

The First People of the River: The Duwamish

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“Duwamish,” the Anglicized word for dx^wd əwʔabš, means “people of the inside” in the Lushootseed language. The Duwamish people have lived on the river that bears their name for thousands of years. They are bound to the river and the river is bound to them. When the first white settlers began arriving in the 1850s, the Duwamish occupied at least seventeen villages and lived in over ninety longhouses along Elliott Bay, the Duwamish River, the Cedar River, the Black River, Lake Washington, Lake Union, and Lake Sammamish.

Duwamish families lived in longhouses, typically constructed with planks made from cedar—a tree that was plentiful in the area—with a doorway that faced the river. Longhouses could be sixty to one hundred feet in length. An extended family (or families) typically occupied a single longhouse and cooperated in obtaining food, building canoes, and other daily tasks.

The diet of the Duwamish included fish, plants, birds, mammals, reptiles, shellfish, and other marine life—all who depended upon the river for survival. Salmon were an important food source. Chinook, coho, steelhead, and chum returned each season, drawn by the flow of the river waters from which they came. Chinook entered into the tidal estuaries and moved up to the valley plains to spawn in the streams feeding the connecting rivers upstream. Coho and steelhead sought out native streams and lakes in the lower foothills, while chum returned to spawn in the sloughs and creeks of the lowland river. The river helped sustain many food sources of the Duwamish: raspberries, blackberries, huckleberries, lady fern, seaweed, cormorants, gulls, deer, squirrel, codfish, perch, clams, and whelks.

- *Learn more about the gathering and preparing of food in the VR experience.*

Chief Si'ahl (ca. 1786-1866), or Chief Seattle, as he is commonly known, is the most well-known of the Duwamish from the time of European contact. The city of Seattle is his namesake. Other members of his family continued to live in the area, even after white settlements encroached on their land. “Indian Billy” Phillips (Sbeebayoo; birth/death dates unknown) was the nephew of Chief Seattle. He and his wife Ellen (1812-1910) were displaced and lived in a cabin at the foot of Stacy Street, just south of the Pioneer Square neighborhood. Princess Angeline (Kikisoblu, ca. 1820–1896) was the eldest daughter of Chief Seattle. An early white settler woman thought Kikisoblu should have a name that would reflect her status as the daughter of a great chief -- so she renamed her “Princess Angeline.” The name stuck.

The Duwamish Tribe are still here.

Ken Workman, heard as he welcomes you in the VR experience for this exhibition, is a Duwamish Tribal Councilmember. He is the great-great-great-great grandson of Chief Seattle.



Industry and Its Effects on the River

With the dredging and straightening, the mouth of the Duwamish River now contained two 750-wide channels, 35 feet deep, and a mile long—perfect for supporting industry. By the 1940s, industries were established on approximately 1,270 acres along the river and the channel was 50 feet deep in some areas. Little land remained: shipyards, dry docks, oil and steel companies, construction companies, plane manufacturing, cement factories, chemicals, and machines occupy the banks where longhouses and homesteads once stood. In the first six months of 1948 alone, thirty-seven new plants were established along the river. The Duwamish Waterway had firmly established itself as Seattle's premier industrial district.

The Boeing Airplane Co. was incorporated on May 9, 1916, and began production in its “Red Barn” facility. By the 1930s, Boeing had two plants along the Duwamish Waterway. Plant #2 was one of the largest aircraft factories in the world, covering more than forty acres about four miles upriver from Elliott Bay. It was so big that it spilled off the land, spreading over the water on hundreds of wooden pilings. The plant was built specifically for manufacturing the B-17 Flying Fortress, the U.S. Army's favored long-range bomber. Boeing employed tens of thousands of employees, including women.

Many businesses along the river existed for decades. In 1937, the Duwamish Manufacturing Company opened its doors to produce roofing asphalt across the river from Boeing Plant #2. In 1978, the property was purchased by MCW, Inc. (Malarkey, Chance, and Wyborne) and roofing asphalt manufacturing continued. MCW, Inc. later changed its name to Malarkey Asphalt Company and continued asphalt manufacturing operations until 1993.

These industries provided thousands of jobs and helped establish Seattle as an important manufacturing and production center. The benefits to the city's economy, however, came at a great cost to the Duwamish River. The production of bombers, for example, created heavy metal waste (cadmium, lead, manganese, silver, and zinc), cyanide and PCBs (polychlorinated biphenyls) which made its way into the river. Oil and generator waste leaked through pipes or dripped through wooden floors which leached into the soil and groundwater making their way into the river. Each day, workers poured gallons of chromic acid waste directly into the river. Asphalt, as another example, is derived from crude oil and PCBs, cPAHs, and zinc waste escaped the factories and polluted the river. Other industries contributed chromates, acid pickling liquor, caustic liquids, synthetic resins, formaldehyde compounds, phenols, pentachlorophenols, acetylene sludges, and arsenic compounds to the soil, groundwater, and the river. And, in the first decades after straightening the river, everyone poured their sewage into the Duwamish River.

