

# Portland Harbor Natural Resource Damage Assessment

## Phase 2: Allocation Summary Memo for MMGL

### 1.0 INTRODUCTION

MMGL, an owner 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 Path C Step 1 process, and for settlement purposes only, the Trustee Council developed a party-specific allocation of natural resource damage liability for 29 sites with which MMGL is associated: 51, 52, 55, 56, 60, 61, 109, 141, 158, 186, 203, 204, 205, 209, 227, 329, 533, 546, 547, 565, 589, 590, 607, 608, 609, 648, 649, 650, and 651.<sup>1</sup> 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, MMGL's liability is calculated to be 9.45 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 MMGL's sites.
- ❖ Section 4 outlines MMGL's activities at their sites.
- ❖ Section 5 is a list of references.

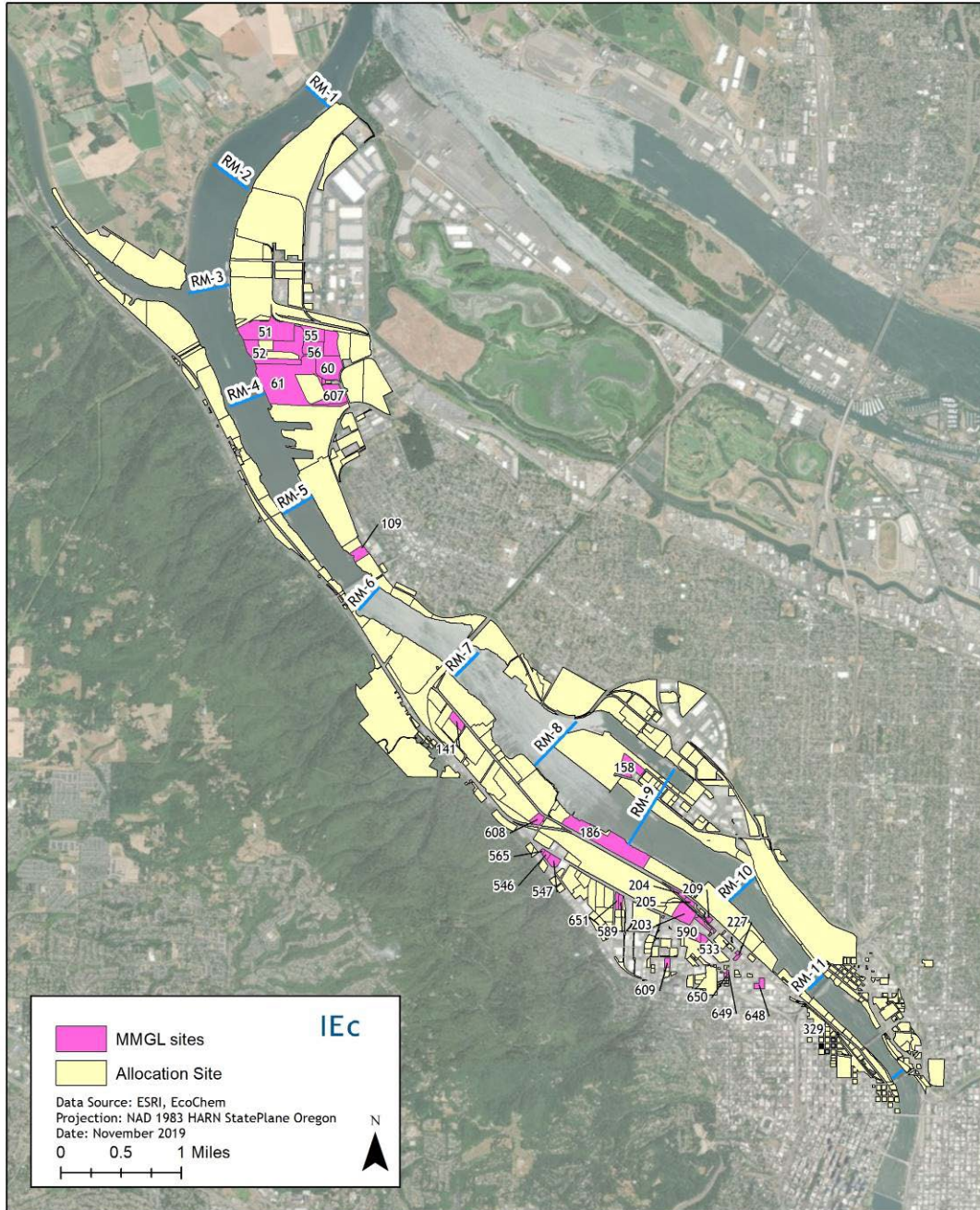
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<sup>1</sup> The allocation presented in this memorandum is limited to an allocation of natural resource damages liability by the Trustee Council and does not inform or have any application relative to other environmental liabilities associated with 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 MMGL SITES

