 2019

Western Area Power Administration

October 1, 2020

Contents

LIST OF ABBREVIATIONS AND UNITS

ACM	Asbestos containing material
ADEQ	Arizona Department of Environmental Quality
APP	Avian Protection Plan
ASER	Annual Site Environmental Report
AST	Aboveground storage tank
C&D	Construction and Demolition
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
C.F.R.	Code of Federal Regulations
CO_2e	Carbon dioxide equivalent
CRIT	Colorado River Indian Tribes
CRSP	Colorado River Storage Project
CRT	Cathode Ray Tube
CWA	Clean Water Act
CX	Categorical Exclusion
CY19	Calendar Year 2019
Docket	Federal Agency Hazardous Waste Compliance Docket
DSW	Desert Southwest Region
EA	Environmental Assessments
EIS	Environmental Impact Statements
EMS	Environmental Management System
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
FFCA	Federal Facilities Compliance Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FONSI	Finding of No Significant Impact
GHG	Greenhouse gas
HMBP	Hazardous Materials Business Plan
HSWA	Hazardous and Solid Waste Amendments
ISO	International Organization for Standardization
IVM	Integrated Vegetation Management
kV	Kilovolt
kW	Kilowatt
lb	Pound
LCD	Liquid crystal display
m^3	Cubic meter
MBTA	Migratory Bird Treaty Act
MFD	Multi-function devices
MOU	Memorandum of Understanding

mt	metric ton
MW	Monitoring well
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
OCB	Open/Closed Bushing
PA	Programmatic Agreement
PCB	Polychlorinated biphenyl
PDA	Personal digital assistant
RCRA	Resource Conservation and Recovery Act
Reclamation	United States Bureau of Reclamation
RM	Rocky Mountain Region
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SF6	Sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SN	Sierra Nevada Region
SPCC Plans	Spill Prevention, Control, and Countermeasure Plans
SPUT	Special Purpose Utility
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened and Endangered
TSCA	Toxic Substances Control Act
U.S. BIA	United States Bureau of Indian Affairs
U.S. DOE	United States Department of Energy
U.S. DOI	United States Department of Interior
U.S. EPA	United States Environmental Protection Agency
U.S. FWS	United States Fish and Wildlife Service
UGP	Upper Great Plains Region
USACE	United States Army Corps of Engineers
UST	Underground storage tank
VOC	Volatile organic compound
VSQG	Very small quantity generator
WAPA	Western Area Power Administration
WQARF	Water Quality Assurance Revolving Fund
WVBA	West Van Buren Area

EXECUTIVE SUMMARY

This Annual Site Environmental Report (ASER) for calendar year 2019 (CY19) summarizes the accomplishments of the Western Area Power Administration (WAPA) and provides the status of its environmental program.

WAPA complies fully with regulations from the Council on Environmental Quality and prepares National Environmental Policy Act (NEPA) documentation to assess the environmental impacts of its planned actions. In CY19, WAPA worked on or completed 106 categorical exclusions (CXs), 6 environmental assessments (EAs), two (2) finding of no significant impact (FONSIs), four (4) environmental impact statements (EISs), and one (1) record of decision (ROD). Under the Endangered Species Act (ESA), WAPA worked on or completed 12 Section 7 consultations in CY19.

WAPA prepares Spill Prevention, Control, and Countermeasure (SPCC) Plans as required by the Clean Water Act (CWA) for sites that, due to their location, could reasonably be expected to spill or discharge oil into or upon the navigable waters of the United States. In CY19, WAPA has 160 SPCC Plans in place in 13 States.

WAPA recycled approximately 3,093-metric tons (mt) of wood poles and cross arms, mineral oil dielectric fluid, capacitors, transformers, concrete/asphalt, and other items such as paper products and scrap metals. WAPA disposed of 2.22-mt of polychlorinated biphenyl (PCB)-impacted equipment and materials.

INTRODUCTION

WAPA was established December 21, 1977 under the United States Department of Energy (U.S. DOE) Organization Act (Section 302 of Public Law 95-91). WAPA markets Federal electric power in 15 western States and encompasses a 1.3 million-square-mile geographic area (Figure 1). WAPA operates and maintains an integrated 17,326 circuit-mile, high-voltage transmission system that includes 324 substations and various other power facilities within its service territory. WAPA markets hydroelectric power generated at 57 plants in the western U.S. that are operated by the U.S. Bureau of Reclamation (Reclamation), the U.S. Army Corps of Engineers (USACE), and the U.S. Section of the International Boundary and Water Commission.

In Fiscal Year 2019 (FY19), WAPA sold 36.9 billion kilowatt-hours (kWh) of electricity and generated $1,348,611,000 in gross operating revenues. WAPA sells power to about 700 wholesale power customers, who, in turn, provide service to millions of retail consumers. WAPA'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.

WAPA is managed from its Headquarters in Lakewood, Colorado; four (4) Regional Customer Service Offices located in Billings, Montana (Upper Great Plains [UGP] Region); Phoenix, Arizona (Desert Southwest [DSW] Region); Loveland, Colorado (Rocky Mountain Region [RM]); Folsom, California (Sierra Nevada Region [SN]); and the Colorado River Storage Project Management Center (CRSP MC), in Salt Lake City, Utah, as shown in Figure 1. Through its power marketing and transmission program, WAPA secures revenues to recover operating, maintenance, and purchase power expenses and to repay the federal investment in generation and transmission facilities.

The environmental program spans a broad range of environmental concerns due to WAPA's varied geographic locations and types of activities performed. WAPA falls within the jurisdiction of six (6) United States Environmental Protection Agency (U.S. EPA) regions, 15 States, and numerous counties where its facilities and assets are located.

WAPA's facilities generate hazardous and non-hazardous waste as part of its regular maintenance of electrical equipment, warehouses, and maintenance and office facilities. WAPA's substations and maintenance facilities house equipment containing dielectric oil, hazardous gasses, petroleum, and other pollutants that may affect water, soil, and air resources. WAPA'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. WAPA's Environmental Policy Statement directs employees to prevent, control, and abate environmental pollution at their facilities and enhance the environment when possible.

WAPA also provides environmental review for interconnections under its Open Access Transmission System Tariff.

This ASER CY19 meets the requirements of DOE Order 231.1B, Environment, Safety, and Health Reporting.

