

# Annual Site Environmental Report

*Calendar Year 2023*



**Western Area  
Power Administration**

*September 30, 2024*

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## LIST OF ABBREVIATIONS AND UNITS

<b>ACM</b>	Asbestos containing material
<b>ADEQ</b>	Arizona Department of Environmental Quality
<b>APP</b>	Avian Protection Plan
<b>ASER</b>	Annual Site Environmental Report
<b>AST</b>	Aboveground storage tank
<b>BO</b>	Biological Opinion
<b>C&amp;D</b>	Construction and Demolition
<b>CAA</b>	Clean Air Act
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act
<b>CEQ</b>	Council on Environmental Quality
<b>C.F.R.</b>	Code of Federal Regulations
<b>CO<sub>2</sub>e</b>	Carbon dioxide equivalent
<b>CRSP</b>	Colorado River Storage Project
<b>CRT</b>	Cathode Ray Tube
<b>CWA</b>	Clean Water Act
<b>CX</b>	Categorical Exclusion
<b>CY</b>	Calendar Year
<b>Docket</b>	Federal Agency Hazardous Waste Compliance Docket
<b>DSW</b>	Desert Southwest Region
<b>EA</b>	Environmental Assessments
<b>EIS</b>	Environmental Impact Statements
<b>EJ</b>	Environmental and Energy Justice
<b>EMS</b>	Environmental Management System
<b>EO</b>	Executive Order
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act
<b>ESA</b>	Endangered Species Act
<b>FFCA</b>	Federal Facilities Compliance Act
<b>FIFRA</b>	Federal Insecticide, Fungicide, and Rodenticide Act
<b>FONSI</b>	Finding of No Significant Impact
<b>FY</b>	Fiscal Year
<b>GHG</b>	Greenhouse gas
<b>HMBP</b>	Hazardous Materials Business Plan
<b>HSWA</b>	Hazardous and Solid Waste Amendments
<b>ISO</b>	International Organization for Standardization
<b>IVM</b>	Integrated Vegetation Management
<b>kV</b>	Kilovolt
<b>kWh</b>	Kilowatt-hours
<b>lb.</b>	Pound
<b>LCD</b>	Liquid crystal display
<b>m<sup>3</sup></b>	Cubic meter



<b>MBTA</b>	Migratory Bird Treaty Act
<b>MFD</b>	Multi-function devices
<b>MOU</b>	Memorandum of Understanding
<b>mt</b>	metric ton
<b>MW</b>	Monitoring well
<b>NAAQS</b>	National Ambient Air Quality Standards
<b>NEPA</b>	National Environmental Policy Act
<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>NHPA</b>	National Historic Preservation Act
<b>NMFS</b>	National Marine Fisheries Service
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NSPS</b>	New Source Performance Standards
<b>NWP</b>	Nation Wide Permit
<b>PA</b>	Programmatic Agreement
<b>PBO</b>	Programmatic Biological Opinion
<b>PC</b>	Personal Computer
<b>PCB</b>	Polychlorinated biphenyl
<b>PDA</b>	Personal digital assistant
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>Reclamation</b>	United States Bureau of Reclamation
<b>RM</b>	Rocky Mountain Region
<b>ROD</b>	Record of Decision
<b>SARA</b>	Superfund Amendments and Reauthorization Act
<b>SF<sub>6</sub></b>	Sulfur hexafluoride
<b>SHPO</b>	State Historic Preservation Officer
<b>SIP</b>	State Implementation Plan
<b>SN</b>	Sierra Nevada Region
<b>SPCC Plans</b>	Spill Prevention, Control, and Countermeasure Plans
<b>SPUT</b>	Special Purpose Utility
<b>SWMP</b>	Stormwater Management Plan
<b>SWPPP</b>	Stormwater Pollution Prevention Plan
<b>T&amp;E</b>	Threatened and Endangered
<b>TSCA</b>	Toxic Substances Control Act
<b>TV</b>	Television
<b>U.S. DOE</b>	United States Department of Energy
<b>U.S. EPA</b>	United States Environmental Protection Agency
<b>U.S. FWS</b>	United States Fish and Wildlife Service
<b>UGP</b>	Upper Great Plains Region
<b>USACE</b>	United States Army Corps of Engineers
<b>UST</b>	Underground storage tank
<b>VOC</b>	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 2023 (CY23) summarizes the accomplishments of Western Area Power Administration (WAPA) and provides the status of its environmental program.

WAPA complies fully with regulations from the Council on Environmental Quality (CEQ) and prepares National Environmental Policy Act (NEPA) documentation to assess the environmental impacts of its planned actions. In CY23, WAPA worked on or completed 69 categorical exclusions (CXs), 23 environmental assessments (EAs), 2 findings of no significant impact (FONSI), 2 environmental impact statements (EISs), and no records of decision (ROD). Under the Endangered Species Act (ESA), WAPA worked on or completed 11 Section 7 consultations in CY23.

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 CY23, WAPA had 156 SPCC Plans in place across 13 States.

In CY23, WAPA's total SF6 emissions were 757 pounds (lbs), or 8,895-tons (8,069 mt) of carbon dioxide equivalent (CO2e). The total nameplate capacity at the end of CY23 was 249,348 lbs. The leakage rate is 757 lbs/249,348 lbs or .3%.

## 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 17,293 circuit-mile, high-voltage transmission system that includes 325 substations and various other power facilities within its service territory.<sup>1</sup> WAPA markets hydroelectric power generated at 57 plants<sup>1</sup> 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 (IBWC).

Annually, WAPA markets and delivers more than 25,000 gigawatt-hours of reliable, cost-based hydropower. WAPA's approximately 700 wholesale power customers,<sup>1</sup> then provide service to more than 40 million Americans. 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 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 Regional Offices located in Billings, Montana (Upper Great Plains [UGP] Region); Phoenix, Arizona (Desert Southwest [DSW] Region); Loveland, Colorado (Rocky Mountain Region [RMR]); Folsom, California (Sierra Nevada Region [SNR]); and the Colorado River Storage Project Management Center (CRSP MC), in Montrose, Colorado, 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 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 operations and maintenance of electrical equipment, warehouses, 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 conduct business in an efficient, environmentally sustainable, and economically sound manner, by using effective environmental planning to avoid, minimize, or mitigate environmental impacts.