Exhibit 2-1 is a map of the MMGL sites included in their party-specific allocation, and Exhibit 2-2 outlines 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 MMGL SITES



**EXHIBIT 2-2 MMGL SITE BACKGROUND INFORMATION**

<b>SITE ID</b>	<b>ADDRESS<sup>1</sup></b>	<b>CURRENT OWNER</b>	<b>MMGL DATES OF OWNERSHIP<sup>2</sup></b>	<b>SITE ACREAGE</b>
51	10350 N Time Oil Road	TOC Holdings	1975 – Unknown (pre-2001)	52
52	12005 N Burgard Street	Burgard (2N1W35C-00300)	1972 – 2016	14
52	12005 N Burgard Street	MMGL (2N1W35C-00200)	Unknown – Present	10
52	12005 N Burgard Street	Millican Properties LLC (2N1W35B-01400)	1973 – 2007	11.1
52	12005 N Burgard Street	Burgard 789 LLC (2N1W35AC-00100, 00600, 00700)	1972 – 2007	14.5
52	12005 N Burgard Street	Dash Multi-Corp (2N1W35B-02000, 02100)	1972 – 2006	10.1
55	9333 N Time Oil Rd	Steel Rail Investments LLC	1972 – 1994	13.3
56	9449 N Burgard Street	Millican Properties, LLC	1972 – 2005	18.5
60	9040 N Burgard Way	Lampros Steel/ Camrose Pipe Corp.	1972 – 1990	25.2
61	12005 N Burgard Rd	Schnitzer Steel Industries	1972 – 2005	89
109	8970 N Bradford St	Langley-St. Johns Partnership	1975 – 1990	7.1
141	6529 NW Front Avenue	MMGL	1971 – Present	6.3
158	5815 & 5851 N Lagoon Ave	Service Steel Inc.	1967 – 1981	14.5
186	4250, 4350, & 4700 Front Ave	Gunderson Inc.	1962 – 1980	85
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 <sup>th</sup> Ave	IPC Property Owner Pool 3 West LLC (1N1E29AA-01400)	1962 – 2006	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 <sup>th</sup> Ave	Spire-Yeon LLC (1N1E29AA-01500)	1962 – 2007	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 <sup>th</sup> Ave	McDonalds USA LLC (1N1E29AA-01600)	1948 – 2009	17.4

<b>SITE ID</b>	<b>ADDRESS<sup>1</sup></b>	<b>CURRENT OWNER</b>	<b>MMGL DATES OF OWNERSHIP<sup>2</sup></b>	<b>SITE ACREAGE</b>
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 <sup>th</sup> Ave	Yeon Industrial Park Condominium Assn (1N1E29AA-90000)	1962 – Unknown	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 <sup>th</sup> Ave	PHK Yeon LLC (1N1E29AB-00100)	Unknown – 2007	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 <sup>th</sup> Ave	Wendland Properties LLC (1N1E28B-01300)	Unknown (pre-2006)	17.4
204	3721/3727 NW Front Avenue	Manning LLC	1962 – 1996	2.0
205	3641/3683 NW Front Avenue	Van Domelen Family Company LLC	1985 – 2005	2.3
209	3333 NW Front Avenue	Ager Petroleum Packaging Co	1978 – 1995	1.2
227	2262 NW Nicolai Street	Pacific Outdoor Advertising	1968 – 1983	1.7
329	1415 NW 12 <sup>th</sup> Avenue	Astor Arep-II The Parker LLC	1977 – 2005	0.92
533	3033 NW Yeon Avenue	Harsch Investment Properties LLC	1972 – 1978	2.7
546	4319 NW Yeon Avenue	Shriyam LLC	1977 – 1997	1.9
547	4110 NW St Helens Road/4285 NW Yeon Avenue	Penske Truck Leasing Co LP	1971 - 2006	5
565	4325-4347 NW Yeon Avenue	SEMM LLC	1977 – 2005	0.76
589	3720 NW Yeon Avenue	Conax Properties USA Inc.	1968 – 1998	2.8
590	3061 NW Yeon Avenue	Yeon Associates LLC	1973 – 1978	1.8
607	12005 N Burgard Street	Western Machine Works	1972 – 2006	19
608	4959 NW Front Avenue	Lit Finance III LLC	1996 – 2007	4.9
609	2531-2535 NW 28 <sup>th</sup> Avenue	Oregon Oils Inc	1986 – 2008	2.4
648	2000 NW Wilson Street	MW 2000 Wilson LLC	1966 – 1976	3.6
649	2306 NW Reed Street	SP Property Investments LLC	1970 – 2004	0.46
650	2321-2337 NW York Street	JAMD Investments LLC	1970 – 1997	0.69