The Evolution of the Duwamish River

The Duwamish River, whose Lushootseed name is $\text{dx}^{\text{w}}\text{d}\text{əw}^{\text{?}}\text{ab}\check{\text{s}}$, is a 12-mile-long stretch of river that begins when the Green River reaches Tukwila, and connects with many Seattle neighborhoods along its path, including Georgetown, South Park, and Delridge. It then branches off into its East and West Waterways around man-made Harbor Island before flowing out into Elliott Bay near Duwamish Head.

For thousands of years, the river first nourished the people of the Duwamish Tribe, offering a rich environment where several varieties of salmon and other fish and aquatic life flourished in its waters and vegetation, providing sprouts, roots, nuts, berries, and crabapple, grew along its banks. In the mid- to late 19th century, white settlers displaced the Duwamish people and the river continued to provide, offering its fertile soil for farming and desirable property for homesteads, social services, and schools.

Industry soon understood the economic value of a waterway that could transport lumber and move vessels full of goods from inland out into Elliott Bay, connecting to the Puget Sound and the Pacific Ocean. Commerce and industry demanded that the river accommodate its needs and great feats of engineering were enacted to see this vision through. In the decades that followed, industry, however, would not care for the Duwamish River. Factories and mills poisoned its waters through run-off, dumping, and culvert diversions. The river was no longer the nourishing body of water it once had been, and its abject pollution and toxic river floor ultimately led to its designation by the Environmental Protection Agency (EPA) as a Superfund site in 2001.

However, with great pain comes great changes. The people of South Seattle, including the Duwamish Tribe and environmental groups, are leading the charge to clean up the river. Its evolution is once again turning toward the positive. Efforts to raise awareness of the river's plight, neighborhood organizing, and restitutorial actions are resulting in productive change. Recognizing its place in this land's history, the Duwamish River is, once again, being honored and celebrated.

Environmental Impact

By the 1940s, only fifteen percent of the Duwamish River's original tidal marshes remained. Most of the tidal swamps and wetlands were gone. Juvenile salmon heading downstream and adults returning home could no longer find respite in those marshes. Industries and growth along the Duwamish River changed the way the river smelled, disturbing the olfactory imprinting that helps salmon find its way home. The changes to and growth on the river had a significant environmental impact.

Salmon runs continued to suffer as industries continued to grow, and in the 1990s, the first salmon "distinct population segment" was listed under the Endangered Species Act. With this action, debate and policy shifted toward protecting salmon runs from extinction. The U.S. Fish and Wildlife Service, the National Marine Fisheries Service (NMFS), local government, the Duwamish and Muckleshoot tribes, businesses and community groups began leading the way on habitat restoration projects.

In addition to the habitat problem, the water and the riverbed had become more and more toxic. In a 1945 report for the Washington Pollution Control Commission, an inspector wrote, "The Duwamish Waterways within the City of Seattle receives a larger volume and greater variety of polluting substances than all of the remaining watershed combined." And, commenting on a dry dock company who had poured five hundred pounds of acetylene lime slurry into the river each day for a prolonged period of time, he reported, "While it is recognized that, during that existing war emergency [World War II], speed in the repair of ships is vital, the extensive and continued spilling of oil into the West Waterway and Elliott Bay does not seem justified." The river had been a dumping ground and its environment disregarded. It was time to do something, but it would take a few decades.

In the 1970s, a group of scientists from the National Oceanic and Atmospheric Administration (NOAA) started studying the water and sediment quality of the Puget Sound. They found large quantities of toxins in the sediment near the mouth of the Duwamish River and salmon that were very sick. They were able to connect a line between certain chemicals and the fishes' pathologies in their fin rot and liver tumors. In 1983, compelled in part by NOAA's findings, the Puget Sound Water Quality Authority (now the Puget Sound Partnership) was formed. The federal government sued the City of Seattle and King County for their "collective abuses" to the Duwamish River and Elliott Bay forcing them to take action. NOAA and the EPA conducted further studies in the 1990s. Their surveys named more than forty contaminants in the mud, fish, and shellfish of the river. These findings would ultimately lead the EPA to designate the Duwamish Waterway as a "Superfund" site.

A Superfund site is "any land in the United States that has been contaminated by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment."

In addition to work being done through the federal and local government, groups like the Duwamish River Cleanup Coalition/Technical Advisory Group (DRCC/TAG) and the Lower Duwamish Waterway Group (LDWG) are actively engaging in cleanup efforts. The Duwamish Tribe is active in this work, and local businesses along the river are getting involved too. The LDWG has already cleaned up about 29 acres of sediment and reduced average surface sediment levels of PCB contamination by over one-half. As a direct result of the advocacy work spearheaded by DRCC/TAG, the EPA conducted the first-ever environmental justice analysis of a Proposed Cleanup Plan for a Superfund site in the U.S. Working with the EPA, the DRCC/TAG's Final Cleanup Plan includes: 105 acres of dredging toxic bottom river mud and kick-starting 48 acres of "Enhanced Natural Recovery," among other critical tasks.