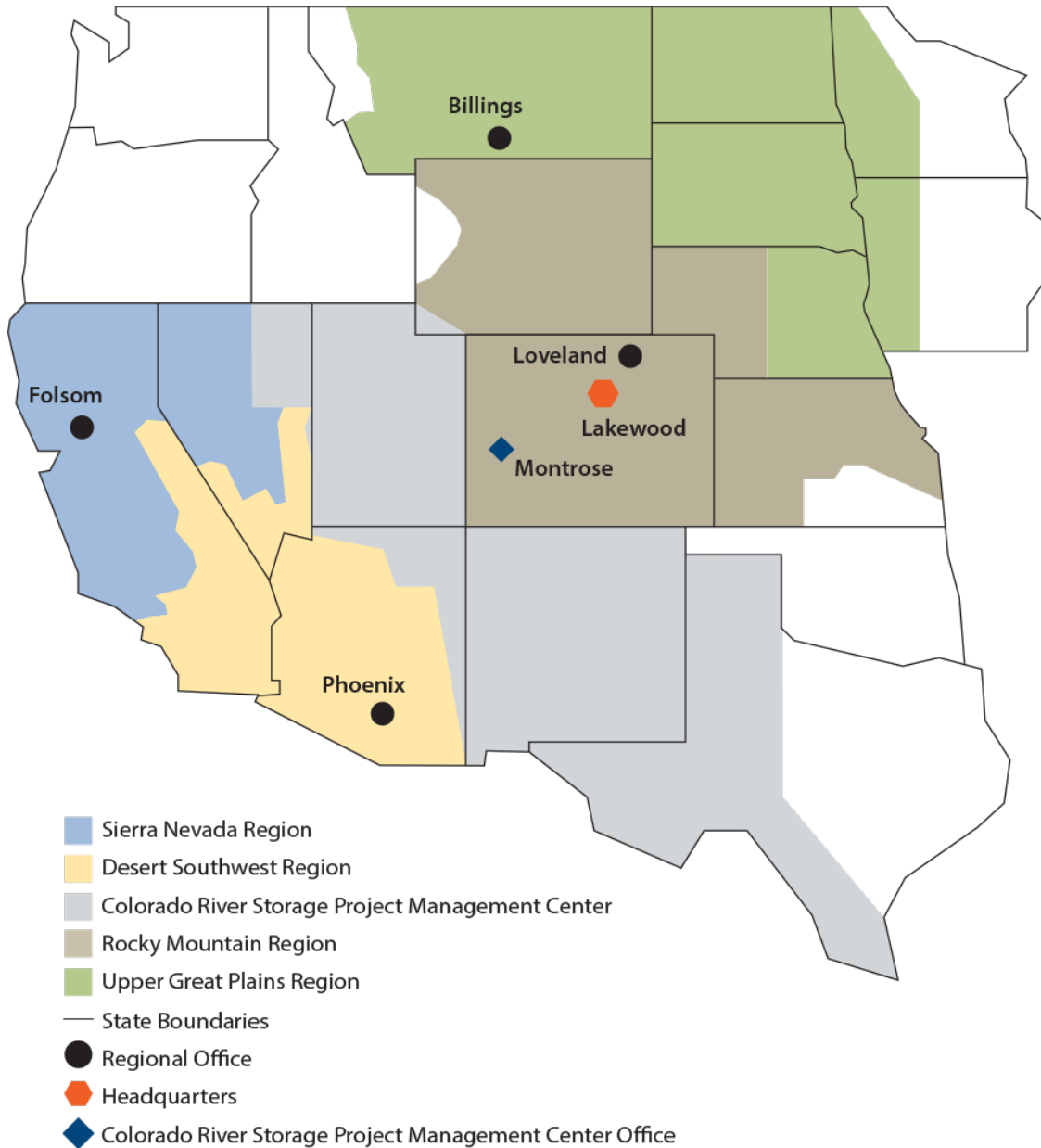
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<sup>1</sup> Data from WAPA's FY 2022 Statistical Appendix (<https://www.wapa.gov/wp-content/uploads/2023/11/22-StatisticalAppendix-.pdf>)



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

This CY23 ASER 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 CY23.

### **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 CY23, WAPA submitted Tier II reports for 290 facilities (see Appendix B). Of these facilities, 31 are 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 registration/permit required USTs, located at the following facilities:

- Two USTs at the Watertown Operations and Aux Control facility located in Watertown, South Dakota.
- Two USTs at the Phoenix Campus Offices located in Phoenix, Arizona; and
- One 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 CY23, WAPA continued recycling materials from its facilities under the Universal Waste Rule. WAPA increased its 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. Small leaks and drips around oil-filled equipment are cleaned up, as needed. Wastes generated from spills are either recycled or disposed of in a landfill or in a RCRA-permitted facility.

In CY23 there were two transformer leaks. The Casa Grande Substation, Arizona; had a contained leak of approx. 125 gallons. Ault (AU) Substation, Colorado; had a contained leak of approx. 275 gallons. In both cases, contracted gravel and oil removal was executed with no further action required.

In CY21, an agreement between Arizona Department of Environmental Quality (ADEQ) and WAPA, WAPA agreed to perform work on a Remedial Investigation at the Phoenix Area Operations and Maintenance Complex (PAO), which is located within West Van Buren Area site. Two quarterly monitoring events for the PAO were performed July of 2022 to fulfil ADEQ concern. As of the publication of this report WAPA is still waiting on ADEQ to approve the PAO Remedial Investigation draft report, before Public Review.

### **Toxic Substances Control Act (TSCA)**

The TSCA regulations prohibit the manufacture, processing, and distribution of PCBs 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.

In CY23, WAPA collected and analyzed several samples for lead paint and PCB's. Sample presence for lead paint and PCBs in facilities are consolidated in *Table 2*.

Low-level PCB-impacted oils are burned for energy recovery at U.S. EPA-permitted facilities or are chemically treated and recycled. Oils with higher concentrations of PCB's are disposed of at U.S. EPA-permitted incinerators. Impacted equipment carcasses are decontaminated and sold as scrap when possible. Items too heavily impacted for recycling as scrap are disposed of at permitted PCB waste landfills or incinerators. WAPA recorded of 0 mt of PCB-impacted wastes (equipment, debris, and soil) in CY23.

### **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 manuals for implementation of FIFRA: the “Integrated Vegetation Management (IVM) Environmental Guidance Manual” and the “Pest Control Manual.” WAPA’s IVM program de-emphasizes the exclusive use of chemical control and promotes the use of biological, cultural and physical tools to control unwanted vegetation and minimize economic, health, and environmental risks.

**Federal Facilities Compliance Act (FFCA)**

The FFCA authorizes 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 CY23.

**National Environmental Policy Act (NEPA)**

NEPA requires Federal agencies to integrate consideration of environmental values planning and decision making. The NEPA process is intended to inform the public and decisionmakers about the potential impacts on the human environment of proposed actions and alternatives and ultimately foster better decisions. NEPA documentation includes CXs, EAs, FONSI, EISs, and RODs. A summary of WAPA’s NEPA actions between CY19 and CY23 is as follows:

*Table 1: Summary of NEPA Actions (CY19 – CY23)*

NEPA Action	CY23	CY22	CY21	CY20	CY19
CXs completed	69	107	122	130	106
EAs completed/in progress	23	18	14	19	6
FONSI issued	2	4	6	7	2
EISs completed/in progress	1	3	4	6	4
RODs issued	0	1	3	1	1

**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 “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 via alternative fuels.