SITE ID	ADDRESS <sup>1</sup>	CURRENT OWNER	MMGL DATES OF OWNERSHIP <sup>2</sup>	SITE ACREAGE
651	3738 NW Yeon Avenue	Industrial Avenue LLC & 35 <sup>th</sup> Avenue LLC	1968 – 2005	2.5

Notes.

1. All addresses are located in Portland, Oregon.
2. MMGL was not an operator on any allocation sites.

### 3.0 MMGL OWNERSHIP

MMGL, formerly known as Schnitzer Investment Corporation, was incorporated in 1961 as a subsidiary of Schnitzer Steel Industries. The following section briefly describes MMGL’s ownership at the sites listed in Exhibit 2-2.

**SITE 51 (Time Oil):** Site 51 is located on the east side of the river at river mile 3.4. The eastern portion of the site was used for storage as part of the Oregon Shipbuilding operation during WWII. Since 1943, TOC Holdings/Time Oil has owned most of the property and until 2001 operated a petroleum-products handling and storage terminal. The part of the property adjacent to the river was the main terminal tank farm area. From 1974 to 1989, Crosby and Overton leased a portion of the site for waste oil storage, and from 1967 to 1982, Koppers leased a portion of the site for wood treatment products formulation, blending, and storage. When the terminal closed in October 2001, the main terminal tank farm contained 21 aboveground storage tanks. The fuel storage tanks were removed in 2009, and currently the property is mostly vacant.

MMGL owned a portion of the site from 1975 until an unknown date prior to 2001. The only allocation-related activities on this portion of the site were a railroad spur and storage of trailers.

**SITE 52 (Schnitzer Investment Corp #1):** Site 52 is located on the east side of the river at river mile 3.7. Time Oil owned the property from 1941 to 1943 and during that time constructed buildings, a loading dock, and ASTs for bulk fuel storage. In 1943, Time Oil relocated to approximately RM 3.4 (Site 51). The site became part of the Oregon Shipbuilding operation during WWII. After the shipyard was closed, the site was vacant for several years. MMGL acquired all the tax lots beginning in 1972/1973 and leased to various companies for edible oil storage, tugboat operations, car crushing, container storage, and automotive trailer manufacturing. Lessees have included companies such as Premier Edible Oils, Northwest Recycling, Boydston Metal Works, Morgan CSF, and Crowne Beverage. By 2016, MMGL had sold all tax parcels except for the tax lot along the northern edge of the slip. Currently, there are several owners in addition to MMGL, including Burgard, Millican Properties LLC, and Dash Multi-corp.

**SITE 55 (RLR Investments LLC):** Site 55 is located on the east side of the river at river mile 3.7. During WWII, the site was part of the Oregon Shipbuilding Corporation and included the shipyard barracks. From 1972 to 1994, MMGL owned the site and leased to various parties for dry good storage and trucking. MMGL built a warehouse in 1994 before selling to Ro-Mar Realty of Oregon. Steel Rail Investments LLC currently owns the site and leases to Ro-Mar Transportation Services, a local trucking and warehousing company.

**SITE 56 (Millican Properties LLC):** Site 56 is located on the east side of the river at river mile 3.8. During WWII, the site was part of the Oregon Shipbuilding Corporation and included the shipyard barracks, which also extended across Site 55. From 1972 to 2005, MMGL owned the site and leased to various companies for scrap metal and container storage. Millican Properties LLC currently owns the site and leases to Portland Container for container storage.