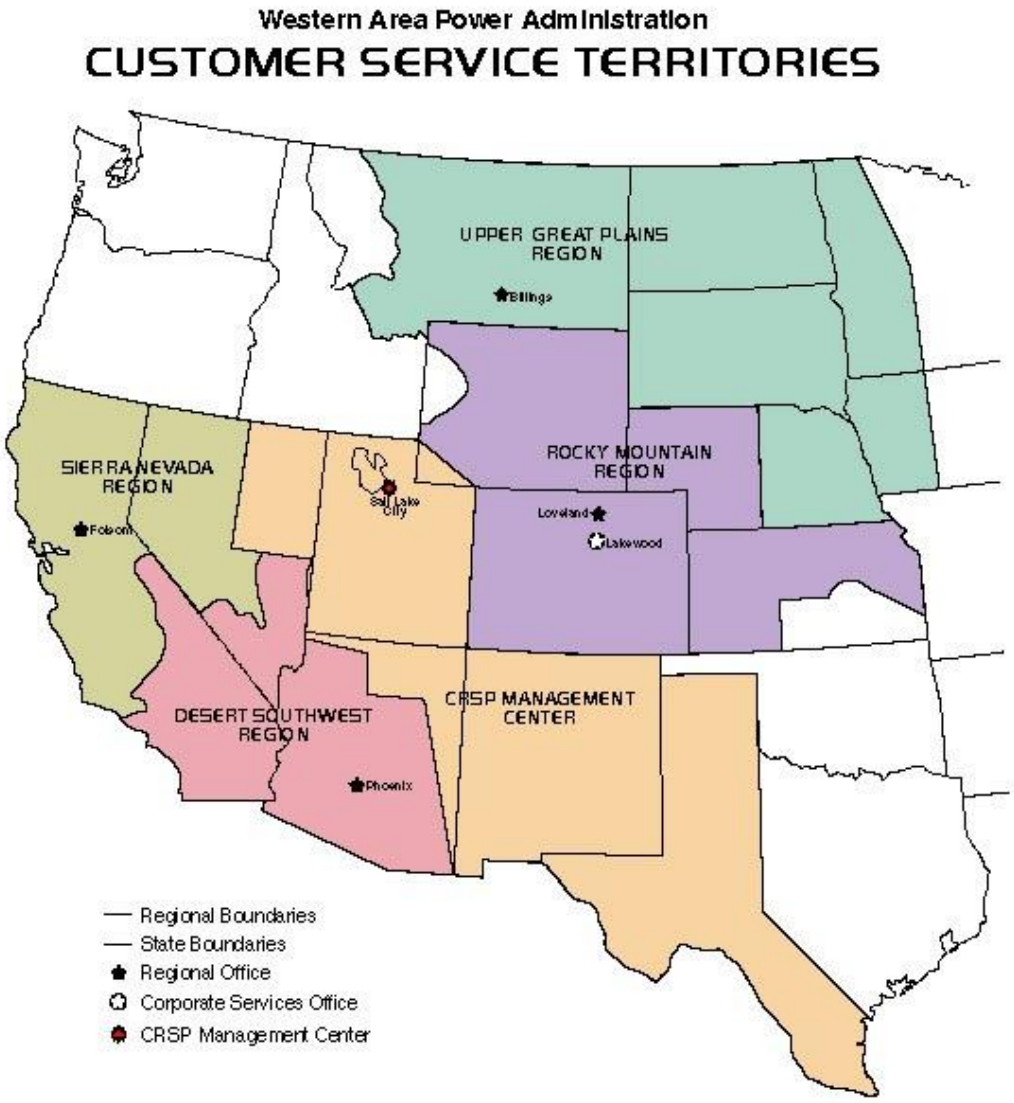

Figure 1. WAPA Service Territories and Regions.

COMPLIANCE STATUS

This section provides an overview of WAPA's compliance status for CY19.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA, referred to as Superfund, was designed to help ensure cleanup of inactive hazardous waste sites. CERCLA provided authorization for the U.S. EPA to respond to and remedy polluted sites.

The Federal Agency Hazardous Waste Compliance Docket (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. WAPA has no sites on the Docket.

Superfund Amendments and Reauthorization Act (SARA)

SARA revised and extended CERCLA. The SARA Title III amendments contain requirements for the Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA encourages and supports emergency planning efforts at the state and local levels. Additionally, it provides public and local governments with information concerning potential chemical hazards present in their communities by requiring facilities to disclose hazardous substances they use or store.

WAPA conducts annual inventories of chemicals at facilities throughout its service area. The information gathered is used to prepare Tier II and/or Tier III reports for State and local emergency response entities in accordance with Sections 311, 312, and 313 of EPCRA. In CY19, WAPA submitted Tier II reports for 288 facilities, which are listed in Appendix A. Of these facilities, 42 are located in California, which uses Hazardous Material Business Plans (HMBP's) to meet Tier II reporting requirements. WAPA did not prepare any Tier III reports because it did not manufacture, process, or otherwise use threshold quantities of the chemicals identified in that section.

Resource Conservation and Recovery Act (RCRA)

RCRA defines and regulates non-hazardous and hazardous solid waste. Non-hazardous solid waste includes municipal solid waste, industrial non-hazardous waste, and commercial non-hazardous waste. RCRA defines hazardous waste as listed wastes (F, K, P, U codes) or waste that exhibits characteristics of reactivity, ignitability, corrosivity, and/or toxicity. The Hazardous and Solid Waste Amendments (HSWA) regulates hazardous waste operations by establishing standards for the generation, transportation, treatment, storage, or disposal of hazardous waste.

HSWA based regulations affect WAPA facilities that are classified as very small quantity generators (VSQG), formerly conditionally exempt small quantity generators, of hazardous waste. HSWA also impacts WAPA operations by prohibiting the land disposal of hazardous waste and by setting standards for used oil management, underground storage tanks (UST's), and recycling hazardous waste. WAPA has five (5) registration/permit required USTs, located at the following facilities:

- Two (2) UST's at the Watertown Operations and Aux Control facility located in Watertown, South Dakota,

- Two (2) UST's at the Phoenix Campus Offices located in Phoenix, Arizona, and

- One (1) UST at the Loveland Power Marketing and Operations Center located in Loveland, Colorado.

WAPA complies with the U.S. EPA's UST upgrade and monitoring requirements for the facilities listed above.

In CY19, WAPA continued recycling materials from its facilities under the Universal Waste Rule. WAPA has increased recycling of hazardous waste and continues to look for additional opportunities to recycle.

WAPA takes immediate action to clean up spills as required by Toxic Substances Control Act (TSCA), RCRA, and the CWA, and notifies the appropriate State and Federal agencies for spills above reportable limits. WAPA also cleans up small leaks and drips around oil-filled equipment as needed. Wastes generated from spills are either recycled or disposed of in a landfill or in a RCRA-permitted facility. WAPA had one (1) non-reportable hazardous material spill in CY19 at its Yellowtail Switchyard located in RM. Less than 25-gallons of transformer oil was released due to a failed pressure relief valve. The released transformer oil remained onsite and impacted materials were removed and properly disposed of.

