

Portland Harbor Natural Resource Damage Assessment Phase 2: Allocation Summary Memo for Schnitzer Steel Industries

1.0 INTRODUCTION

Schnitzer Steel Industries, Inc. (Schnitzer), 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 11 sites with which Schnitzer is associated: 60, 61, 141, 157, 158, 186, 203, 204, 205, 501, and 607.¹ 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, Schnitzer's liability is calculated to be 37.49 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 Schnitzer's sites.
- ❖ Section 4 outlines Schnitzer'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 SCHNITZER SITES

Exhibit 2-1 is a map of the Schnitzer sites included in their party-specific allocation, and Exhibit 2-2 outlines background information for each of these sites. The relevant tax 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 SCHNITZER SITES

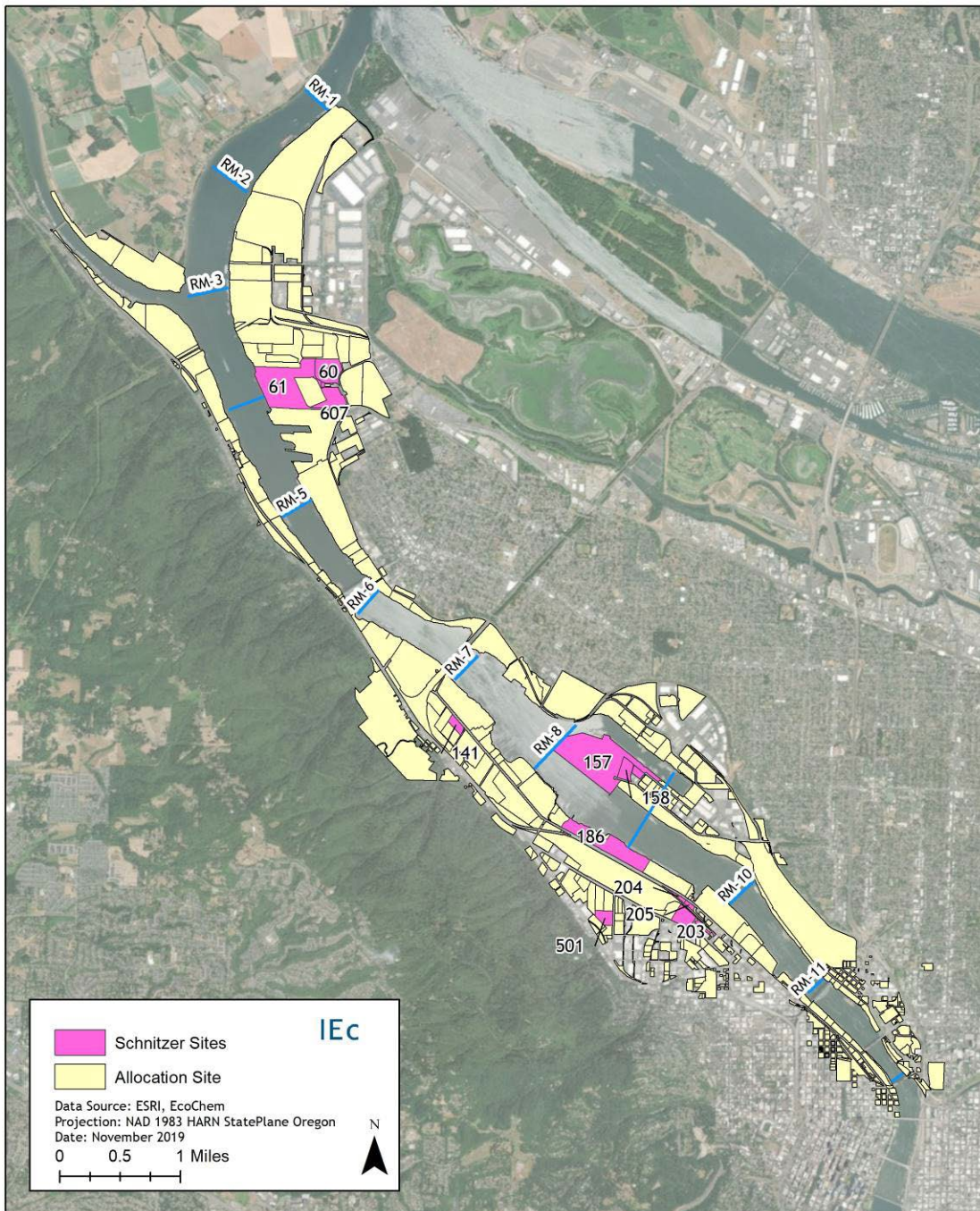


EXHIBIT 2-2 SCHNITZER SITE BACKGROUND INFORMATION

SITE ID	ADDRESS¹	CURRENT OWNER	SCHNITZER DATES OF OWNERSHIP/OPERATION	SITE ACREAGE
60	9040 N Burgard Way	Lampros Steel/ Camrose Pipe Corp.	1980 – 1990 Operator	25.2
61	12005 N Burgard Rd	Schnitzer Steel Industries	2005 – Present Owner 1972 – Present Operator	89
141	6529 NW Front Avenue	MMGL	Late 1960s – 1970s Operator	6.3
157	5555 N Channel Ave	Cascade General/ Vigor Industrial Shipyard Commerce Center LLC	1963 – 1970 (as Woodbury & Co.) Operator	57
158	5815 & 5851 N Lagoon Ave	Service Steel Inc.	1963 – 1970 (as Woodbury & Co. and Metra Steel) Operator	14.5
186	4250, 4350, & 4700 Front Ave	Gunderson Inc.	1957 – 1962 Owner 1958 – late 1970s Operator	85
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 th Ave	IPC Property Owner Pool 3 West LLC (1N1E29AA-01400)	1946 – 1962 Owner 1936 – 1978 Operator	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 th Ave	Spire-Yeon LLC (1N1E29AA-01500)	1964 – Unknown Operator	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 th Ave	McDonalds USA LLC (1N1E29AA-01600)	None	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 th Ave	Yeon Industrial Park Condominium Assn (1N1E29AA-90000)	1948 – 1962 Owner 1936 – 1978 Operator	17.4