## Asbestos

In CY23, WAPA sampled for asbestos-containing material (ACM) in three regions: DSW, SNR and RMR. DSW conducted asbestos surveys at PAD 69kV substation with SNR conducting sampling at two sites at the Elverta Substation in CY23. Asbestos was found at all three locations. Remediation is planned for the 69kV Bldg. In CY2023, RMR sampled 18 facilities for Asbestos Containing Material (ACM), Lead Based Paint (LBP), Lead Containing Paint (LCP), and PCB's asbestos. Results from DSW, SNR and RMR sampling activities are shown below.

**Table 2: WAPA CY23 Environmental Sampling**

Region	Facility	ACM	LBP	LCP	PCB
DSW	PAD 69kV Bldg.	X			
SNR	Elverta Maintenance Facility	X			
SNR	Elverta Substation	X			
RMR	Beaver Creek Non-Flammable Storage	X			
RMR	Beaver Creek Garage	X			
RMR	Beaver Creek Control Bldg.	X	X	X	X
RMR	Beaver Creek Service Bldg.	X	X	X	
RMR	Beaver Creek Storage	X	X	X	
RMR	Beaver Creek Shop Storage		X	X	
RMR	Bridgeport Service Bldg.			X	
RMR	Cheyenne Substation - Cheyenne Shop & Storage Bldg.	X			X
RMR	Cheyenne Substation - Butler Bldg.	X			
RMR	Cheyenne Substation - Cheyenne East Garage	X	X		
RMR	Cheyenne Substation - Cheyenne Microwave	X	X		
RMR	Dunlap Service Bldg		X	X	X
RMR	Horse Heaven Microwave Bldg			X	X
RMR	Heart Mountain Control House		X	X	X
RMR	Lyman Control Bldg		X	X	
RMR	Speer Microwave Bldg.			X	
RMR	Torrington Control Blg			X	X
RMR	Yellowtail Storage Bldg.		X	X	X

## VOCs

WAPA has fuel dispensing facilities at multiple locations throughout its service territory that may 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.

## GHGs

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 the Watertown Operations Center, South Dakota, contains a halon-based fire suppression system.

WAPA currently uses approximately 2,300 sulfur hexafluoride (SF<sub>6</sub>) gas-insulated equipment. In CY23, WAPA continued evaluating equipment to locate leaks and either immediately repair them, or schedule repairs or replacement. Processes have been developed to track the amount of released SF<sub>6</sub> gas to the atmosphere from WAPA's equipment.

WAPA prepares an annual SF<sub>6</sub> emissions reduction report that is submitted electronically to the U.S. EPA. In CY23, WAPA's total SF<sub>6</sub> emissions were 757 pounds (lbs), or 8,895-tons (8,069 mt) of carbon dioxide equivalent (CO<sub>2</sub>e). The total nameplate capacity at the end of CY23 was 249,348 lbs. The leakage rate is 757 lbs/249,348 lbs or .3%.

### **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 above statutory thresholds that could potentially impact waters of the United States if a spill occurred. 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 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 years for existing applicable facilities or within 6-months of any facility changes that would affect the potential to release oil. In CY23, WAPA had 156 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.

### **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 jeopardize the continued existence of threatened and endangered (T&E) species. Section 7 of the ESA requires Federal agencies to determine if their actions may affect listed species or critical habitat. If a potential effect is determined, then the agency must consult with the U.S. Fish and Wildlife Service (U.S. FWS) or the National Marine Fisheries Service (NMFS), whichever is appropriate. In CY23, WAPA

worked on or completed 11 Section 7 consultations under the ESA, with one biological opinion (BO) issued. WAPA currently has eight Programmatic BOs (PBOs) in place, with one PBO revised in CY23.

### **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 1,093 species (as of March 2020) and 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 voluntarily performing actions benefiting bird populations in general. WAPA received a Special Purpose Utility (SPUT) permit from the U.S. FWS that covers the entire agency. In addition to a Federal SPUT permit, 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. WAPA also continues to survey for active bird nests prior to work and implements appropriate buffer distances, as necessary.

WAPA completes annual reporting of known bird injuries/mortalities to U.S. FWS. DSW reported an adult great horned owl was found dead in barbed wire on top of chain link fencing at Liberty Substation in July 2023. Additionally, 3 juvenile great horned owls were relocated from Valley Farms Substation by wildlife rehabilitation organization, Wild at Heart, in April 2023. UGP reported an unoccupied osprey nest on a communication tower that was successfully removed. Bird flight diverters were installed near Oahe Dam due to the discovery of 7 dead birds and 2 Canada geese near this location.

### **National Historic Preservation Act (NHPA), Section 106**

All Federal agencies have responsibilities under the NHPA of 1966, as amended. Under Section 106 of the NHPA, all Federal agencies are required to consider effects of their undertakings on historic properties (as defined at 36 C.F.R. Part 800.16(y)) during agency project planning. Cultural resources include, but are not limited to buildings, sites, structures, or objects, such as prehistoric and historic archaeological materials and sites located on or below the ground surface; historic buildings or structures; cultural and natural places; landscapes, and sacred objects important to a group or groups of Native Americans. A compliance process for Section 106 was established by the Advisory Council on Historic Preservation (ACHP; 36 C.F.R. Part 800), with most of the consultation process delegated to the State Historic Preservation Officers (SHPOs). Section 106 of the NHPA requires that an agency consider the effects of its actions on significant cultural resources (historic properties); makes a reasonable and good faith effort to identify historic properties; consult with potentially affected Native American tribes or other parties; make findings of effect, and avoid, minimize, or resolve any adverse effects their actions may have on historic properties.



WAPA complies with Section 106 by performing cultural and historical resource inventories for all undertakings where no previous survey has occurred, to include undertakings such as land transfers, disposals, demolitions, construction, maintenance, vegetation removal, and interconnection projects. These inventories include record searches for previously identified resources, Native American consultation, and where necessary, on-site surveys. In CY23, WAPA had several undertakings that resulted in 186 case-by-case Section 106 consultations and coordination with numerous tribes as part of WAPA's cultural resources compliance. Consultations vary in complexity and level of consultation, some resulting in virtual or face-to-face meetings, numerous letters, phone calls, emails, etc., and involve a few to numerous consulting parties. For WAPA's regions that have PAs, consultations are carried out annually as required in the programmatic agreements (PA), except under certain circumstances where case-by-case, project-specific consultation is required. Typically, these would be projects that have the potential to adversely affect historic properties. In maintenance work areas where significant cultural resources are identified, WAPA's regional archaeologist, or archaeological contractor, monitors work to ensure that historic properties are not adversely affected. Depending on the property type and interest, WAPA has employed Native American monitors as well. When an adverse effect cannot be avoided WAPA either develops a memorandum of agreement (MOA) or a historic property treatment plan (HPTP) if specified in the appropriate PA. MOAs and HPTPs are developed in consultation with ACHP, SHPOs, Native American tribes and interested parties to resolve the adverse effects.