In calendar year 2018 (CY18), WAPA entered into an agreement with the Arizona Department of Environmental Quality (ADEQ) to perform work on a Remedial Investigation at its Phoenix Area Operations and Maintenance Complex and Phoenix Substation, which are located within the West Van Buren Area (WVBA) Water Quality Assurance Revolving Fund (WQARF) site. Fieldwork activities for the Phoenix Substation were completed in December 2018. The original contract was awarded for $241,137; however, ADEQ is requiring more field activities than originally anticipated. There will be additional costs for field activities estimated at $568,098. Additional funds were allocated, and the project modification was completed April 26, 2019. Quarterly groundwater monitoring is ongoing at the Phoenix Area Operations and Maintenance Complex for CY19. Additional field work for the Phoenix Area Operations and Maintenance Complex was completed in the Fall of CY19, and included the following activities:

- Installation of eight (8) new monitoring wells (MW's).

- Abandonment of three (3) MW's and one (1) dry MW.

- Additional site investigation and characterization of former dry MW's and suspected source areas (i.e., soil vapor survey, surficial soil sampling).

- Disposal of excavated and stockpiled soil.

Toxic Substances Control Act (TSCA)

The TSCA regulations prohibit the manufacture, processing, and distribution of PCB's in commerce, except as exempted by the U.S. EPA. The U.S. EPA, through the TSCA regulations, regulates the use, marking, and disposal of PCB's. Some States regulate PCB disposal and handling through their State RCRA Programs. The TSCA regulations also prescribe requirements for WAPA's radon, lead-based paint, and asbestos concerns.

WAPA continued to remove and properly dispose of mineral oil, dielectric fluid, soil, and equipment containing PCB's from facilities during CY19. DSW collected 74 samples to determine presence of PCB's. UGP collected 12 samples from the Crossover Station bushings, which did not detect any PCB's. The RM sampled the following facilities for PCB's and lead paint: Shiprock Substation, Gering Service Center, Hayden Substation, Vernal Substation, and Cheyenne Alternate Control Center. Lead paint was detected at the following facilities sampled in RM: Shiprock Substation, Hayden Substation, and Vernal Substation. PCB's were detected at the following facilities sampled in RM: Gering Service Center, Hayden Substation and Vernal Substation.

WAPA disposed of 2.22-mt of PCB-impacted wastes (equipment, debris, and soil) in CY19. Low-level PCB-impacted oils were burned for energy recovery at U.S. EPA-permitted facilities or were chemically treated and recycled. Oils with higher concentrations of PCB's were disposed of at U.S. EPA-permitted incinerators. Impacted equipment carcasses were decontaminated and sold as scrap when possible. Items too heavily impacted for recycling as scrap were disposed of at permitted PCB waste landfills or incinerators.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

FIFRA directs U.S. EPA to register pesticides to ensure that they will not present unreasonable risks to human health or the environment when used according to label instructions. Pesticides include insecticides, antifoulants, fungicides, rodenticides, disinfectants, and plant growth regulators. Depending on pesticide properties and use patterns, pesticides can leach through soils and impact groundwater. The potential for leaching is greatest in areas where the water table is close to the surface and/or soils are highly permeable.

Pesticides are used by WAPA to control plant and animal pests and for wood preservation. WAPA has two (2) manuals for implementation of FIFRA: the "Integrated Vegetation Management (IVM) Environmental Guidance Manual" and the "Pest Control Manual." WAPA's IVM program promotes the use of biological, cultural, physical, and chemical tools to control unwanted vegetation and minimize economic, health, and environmental risks. The IVM program de-emphasizes the exclusive use of chemical control.

Federal Facilities Compliance Act (FFCA)

The FFCA gives explicit authority to the Administrator of the U.S. EPA to commence administrative enforcement actions against any department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal government that is in violation of requirements under RCRA. The FFCA also allows States to assess fines against Federal facilities for RCRA violations. No FFCA actions were undertaken against WAPA in CY19.

National Environmental Policy Act (NEPA)

NEPA requires all Federal agencies to consider the potential environmental effects of their proposed actions during planning stages and to document their actions. NEPA documentation includes CX's, EA's, FONSI's, EIS's, and ROD's. WAPA reports its NEPA activities annually to U.S. DOE in January. A summary of the CY19 NEPA actions is as follows:

CY19 Summary of NEPA Actions

NEPA Action	Total
CX's completed	106
EA's completed/in progress	6
EIS's completed/in progress	4
ROD's issued	1
FONSI's issued	2

Clean Air Act (CAA)

The CAA was promulgated "to protect and enhance the quality of the Nation's air resources so as to promote public health and welfare and the productive capacity of its population." The U.S. EPA is required to set National Ambient Air Quality Standards (NAAQS) that define clean air levels. The U.S. EPA set NAAQS for six (6) "criteria" pollutants: carbon monoxide, lead, ozone, nitrogen oxides, sulfur dioxide, and particulate matter. The U.S. EPA also established New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP's), and standards for mobile sources. NESHAP's have been established for beryllium, mercury, vinyl chloride, benzene, arsenic, asbestos, radon, and other radionuclides. Air quality standards are achieved by the States through State Implementation Plans (SIP's). The SIP's establish emission limits and compliance schedules for pollution sources.

Several potential sources of air emissions that are regulated under the CAA exist at WAPA facilities. These emissions include dust during construction activities, friable asbestos during building renovation or demolition, and volatile organic compounds (VOC's) from gasoline-dispensing facilities. WAPA has taken steps to reduce emissions of greenhouse gasses (GHG's) from its facilities and operations by including the phase-out of ozone-depleting substances and reducing vehicle emissions through the use of alternative fuels.

In CY19, WAPA sampled for asbestos-containing material (ACM) in three (3) regions: RM, UGP and DSW. RM sampled the following facilities for ACM: Shiprock Substation, Gering Service Center, Hayden Substation, Vernal Substation, and Cheyenne Alternate Control Center. Both friable and non-friable ACM was detected at all facilities sampled in RM. UGP collected 12 ACM samples from the Shelby Control Building, with four (4) samples detecting non-friable ACM. ACM abatement at the Shelby Control Building is expected to be scheduled and completed in calendar year 2020 (CY20). DSW sampled the Prescott Substation and the Liberty Substation. Non-friable ACM was detected in the floor tile/mastic inside the Prescott Substation. No ACM was detected in the Liberty Substation. ACM abatement at the Prescott Substation is expected to be scheduled and completed in CY20.