**SITE 60 (Lampros Properties LLC):** Site 60 is located on the east side of the river at river mile 4. During WWII, the site was part of the Oregon Shipbuilding Corporation and included a gravel parking lot. In the 1970s, the site was used for log storage. From 1972 to 1990, MMGL owned the site and leased to various parties for metals recycling (e.g., Schnitzer) and log storage. During that time, the site was also used for truck and trailer parking. Lampros Steel and Cambros Pipe Corporation currently own the site and conduct operations such as structural steel fabrication and distribution and storage of steel products, parts, and equipment.

**Site 61 (Schnitzer Burgard Industrial Park):** Site 61 is located on the east side of the river at river mile 4. During WWII, the site was part of the Oregon Shipbuilding Corporation and included the ship ways (the location of final ship assembly and launching) as well as a metals plate shop. MMGL acquired the site in 1972 and leased to various parties for ship dismantling, metals recycling, and steel product manufacturing. Schnitzer Steel Industries leased the property from 1972 to 2005 and in 2005 purchased it from MMGL. Schnitzer operations began with ship dismantling and metals recycling. Metra Steel, a division of Schnitzer, leased Building B from 1979 to 1990 to conduct steel manufacturing. Ship dismantling operations ended in the early 1980s. Schnitzer began recycling scrap metal in the early 1980s and continues to operate a recycling facility. Items recycled include automobiles, appliances, discarded steel members (e.g., steel beams), and other ferrous products. Calbag leases part of the site for non-ferrous metals recycling.

**Site 109 (Marcom South):** Site 109 is located on the east side of the river at river mile 5.6. In 1975, MMGL acquired two of the historic lots (4 & 6) from Floating Marine Ways, Inc., and in 1977 acquired a third historic lot (3) from Niko Investment Company. MMGL leased to various companies for marine vessel repair and wood products manufacture and sales. MMGL sold all three lots in 1990. Currently, the Langley-St. Johns Partnership owns the site, and Vintage Boats operates a vintage boat construction and repair facility.

**Site 141 (Schnitzer Investment Corp #3 – Air Liquide):** Site 141 is located on the west side of the river at river mile 7.5. Historically, half of the property was partially covered by East Doane Lake. Since the 1940s, various parties filled the lake using metal slag, scrap metal, demolition debris, hydraulic dredge spoils, shredded auto interiors, shredded battery casings, carbide sludge, and clean fill. In 1971, MMGL purchased the site and is currently the owner. The portion of the site that was filled is vacant, while the other portion (approximately half of the site) has been in use as an acetylene manufacturing plant since 1950.

**Site 158 (The Marine Group):** Site 158 is located on the east side of the river at river mile 8.6. The site has been owned by several parties including the Port of Portland (1922 to 1967) and MMGL (1967 to 1981). Multiple site owners have leased to companies that conduct ship repair operations including pipe, machine, sheet metal, electrical, metals plate shops, steel storage, sales, and distribution.

**Site 186 (Gunderson Inc.):** Site 186 is located on the west side of the river at river mile 9. In the 1930s, the site was mainly submerged land with a dock for Texaco/Equilon. From 1942, Gunderson Brothers Engineering Corporation owned and operated a rail car and marine barge manufacturing facility on Area 1. Their operations expanded to Area 2, which was created by landfill of dredged sediments in approximately 1948. Area 3 was created by landfill of dredged sediments beginning in 1957. In 1957, Schnitzer entered into an Asset Purchase Agreement with UPRR for Area 3 of the property and continued landfilling. Schnitzer held possessory interest in this portion of the site from 1957 to 1962 while making payments to UPRR. UPRR continued to hold the title. In 1962, Schnitzer transferred the Asset Purchase Agreement to MMGL. In 1964, MMGL completed payments and took ownership of this portion of the property. American Ship Dismantlers, a former Schnitzer subsidiary, operated a ship dismantling operation on Area 3 from 1963 to 1973. Schnitzer operated a scrap metal recycling facility in conjunction with the ship dismantling operations. From 1973 until the late 1970s, Schnitzer conducted automobile recycling at the site.

