

Portland Harbor Natural Resource Damage Assessment

Phase 2: Allocation Summary Memo for Portland General Electric

1.0 INTRODUCTION

Portland General Electric (PGE), both an owner and operator of sites in Portland Harbor, has engaged in activities resulting in releases of substances of concern. As part of the Portland Harbor natural resource damage assessment (NRDA) Phase 2 process, and for settlement purposes only, the Trustee Council developed a party-specific allocation of natural resource damages liability for 18 sites with which PGE is associated, including Sites 45, 47, 125, 126, 131, 148, 155, 181, 193, 220, 221, 229, 250, 289, 305, 528, 620 and 629; and for 35 sites associated with PGE's distribution network, including Sites 13, 22, 85, 109, 157, 158, 160, 161, 162, 165, 166, 182, 186, 189, 190, 200, 201, 210, 213, 231, 232, 233, 234, 237, 239, 240, 241, 251, 279c, 315, 510, 524, 527, 542, and 559.¹ That liability is determined in units of discounted service acre-years (DSAYs). Based on the information gathered throughout the Phase 2 process, methods described in the Trustee Council's allocation methodology report, and data and assumptions described below, PGE's liability is calculated to be 56.46 DSAYs.

This memorandum summarizes the information the Trustee Council utilized to develop the allocation, and is organized as follows:

- ❖ Section 2 provides background information.
- ❖ Section 3 describes general operations at PGE's sites.
- ❖ Section 4 outlines PGE's activities at their sites.
- ❖ Section 5 is a list of references.

¹ The allocation presented in this memorandum is limited to an allocation of natural resource damages liability by the Trustee Council and does not inform or have any application relative to other environmental liabilities associated with the Portland Harbor Superfund Site, including but not limited to remedial liability. The use of "allocation" or "liability" in this memorandum refers only to the Trustee Council's settlement-oriented allocation of natural resource damages liability.

2.0 OVERVIEW OF PGE SITES

Exhibits 2-1 and 2-3 are maps of the PGE sites included in their party-specific allocation, and Exhibits 2-3 and 2-4 outline background information for each of these sites. The relevant tax lot parcels are described in Appendix A of the Consent Decree associated with the settlement of natural resource damages for these parcels.

