

Environmental Affairs Annual Report 2023

The Environmental Affairs Department (EA) provides environmental information, waste management services, and regulatory compliance assistance to management and operations programs District wide, delivering on the District's commitment to environmentally responsible utility operations.

Regulatory agency interaction
Strategic Planning
Spill response and remediation
Pollution prevention
Waste material management

Environmental health and industrial hygiene
Land use and permit assistance
Electromagnetic field information and demonstrations
Other project support

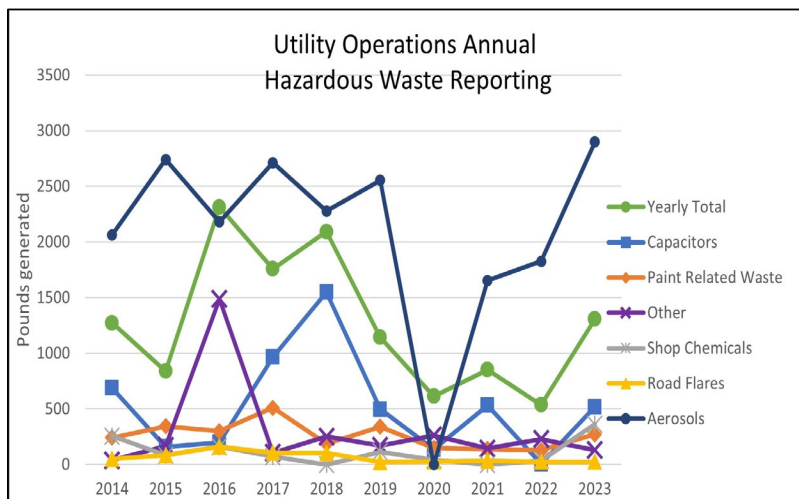
Regulatory Agency Interactions Inspections, Reporting and Permitting

A number of routine and non-routine interactions occurred with regulatory personnel in 2023. Environmental Affairs team members regularly coordinate with representatives from the Department of Ecology and local jurisdictions for spill response, permit compliance, and when assisting with project planning. The District also worked with the United States Fish and Wildlife Service associated with several wildlife incidents involving electrical equipment.



A number of programmatic reports and permits were prepared, submitted and maintained by Environmental Affairs in 2023. Examples include:

- Emergency Planning and Community Right-to-Know (EPCRA) Tier Two reports were prepared for approximately 111 District facilities that store threshold volumes of mineral oil (typically in substation transformers) or sulfuric acid (typically in batteries at substations or communication sites) and submitted to multiple agencies for District compliance under Section 312.
- Dangerous Waste Annual Reports regarding the District's hazardous (dangerous) waste generation and management activities were prepared for the Department of Ecology.
- Data concerning the District's greenhouse gas emissions across all utility operations have been collected since 2010. This information includes emissions from direct sources (e.g. vehicles, generators, etc.) and indirect sources (electricity use).



The reporting from this multiyear effort confirmed steady overall reductions in greenhouse gas emissions across District operations. The current emissions calculation protocols provide quantitative comparisons between District specific electricity emissions in contrast to the regional

generation sources. The District continues to track emission sources and evaluate updates to emission factors as well as changes in regulatory and reporting requirements.

- Puget Sound Clean Air Agency permits for the District’s four registered air sources were renewed.
- Sample analyses reports were provided for the City of Everett Discharge Permit, which allows waste water from the Operations Center Pump & Clean facility to discharge into Everett’s sanitary sewer.
- Certification tests of the District’s underground storage tanks were performed by an outside contractor and copies of those test reports submitted to the Department of Ecology.
- Regional regulation considerations affecting the operation and maintenance activities for existing electrical infrastructure were discussed with Snohomish County Planning and Public Works staff.
- Spill incidents were reported to the Department of Ecology and when water was involved, to the National Response Center. Follow up written confirmation reports were completed and submitted to the Department of Ecology with the cleanup and restoration information.

Strategic Planning

Focusing on the future

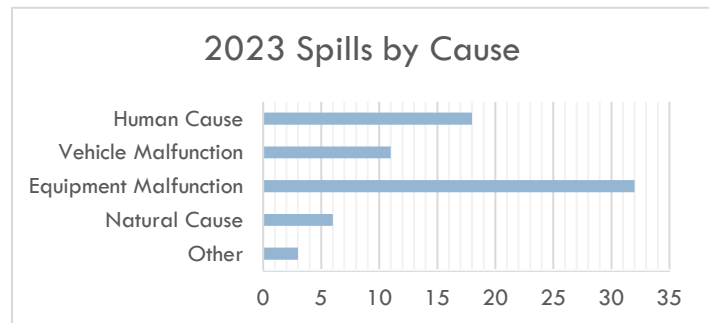
2023 was a pivotal year for the District’s Strategic Planning, with the release of a major update to our strategic priorities and objectives. The Environmental Affairs Department plays a major role in implementing Strategic Objective 4.1 – Responsively minimize and mitigate our environmental impacts. Team members are involved in three separate initiatives that exist to implement this objective. Environmental Affairs team members are also involved in supporting other District wide initiatives under the Strategic Plan.