In Arizona, California, Colorado, Nebraska, Nevada, New Mexico, Utah, and Wyoming, WAPA and the respective SHPO's have agreed on Section 106 measures for program-specific routine maintenance and vegetation removal activities through PAs. These PA's streamline the consultation process for certain projects that are not likely to adversely affect historic properties, but some PAs also allow for the development of HPTPs for undertakings that may cause adverse effects to historic properties. On large-scale non-maintenance related projects, WAPA, SHPOs, ACHP, Native American tribes, and other interested parties enter project-specific PAs that stipulate the processes to follow during the undertaking for compliance with Section 106, other federal cultural resources laws, and federal and state burial laws. WAPA reported no major issues in CY23.

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

Under U.S. DOE Floodplain and Wetland Regulations (10 C.F.R. Part 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 CY23, WAPA did not conduct any floodplain or wetland evaluations outside of the NEPA review process.

### **Executive Order 14057 "Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability"**

EO 14057 affirms, "that it is the policy of the United States that the Federal Government leads by example to achieve a carbon pollution-free electricity sector by 2035 and net-zero emissions economy-wide by no later than 2050. Through a whole-of-government approach, the United States will demonstrate how innovation and environmental stewardship can protect our planet, safeguard

Federal investments against the effects of climate change, respond to the needs of all of America's communities, and expand American technologies, industries, and jobs.”

In CY23 WAPA established the Sustainability Leadership Implementation Committee to support WAPA strategic planning and implementation of sustainable actions. The Committee is tasked with Identifying and implementing WAPA’s priority sustainability targets for electrification of the vehicle fleet, greenhouse gas emission reduction and sustainability in building design and operations.

### **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 to fulfill the requirements of DOE Order 436.1 and International Organization for Standardization’s (ISO) 14001.

In CY23, as part of DOE Order 436.1, “Departmental Sustainability,” WAPA implemented a strategy to update its EMS program to reflect existing DOE guidance in achieving sustainability goals.

### **Self-Assessments or Audits**

WAPA has an established environmental auditing and inspection program. The auditing and inspection program is included in the strategy for the CY23 EMS update to ensure WAPA is in conformance with existing DOE EMS audit standards.

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

### **Environmental and Energy Justice Community Outreach**

President Biden's Administration has taken many necessary steps related to Environmental and Energy Justice (EJ). Among those steps is developing a new, more descriptive definition of EJ in the United States. In EO 14096, the administration defined as the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, tribal affiliation, or disability, in agency decision-making and other federal activities that affect human health and the environment so that people:

- 1) are fully protected from disproportionate and adverse human health and environmental effects (including risks), and hazards, including those related to climate change, the cumulative



impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and

- 2) have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

In CY23, WAPA provided assistance regarding the Open Access Transmission Tariff (OATT) procedures, including assisting Tribes in navigating the process to interconnect generation projects to the WAPA transmission system. WAPA engaged with the Tribes in its service territory on several different projects.

In May 2023, WAPA's Administrator and CEO met with Tribal leaders to initiate a Tribal consultation and solicit comments on the Southwest Power Pool Regional Transmission Operator initiative. WAPA received three Tribal comment letters as part of the Tribal comment process and three as part of the Federal Register Notice comment process (six letters total). Additionally, WAPA's Upper Great Plains Region and Rocky Mountain Region continue to work with the Crow tribe on development of a hydro facility on the Bureau of Reclamation's Yellowtail afterbay. WAPA continues to consult with Tribes across its Service Territory to collect input on a variety of projects and as requested.



## 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 is listed in Appendix A of this document. The table below summarizes WAPA permits by type and number from CY21 – CY23.

**Table 3: Number of Permits by Type (CY21 – CY23)**

Type of Permit	CY23	CY22	CY21
404 Permit (Clean Water Act)	2	5	5
Air Quality	13	10	10
FIFRA	1	1	1
Fuel Dispensing	0	1	1
Hazardous Materials / Hazardous Waste	36	36	36
Hazardous Waste Transportation	0	0	0
NPDES Permits (Clean Water Act)	1	1	1
Underground Storage Tanks	5	5	5
Water Quality	1	3	4
<b>Total</b>	<b>59</b>	<b>62</b>	<b>63</b>

## Waste Minimization, Pollution Prevention, and Affirmative Procurement

### PCB Waste

Since its creation in 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 CY23, WAPA disposed of 0-mt of PCB-contaminated waste.



## APPENDIX A: WAPA PERMITS

PERMIT TYPE	PERMIT NAME	ISSUING AGENCY	EXPIRATION DATE
404 Permit (CWA)	Section 404 Permit (under NWP 13, Bank Stabilization) 2020-01503-WEH Grande Prairie-Grand Island 345kV Transmission Line	USACE, Omaha District	3/18/2023
404 Permit (CWA)	Section 404 Permit (under NWP 14, non-notifying) – Whiskeytown Road Repairs	USACE, Sacramento District	3/18/2023
Air Quality	Air Quality Permit – Phoenix	Maricopa County, Arizona	Annually
Air Quality	Air Quality Permit To Operate - Emergency Generator/Natural Gas Pressure Washer	Maricopa County, Arizona	Annually
Air Quality	Dust Control Block Permit – Maricopa County	Maricopa County, Arizona	Annually
Air Quality	Dust Control Block Permit – West Pinal	Pinal County, Arizona	Annually
Air Quality	Fugitive Dust Activity Permit – Pima County	Pima County, Arizona	Annually
Air Quality	Dust Control Block Permit – East Pinal	Pinal County, Arizona	Annually
Air Quality	Air Quality Permit – Elverta Maintenance Facility ACC Emergency Generator	Sacramento Metropolitan Air Quality Management District, California	Annually
Air Quality	Air Quality Permit - Elverta Microwave Facility Emergency Generator	Sacramento Metropolitan Air Quality Management District, California	Annually
Air Quality	Air Quality Permit – Sacramento Power Operations Emergency Generator	Sacramento Metropolitan Air Quality Management District, California	Annually
Air Quality	Air Quality Permit - Maxwell Substation Emergency Generator	Colusa County Air Pollution Control District	Annually
Air Quality	Air Quality Permit – O’Banion Substation Emergency Generator	Feather River Air Quality	Annually