EXHIBIT 2-1 MAP OF PGE PROPERTY SITES

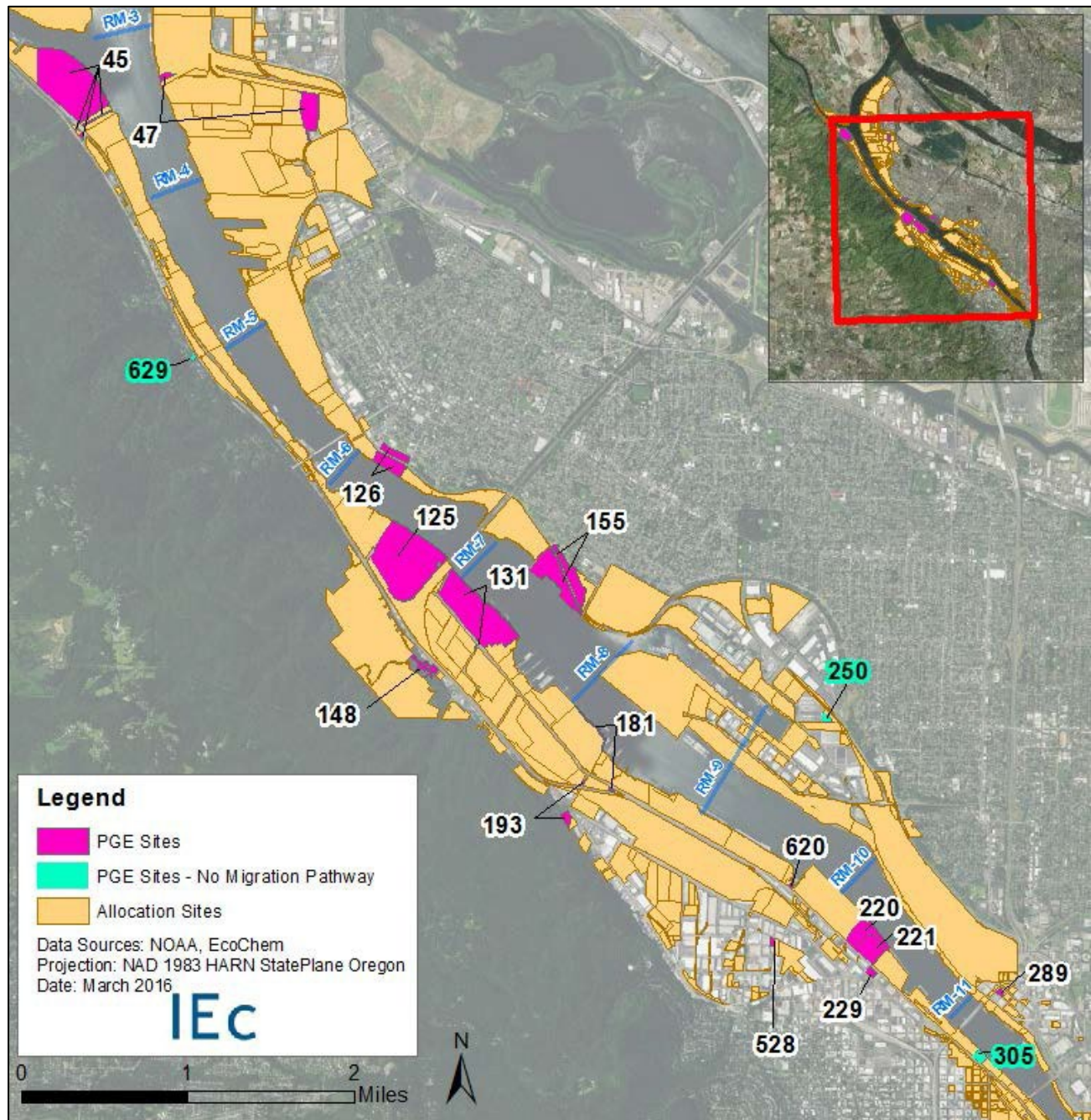


EXHIBIT 2-2 MAP OF PGE DISTRIBUTION NETWORK SITES

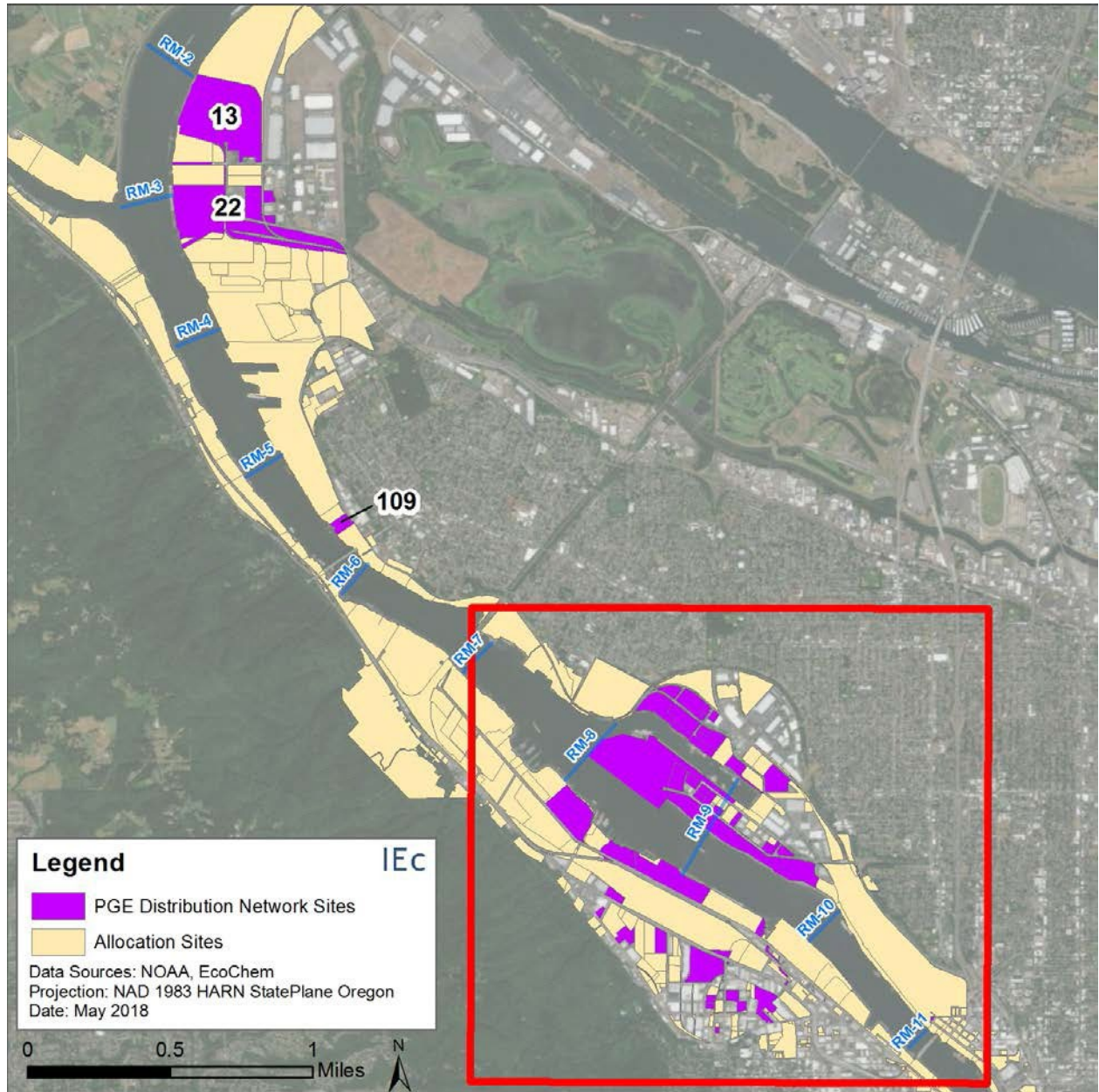


EXHIBIT 2-3 PGE PROPERTY SITES BACKGROUND INFORMATION

SITE ID	ADDRESS¹	CURRENT OWNER	PGE DATES OF OWNERSHIP	PGE DATES OF OPERATION	SITE ACREAGE
45	12500 NW Marina Way	Portland General Electric Co.	1939 - present	1939 - present	79.4
47	8290 N Time Oil Rd 8849 N Burgard Way	Portland General Electric Co.	1939 - Present	1939 - present	15.9
125	7200 NW Front Ave	Siltronic Corporation	None	1978 - present	79.5
126	8524 N Crawford St	Steel Hammer Properties, LLC	1/31/1914 - 5/19/1944	1/31/1914 - 5/19/1944	14.8
131	6400 NW Front Ave	Arkema Inc.	None	1952 - 1982	59.9
148	6215 NW St Helens Road	Portland General Electric Co.	1973 - present	1973 - present	4.34
155	5828 N Van Houten Place	Triangle Park LLC	1912 - 1945	1912 - 1922	51.6
181	4950, 5034, 5200 NW Front Ave	Emery M. Zidell	9/1/1978 (1 day)	None	1.91
193	4400 Block NW St Helens Road	City of Portland	1952 - 2005	1952 -2005	2.67
220	2700 NW Front Ave	Sulzer Pumps Inc.	1904 - 1979	1904 - 1979	12.05
221	2700 NW Front Ave	Dolan and Company LLC	1904 - 1979	1904 - 1979	11.81
229	2635 NW Front Ave	Portland General Electric Co.	1904 - present	1901 - present	1.46
250	5500 N Basin Ave	Portland General Electric Co.	1960 - present	1961 - present	1.17
289	2303 N Randolph Ave	De Wolf Properties LLC	None	1889 - 1901	0.83
305	1462 NW Front Ave	Summit Properties, Inc.	None	1886 - 1891	2.48
528	2737 NW Nela St	Longview City Laundry	1929 -1945	None	0.84
620	3660 NW Front Ave	Williams, Cindy	1905 - 1930	None	0.37
629	Intersection of NW Hoge Avenue and NW Saint Helens Road	City of Portland	1930-1958	1930 - 1958	0.37

Note.