A key component of Strategic Objective 4.1 is the development of an Environmental Sustainability Action Plan. The Environmental Affairs Department is taking the lead in the development of this plan, while coordinating with departments throughout the District for finalization and implementation of the plan.

Emergency Response and Preparedness

Spill Cleanups, Training and Planning

Environmental Affairs responded to 70 spill incidents in 2023. Approximately 505 gallons of transformer oil, 13 gallons of hydraulic oil, and one gallon of coolant spilled to the surrounding areas due to these incidents. The various factors involved in each spill are illustrated in the graph. On average, the District experiences approximately 100 spills per year.



Training occurs annually to refresh or orient District staff on emergency response, oil spill cleanups and other important environmental issues. This training is needed in order to maintain and further develop competencies for performing the wide range of work encountered by District personnel. For example:

- Hazardous Waste Operations and Emergency Response (HAZWOPER) certification refresher training was provided to 77 District employees in 2023.

- To more efficiently respond to spills that may be associated with storm events, EA updated the spill response awareness orientation to Crew Guides as part of annual storm season training.
- Planning for spill response is in part accomplished through the preparation of Spill Prevention Control and Countermeasures (SPCC) Plans, a federal requirement for any facility that stores in excess of a defined volume of hazardous substances onsite.

Pollution Prevention

Preventing Waste and Other Sources of Pollution

Environmental Affairs collaborated with other District departments, outside agencies and the private sector on a number of projects in 2023 to reduce waste, prevent pollution and improve District operations. Ongoing institutionalized procedures to recycle insulating oil, return serviceable products, such as partially used aerosol cans or road flares to stock, change out solvent tanks before they become heavily contaminated and move toward operational processes that generate less or no waste also continued. Projects and programs like these successfully reduce the volume of hazardous waste and other pollutants generated by the District.



The challenge of addressing the presence and potential environmental release of polychlorinated biphenyls, or PCBs, from District electrical equipment has been an ongoing effort for many years. The District has now removed all distribution and substation transformers suspected to contain 50 or more parts per million (ppm) PCBs through both targeting and attrition, although transformers with higher PCB concentrations (greater than 50 ppm) are occasionally discovered. By evaluating in-service distribution transformers using PCB oil sample results from tested units, as well as other commonalities, EA identifies electrical equipment suspected to contain PCBs and works with other groups to schedule those units for removal and proper disposal. The current focus is on replacing all in-service equipment that may have any amount of PCB contamination as a result of pre-1980 manufacturing practices. In 2023, through targeting and attrition, the District tested and removed 604 distribution transformers. Testing confirmed PCB contamination in 40 transformers, none of which contained over 50 ppm PCBs. All articles were properly processed for disposal at permitted facilities.



The District continues to be actively involved in the State Commute Trip Reduction Program which, among other benefits, reduces traffic, air pollution and greenhouse gas emissions. In 2021, COVID-19 shifted the nation's commuting habits from ridesharing to telecommuting and working from home. Through most of 2023 there were approximately 950 District employees who reported to work at the Electric building/Annex and the Operation Center. Seventy-three percent (73%) of employees were working in a physical office space or field locations, while approximately 310 employees worked home full time and an additional 100 employees worked from home part time.

Waste Management

Recycling and Disposal of Hazardous Waste and Contaminated Materials

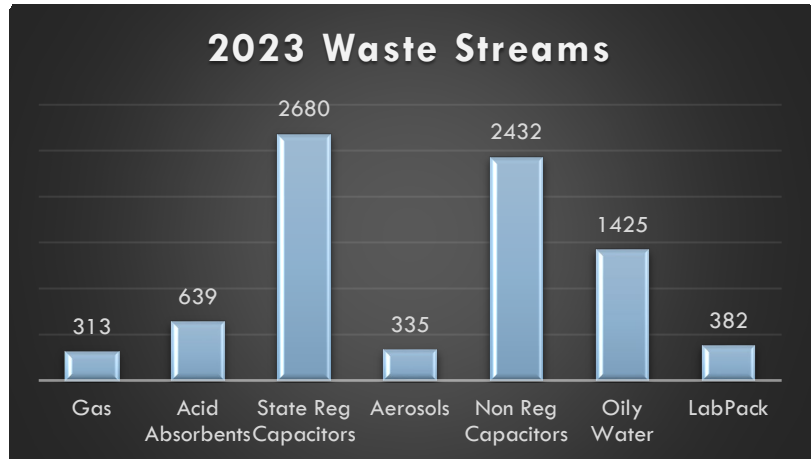
A total of 708 obsolete or damaged distribution transformers were sold by the District for recycling in 2023. Oil with PCBs was treated by a chemical de-chlorination process, destroying the PCBs. Metals and oil from obsolete electrical equipment were recycled, yielding approximately \$96,000 in revenue for the District.