WAPA has fuel dispensing facilities at three (3) locations, one each in RM, UGP, and DSW that require State permits. These facilities are inspected annually to ensure tank integrity and prevent the release of VOC's. The permitting program and annual inspections are intended to minimize VOC releases.

The phase-out of ozone-depleting substances affects WAPA'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. Headquarters and most of the regional offices have phased out nearly all halon-containing fire extinguishing equipment. One facility in Watertown, South Dakota, still contains a large halon-based fire suppression system.

WAPA currently uses approximately 1,950 sulfur hexafluoride (SF_6) gas-filled circuit breakers. In CY19, WAPA continued evaluating equipment to locate leaks and either immediately repair them, or schedule repairs or replacement. Tracking systems have been developed to track the amount of released SF_6 gas to the atmosphere from WAPA's equipment, and WAPA is finalizing a database to improve the ease of tracking. Additionally, WAPA prepares an annual SF_6 emissions reduction report that is submitted electronically to the U.S. EPA. A synopsis of this report is included in Appendix B of this document.

Clean Water Act (CWA)

The CWA regulates the discharge of pollutants into waters of the United States from any point source, including industrial facilities and sewage treatment facilities. The CWA also regulates stormwater runoff from certain industrial sources, requires reporting and cleanup of oil and hazardous substance spills in waters of the U.S., protects waters of the U.S., requires a permit to adversely affect wetlands, and requires spill prevention plans for sites that store oil and other petroleum products. The U.S. EPA established a requirement to have a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of stormwater from facilities with point sources. Stormwater Pollution Prevention Plans (SWPPP's) or Stormwater Management Plans (SWMP's) are prepared as part of the NPDES permit for maintenance and construction activities that disturb more than one (1) acre.

WAPA continues to evaluate facilities to meet SPCC Plan applicability and requirements under the CWA. SPCC Plans are developed for all applicable new facilities and updated every five (5) years for

existing applicable facilities or within six (6) months of any facility changes that would affect the potential to release oil. In CY19, WAPA had 160 SPCC Plans in 13 States, which are listed in Appendix A. WAPA periodically reviews SPCC Plans and updates them to reflect new site-specific information, construction or other modifications to the sites, or revised inventories of oil-filled equipment. In CY19, WAPA updated 27 SPCC Plans. WAPA also created one (1) new SPCC Plan for a facility in CY19.

Endangered Species Act (ESA)

The ESA was established to protect aquatic animals, land animals, and plant species that are likely to become endangered in the foreseeable future (threatened) or are in danger of extinction (endangered). Federal agencies are required to ensure that any of their associated actions do not adversely impact threatened and endangered (T&E) species. Section 7 of the ESA requires Federal agencies to determine if their actions may affect listed species or their habitat. If a potential effect is determined, then the agency must consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS), whichever is appropriate. In CY19, WAPA worked on or had completed 12 Section 7 consultations under the ESA.

Migratory Bird Treaty Act (MBTA)

The MBTA prohibits the taking, possessing, or transporting of any migratory bird, nest, egg, or part of a migratory bird without a permit. The protected list of migratory birds includes 1,026 species (as of December 2013) appears in Section 10.13 of Title 50 in the Code of Federal Regulations (C.F.R.).

In May 2016, WAPA finalized its Avian Protection Plan (APP), which provides a mechanism for tracking bird loss, defining troubled equipment, implementing corrective actions, and voluntary performing actions benefiting bird populations in general. WAPA has received three (3) regional, Special Purpose Utility permits (SPUT) from the U.S. FWS and is currently working towards one (1) combined permit to cover the entire agency. In addition to Federal SPUT permits, WAPA has also applied for and received several companion State permits (e.g., from Montana and South Dakota).

WAPA still follows the guidelines and best management practices regarding the responsibilities of federal agencies to protect migratory birds set forth in the 5-year Memorandum of Understanding (MOU) between U.S. DOE and U.S. FWS on the implementation of Executive Order (EO) 13186 from 2013, which has expired and has not yet been renewed. In addition, WAPA also continues to survey for active bird nests prior to work and implements appropriate buffer distances, as necessary.

In CY19, RM reported four (4) migratory bird fatalities at WAPA facilities. Additionally, two (2) nests were reported on equipment located at the Loveland Power Marketing and Operations Center. Neither nest was disturbed; however, one (1) nest failed. RM continues to mitigate nesting issues on the Windy Gap – Granby Pump Plant line where ospreys are nesting on multiple steel monopoles. WAPA plans to install perch discouragers on these monopoles in CY20, to address these nesting issues. RM also observed vulture roosting and contamination on a 230-kilovolt (kV) steel lattice structure, which is believed to have caused multiple line trips. WAPA is planning to mitigate this issue in CY20.

In CY19, SN assisted a partner utility company with the removal of an osprey nest from one of their structures and installed a new nest platform to prevent electrocutions and outages.

WAPA, as part of the U.S. DOE Migratory Bird Working Group, helped to develop the final revision of U.S. DOE MOU with the U.S. FWS regarding the implementation of EO 13186: Responsibilities of Federal Agencies to Protect Migratory Birds. WAPA continues to follow the recommendations and minimization measure of the updated MOU and complies with the permitting requirements of MBTA. As such, WAPA is operating under a MBTA Purposeful Eagle Nest Take Permit (50 C.F.R. § 22.23 and § 22.27) issued to WAPA on December 6, 2003.

National Historic Preservation Act (NHPA)

All Federal agencies have responsibilities under the NHPA of 1966. Under Section 106 of the NHPA, all Federal agencies are required to take cultural resources into account during agency project planning. The intent is to ensure that agency actions do not inadvertently disturb or destroy historic properties. Cultural resources can include, but are not limited to: prehistoric and historic archaeological materials and sites located on or below the ground surface; historic structures (buildings, sites, structures, or objects) that are more than 50-years old; cultural and natural places; and sacred objects important to a group or groups of Native Americans. A compliance process was established by the Advisory Council on Historic Preservation (36 C.F.R. Part 800) that, if followed, ensures compliance with provisions of the NHPA. The NHPA and the regulations do not mandate an outcome, but rather only that an agency considers the effect its actions may have on significant resources including a reasonable and good faith effort to avoid or resolve any adverse effects their actions may have on historic properties.

WAPA 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 surveys. In CY19, WAPA engaged in 146 Section 106 consultations and coordinated with numerous tribes as part of preservation and cultural compliance. In areas where significant cultural resources are identified, WAPA staff monitors work to assure that cultural and/or historical resources are not disturbed.