1. All addresses are located in Portland, Oregon.

EXHIBIT 2-4 PGE DISTRIBUTION NETWORK SITES BACKGROUND INFORMATION

SITE ID	ADDRESS¹	CURRENT OWNER	PGE DATES OF OPERATION	SITE ACREAGE
13	14400 N Rivergate Blvd	Evraz Oregon Steel Mills	1979 - present	145
22	13333 Rivergate Blvd	Unknown	1973 - present	152
85	5300 N Channel Ave	Channel Investors, LLC	1948 – 1961	1.97
109	8970 N Bradford St	Langley-St. John’s Partnership	1976 - present	15.5
157	5555 N Channel Ave	Cascade General/Vigor Industrial	1948 - present	57
158	5815 & 5851 N Lagoon Ave	Service Steel Inc.	1972 - present	14.5
160	N Channel & N Lagoon Ave	Port of Portland	1972 - present	71
161	5555 N Lagoon Ave	DSU-Peterbilt & GMC Truck	1977 - present	3.0
162	4325 N Commerce St	Jenkins & Simons Properties, LLC	1948 – 1962	2.0
165	5420 N Lagoon Ave	Port of Portland	1979 - present	2.49
166	5061 N Lagoon Ave	BRP – Lagoon Inc.	1970 - present	2.61
182	5200 NW Front Ave	Front Avenue LP	1976 - present	44
186	4250 NW Front Ave	Gunderson Inc.	1979 - present	85
189	3710 NW Front Ave	Sause Brothers Inc.	1976 - present	2.7
190	3660 NW Front Ave	City of Portland	1977 - present	0.55
200	3610 NW St. Helens Rd	American Industries Inc.	1988 - present	8.98
201	3501 NW Yeon Ave	CSDV Limited Partnership	1901 - present	29.9
210	6645 N Ensign St	James P. Vance	1978 - present	2.00
213	2615 NW Industrial St	City of Portland	1980 - present	12.5
231	6767 N Basin Ave	United States of America	1973 - present	18.0
232	6211 N Ensign St	The Marine Salvage Consortium	1974 - present	4.26
233	NE Basin & Fathom St, 6707 N Basin Ave; 6125-6635 N Basin Ave, 5550 N Basin Ave	BT-OH LLC	1976 - present	43.8
234	6208 N Ensign St	Port of Portland	1974 - present	6.38

SITE ID	ADDRESS¹	CURRENT OWNER	PGE DATES OF OPERATION	SITE ACREAGE
237	N Basin Ave	Becker Land LLC	1975 – present	7.79
239	6550 N Basin Ave	Hoffman Industries LLC	1974 - present	13.5
240	6520 N Basin Ave	Robert Drain/Poulsen Group	1976 - present	1.00
241	6650 N Ensign St	Fiorito Enterprises Inc.	1979 - present	2.25
251	2800 NW 29th Ave/ 2727 NW Industrial St	Weston Investment Co	2002	6.84
279C	1405 N River St	City of Portland	1978 - present	0.38
315	6335 N Basin Ave	WW Grainger Inc.	1977 - present	2.39
510	2800 NW 31st Ave	Hilltop Investments LLC	1980 - present	2.24
524	2750 NW 31st Ave	L & L Land	1991 - present	1.50
527	2555 NW Nicolai St	Stuart H Lindquist	1999 - present	2.21
542	3750 NW Yeon Ave/3605 NW 35th Ave	Owens-Corning Fiberglas Corp	1985 - present	7.94
559	2406 NW 30th Ave	Dale F & Delores Redmond	1977 - present	0.75

Note.