PERMIT TYPE	PERMIT NAME	ISSUING AGENCY	EXPIRATION DATE
Air Quality	Facility Permit – Elverta Maintenance Facility (Fuel Dispensing)	Sacramento Metropolitan Air Quality Management District	Annually
Air Quality	Air Quality Permit - Redding Maintenance Facility Emergency Generator	Shasta County Air Quality Management District	Annually
FIFRA	San Bernardino Pesticide Permit	San Bernardino County	Annually
Hazardous Materials / Hazardous Waste	Amargosa Substation Waste Management Permit	Southern Nevada Health District	Annually
Hazardous Materials / Hazardous Waste	Amargosa Substations Hazardous Materials Storage Permit	Nevada State Fire Marshall	Annually
Hazardous Materials / Hazardous Waste	Hazardous Materials Business Plans (separate permits for 31 facilities)	Various California Counties, California Certified Unified Program Agency	Annually
Hazardous Materials / Hazardous Waste	Henderson Substation Hazardous Materials Storage Permit	Nevada State Fire Marshall	Annually
Hazardous Materials / Hazardous Waste	Mead Substation Hazardous Materials Storage Permit	Nevada State Fire Marshall	Annually
Hazardous Materials / Hazardous Waste	Mead Substation Waste Management Permit	Southern Nevada Health District	Annually
Migratory Bird Treaty Act	Special Purpose Utility Permit	US Fish and Wildlife Service	March 2026
NPDES (CWA)	Mead Substation Annual General Water Permit	Nevada Division of Environmental Protection: Bureau of Water Pollution Control	Annually
UST	Diesel Tank for Backup Generator	Colorado Department of Labor and Employment: Division of Oil and Public Safety	Annually
UST	Diesel Tank for Backup Generator	Loveland Fire Rescue Authority	Annually



PERMIT TYPE	PERMIT NAME	ISSUING AGENCY	EXPIRATION DATE
UST	Notification for UST - Watertown Alternate Operations Center	South Dakota Department of Environment and Natural Resources: Ground Water Quality Program: Storage Tanks Section	Annually
UST	Notification for UST - Watertown Main Operations Center	South Dakota Department of Environment and Natural Resources: Ground Water Quality Program: Storage Tanks Section	Annually
UST	Underground Storage Tank (x2)	ADEQ	Annually
Water Quality	Section 401 Water Quality Cert – Whiskeytown Road Repairs	Central Valley Regional Water Quality Control Board	10/29/2025



**APPENDIX B: WAPA SARA TIER II-HMBP**

Facility Name	State	County	CY2023 Tier II/HMBP
Coolidge Substation	AZ	Pinal	Tier II
Davis Dam Substation	AZ	Mohave	Tier II
ED-2 Substation	AZ	Pinal	Tier II
Gila Substation	AZ	Yuma	Tier II
Glen Canyon Substation	AZ	Coconino	Tier II
Griffith Substation	AZ	Mohave	Tier II
Harcuvar Substation	AZ	La Paz	Tier II
Headgate Rock Substation	AZ	La Paz	Tier II
Kayenta Substation	AZ	Navajo	Tier II
Liberty Substation	AZ	Maricopa	Tier II
Lone Butte Substation	AZ	Maricopa	Tier II
McConinico Substation	AZ	Mohave	Tier II
Nogales Substation	AZ	Pima	Tier II
North Havasu Substation	AZ	Mohave	Tier II
Oracle Substation	AZ	Pinal	Tier II
Peacock Substation	AZ	Mohave	Tier II
Phoenix Operations and Maintenance Facility	AZ	Maricopa	Tier II
Pinnacle Peak Substation	AZ	Maricopa	Tier II
Prescott Substation	AZ	Yavapai	Tier II
Rattle Snake Substation	AZ	Pima	Tier II
Signal Substation	AZ	Pinal	Tier II
Sonara Substation	AZ	Yuma	Tier II
Sundance Substation	AZ	Pinal	Tier II
Test Track Substation	AZ	Pinal	Tier II
Topock Substation	AZ	Mohave	Tier II
Tucson Substation	AZ	Pima	Tier II
Welton-Mohawk	AZ	Yuma	Tier II
Airport Substation	CA	Shasta	HMBP
Blythe Substation	CA	Riverside	HMBP
Buck Boulevard Substation	CA	Riverside	HMBP
Carr Substation	CA	Shasta	HMBP
Corning Substation	CA	Tehama	HMBP
Coyote Substation	CA	Santa Clara	HMBP
Elverta Maintenance Facility	CA	Sacramento	HMBP
Elverta Substation	CA	Sacramento	HMBP



Facility Name	State	County	CY2023 Tier II/HMBP
Folsom Substation	CA	Sacramento	HMBP
Keswick Substation	CA	Shasta	HMBP
Knob Substation	CA	Imperial	HMBP
Lawrence Livermore Substation	CA	Alameda	HMBP
Manzanita Lake Microwave Facility	CA	Shasta	HMBP
Maxwell Substation	CA	Colusa	HMBP
New Melones Substation	CA	Calaveras	HMBP
O'Banion Substation	CA	Sutter	HMBP
O'Neill Substation	CA	Merced	HMBP
Olinda Substation	CA	Shasta	HMBP
Pacheco Substation	CA	Merced	HMBP
Parker Dam 69-kV Switchyard; 161-kV Switchyard (upper and lower); 230-kV Switchyard	CA	San Bernardino	HMBP
Pleasant Valley Substation	CA	Fresno	HMBP
Redding Maintenance Facility	CA	Shasta	HMBP
Roseville Substation	CA	Placer	HMBP
Sacramento Power Operations Facility/Substation	CA	Sacramento	HMBP
Shasta Substation	CA	Shasta	HMBP
Sites Microwave Facility	CA	Colusa	HMBP
Southfork Microwave Facility	CA	Shasta	HMBP
Tracy Substation and Maintenance Facility	CA	Alameda	HMBP
Trinity Substation	CA	Trinity	HMBP
Weaverville Substation	CA	Shasta	HMBP
Whiskeytown Substation	CA	Shasta	HMBP
Animas River Substation	CO	LaPlata	Tier II
Ault Substation	CO	Weld	Tier II
Bald Mountain Microwave	CO	Larimer	Tier II
Bears Ears Substation	CO	Moffat	Tier II
Blue Mesa Substation	CO	Gunnison	Tier II
Brighton Substation	CO	Weld	Tier II
Brush Maintenance Office and Beaver Creek Substation	CO	Morgan	Tier II
Brush Substation	CO	Morgan	Tier II
Cathedral Bluff Microwave	CO	Rio Blanco	Tier II
Curecanti Substation	CO	Montrose	Tier II