In CY19, DSW engaged in government-to-government consultation with the Colorado River Indian Tribes (CRIT) regarding the Bouse Upgrade project. The CRIT expressed concerns that the decision by DSW to explore the project and cancel the Parker-to-Headgate Rock project harmed the Tribe. DSW is evaluating a potential partnership with the CRIT regarding the Bouse Upgrade project.

In Arizona, California, Colorado, Nebraska, Nevada, New Mexico, Utah, and Wyoming, WAPA and State Historic Preservation Officers (SHPO's) have agreed on Section 106 measures for routine maintenance activities through Programmatic Agreements (PA's), which streamline the consultation process for projects with a "no effect" determination. On large projects, WAPA and other affected parties, along with the SHPO's and Native American Tribes, enter into project-specific PA's, which

outline actions to be taken during construction activities to comply with cultural and historical resource preservation laws.

WAPA entered into one (1) PA in CY19 in DSW, with the Gila River Indian Community – Tribal Historic Preservation Officer and the United States Bureau of Indian Affairs (U.S. BIA), regarding maintenance and minor construction activities on existing WAPA transmission lines and facilities located on the Gila River Indian Reservation, located in Maricopa and Pinal Counties in Arizona.

Executive Order 11988, "Floodplain Management" and Executive Order 11990, "Protection of Wetlands

Under U.S. DOE Floodplain and Wetland Regulations (10 C.F.R. § 1022 et. seq.), EO 11988 and EO 11990, WAPA evaluates the impact of its actions on floodplains and wetlands. These evaluations can be performed in conjunction with the NEPA impact analysis for projects. In CY19, WAPA did not conduct any floodplain evaluations. In CY19, SN completed one (1) wetland delineation on a property that had been damaged during the Keswick Substation- Airport- Cottonwood reconductoring project. The jurisdictional wetland boundary was identified and guidance was provided to ensure all repair activities would occur above the wetland boundary, as to not require CWA 401/404 permitting.

Executive Order 13834 "Efficient Federal Operations"

EO 13834 affirms "that agencies shall meet statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary us of resources, and protects the environment." The head of each agency is required to meet the following goals, which are based on statutory requirements in a cost-effective manner:

- Achieve and maintain annual reductions in building energy use and implement energy efficient measures that reduces costs.
- Meet statutory requirements relating to consumption of renewable energy.
- Reduce potable and non-potable water consumption and comply with stormwater management requirements.
- Utilize performance contracting to achieve energy, water, building modernization, and infrastructure goals.
- Ensure that new construction and major renovations conform to applicable building energy efficiency requirements and sustainable design principles; consider building energy efficiency when renewing or entering into leases; implement space utilization and optimization practices; and annually assess and report on building conformance sustainability metrics.

- Implement waste prevention and recycling measures and comply with all Federal requirements with regard to solid, hazardous, and toxic waste management and disposal.

- Acquire, use and dispose of products and services, including electronics, in accordance with statutory mandates for purchasing preference, Federal Acquisition Regulation requirements, and other Federal procurement policies.

- Track and report on energy management activities, performance improvements, cost reductions, greenhouse gas emissions, energy and water savings, and other appropriate performance measures.

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

WAPA's EMS ensures that WAPA implements environmental requirements while seeking to continually improve. The EMS continues to be suitable to WAPA's mission, culture, and strategic plan. Feedback was provided by the Environmental Managers to maintain the EMS in order to fulfill the requirements of DOE Order 436.1 and International Organization for Standardization's (ISO) 14001.

As part of DOE Order 436.1, "Departmental Sustainability," WAPA issued its annual Sustainability Plan Performance Report.

Self-Assessments or Audits

WAPA established an environmental auditing and inspection program in 1980. The major purposes of the auditing program are to:

- 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.

Existing Permits

WAPA is required to obtain a variety of permits, including those for aboveground storage tanks (AST's) and UST's, PCB transportation and storage, hazardous waste storage, gasoline dispensing, and NPDES permits for point source and stormwater discharge. A full list of WAPA's permits are listed in Appendix C of this document. The table below summarizes the list by type and number.

Summary of CY19 Permits by Type

Type of Permit	Number
404 Permit (Clean Water Act)	2
NPDES Permits (Clean Water Act)	1
Hazardous Waste Transportation	0
Underground Storage Tanks	5
Hazardous Materials	47
Water Quality	0
Air Quality	9
Fuel Dispensing	1
FIFRA	1
Total	**66**

Waste Minimization, Pollution Prevention, and Affirmative Procurement

Recycling

In CY19, WAPA recycled approximately 3,093-mt of wood poles and cross arms, mineral oil dielectric fluid, capacitors, transformers, concrete/asphalt, and other items such as paper products and scrap metals. At WAPA Headquarters there was a concerted effort to recycle unneeded files and papers in CY19, which resulted in an approximately 14-times increase in the amount of Office and Mixed Paper recycled, as compared to CY18. WAPA replaced oil-filled circuit breakers with SF_6 breakers at several sites and recycled the oil and metal from these replacements. WAPA collected quantities of hazardous waste and recycled and reused waste and reported them in the 2019 Annual Report on Waste Generation and Pollution Prevention Progress, which is included in Appendix D of this document.

PCB Wastes

Since 1977, WAPA has continued to reduce the use of PCB's and minimized PCB waste generation by refilling equipment and reusing oil. Although WAPA has not eliminated PCB's, it continues to identify PCB removal as opportunities are found and budget considerations permit. In CY19, WAPA disposed of 2.22-mt of PCB-contaminated waste. Changes in EPCRA Section 313 regulations regarding persistent bio-accumulative toxics, have added impetus to this removal.

APPENDIX A: SPCC PLANS AND EPCRA TIER II REPORTING FOR WAPA IN CY19

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Arizona					
Coolidge Substation	Pinal	Yes			
Davis Dam Substation	Mohave	Yes	Yes		
ED-2 Substation	Pinal	Yes			
Gila Substation	Yuma	Yes			
Glen Canyon Substation	Coconino	Yes	Yes		
Griffith Substation	Mohave	Yes			
Harcuvar Substation	La Paz	Yes			
Headgate Rock Substation	La Paz	Yes			
Kayenta Substation	Navajo	Yes			
Liberty Substation	Maricopa	Yes			
Lone Butte Substation	Maricopa	Yes	Yes		
McConinico Substation	Mohave	Yes			
Nogales Substation	Pima	Yes			
North Havasu Substation	Mohave	Yes			
Oracle Substation	Pinal	Yes			
Peacock Substation	Mohave	Yes			
Phoenix Operations and Maintenance Facility	Maricopa	Yes			
Pinnacle Peak Substation	Maricopa	Yes			
Prescott Substation	Yavapai	Yes			
Rattle Snake Substation	Pima	Yes			
Signal Substation	Pinal	Yes			
Sonara Substation	Yuma	Yes			
Sundance Substation	Pinal	Yes			
Teec Nos Pos Microwave Facility	Apache	Yes			
Test Track Substation	Pinal	Yes			
Topock Substation	Mohave	Yes			
Tucson Substation	Pima	Yes			
Welton-Mohawk	Yuma	Yes			
California[2]					
Airport Substation	Shasta	HMBP	Yes		
Big Valley Microwave Facility	Lassen				
Blythe Substation	Riverside	HMBP			
Buck Boulevard Substation	Riverside	HMBP			
Carr Substation	Shasta	HMBP			