1. All addresses are located in Portland, Oregon.

3.0 PGE OWNERSHIP AND OPERATIONS

The following section briefly describes PGE's ownership of and operations at the sites listed in Exhibits 2-3 and 2-4.

Site 45 (Harborton Property)

This site, known as the Harborton property, is a riverfront property located at river mile 3.3 west. The property is comprised of five parcels, including two main parcels that PGE has owned since 1968. Smaller associated parcels have been owned by PGE since 1939. From 1968 to 1973, the property was filled with dredged sediment and developed for a natural gas and distillate fuel power generating plant. The plant operated from 1973 to 1980 and was dismantled in 1985. From 1973 to 1982, a distillate fuel storage tank farm and fuel transfer station were located on the property. The tanks were closed and emptied by October of 1982. Since 1973, PGE has operated an automated electrical distribution substation and 115kv transmission switchyard.

Site 47 (Rivergate Substations)

The Rivergate North and South Substations are located upland at approximately river mile 3.5 east. The automated electrical distribution substation parcels have been owned and operated by PGE since 1967. One parcel adjacent to the river has been used as a transmission line easement since 1939. This parcel is considered part of Site 47 by the Trustee Council but is grouped with the Harborton Property directly across the Willamette River at Site 45 by PGE.

Site 125 (Siltronic)

Siltronic Corporation has owned this property since 1978 and began manufacturing hyper-pure silicon wafers in March 1980. The property is located adjacent to the southwest bank of the Willamette River between river miles 6 and 7. An electrical substation (the Wacker Substation) is located on the property and has been owned and maintained by PGE since October 1978. Siltronic is the current owner of the property and since 1978 has granted PGE the right to enter, erect, maintain, and operate the substation.

SITE 126 (Crawford Street Corporation Site)

Site 126 is located adjacent to the Willamette River at river mile 6.2 east. PGE owned a small portion of the property (0.11 acres of 14.8 acres) from January 1914 to May 1944 but did not conduct any operations on the property. Historical operations included lumber mills and steel manufacturing. The property is currently owned by Steel Hammer Properties, LLC. Lampros Steel currently leases the property and uses it for steel distribution.

SITE 131 (Arkema)

Site 131 is located adjacent to the Willamette River at river mile 7.4 west. The property housed the Pennwalt North and South substations (Pennwalt Yards). Pacific Power & Light (now PacifiCorp) operated the Pennwalt South Yard as a substation for approximately 20 years (1952-1972) under a perpetual easement granted by Pennwalt Corporation. In 1972, PacifiCorp transferred the easement and right-of-way to PGE to take over operations. In 1979, PGE obtained a perpetual easement from the Pennwalt Corporation to install and maintain the North Yard, as well as additional transmission line easements adjacent to the South Yard. In 1982, PGE ceased operation of the Pennwalt Yards when Pennwalt Corporation cancelled its contract. Also in 1982, PGE conveyed the easement and leased the facility to Bonneville Power Administration, who operated the facility until 2002. The facilities at the substations were conveyed to PGE, but the company never owned the property at Pennwalt Yards.

SITE 148 (Portland General Electric Co)

The site (known as the Willbridge Property) is located upland at river mile 7.2 west. The property is comprised of five parcels containing an electrical substation and undeveloped lots. In 1973, the Willbridge substation was conveyed to PGE by PacifiCorp (formerly Pacific Power & Light Company), who operated the parcel as a substation for a number of years before it was transferred to PGE. The adjacent undeveloped parcels were acquired between 1973 and 1980. PGE is the current owner of the property and has operated the substation since 1973. Since then, the substation has undergone equipment upgrades and modifications. PGE did not and does not currently conduct any activities or operations on the remaining parcels.

SITE 155 (Triangle Park)

The site (known as Station N) is located adjacent to the Willamette River at river mile 7.4 east. PGE owned 2.03 acres of the 51.6-acre property from 1912 to 1945. Between 1912 and 1922, PGE intermittently operated a steam-turbine electrical generating station. Historical operations by other parties included lumber mills and ship repair. An oil pipeline crossed through the property.