Facility Name	State	County	CY2023 Tier II/HMBP
Deer Peak Microwave	CO	Custer	Tier II
Derby Hill Substation	CO	Larimer	Tier II
Dove Creek Pumping Plant Substation	CO	Dolores	Tier II
Estes Substation	CO	Larimer	Tier II
Flatiron Substation	CO	Larimer	Tier II
Fleming Substation	CO	Logan	Tier II
Fort Morgan West Substation	CO	Morgan	Tier II
Frenchman Creek Substation	CO	Phillips	Tier II
Granby (Farr) Pumping Plant Switchyard	CO	Grand	Tier II
Granby Substation	CO	Grand	Tier II
Great Cut Pumping Plant Substation	CO	Montezuma	Tier II
Haxtun Substation	CO	Phillips	Tier II
Hayden Substation	CO	Routt	Tier II
Holyoke Substation	CO	Phillips	Tier II
Hoyt Substation	CO	Morgan	Tier II
Hygiene Substation	CO	Boulder	Tier II
Island Lake Microwave Site	CO	Mesa	Tier II
Julesburg Substation	CO	Sedgwick	Tier II
Kersey West Switching Station	CO	Weld	Tier II
Kiowa Creek Substation	CO	Morgan	Tier II
Kremmling Substation	CO	Grand	Tier II
Limon Substation	CO	Lincoln	Tier II
Magnetic Mountain Microwave	CO	Rio Blanco	Tier II
Midway Substation	CO	El Paso	Tier II
Montrose Maintenance Office	CO	Montrose	Tier II
North Park Substation	CO	Jackson	Tier II
Nunn Substation	CO	Weld	Tier II
Pole Hill Substation	CO	Larimer	Tier II
Poncha Springs Substation	CO	Chaffee	Tier II
Poudre Substation	CO	Larimer	Tier II
Prospect Valley Substation	CO	Weld	Tier II
Rifle Substation	CO	Garfield	Tier II
Rocky Mountain Region - Power Marketing and Operations Center (Loveland)	CO	Larimer	Tier II
Salida Substation	CO	Chaffee	Tier II
Sheeps Knob Microwave Site	CO	Montrose	Tier II
Sterling Substation	CO	Logan	Tier II



Facility Name	State	County	CY2023 Tier II/HMBP
Wauneta Substation	CO	Yuma	Tier II
Weld Substation	CO	Weld	Tier II
Wiggins Substation	CO	Morgan	Tier II
Wildhorse Creek Substation	CO	Logan	Tier II
Willoby Substation	CO	Weld	Tier II
Willow Creek Pumping Plant Switchyard	CO	Grand	Tier II
Woodrow Substation	CO	Washington	Tier II
Wray Substation	CO	Yuma	Tier II
Yuma Substation	CO	Yuma	Tier II
Creston Substation	IA	Union	Tier II
Dennison Substation	IA	Crawford	Tier II
Sioux City (230-kV yard) Substation	IA	Plymouth	Tier II
Sioux City (345-kV yard) Substation	IA	Plymouth	Tier II
Spencer Substation	IA	Clay	Tier II
Appledorn Substation	MN	Lac Qui Parle	Tier II
Granite Falls Substation	MN	Chippewa	Tier II
Morris Repeater	MN	Stevens	Tier II
Morris Substation	MN	Stevens	Tier II
Bole Substation	MT	Teton	Tier II
Circle Substation	MT	McCone	Tier II
Conrad Substation	MT	Ponder	Tier II
Crossover Substation	MT	Big Horn	Tier II
Custer Substation	MT	Yellowstone	Tier II
Dawson County Substation	MT	Dawson	Tier II
Fallon Pump	MT	Prairie	Tier II
Glendive Substation	MT	Dawson	Tier II
Great Falls Substation	MT	Cascade	Tier II
Havre Substation	MT	Hill	Tier II
Miles City 1 Substation	MT	Custer	Tier II
Miles City 2 Substation	MT	Custer	Tier II
Miles City 4 Substation (Miles City Converter)	MT	Custer	Tier II
O'Fallon Creek Substation	MT	Prairie	Tier II
Richland Substation	MT	Richland	Tier II
Rudyard Substation	MT	Hill	Tier II
Shelby Substation	MT	Toole	Tier II
Shelby Substation #2	MT	Toole	Tier II
Shirley Pump Substation	MT	Custer	Tier II



Facility Name	State	County	CY2023 Tier II/HMBP
Terry Tap	MT	Prairie	Tier II
Tiber Dam Substation	MT	Liberty	Tier II
Wolf Point Substation	MT	Roosevelt	Tier II
Yellowtail Substation	MT	Big Horn	Tier II
Belfield Substation	ND	Stark	Tier II
Bisbee Substation	ND	Towner	Tier II
Bismarck Admin Building	ND	Burleigh	Tier II
Bismarck Repeater	ND	Burleigh	Tier II
Bismarck Substation	ND	Burleigh	Tier II
Bismarck Warehouse	ND	Burleigh	Tier II
Brinsmade Microwave	ND	Benson	Tier II
Cahoon Repeater	ND	Oliver	Tier II
Carrington Substation	ND	Foster	Tier II
Custer Lookout	ND	Morton	Tier II
Custer Trail Substation	ND	Morton	Tier II
DeVaul Substation	ND	Grant	Tier II
Devils Lake Fiber Regen	ND	Ramsey	Tier II
Devils Lake Microwave	ND	Ramsey	Tier II
Devils Lake Substation	ND	Ramsey	Tier II
Dogden Butte	ND	McLean	Tier II
Edgeley Substation	ND	LaMoure	Tier II
Elliot Substation	ND	Ransom	Tier II
Fargo Substation	ND	Cass	Tier II
Forman Substation	ND	Sargent	Tier II
Fryburg Microwave	ND	Billings	Tier II
Grand Forks	ND	Grand Forks	Tier II
Gwinner Microwave	ND	Sargent	Tier II
Hailstone Butte Repeater	ND	Morton	Tier II
Hebron Switching Station	ND	Morton	Tier II
Hilken Switching Station	ND	Burleigh	Tier II
Jamestown Substation	ND	Stutsman	Tier II
Killdeer Repeater	ND	Dunn	Tier II
Killdeer Substation	ND	Dunn	Tier II
Lakota Substation	ND	Nelson	Tier II
Leeds Substation	ND	Benson	Tier II
Lefor Microwave	ND	Stark	Tier II

Facility Name	State	County	CY2023 Tier II/HMBP
Nelson Tap	ND	McLean	Tier II
Rugby Repeater	ND	Pierce	Tier II
Rugby Substation	ND	Pierce	Tier II
Rutland Microwave	ND	Sargent	Tier II
Sentinel Butte Microwave	ND	Golden Valley	Tier II
Snake Creek Substation	ND	McLean	Tier II
Tappen Regeneration	ND	Kidder	Tier II
Towner Switching Station	ND	Towner	Tier II
Valley City Substation	ND	Barnes	Tier II
Ward Substation	ND	Burleigh	Tier II
Washburn Substation	ND	McLean	Tier II
Watford City Substation	ND	McKenzie	Tier II
Williston 2 Substation	ND	Williams	Tier II
Williston Substation	ND	Williams	Tier II
Alliance Substation	NE	Box Butte	Tier II
Bridgeport Substation	NE	Morrill	Tier II
Chadron Substation	NE	Dawes	Tier II
Chappell Substation	NE	Deuel	Tier II
Dunlap Substation	NE	Dawes	Tier II
Gering Substation and Maintenance Facility	NE	Scotts Bluff	Tier II
Grand Island Substation	NE	Merrick	Tier II
Grand Prairie Switching Yard	NE	Holt	Tier II
Kimball Substation	NE	Kimball	Tier II
Ogallala Substation	NE	Keith	Tier II
Sidney Substation	NE	Cheyenne	Tier II
Stegall Substation	NE	Scotts Bluff	Tier II
Virginia Smith Converter Station	NE	Cheyenne	Tier II
Shiprock Substation	NM	San Juan	Tier II
Waterflow Substation	NM	San Juan	Tier II
Amargosa Substation	NV	Clark	Tier II
Henderson Switchyard	NV	Clark	Tier II
Mead Substation	NV	Clark	Tier II
Armour Substation	SD	Charles-Mix	Tier II
Beresford Substation	SD	Union	Tier II
Bonesteel Substation	SD	Gregory	Tier II
Brookings Substation	SD	Brookings	Tier II
Campell County Switching Yard	SD	Campbell	Tier II



