

SECTION 2.0 DESCRIPTION OF PORTLAND HARBOR

This section describes the values represented by the uses and resources of Portland Harbor. The Willamette River Basin is an integral part of the State of Oregon's economy and is home to many of the natural resources that make the state a healthy, safe, and enjoyable place for people to live and work. The Willamette River runs through and along farms, cities, forested lands, and industrial properties, and is used for fishing and recreation. The waterway also flows through the heart of Portland and some of the most industrial sections of the city. This central role and varied use of the waterway and surrounding land make addressing its sediment conditions and protecting its numerous uses essential. Figure 2-1 provides locational information on the River and the Portland Harbor area.

Industrial uses of Portland Harbor began in the mid-1800s when the first wharves were constructed to support international and intercoastal steamship service. In 1868, the first river dredging was conducted and, since that time, the Willamette River has been continually dredged for navigational and maintenance purposes. In 1996, more than 28 million tons of goods were exported through the Columbia and lower Willamette River, including wheat, corn, forest products, and soda ash. Approximately 3.8 million tons of commodities were imported during the same year, including alumina, limestone, cement, and crude salt. Some of the historical or current industrial operations along Portland Harbor include:

- marine construction
- bulk petroleum product storage and handling
- construction material manufacturing
- oil fire fighting training activities
- oil gasification plant operations
- pesticide/herbicide manufacturing
- wood treating operations
- agricultural chemical production
- battery processing
- liquid natural gas plant operations
- hazardous waste storage
- chlorine production
- ship loading and unloading; ship maintenance, repair, and refueling
- rail car manufacturing
- metal scrapping and recycling

In addition to the major industrial activities that occur along the River and in Portland Harbor, there are other equally important uses that benefit the region. Recreational (and possibly subsistence) fishing take place within the Harbor and both up and down-stream. The fishing surveys called for by the plan will determine whether subsistence fishing occurs within the Harbor. Recent studies have identified many species of fish and wildlife along the Willamette River and within the Portland Harbor area. Recent ESA listings of selected salmon species as threatened increase the importance of those re-sources. Piscivorous (fish-eating) birds, migratory waterfowl, and raptors utilize the lower Willamette River during various times of the year. Spring chinook contribute substantially to the mainstem Columbia River sport fishery and consistently support the largest recreational fishery in the lower Willamette River. Tribal fishing is a key issue. Other uses which bring people into contact with Portland Harbor include fishing for consumption, swimming, and boating.

Historic development of the Willamette River led to an increase in its use for transportation, water supply, and waste disposal. Disposal of raw sewage and industrial sources led to degradation of water quality. By the 1920s, the river was so polluted that dissolved oxygen fell low enough to prevent the passage of game fish, and bacteria levels made the water unsafe for any human use. In the 1950s, the City of Portland developed and implemented a sewage management plan to minimize the discharge of raw sewage into the River. Other cleanup activities in Portland Harbor and surrounding portions of the Willamette River have been ongoing since the early 1970s, when controls were placed on industrial discharges and municipal waste disposal facilities were constructed throughout the Willamette Basin. Releases of pollutants

continued to occur, however, and residual contamination from earlier historical activities remained in river sediments. DEQ continued to follow up on sources of contamination.

Beginning in the late 1980s, DEQ's cleanup program began working with parties associated with known releases to the Harbor, providing oversight of remedial investigations and cleanup activities. In cases where responsible parties were no longer viable,

DEQ has used the Orphan Site Account to conduct necessary response measures under the Oregon cleanup law and associated rules. In some cases, sites were listed on the National Priorities List and DEQ worked with EPA to complete investigations. In the early 1990s, DEQ's Voluntary Cleanup Program was created. This program provides staff resources for oversight of investigation and cleanup activities conducted by cooperative parties seeking state approval and determination that their investigation and cleanup actions meet the requirements of the Oregon cleanup regulations. Several facilities within Portland Harbor have initiated cooperative relationships with DEQ under this program.