SITE 181 (Zidell Emery)

The site is located adjacent to the Willamette River at river mile 8.2 west. The property consists of a long, narrow strip of riverbank. PGE had ownership of the property for only one day on September 1, 1978, and did not conduct any operations.

SITE 193 (City of Portland)

The site (known as the Yeon Property) is located upland at approximately river mile 8.4 west. PGE owned the property from 1952 until 2005 and planned to build a substation that was never built. PGE historically used the fire lane road on the property as an access route to electrical transmission lines in adjacent Forest Park. PGE never operated on the Yeon Property or used it for equipment storage. Two lessees of PGE used the property for a billboard sign and storage of miscellaneous equipment. The City of Portland is the current owner.

SITE 220/221 (Sulzer Pumps/Dolan and Company LLC)

The site (known as the NW Front Property) is located adjacent to the Willamette River at river mile 10.4 west. PGE owned a 4.36-acre portion of the property from 1904-1979. PGE operations at the property were conducted in support of the Station E generating plant and ceased in 1953. Sulzer Pumps currently owns Site 220, and Dolan and Company LLC currently owns Site 221.

SITE 229 (Portland General Electric Co)

The site (known as Station E East) is an upland property located in a heavy industrial area at approximately river mile 10.4 west. Station E includes Station E East and Station E West, each of which has two parcels. PGE has owned the property since 1904. PGE operations consisted of power plant (1901-1953) and substation operations (1912-current).

SITE 250 (Swan Island Station)

The site (known as the Swan Island Station) is located upland at river mile 7.4 west and is owned by PGE. In 1960, the property was purchased by PGE from the Port of Portland. In October 1984, PGE sold a small portion of the property back to the Port of Portland in exchange for a power line easement adjacent to the substation. From 1966 to 1979, PGE permitted Freightliner Corporation to use a portion of the property outside the substation fence for vehicle parking. From 1979 to 2002, PGE leased that same portion of the

property to Freightliner Corporation for automobile parking as well as equipment and materials storage. The substation was constructed in 1961 and has undergone approximately seven equipment upgrades and modifications since that time.

SITE 289 (De Wolf Properties LLC)

This property was operated by Albina Light and Water Company as a water supply pump house and electrical generating plant between 1889 and 1901. PGE purchased Albina Light and Water Company in 1892. By 1909, the property was operated by the City Water Works as a backup water supply source. De Wolf Properties, LLC is the current owner.

SITE 305 (Summit Properties Inc. #2)

This property is located adjacent to the Willamette River at river mile 11.4 west. PGE leased the property beginning in 1886 and operated a steam power plant until 1891. The property is currently owned by Summit Properties, Inc.

SITE 528 (Longview City Laundry)

The site is located upland at river mile 9.8 west. PGE owned five acres in the Guilds Lake area from 1929 to 1945 but did not develop it or conduct operations. The property is currently owned by Longview City Laundry.

SITE 620 (Cindy Williams)

The site is located adjacent to the Willamette River at river mile 9.6 west. PGE owned the property from 1905 to 1930 but did not conduct operations. The property is currently owned by Cindy Williams.

SITE 629 (Linnton Substation)

The site (known as the Linnton Substation) is located upland at river mile 5 west. PGE owned the property from 1930 to 1958. It was operated as an electrical distribution substation that converted AC current to DC current for use in both the local electrical streetlight and streetcar systems. In 1958, based on equipment records at the property, the Linnton Substation was dismantled and transferred to the City of Portland for the widening of NW St. Helens Road.