Facility Name	State	County	CY2023 Tier II/HMBP
Carpenter Substation	SD	Beadle	Tier II
Eagle Butte Substation	SD	Ziebach	Tier II
Ellsworth Air Force Base Substation	SD	Pennington	Tier II
Faith Substation	SD	Meade	Tier II
Flandreau Substation	SD	Moody	Tier II
Fort Thompson Substation	SD	Buffalo	Tier II
Glenham Comm Site	SD	Campbell	Tier II
Gregory Substation	SD	Gregory	Tier II
Groton Substation	SD	Brown	Tier II
Huron Substation	SD	Beadle	Tier II
Irv Simmons Substation	SD	Stanley	Tier II
Letcher Substation	SD	Davidson	Tier II
Martin Substation	SD	Bennett	Tier II
Maurine Substation	SD	Meade	Tier II
Midland Substation	SD	Haakon	Tier II
Mission Substation	SD	Todd	Tier II
Mount Vernon Substation	SD	Davison	Tier II
New Underwood Substation	SD	Pennington	Tier II
Newell Substation	SD	Meade	Tier II
Philip Substation	SD	Haakon	Tier II
Pierre Substation	SD	Hughes	Tier II
Rapid City Substation	SD	Pennington	Tier II
Sioux Falls Substation	SD	Minnehaha	Tier II
Summit Substation	SD	Roberts	Tier II
Tyndall Substation	SD	Bon Homme	Tier II
Utica Junction	SD	Yankton	Tier II
Wall Substation	SD	Pennington	Tier II
Watertown 345-kV Yard	SD	Codington	Tier II
Watertown Substation (Static Var)	SD	Codington	Tier II
Watertown Substation 115/230-kV	SD	Codington	Tier II
White Substation	SD	Brookings	Tier II
Wicksville Substation	SD	Pennington	Tier II
Winner Substation	SD	Tripp	Tier II
Witten Substation	SD	Tripp	Tier II
Woonsocket Substation	SD	Jerauld	Tier II
Cliff Ridge Microwave	UT	Uintah	Tier II
Flaming Gorge Switchyard	UT	Daggett	Tier II



Facility Name	State	County	CY2023 Tier II/HMBP
Tyzack Substation	UT	Uintah	Tier II
Vernal Substation	UT	Uintah	Tier II
Alcova Switchyard	WY	Natrona	Tier II
Archer Substation	WY	Laramie	Tier II
Badwater Substation	WY	Fremont	Tier II
Basin Substation	WY	Big Horn	Tier II
Big George Substation	WY	Park	Tier II
Boysen Substation	WY	Fremont	Tier II
Buffalo Head Switching Station	WY	Natrona	Tier II
Casper Field Office	WY	Natrona	Tier II
Casper Mountain Microwave Site	WY	Natrona	Tier II
Casper Substation	WY	Natrona	Tier II
Cheyenne Substation	WY	Laramie	Tier II
Copper Mountain Substation	WY	Fremont	Tier II
Garland Substation	WY	Park	Tier II
Glendale Substation	WY	Park	Tier II
Glendo Substation	WY	Platte	Tier II
Goshen Substation	WY	Goshen	Tier II
Heart Mountain Substation	WY	Park	Tier II
Limestone Substation	WY	Platte	Tier II
Lingle Substation	WY	Goshen	Tier II
Lovell Substation	WY	Big Horn	Tier II
Lusk Rural Substation	WY	Niobrara	Tier II
Lusk Town Substation	WY	Niobrara	Tier II
Lyman Substation	WY	Goshen	Tier II
McCullough peak Microwave Site	WY	Park	Tier II
Medicine Bow Substation	WY	Carbon	Tier II
Meeteetse Substation	WY	Park	Tier II
Miracle Mile Substation	WY	Carbon	Tier II
Muddy Ridge Substation	WY	Fremont	Tier II
North Cody Substation	WY	Park	Tier II
Pilot Butte Substation	WY	Fremont	Tier II
Pinebluffs Substation	WY	Laramie	Tier II
Raderville Substation	WY	Natrona	Tier II
Ralston Substation	WY	Park	Tier II
Snowy Range Substation	WY	Laramie	Tier II
Spence Substation	WY	Natrona	Tier II



Facility Name	State	County	CY2023 Tier II/HMBP
Thermopolis Substation	WY	Hot Springs	Tier II
Torrington Substation	WY	Goshen	Tier II
Warren Air Force Substation	WY	Laramie	Tier II
Whiterock Substation	WY	Platte	Tier II





## APPENDIX C: WAPA SPCC PLANS

Facility Name	State	County	CY2023 SPCC Revisions	New SPCC in CY2023
Davis Dam Substation	AZ	Mohave	Yes	No
Glen Canyon Substation	AZ	Coconino	Yes	No
Lone Butte Substation	AZ	Maricopa	Yes	Yes
Parker Dam 69-kV Switchyard; 161-kV Switchyard (upper and lower); 230-kV Switchyard	CA	San Bernardino	Yes	No
Redding Maintenance Facility	CA	Shasta	No	No
New Melones Substation	CA	Calaveras	No	No
Folsom Substation	CA	Sacramento	Yes	No
Sacramento Power Operations Facility/Substation	CA	Sacramento	Yes	No
Elverta Maintenance Facility	CA	Sacramento	Yes	Yes
Elverta Substation	CA	Sacramento	Yes	No
Keswick Substation	CA	Shasta	No	No
Airport Substation	CA	Shasta	No	No
Senator Wash Substation	CA	Imperial	No	Yes
Trinity Substation	CA	Trinity	No	No
Collbran Substation	CO	Mesa	No	No
Willow Creek Pumping Plant Switchyard	CO	Grand	No	No
Mary's Lake	CO	Larimer	No	No
Sterling Substation	CO	Logan	No	No
Animas River Substation	CO	LaPlata	No	No
Weld Substation	CO	Weld	No	No
Frenchman Creek Substation	CO	Phillips	No	No
Estes Substation	CO	Larimer	No	No
Curecanti Substation	CO	Montrose	No	No
Granby (Farr) Pumping Plant Switchyard	CO	Grand	No	No
Great Cut Pumping Plant Substation	CO	Montezuma	No	No
Towaoc Power Plant	CO	Montezuma	No	No
Flatiron Substation	CO	Larimer	No	No
Fleming Substation	CO	Logan	No	No
Blue Mesa Substation	CO	Gunnison	No	No
Montrose Maintenance Office	CO	Montrose	No	No
Poncha Springs Substation	CO	Chaffee	No	No