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Corning Substation	Tehama	HMBP	Yes		
Coyote Substation	Santa Clara	HMBP			
Elverta Maintenance Facility, Substation and Microwave Facility	Sacramento	HMBP	Yes		
Folsom Substation	Sacramento	HMBP	Yes		
Keswick Substation	Shasta	HMBP	Yes		
Knob Substation	Imperial	HMBP			
Lawrence Livermore Substation	Alameda	HMBP			
Manzanita Lake Microwave Facility	Shasta	HMBP			
Maxwell Substation	Colusa	HMBP			
New Melones Substation	Calaveras	HMBP			
O'Banion Substation	Sutter	HMBP			
Olinda Substation	Shasta	HMBP			
O'Neill Substation	Merced	HMBP			
Parker Dam 69-kV Switchyard; 161-kV Switchyard (upper and lower); 230-kV Switchyard	San Bernardino	HMBP	Yes		
Pacheco Substation	Merced	HMBP			
Pleasant Valley Substation	Fresno	HMBP	Yes		
Redding Maintenance Facility	Shasta	HMBP	Yes		
Roseville Substation	Placer	HMBP	Yes		
Sacramento Power Operations Facility/Substation	Sacramento	HMBP	Yes		
San Luis Transformers	Merced				
Shasta Substation	Shasta	HMBP	Yes		
Sites Microwave Facility	Colusa	HMBP			
Southfork Microwave Facility	Shasta	HMBP			
Tracy Substation and Maintenance Facility	Alameda	HMBP	Yes		
Trinity Substation	Trinity	HMBP	Yes		
Weaverville Substation	Shasta	HMBP			
Westlands Transformer MP 114.0	Fresno	HMBP			
Westlands Transformer MP 114.9	Fresno	HMBP			
Westlands Transformer MP 116.91	Fresno	HMBP			
Westlands Transformer MP 119.63	Fresno	HMBP			
Westlands Transformer MP 120.86	Fresno	HMBP			
Westlands Transformer MP 122.04	Fresno	HMBP			
Westlands Transformer MP 122.59	Fresno	HMBP			

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Westlands Tranformer MP 124.16	Fresno	HMBP			
Westlands Transformer MP 124.19	Fresno	HMBP			
Westlands Transformer MP 128.49	Fresno	HMBP			
Westlands Transformer MP142.6	Fresno	HMBP			
Westlands Transformer MP 7-0.5	Fresno	HMBP			
Whiskeytown Substation	Shasta	HMBP			
Colorado					
Animas River Substation	LaPlata	Yes	Yes	Yes	
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			
Collbran Substation	Mesa		Yes		
Curecanti Substation	Montrose	Yes	Yes	Yes	
Deer Peak Microwave	Custer	Yes			
Derby Hill Substation	Larimer	Yes			
Dove Creek Pumping Plant Substation	Dolores	Yes			
Estes Substation	Larimer	Yes	Yes	Yes	
Flatiron Substation	Larimer	Yes	Yes	Yes	
Fleming Substation	Logan	Yes	Yes	Yes	
Fort Morgan West Substation	Morgan	Yes			
Frenchman Creek Substation	Phillips	Yes	Yes	Yes	
Granby (Farr) Pumping Plant Switchyard	Grand	Yes	Yes	Yes	
Granby Substation	Grand	Yes			
Great Cut Pumping Plant Substation	Montezuma	Yes	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			

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Kersey West Switching Station	Weld	Yes			
Kiowa Creek Substation	Morgan	Yes			
Kremmling Substation	Grand	Yes			
Limon Substation	Lincoln	Yes			
Magnetic Mountain Microwave	Rio Blanco	Yes			
Mary's Lake	Larimer		Yes		
Midway Substation	El Paso	Yes			
Montrose Maintenance Office	Montrose	Yes	Yes		
North Park Substation	Jackson	Yes			
Nunn Substation	Weld	Yes			
Pole Hill Substation	Larimer	Yes	Yes		
Poncha Springs Substation	Chaffee	Yes	Yes		
Poudre Substation	Larimer	Yes	Yes	Yes	
Prospect Valley Substation	Weld	Yes			
Rifle Substation	Garfield	Yes	Yes		
Rocky Mountain Region - Power Marketing and Operations Center (Loveland)	Larimer	Yes	Yes		
Salida Substation	Chaffee	Yes			
Sheeps Knob Microwave Site	Montrose	Yes			
Sterling Substation	Logan	Yes	Yes		
Towaoc Power Plant	Montezuma	Yes	Yes	Yes	
Wauneta Substation	Yuma	Yes			
Weld Substation	Weld	Yes	Yes	Yes	
Wiggins Substation	Morgan	Yes			
Wildhorse Creek Substation	Logan	Yes			
Willoby Substation	Weld	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		

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Minnesota					
Appledorn Substation	Lac Qui Parle	Yes	Yes		
Granite Falls Substation	Chippewa	Yes	Yes		
Morris Substation	Stevens	Yes	Yes		
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		
Fairview West Substation	Richland	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		
Great Falls Substation	Cascade	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		
Richland Substation	Richland	Yes	Yes		
Rudyard Substation	Hill	Yes	Yes		
Savage Pump	Richland		Yes		
Shelby Substation	Toole	Yes	Yes		
Shelby Substation #2	Toole	Yes	Yes		
Shirley Pump Substation	Custer	Yes	Yes		
Terry Pump	Prairie		Yes		
Terry Tap	Prairie	Yes	Yes		
Tiber Dam Substation	Liberty	Yes	Yes		
Valley Pump Substation	Valley		Yes		
Whatley Substation	Valley	Yes	Yes		
Wolf Point Substation	Roosevelt	Yes	Yes		
Yellowtail Substation	Big Horn	Yes	Yes		