In 1965, FMC Corporation acquired Areas 1 and 2 and continued to manufacture rail cars and marine vessels. MMGL leased Area 3 to FMC beginning in 1979 and in 1980, MMGL sold Area 3 to FMC. FMC expanded the barge and rail car manufacturing operations into Area 3. In late 1980, FMC sold Area 3 to the Port of Portland and leased the property to continue operations. FMC was later acquired by Greenbrier/BW Industries, who renamed the company Gunderson. In 1985, Gunderson acquired Area 3 from the Port of Portland and since then has conducted rail car and marine barge manufacturing operations on Areas 1, 2, and 3.

**Site 203 (Schnitzer Investment Corp #5):** Site 203 is located on the west side of the river at river mile 10. The property was initially used as a scrap metal yard, barracks for the US Navy, and a cryogenic distillation facility. After WWII, the barracks buildings were used for various scrap yard operations. Schnitzer operated a scrap metal yard on a portion of the property from 1936 to 1978. Schnitzer's predecessors Schnitzer Steel Products and Morris Schnitzer owned portions of the site from 1946 to 1962, then MMGL owned the site from 1962 until the mid-2000s. The barracks were demolished by the late 1970s and new buildings were built for light industrial and commercial use, such as restaurants, office space, and a fabric warehouse. Currently, various LLCs own and lease portions of the property. The site includes a McDonald's and Starbucks, a parking lot, and other commercial buildings.

**Site 204 (Manning LLC):** Site 204 is located on the west side of the river at river mile 9.8. Schnitzer's predecessor Schnitzer Steel Products owned the property before 1962 (date unknown). The site was vacant through the mid-1960s. In 1962, MMGL acquired the property and leased it to Air Liquide's predecessor Industrial Air Products Co., who in turn subleased the property for various warehouse operations. MMGL sold the property in 1996. Since then, it has been used for light industrial/warehouse operations, such as a furniture store and fabrication of specialty products.

**Site 205 (Van Domelen Family Company LLC):** Site 205 is located on the west side of the river at river mile 9.8. The site was vacant until the early 1940s. Prior to 1978, there was a small warehouse and another building used for machining, welding, and repair operations. Schnitzer Brothers, Inc. operated a machining, welding, and repair shop from the early 1940s to the late 1970s. The current warehouse was constructed in 1978. MMGL owned the property from 1985 to 2005 and leased the property for commercial warehouse operations (e.g., paper and food products).

**Site 209 (Ager Petroleum Packaging Co):** Site 209 is located on the west side of the river at river mile 10. This property is occupied by a 25,000 square foot warehouse-distribution facility built in the late 1940s, as well as an asphalt parking/driveway surface. MMGL owned the property from 1978 to 1995, though it is unknown if MMGL leased the property to other parties. Ager Petroleum Packaging Co. currently owns the site and leases the building for warehouse distribution operations.

**Site 227 (Pacific Outdoor Advertising):** Site 227 is located on the west side of the river at river mile 10.4. MMGL owned the property from 1968 to 1983 but was not associated with any activities. The site is currently owned by Pacific Outdoor Advertising. This property is occupied by an 89,000 square foot warehouse and a smaller building along with an asphalt parking/driveway surface. It is leased to various parties for warehouse distribution and retail operations.

**Site 329 (Evergreen Galway LLC):** Site 329 is located on the west side of the river at river mile 11.3. In the 1940s and 1950s, the site was used for coal storage. Information about on-site operations from the 1960s through the 1980s is limited. MMGL owned the property from 1977 to 2005, and in the 1990s leased it for mail processing and fabrication of wood and steel doors. MMGL was not associated with any activities. Currently, the site is occupied by The Parker Apartments, which were built in 2014.

**Site 533 (Montgomery R Scott):** Site 533 is located on the west side of the river at river mile 10. The property was vacant until the 1950s. MMGL owned the property from 1972 to 1978 but was not associated with any activities. Currently, the site is owned by Harsch Investment Properties LLC and is occupied by a commercial building and a parking/driveway surface which was built as early as 1956.

**Site 546 (PDX-NW INN-vestments LLC):** Site 546 is located on the west side of the river at river mile 8.6. From 1938 to 1977, McCullough and Sons, Inc. owned the property and fabricated equipment and storage tanks from steel and pure metal plate. MMGL acquired the property in 1977. The McCullough facilities were demolished in 1985, and MMGL built a hotel and leased it to Best Western. MMGL sold the site to PDX-NW INN-vestments, LLC in 1997. MMGL was not associated with any activities. The site is currently owned by Shriyam LLC and is occupied by a La Quinta Inn & Suites.