Facility Name	State	County	CY2023 SPCC Revisions	New SPCC in CY2023
Poudre Substation	CO	Larimer	No	No
Rifle Substation	CO	Garfield	No	No
Rocky Mountain Region - Power Marketing and Operations Center (Loveland)	CO	Larimer	No	No
Creston Substation	IA	Union	No	No
Dennison Substation	IA	Crawford	No	No
Sioux City (230-kV yard) Substation	IA	Plymouth	No	No
Sioux City (345-kV yard) Substation	IA	Plymouth	No	No
Spencer Substation	IA	Clay	No	No
Appledorn Substation	MN	Lac Qui Parle	No	No
Granite Falls Substation	MN	Chippewa	No	No
Morris Substation	MN	Stevens	No	No
Miles City 1 Substation	MT	Custer	No	No
Yellowtail Substation	MT	Big Horn	No	No
Terry Tap	MT	Prairie	No	yes
Custer Substation	MT	Yellowstone	No	No
Glendive Substation	MT	Dawson	No	Yes
Great Falls Substation	MT	Cascade	No	No
O'Fallon Creek Substation	MT	Prairie	No	No
Conrad Substation	MT	Ponder	No	No
Havre Substation	MT	Hill	No	No
Shelby Substation	MT	Toole	No	No
Shelby Substation #2	MT	Toole	No	No
Bole Substation	MT	Teton	No	No
Frazer Substation	MT	Valley	No	No
Miles City 2 Substation	MT	Custer	No	No
Miles City 4 Substation (Miles City Converter)	MT	Custer	No	No
Wolf Point Substation	MT	Roosevelt	No	No
Crossover Substation	MT	Big Horn	Yes	No
Dawson County Substation	MT	Dawson	No	No
Terry Pump	MT	Prairie	No	No
Shirley Pump Substation	MT	Custer	No	Yes
Circle Substation	MT	McCone	No	Yes
Buford-Trenton Substation	ND	Williams	No	No

Facility Name	State	County	CY2023 SPCC Revisions	New SPCC in CY2023
Watford City Substation	ND	McKenzie	No	No
Williston 2 Substation	ND	Williams	No	No
Williston Substation	ND	Williams	No	No
Bisbee Substation	ND	Towner	No	No
DeVaul Substation	ND	Grant	No	No
Edgeley Substation	ND	LaMoure	Yes	No
Fargo Substation	ND	Cass	Yes	No
Valley City Substation	ND	Barnes	Yes	No
Belfield Substation	ND	Stark	No	No
Bismarck Substation	ND	Burleigh	No	No
Carrington Substation	ND	Foster	No	No
Custer Trail Substation	ND	Morton	No	No
Devils Lake Substation	ND	Ramsey	No	No
Forman Substation	ND	Sargent	No	No
Grand Forks	ND	Grand Forks	No	No
Jamestown Substation	ND	Stutsman	No	No
Killdeer Substation	ND	Dunn	No	No
Lakota Substation	ND	Nelson	No	No
Leeds Substation	ND	Benson	No	No
Rugby Substation	ND	Pierce	No	No
Snake Creek Substation	ND	McLean	No	No
Washburn Substation	ND	McLean	No	No
Gering Substation and Maintenance Facility	NE	Scotts Bluff	No	No
Bridgeport Substation	NE	Morrill	No	No
Grand Island Substation	NE	Merrick	No	No
Grand Prairie Switching Yard	NE	Holt	No	No
Ogallala Substation	NE	Keith	No	No
Waterflow Substation	NM	San Juan	No	No
Amargosa Substation	NV	Clark	Yes	No
Armour Substation	SD	Charles-Mix	No	No
Beresford Substation	SD	Union	No	No
Bonesteel Substation	SD	Gregory	No	No
Brookings Substation	SD	Brookings	No	No
Carpenter Substation	SD	Beadle	No	No
Eagle Butte Substation	SD	Ziebach	No	No

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Ellsworth Air Force Base Substation	SD	Pennington	No	No
Faith Substation	SD	Meade	No	No
Flandreau Substation	SD	Moody	No	No
Fort Thompson Substation	SD	Buffalo	No	No
Gregory Substation	SD	Gregory	No	No
Groton Substation	SD	Brown	No	No
Huron Substation	SD	Beadle	No	No
Letcher Substation	SD	Davidson	No	No
Martin Substation	SD	Bennett	No	No
Maurine Substation	SD	Meade	No	No
Midland Substation	SD	Haakon	No	No
Mission Substation	SD	Todd	No	No
Mount Vernon Substation	SD	Davison	No	No
New Underwood Substation	SD	Pennington	No	No
Newell Substation	SD	Meade	No	No
Philip Substation	SD	Haakon	No	No
Pierre Substation	SD	Hughes	No	No
Rapid City Substation	SD	Pennington	No	No
Sioux Falls Substation	SD	Minnehaha	No	No
Summit Substation	SD	Roberts	No	No
Tyndall Substation	SD	Bon Homme	No	No
Utica Junction	SD	Yankton	No	No
Wall Substation	SD	Pennington	No	No
Watertown 345-kV Yard	SD	Codington	No	No
Watertown Substation (Static Var)	SD	Codington	No	No
Watertown Substation 115/230-kV	SD	Codington	No	No
White Substation	SD	Brookings	No	No
Wicksville Substation	SD	Pennington	No	No
Winner Substation	SD	Tripp	No	No
Woonsocket Substation	SD	Jerauld	No	No
Roberts County Substation	SD	Roberts	No	No
Flaming Gorge Switchyard	UT	Daggett	No	No
Tyzack Substation	UT	Uintah	No	No
Meeteetse Substation	WY	Park	No	No
Badwater Substation	WY	Fremont	No	No
Glendo Substation	WY	Platte	No	No



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Alcova Switchyard	WY	Natrona	No	No
Glendale Substation	WY	Park	No	No
Pilot Butte Substation	WY	Fremont	No	No
Lingle Substation	WY	Goshen	No	No
Casper Substation	WY	Natrona	No	No
Lusk Town Substation	WY	Niobrara	No	No
Copper Mountain Substation	WY	Fremont	No	No
Limestone Substation	WY	Platte	No	No
Cheyenne Substation	WY	Laramie	No	No
Heart Mountain Substation	WY	Park	No	No