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Nebraska					
Alliance Substation	Box Butte	Yes			
Bridgeport Substation	Morrill	Yes	Yes	Yes	
Chadron Substation	Dawes	Yes			
Chappell Substation	Deuel	Yes			
Dunlap Substation	Dawes	Yes			
Gering Substation and Maintenance Facility	Scotts Bluff	Yes	Yes	Yes	
Grand Island Substation	Merrick	Yes	Yes		
Grand Prairie Switching Yard	Holt	Yes	Yes		Yes
Kimball Substation	Kimball	Yes			
Ogallala Substation	Keith	Yes	Yes	Yes	
Sidney Substation	Cheyenne	Yes			
Stegall Substation	Scotts Bluff	Yes			
Virginia Smith Converter Station	Cheyenne	Yes			
New Mexico					
Shiprock Substation	San Juan	Yes			
Waterflow Substation	San Juan	Yes	Yes	Yes	
Nevada					
Amargosa Substation	Clark	Yes	Yes		
Henderson Switchyard	Clark	Yes			
Mead Substation	Clark	Yes			
North Dakota					
Belfield Substation	Stark	Yes	Yes		
Bisbee Substation	Towner	Yes	Yes		
Bismarck Substation	Burleigh	Yes	Yes		
Buford-Trenton Substation	Williams	Yes	Yes		
Carrington Substation	Foster	Yes	Yes		
Custer Trail Substation	Morton	Yes	Yes		
Denbigh Tap	McHenry				
DeVaul Substation	Grant	Yes	Yes		
Devils Lake Substation	Ramsey	Yes	Yes		
Edgeley Substation	LaMoure	Yes	Yes		
Elliot Substation	Ransom	Yes	Yes		
Fargo Substation	Cass	Yes	Yes		
Foreman Substation	Sargent	Yes	Yes		
Grand Forks	Grand Forks	Yes			
Hilken Switching Station	Burleigh	Yes			

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Hebron Switching Station	Morton	Yes			
Killdeer Substation	Dunn	Yes	Yes		
Jamestown Substation	Stutsman	Yes	Yes		
Lakota Substation	Nelson	Yes	Yes		
Leeds Substation	Benson	Yes	Yes		
Penn Tap	Ramsey				
Rugby Substation	Pierce	Yes	Yes		
Snake Creek Substation	McLean	Yes	Yes		
Valley City Substation	Barnes	Yes	Yes		
Ward Substation	Burleigh	Yes	Yes		
Washburn Substation	McLean	Yes	Yes		
Watford Substation	McKenzie	Yes	Yes		
Williston Substation	Williams	Yes	Yes		
Williston 2 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		
Carpenter Substation	Beadle	Yes	Yes		
Eagle Butte Substation	Ziebach	Yes	Yes		
Ellsworth Air Force Base Substation	Pennington	Yes	Yes		
Faith Substation	Meade	Yes	Yes		
Flandreau Substation	Moody	Yes	Yes		
Fort Thompson Substation	Buffalo	Yes	Yes		
Gregory Substation	Gregory	Yes	Yes		
Groton Substation	Brown	Yes	Yes		
Huron Substation	Beadle	Yes	Yes		
Irv Simmons Substation	Stanley	Yes	Yes		
Letcher Substation	Davidson	Yes	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		

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
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		
Utica Junction	Yankton	Yes	Yes		
Wall Substation	Pennington	Yes	Yes		
Watertown 345-kV Yard	Codington	Yes	Yes		
Watertown Substation 115/230-kV	Codington	Yes	Yes		
Watertown Substation (Static Var)	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		
Utah					
Cliff Ridge Microwave	Uintah	Yes			
Flaming Gorge Switchyard	Daggett	Yes	Yes	Yes	
Tyzack Substation	Uintah	Yes	Yes	Yes	
Vernal Substation	Uintah	Yes			
Wyoming					
Alcova Switchyard	Natrona	Yes	Yes	Yes	
Archer Substation	Laramie	Yes			
Badwater Substation	Fremont	Yes	Yes	Yes	
Basin Substation	Big Horn	Yes			
Big George Substation	Park	Yes			
Boysen Substation	Fremont	Yes			
Buffalo Head Switching Station	Natrona	Yes			
Casper Field Office	Natrona	Yes			
Casper Mountain Microwave Site	Natrona	Yes			
Casper Substation	Natrona	Yes	Yes	Yes	
Cheyenne Substation	Laramie	Yes	Yes		
Copper Mountain Substation	Fremont	Yes	Yes	Yes	
Garland Substation	Park	Yes			
Glendale Substation	Park	Yes	Yes	Yes	
Glendo Substation	Platte	Yes	Yes	Yes	

Facility Name	County	Tier II[1]	SPCC[1]	Revised SPCC[1]	New SPCC[1]
Goshen Substation	Goshen	Yes			
Heart Mountain Substation	Park	Yes	Yes		
Limestone Substation	Platte	Yes	Yes	Yes	
Lingle Substation	Goshen	Yes	Yes	Yes	
Lovell Substation	Big Horn	Yes			
Lusk Rural Substation	Niobrara	Yes			
Lusk Town Substation	Niobrara	Yes	Yes	Yes	
Lyman Substation	Goshen	Yes			
McCullough peak Microwave Site	Park	Yes			
Medicine Bow Substation	Carbon	Yes			
Meeteetse Substation	Park	Yes	Yes		
Miracle Mile Substation	Carbon	Yes			
Muddy Ridge Substation	Fremont	Yes			
North Cody Substation	Park	Yes			
Pilot Butte Substation	Fremont	Yes	Yes	Yes	
Pinebluffs Substation	Laramie	Yes			
Raderville Substation	Natrona	Yes			
Ralston Substation	Park	Yes			
Snowy Range Substation	Laramie	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		**284**	**160**	**27**	**1**

[1] Cells with no values (blanks) indicate that facility does not have a Tier II, SPCC Plan, Revised SPCC Plan or New SPCC Plan for CY19.

[2] HMBP's required by the State of California meet the EPCRA reporting requirements and separate Tier II reports are not required. WAPA has 42 facilities in California that submit HMBP's.

APPENDIX B: CY19 SF6 EMISSIONS REPORT TO THE U.S. EPA

Introduction

In CY19, WAPA has continued to progress in its SF_6 emission reduction program. The summary below includes data from all four (4) of WAPA's regions. WAPA is committed to reducing emissions to protect the environment and to provide top service to our customers through minimization of electrical outages.

Summary of SF_6 Emissions

In CY19, WAPA's total SF_6 emissions were 635-pounds (lb), or 7,239-tons (6,567-mt) of carbon dioxide equivalent (CO_2e). The total nameplate capacity is 243,668-lb. The leakage rate is 635/243,668 or 0.26-percent.