**Site 547 (Penske Truck Leasing Co LP):** Site 547 is located on the west side of the river at river mile 8.6. Prior to 1948, the United States owned the property. From 1948 to 1970, the Portland School District owned the property and built an elementary school which was used as a school through the 1950s and as a school supply warehouse during the 1960s. The building was demolished in 1971 when MMGL acquired the property. During MMGL ownership, the property was leased to various freight companies. Penske Truck Leasing Company acquired the site in 2006 and currently operates a truck rental facility.

**Site 565 (SEMM LLC):** Site 565 is located on the west side of the river at river mile 8.5. From 1938 to 1977, McCullough and Sons, Inc. owned the property and fabricated equipment and storage tanks from steel and pure metal plate. MMGL acquired the property in 1977. The McCullough facilities were demolished in 1985. MMGL built a warehouse in 1994 and leased to other parties. SEMM LLC acquired the site in 2005 and currently leases to various parties for commercial use.

**Site 589 (WIRFS DON):** Site 589 is located on the west side of the river at river mile 9.2. From 1946 to 1965, a battery manufacturing facility operated on the site. The warehouse was used for storage and distribution of various chemicals from 1965 until 1970. Since then, the warehouse has been used by various parties for general warehouse operations and bag manufacturing. From 1968 until 1998, MMGL



owned the property and leased to other parties. Conax Properties USA Inc. currently owns the site and leases to a roofing supply company.

**Site 590 (Yeon Associates LLC):** Site 590 is located on the west side of the river at river mile 10. The property was vacant until the 1950s. As early as 1956, a building was constructed on-site and over the years has been leased to various parties for storage and retail operations. MMGL owned the property from 1973 to 1978 but was not associated with any activities. Yeon Associates LLC acquired the property and currently leases to retail operations.

**Site 607 (Schnitzer Investment Corp #2):** Site 607 is located on the east side of the river at river mile 4. During WWII, the site was part of the Oregon Shipbuilding Corporation and included a salvage building, sludge pond, and waste burning area. Since then, the site has been used for ship breaking and scrap yard operations, log storage, steel form rolling, sandblasting, steam cleaning, and painting. MMGL owned the land from 1972 to 2006, built two warehouses in 1978, and leased to other operators including Schnitzer, which operated a truck maintenance and repair facility from the late 1970s to 1994. Western Machine Works currently owns the property and leases space to companies who perform metal cutting, truck maintenance, and scrap metal recycling.

**Site 608 (Schnitzer Investment Corp #4 – Air Liquide):** Site 608 is located on the west side of the river at river mile 8.5. From 1947 to 1985, the property included an acetylene manufacturing plant. Lime was a byproduct of operations and was deposited in a sump in the middle of the property. Gas cylinder filling and distribution were also performed on-site. The acetylene plant was demolished in 1991, and from 1991 to 1996, the property was used for scrap metal recycling (e.g., sorting). MMGL acquired the land in 1996, demolished the old facilities, and redeveloped the property as a commercial and light industrial use park. MMGL was not associated with any activities. LIT Finance III LLC acquired the site in 2007 and leases it to sign and screen-printing suppliers, hardware suppliers, analytical laboratories, and industrial equipment suppliers.

**Site 609 (Schnitzer Investment Corp #6):** Site 609 is located on the west side of the river at river mile 10. From the 1920s to the early 1970s, a foundry shop operated by various parties was located on the western portion of the property. The property was also used for mechanical part repairs (e.g., cutting, drilling, grinding, welding) and for storage. From 1986 until at least 2008, MMGL owned the land and leased the property and warehouse. General Electric operated a commercial PCB-decommissioning facility licensed by EPA from 1983 to 2001. Currently, Oregon Oils, Inc. owns the property and recycles used cooking oil for biodiesel.

**Site 648 (MW 2000 Wilson LLC):** Site 648 is located on the west side of the river at river mile 10.7. The property was used for various commercial businesses. MMGL owned the land from 1966 to 1976, though it is unknown if MMGL leased the property. MMGL was not associated with any activities. Currently, MW 2000 Wilson LLC owns the site and leases the warehouse to R & H Construction.