SITE ID	ADDRESS ¹	CURRENT OWNER	SCHNITZER DATES OF OWNERSHIP/OPERATION	SITE ACREAGE
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 th Ave	PHK Yeon LLC (1N1E29AB-00100)	1946 – 1962 Owner 1936 – 1978 Operator	17.4
203	3200 – 3340 NW Yeon Ave 3340 – 3342 NW 26 th Ave	Wendland Properties LLC (1N1E28B-01300)	None	17.4
204	3721/3727 NW Front Avenue	Manning LLC	Unknown – 1962 Owner	2.0
205	3641/3683 NW Front Avenue	Van Domelen Family Company LLC	Unknown – 1985 Operator	2.3
501	3333 NW 35 th Avenue	Guilds Lake Properties LLC	1956 – 1963 (as Woodbury Steel Co.) Operator	9.3
607	12005 N Burgard Street	Western Machine Works	Late 1970s – 1994 and Unknown - Present Operator	19

Note.

1. All addresses are located in Portland, Oregon.

3.0 SCHNITZER OWNERSHIP AND OPERATIONS

Schnitzer was allocated liability for Woodbury & Co., Woodbury Steel Company II, American Ship Dismantlers, Schnitzer Brothers, Inc., Schnitzer Steel Products, Morris Schnitzer, and Metra Steel. The following section describes Schnitzer’s ownership of and operations at the sites listed in Exhibit 2-2.

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. Schnitzer leased the property for metals recycling from 1980 to 1990. The site has also been 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. Schnitzer leased the property from 1972 to 2005 and purchased it from MMGL in 2005. 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 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 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 the late 1960s and 1970s, Schnitzer landfilled auto shredder residue at the site, mainly on top of existing fill. Currently, the site is owned by MMGL. The portion of the site that was filled is vacant, while the other portion (approximately half of the site) is leased to another party. The leased portion has been in use as an acetylene manufacturing plant since 1950.