The district recycled approximately 18,587 gallons of bulk waste oil (<50 ppm PCBs) from substation electrical equipment and the underground storage tank located at the Operations Center, yielding approximately \$3300 in revenue for the District.



The District’s “conventional” hazardous waste stream, although not large in volume, is quite varied. It includes the contents of punctured waste aerosol cans (2899 cans in 2023, or approximately 480 pounds of steel recycled), fluids from non-functioning capacitors, waste parts washer solvent (if contaminated), old road flares and other miscellaneous hazardous waste resulting from different projects and processes. Overall, a total of approximately 1536 lbs. of hazardous waste were generated by the District and recycled or disposed of in 2023.



Of this waste, previously a number of pounds of unused and outdated sodium fluoride was disposed of. This non-recurring waste was a water treatment product that was unusable as it had passed its shelf life and no longer met District specifications. In 2023, the Environmental Affairs team successfully implemented a comprehensive hazardous waste minimization project targeting the sodium fluoride waste stream. Through the utilization of alternative disposal methods, we achieved the elimination of over a thousand pounds of hazardous waste this year, with the anticipation of an annual reduction of two thousand pounds in waste generation.

The amount and timing over which this waste was produced allowed the District to maintain its status as a small quantity generator throughout the year. A similar volume of hard-to-handle but not necessarily hazardous waste such as latex paint was also generated and properly managed.



The District also generates waste computer monitors, CPUs, televisions, segregated circuit boards and other electronic wastes which may contain heavy metals and are regulated as a special type of hazardous waste. EA coordinated the recycling of these materials and in 2023, 1244 lbs. of monitors, CPUs and laptops, 982 lbs. of circuit boards and 2270 lbs. of miscellaneous electronic waste were recycled through this program.



A total of approximately 4061 lbs. of batteries, counting substation or vehicle batteries managed through separate programs, were collected from District facilities for recycling or disposal by EA in 2023. Other battery chemistries recycled included alkaline and carbon-zinc batteries (893 lbs.), rechargeable nickel-cadmium, nickel metal hydride and lithium-ion batteries (478 lbs.), and other batteries such as lithium primary and lead-acid (594 lbs.) and universal waste batteries (394 lbs).



Approximately 120 high pressure sodium (HPS) street light lamps, which contain a small amount of mercury, were generated and collected for recycling in 2023. Historically, District streetlights used these types of lamps, however, the District is almost finished with a multi-year project to change over all HPS

street light lamps to LED technology, which last much longer and are more energy efficient. A District contractor recycles the outdated HPS fixtures that are generated.



Waste fluorescent lights, which also contain a small amount of mercury, as well as ballasts generated from the routine maintenance of District facilities, are likewise collected for recycling. In 2023, approximately 4620 linear feet of fluorescent lamps and 459 lbs. of ballasts were recycled during the year. A total of 49 pounds of compact fluorescent and U-tube lamps were also collected from District facilities and recycled.



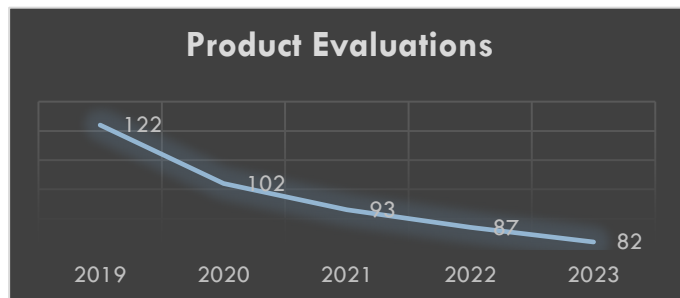
The District collected 25 drums (1720 lbs.) of waste spill pads, booms and other non-PCB petroleum contaminated debris generated from oil spill response and maintenance efforts in 2023. These were shipped to a permitted facility for incineration. Approximately 246 tons of petroleum contaminated soil were also excavated as part of District oil spill cleanups and consolidated at the Operations Center during 2023. All the soil was disposed of at a permitted facility.