**Site 649 (SP Property Investments LLC):** Site 649 is located on the west side of the river at river mile 10.4. The property was used for various commercial businesses. MMGL owned the land from 1970 to 2004 and leased the property to a vintage woodworking company. MMGL was not associated with any activities. Currently, SP Property Investments LLC owns the site and leases the warehouse to SP Provisions Wholesale Meats.

**Site 650 (JAMD Investments LLC):** Site 650 is located on the west side of the river at river mile 10.4. The property was used for various commercial businesses. MMGL owned the land from 1970 to 1997, though it is unknown if MMGL leased the property. Currently, JAMD Investments LLC owns the site and leases the warehouse to various commercial parties.

**Site 651 (Industrial Avenue LLC & 35<sup>th</sup> Avenue LLC):** Site 651 is located on the west side of the river at river mile 9.2. From 1946 to 1965, the site was a parking lot for the battery manufacturing facility on an adjacent site. In 1966, a warehouse was constructed and used by various parties for storage and distribution. MMGL owned the property from 1968 to 2005. Currently, Industrial Avenue LLC & 35<sup>th</sup> Avenue LLC owns the site and leases the warehouse and parking lot to an office furniture company.

#### 4.0 MMGL ACTIVITIES

Exhibit 4-1 identifies, for each of MMGL’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 MMGL-RELATED ACTIVITIES<sup>1</sup>

<b>MMGL Activities - Site 51</b>
Creosote treated wood pilings
<b>MMGL Activities - Site 52</b>
Landfill of dredged sediments-Willamette prior to 1980
<b>MMGL Activities - Site 55</b>
Landfill of dredged sediments-Willamette prior to 1980
<b>MMGL Activities - Site 56</b>
Landfill of dredged sediments-Willamette prior to 1980
<b>MMGL Activities - Site 60</b>
Landfill of dredged sediments-Willamette prior to 1980
underground storage tank (UST) diesel
UST gasoline
<b>MMGL Activities - Site 61</b>
Creosote treated railroad ties
Creosote treated wood pilings
Landfill of dredged sediments-Willamette prior to 1980
Ship berthing
UST diesel
UST gasoline
<b>MMGL Activities - Site 109</b>
Creosote treated wood pilings
Landfill of dredged sediments-Willamette prior to 1980
Ship berthing
Ship/boat maintenance and/or construction
UST diesel
UST gasoline

<b>MMGL Activities - Site 141</b>
Auto-shredder residue used as landfill
Landfill of construction and demolition debris
Landfill of dredged sediments-Willamette prior to 1980
Landfill of scrap metal
Slag storage or landfill
<b>MMGL Activities - Site 158</b>
UST gasoline
<b>MMGL Activities - Site 186</b>
Creosote treated railroad ties
Creosote treated wood pilings
Landfill of dredged sediments-Willamette prior to 1980
Ship berthing
UST diesel
UST gasoline
UST other petroleum/unknown petroleum
<b>MMGL Activities - Site 203</b>
Creosote treated railroad ties
UST diesel
UST gasoline
UST other petroleum/unknown petroleum
<b>MMGL Activities - Site 204</b>
UST other petroleum/unknown petroleum
<b>MMGL Activities - Site 205</b>
Creosote treated railroad ties
<b>MMGL Activities - Site 209</b>
UST other petroleum/unknown petroleum
<b>MMGL Activities - Site 547</b>
UST diesel
UST gasoline
UST heating oil
UST lubrication oil
UST waste oil

<b>MMGL Activities - Site 565</b>
UST other petroleum/unknown petroleum
<b>MMGL Activities - Site 589</b>
Creosote treated railroad ties
Landfill of dredged sediments-Willamette prior to 1980
UST gasoline
UST bunker C
<b>MMGL Activities - Site 607</b>
Creosote treated railroad ties
UST diesel
UST gasoline
UST hydraulic fluid
UST lubrication oil
<b>MMGL Activities - Site 609</b>
UST heating oil
UST other petroleum/unknown petroleum
<b>MMGL Activities - Site 650</b>
UST heating oil
<b>MMGL Activities - Site 651</b>
Creosote treated railroad ties
Landfill of dredged sediments-Willamette prior to 1980

Note.

1. MMGL did not conduct relevant activities at Sites 227, 329, 533, 546, 590, 608, 648, and 649.

## 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 44 additional documents submitted by Phase 2 parties that are settlement confidential and therefore not identified.