Distribution Network Sites (13, 22, 85, 109, 157, 158, 160, 161, 162, 165, 166, 182, 186, 189, 190, 200, 201, 210, 213, 231, 232, 233, 234, 237, 239, 240, 241, 251, 279c, 315, 510, 524, 527, 542, and 559)

PGE's Distribution Network encompasses the entire study area, including both riverfront and upland properties spanning river miles 1 through 12. The Distribution Network includes the poles, power lines, vaults, underground cables, submerged cables, and transformers that together distribute power to PGE customers. The various portions of the Distribution Network were constructed, installed, or acquired by PGE at various times, including acquisition/construction/installation by PGE predecessor companies prior to 1930, acquisition/construction/installation by PGE after 1930, and acquisition from Pacific Power & Light (now PacifiCorp) in 1972. The properties listed above have not been identified as being owned or leased by PGE. Rather, these properties have been identified as having PGE-owned equipment or related activities with the potential to cause releases to the study area. Activities related to the Distribution Network include the installation, maintenance, and replacement or removal of poles, lines, vaults, underground cables, and transformers; spill response; and periodic removal of water accumulated in vaults, as needed.

4.0 PGE ACTIVITIES

Exhibit 4-1 identifies, for each of PGE’s properties in Appendix A of the Consent Decree, the activities that had the potential to result in the release of one or more of the substances of concern included in the Trustee Council’s evaluation of natural resource damages. These types of activities are further described in the Trustee Council’s allocation methodology report.

EXHIBIT 4-1 PGE-RELATED ACTIVITIES¹

PGE Activities - Site 45
Above-ground Storage Tank - Diesel
Creosote Treated Railroad Ties
Creosote Treated Wood Pilings
Fueling Operations
Gas Turbine Power Generation
Landfilling of Dredged Sediment - Willamette Prior to 1980
PCB Capacitor Use
PCB Transformer Use
PCB Oil Spill
Petroleum Leaks/Spills
Oil/Water Separation/Filtration Use
Storage of PCB Contaminated Material
PGE Activities - Site 47
PCB Capacitor Use
PCB Transformer Use
PCB Oil Spill
PGE Activities - Site 125
PCB Capacitor Use
PCB Transformer Use
PGE Activities - Site 131
PCB Capacitor Use
PCB Transformer Use
PCB Oil Spill
PGE Activities - Site 220
Creosote Treated Wood Pilings
Fueling Operations
Landfilling of Dredged Sediment - Willamette Prior to 1980

PGE Activities - Site 221
Fueling Operations
Landfilling of Dredged Sediment - Willamette Prior to 1980
PGE Activities - Site 229
PCB Capacitor Use
PCB Transformer Use
Underground Storage Tank - Heating Oil
PGE Activities - Site 250
PCB Transformer Use
PGE Activities - Site 305
Creosote Treated Wood Pilings
PGE Activities - Site 528
Landfilling of Dredged Sediment - Willamette Prior to 1980
PGE Activities - Site 629
PCB Transformer Use
PGE Activities - Distribution Network (35 Sites)²
PCB Transformer Use
PCB Oil Spill

Notes.

1. PGE did not conduct relevant activities at Sites 126, 148, 155, 181, 193, 289, and 620.
2. PGE may have conducted one or both of the activities listed at each of the Distribution Network Sites (13, 22, 85, 109, 157, 158, 160, 161, 162, 165, 166, 182, 186, 189, 190, 200, 201, 210, 213, 231, 232, 233, 234, 237, 239, 240, 241, 251, 315, 510, 524, 527, 542, 559, and 279c).

5.0 REFERENCES

Lower Willamette Group. 2009. Portland Harbor Draft Remedial Investigation Report. Prepared by Integral Consulting, Inc., Windward Environmental LLC, Kennedy/Jenks Consultants, and Anchor QEA, LLC.

Oregon Department of Environmental Quality. 2013. Environmental Cleanup Site Information Database. <https://www.deq.state.or.us/lq/ECSI/ecsiquery.asp?listtype=lis&listtitle=Environmental+Cleanup+Site%20Information+Database>

Portland Harbor Natural Resource Trustee Council. 2022. Portland Harbor Natural Resource Damage Assessment: Allocation Methodology Report. Prepared by Industrial Economics, Incorporated.

The Trustee Council also reviewed five additional documents submitted by Phase 2 parties that are settlement confidential and therefore not identified.