APPENDIX C: LIST OF CY19 PERMITS

NAME	ISSUING AGENCY	STATUS	EXPIRATION DATE
404 Permit (CWA)			
Mead-Davis	1) Nevada Division of Environmental Protection; 2) USACE	Open	Annually
Stream Alteration Permit Number 19-45-01SA	State of Utah Department of Natural Resources, Division of Water Rights	Open	March 20, 2021
NPDES (CWA)			
Mead Substation Annual General Water Permit	Nevada Division of Environmental Protection: Bureau of Water Pollution Control	Ongoing	Annually
Hazardous Waste Transportation			
None			
UST			
Underground Storage Tank (x2)	ADEQ	Ongoing	Annually
Diesel Tank for Backup Generator	1) Colorado Department of Labor and Employment: Division of Oil and Public Safety; 2) Loveland Fire Rescue Authority	Ongoing	Annually
Notification for UST - Watertown Main Operations Center	South Dakota Department of Environment and Natural Resources: Ground Water Quality Program: Storage Tanks Section	Ongoing	Annually
Notification for UST - Watertown Alternate Operations Center	South Dakota Department of Environment and Natural Resources: Ground Water Quality Program: Storage Tanks Section	Ongoing	Annually

NAME	ISSUING AGENCY	STATUS	EXPIRATION DATE
Hazardous Materials / Hazardous Waste			
Hazardous Materials Business Plans (separate permits for 42 facilities)	Various California Counties, California Certified Unified Program Agency: see Appendix A for HMBP List	Ongoing	Annually
Henderson Substation Hazardous Materials Storage Permit	Nevada State Fire Marshall	Ongoing	Annually
Amargosa Substations Hazardous Materials Storage Permit	Nevada State Fire Marshall	Ongoing	Annually
Mead Substation Hazardous Materials Storage Permit	Nevada State Fire Marshall	Ongoing	Annually
Amargosa Substation Waste Management Permit	Southern Nevada Health District	Ongoing	Annually
Mead Substation Waste Management Permit	Southern Nevada Health District	Ongoing	Annually
Water Quality			
None			
Air Quality			
Facility Permit – Sacramento Power Operations Emergency Generator	Sacramento Metropolitan Air Quality Management District, California	Ongoing	Annually
Air Quality Permit – Elverta Maintenance Facility ACC Emergency Generator	Sacramento Metropolitan Air Quality Management District, California	Ongoing	Annually
Air Quality Permit – O'Banion Substation Emergency Generator	Feather River Air Quality Management District, California	Ongoing	Annually
Air Quality Permit – Phoenix	Maricopa County, Arizona	Ongoing	Annually
Air Quality Permit To Operate - Emergency Generator/Natural Gas Pressure Washer	Maricopa County, Arizona	Ongoing	Annually
Fugitive Dust Activity Permit – Pima County	Pima County, Arizona	Ongoing	Annually
Dust Control Block Permit – Maricopa County	Maricopa County, Arizona	Ongoing	Annually
Dust Control Block Permit – West Pinal	Pinal County, Arizona	Ongoing	Annually
Dust Control Block Permit – East Pinal	Pinal County, Arizona	Ongoing	Annually
Fuel Dispensing			

NAME	ISSUING AGENCY	STATUS	EXPIRATION DATE
Facility Permit – Elverta Maintenance Facility	Sacramento Metropolitan Air Quality Management District	Ongoing	Annually
FIFRA			
San Bernardino Pesticide Permit	San Bernardino County	Ongoing	Annually

APPENDIX D: CY19 POLLUTION PREVENTION AND WASTE MINIMIZATION REPORT

WAPA Recycling Data Report for CY19

Recycle Category	Quantity (mt)
Paper Products:	
Office and Mixed Paper	913.17
Corrugated cardboard	30.66
Phone Books	0.18
Newspapers/Magazines	0.38
Scrap Metals:	
Stainless steel	1.49
Copper	16.43
Iron/Steel	491.10
Aluminum	33.89
Aluminum Cans	0.21
Lead	0.00
Zinc	0.00
Other: (see discussion below)	10.20
Precious metals:	
Silver	0.00
Gold	0.00
Platinum	0.00
Other: (see discussion below)	0.80
Other Items:	
Antifreeze	1.10
Engine oils	5.75
Toner cartridges	0.79
Batteries	5.70
Tires	0.20
Food waste	0.00
Fluorescent Bulbs	0.83
Ballasts	0.20
Glass	0.48
Plastic	0.35
Styrofoam	0.0
Transformers & OCBs	331.85
Wood (chips, compost)	0.00
*Other: (see discussion below)	304.20

Recycle Category	Quantity (mt)
***Explanation for other amounts:**	
Wood poles & crossarms	615.50
Mineral oil dielectric fluid	298.28
Wood	12.23
Porcelain/ceramic	11.65
Freon	0.12
Co-mingled Containers	1.23
Paint	0.27
Soil (land-farmed)	3.55
Solvent	0.47
Municipal Solid Waste:	
Construction and Demolition (C&D) Debris	348.39
Municipal Solid Waste (excluding C&D debris)	503.54

Electronics Recycling (# of units):										
	Computers		***Monitors***		***Printers***	***Multi-function Devices (MFD's)***	***TVs***	***Servers***	***Phones***	***PDA's[1]***
	Desktop	***Laptop***	***CRT***	***LCD***						
Transfer or Donate for Reuse:	252	0	0	222	22	0	0	115	0	113
Sent for Recycling:	243	0	0	0	11	0	0	29	0	138
Sent for Disposal (Waste-to-Energy, Landfill Facilities):	0	0	0	0	0	0	0	0	0	0

[1] iPhones, Blackberries, tablets and other mobile devices are tracked as PDA's

Other Electronics Recycling[1] (mt)	
Transfer or Donate for Reuse:	4.43
Sent for Recycling:	12.15
Sent for Disposal:	0.00

[1] Meter/ relay and communication equipment from control buildings (electronics other than PC's, monitors, laptops, and other desktop electronics)

WAPA Waste Generation Data Report for CY19

Waste Type	Routine Waste (m^3)	Cleanup/Stabilization Waste (m^3)	Total Waste (m^3)
High Level Waste	0.00	0.00	0.00
Transuranic Waste	0.00	0.00	0.00
Mixed Transuranic Waste	0.00	0.00	0.00
Low Level Waste	0.00	0.00	0.00
Mixed Low Level Waste	0.00	0.00	0.00

Waste Type	Routine Waste (mt)	Cleanup/Stabilization Waste (mt)	Total Waste (mt)
RCRA Waste	1.58	0.00	1.58
State Regulated Waste	28.40	0.00	28.40
TSCA Waste	2.22	0.00	2.22
Mixed TSCA Waste	0.00	0.00	0.00