Site 157 (Portland Shipyard): Site 157 is located on the east side of the river at river mile 8.5. The Port of Portland purchased the property in 1922 and conducted excavation and filling operations in the 1920s. There was a municipal airport on the site from 1931 to 1941, and the site was used for shipbuilding operations during World War II. Since then, ship repair contractors have worked with vessel owners and operators to perform ship repair work. Schnitzer's predecessor Woodbury & Co. performed steel fabrication operations from 1963 to 1970 in Bays 3-5. Cascade General/Vigor is the current owner. Vigor provides full-service shipyard operations as well as bridge building and other steel structure construction.

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. From 1963 to 1970, the gasoline underground storage tank for Schnitzer's (as Woodbury Steel) operations at the adjacent Portland Shipyard (Site 157) was located on Site 158.

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. Since the late 1970s, various parties have leased the space for commercial warehouse operations (e.g., paper and food products).

Site 501 (Guilds Lake Properties LLC): Site 501 is located on the west side of the river at river mile 9.2. The site was used for multi-tenant government housing in the 1940s. A warehouse was built in the 1950s and used for storage and distribution of steel products until the early 1960s. A portion of the property was used for vehicle repair and painting during this time. From May 1956 to January 1963, Woodbury Steel Company (a predecessor of Schnitzer) operated on the site, storing and distributing steel products. In 1963, the property was redeveloped for use as a truck terminal. The terminal included a fueling island, washing facility, and maintenance shop. Several freight carriers and truck maintenance companies have operated on the site. Currently, the site includes a freight terminal with a maintenance shop, loading dock, and warehouse.

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. Schnitzer operated a truck maintenance and repair facility from the late 1970s to 1994. Currently, Schnitzer operates a scrap metal recycling facility in one of the warehouses on the property. Western Machine Works owns the property and leases space to companies who perform metal cutting, truck maintenance, and scrap metal recycling.

4.0 SCHNITZER ACTIVITIES

Exhibit 4-1 identifies, for each of Schnitzer’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 SCHNITZER-RELATED ACTIVITIES¹

Schnitzer Activities - Site 60
above-ground storage tank (AST) hydraulic fluid
Oil/water separation/filtration use
underground storage tank (UST) diesel
UST gasoline
Schnitzer Activities - Site 61
auto-shredder residue (ASR) generation/storage
AST diesel
AST gasoline
AST hydraulic fluid
AST other petroleum/unknown petroleum
AST waste oil
Creosote treated railroad ties
Creosote treated wood pilings
Extensive vehicle operations
Landfill of dredged sediments-Willamette prior to 1980
Petroleum leaks/spills
Scrap metal yard operation
Ship berthing
Ship dismantling
Steel fabrication
UST diesel
UST gasoline
Schnitzer Activities - Site 141
ASR used as fill
Schnitzer Activities - Site 157
Steel fabrication
Schnitzer Activities - Site 158

UST gasoline
Schnitzer Activities - Site 186
ASR generation/storage
Dissemination of lead – Site 186
Landfill of dredged sediments-Willamette prior to 1980
Petroleum leaks/spills
Scrap metal yard operation
Ship berthing
Ship dismantling
Storage of lead batteries
UST gasoline
UST diesel oil
UST other petroleum/unknown petroleum
Schnitzer Activities - Site 203
Creosote treated railroad ties
Scrap metal yard operation
Schnitzer Activities - Site 205
Mechanical/electric motor repair and maintenance
Schnitzer Activities - Site 607
Extensive vehicle operations
Mechanical/electric motor repair and maintenance
Scrap metal yard operation
UST diesel
UST gasoline
UST hydraulic fluid
UST lubrication oil

Note.

1. Schnitzer did not conduct relevant activities at Sites 204 and 501.

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