Environmental Health & Industrial Hygiene

Supporting a Healthy Workplace

Environmental Affairs collaborated with several different operational areas in 2021 to address environmental health and industrial hygiene issues. This included issues related to spill response, chemical product management and occupational health exposures. Some examples of work in this area included:

- Evaluating chemical products to be used in day-to-day operations and capital projects.
- Performing hazardous materials surveys including bulk asbestos sampling prior to renovation or demolition work.
- Performing chemical product evaluations to identify hazardous conditions that may be associated with using various



products, investigating the use of less-hazardous alternative products when necessary and helping to structure projects to minimize chemical exposures to District employees. This program also helps to eliminate hazardous waste generation and long-term risk that may be associated with using a particular product. Safety Data Sheets and supporting documents such as EPA registration labels (for pesticides) and technical data sheets were evaluated for 82 different chemical products in 2023.

Land Use & Permit Assistance

Critical Areas, Wildlife, Stormwater and SEPA Support

Environmental Affairs continued to work with District project leaders to help them successfully integrate compliance with critical area, floodplain, wildlife, cultural resource and stormwater regulations. This support effort included outreach across the District, training sessions for District staff and individual project permit analysis to help determine when projects trigger different construction site stormwater

requirements, as well as help in selecting various best management practices to employ to prevent erosion and sediment discharge.



In 2023, the District managed the Migratory Bird Special Purpose Utility Permit administered by the U.S. Fish and Wildlife Service. The permit allows specified District staff to transport and/or dispose of migratory birds that have been injured or killed by District equipment. In 2023, District or State wildlife personnel discovered 35 bird deaths associated with District powerlines and equipment. These incidents were reported to the U.S. Fish and Wildlife Service. Distribution and Engineering Services staff inspected each bird incident site and assessed each location for avian protection modifications. Several locations were identified for additional insulation or flight diverters and these projects should help prevent future injuries to birds that may perch on or collide with District equipment.



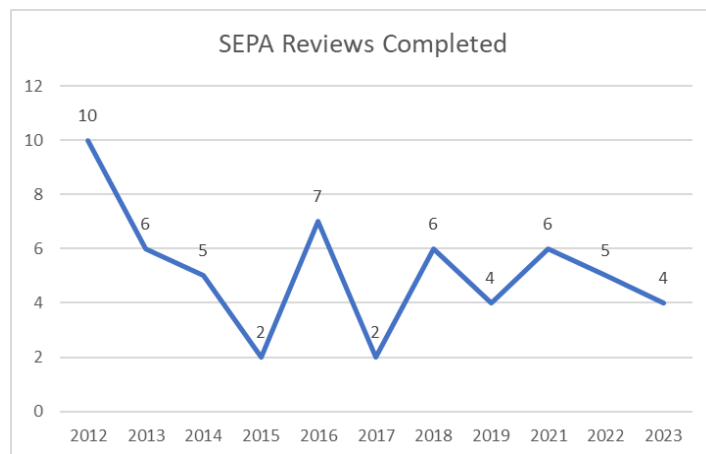
Electric and Magnetic Fields Responding to Customer Concerns

Electromagnetic fields (EMF) are generated by the flow of electric current, including the flow of electricity through equipment operated by the District. The District provides customers who are concerned about the possible health effects of EMF with information and conducts EMF field demonstrations and measurements upon request. In 2023, EA responded to 15 customer requests for EMF information and provided 11 magnetic field demonstrations.



State Environmental Policy Act (SEPA) Responsibly minimizing environmental impacts

The District completed four environmental evaluations under the State Environmental Policy Act (SEPA) in 2023. Completing SEPA procedures is a multidisciplinary effort between project leaders, Environmental Affairs, Natural Resources and oftentimes consultants. The SEPA process identifies current conditions and possible project-related impacts, outlines procedures, or designs to avoid or reduce adverse impacts and evaluate their overall significance. SEPA also provides a succinct platform for



public notice and comment on environmental issues related to a project. Greenhouse gas emissions associated with a project are also included in the evaluation process. The District consistently strives to incorporate impact reduction into project proposals prior to a final threshold determination and outline these measures in the appropriate public SEPA documents.

Other Project Support

Environmental Sustainability and Compliance Assistance

Environmental Affairs participates in the planning, design and execution of a variety of District projects to promote environmentally responsible utility operations throughout the lifecycle of facilities and programs. In 2023 these projects included substation rebuilds, facility operations and maintenance projects, hazardous materials management planning, greenhouse gas emissions, property cleanups, the development of future District facilities, decommissioning of an obsolete energy storage system, permit support for the development of a new 25 MW energy storage system, providing training to District employees at the annual Safety Days event, as well as participating in the planning and staffing of the District's Energy Block Party.

Summary

In collaboration with other District departments, Environmental Affairs' efforts have successfully met District goals to reduce pollution, ensure worker health and safety, comply with applicable regulations, reduce financial liability and promote sustainable utility operations. Continuing to address these issues collaboratively within the District and with regulatory agencies through planning, training and design will continue to produce the greatest gains for pollution prevention and environmental risk management at the least possible cost.