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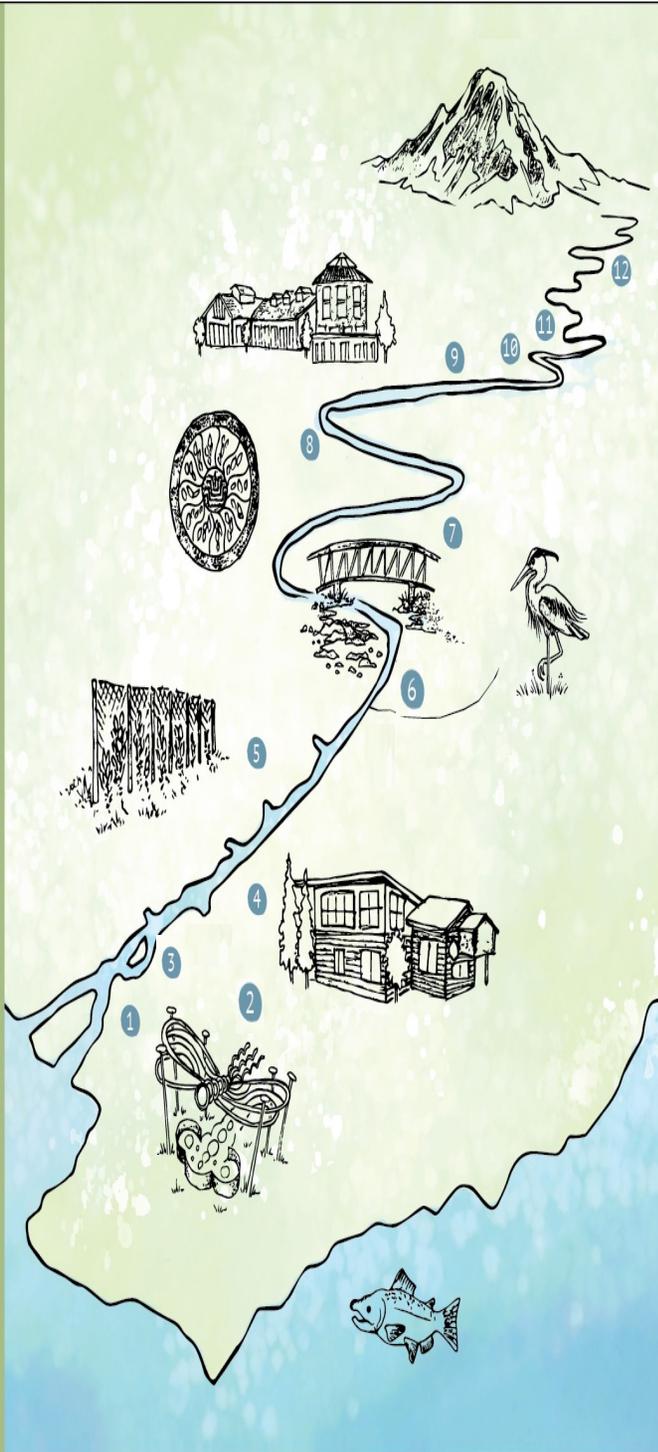
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Thank You,
Graphics: Jeff Chandler
Activities: Olena Perry &
Caroline Borsenik



Green-Duwamish Journey



Take the Journey with Duwamish Alive!

Green-Duwamish Guide Book

Explorer's Name _____

Dates of Expeditions _____

Locations:



Welcome

to one of the most fascinating journey's,
right in your own backyard —

Explore the area of an ancient Duwamish village, dating back to 600 AD.

Visit an actual Longhouse while learning about the Duwamish Tribe's culture and history. Then visit locations of historical and cultural importance for the Coast Salish tribes of the area.

Learn about the diverse wildlife that lives within the watershed and depends on the river.

Experience many of the habitats we have locally and why they are important.

See returning salmon to spawn, learning about the river's 5 species of salmon: Chinook, Coho, Pink, Chum, and Sockeye.

The Green-Duwamish Watershed is one of the most interesting places to explore and grounds us with a sense of place. We have created a journey with interesting locations that tell the unique story of this area, its geology, history, ecology, and its peoples over time. The returning salmon, the snow capped mountains, the bald eagles that fly overhead, and Puget Sound all are a part of our identity as people of the Pacific Northwest. This river has taught us about resiliency and the importance of committed stewardship in caring for all those living that depend on it. *We are part of the river and it is part of us. ENJOY!*

Please use this guide to explore the river's watershed, most locations are easy to walk and are ada accessible. Please check ahead of your trip if you have concerns. Most locations have formal parking areas, please use these. The locations are listed with addresses and can easily be located with online maps.

Included is additional information and fun activities for all ages to help experience these places with new perspectives and insights. *Take a crayon and thin paper with you for leaf rubbings.*

Stewardship

How Do You Care For Our Green-Duwamish?

We all have a responsibility to care for these treasured natural areas, taking simple actions to maintain their health.

While on the Green-Duwamish Journey what actions did you take?

- picked up litter
- removed discarded fishing line and put in trash
- scooped dog poop and put in the trash can.
- biked, or walked to a Journey location.
- visited a listed location I have never been to.
- found and read the Journey sign at each location.
- brought a friend/family member to the Green-Duwamish River

Now that you have had an experience with the Green-Duwamish Watershed, how are you going to support watershed health?

- scoop dog poop and put in the trash can
- Reduce the use of gardening chemicals
- reduce the use of styrofoam products
- reduced the use of plastic, for example, straws, bags, bottles, and packaging
- Pick up litter
- Participate in a volunteer opportunity that supports watershed health.
- Walk, bike or take public transportation instead of using a vehicle.
- Share with others how to be good stewards of our watershed

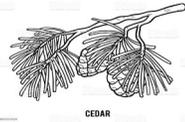
Other:

NOW Enter your responses to win a raffle prize at

DuwamishAlive.org

Or mail this page to DNDA Raffle 4408 Delridge Way SW, Seattle, WA 98106

Activities Scavenger Hunt



While on your Green-Duwamish Journey, at the different locations look for these items. Cross off those that you found, receiving a point for each one. They can be found at the different locations.

If you aren't sure of a plant, you can research it:

native plants: Washington Native Plant Society
<https://www.wnps.org/native-plant-directory>

invasive plants: King County Noxious Weed List

Animals	Native Plants
Great Blue Heron	Western Red Cedar
American Crow	Garry Oak
Salmon *extra points if spawning	Tall Oregon Grape
Spider or Spider Web	Wild Strawberry
Slug *extra points if banana slug	Red Flowering Currant
Wild Animal Scat	Pacific Madrone
Seal or River Otter	Sword Fern
Ducks	Snowberry
Bird of Prey (bald eagle, osprey, hawk...etc)	Salmonberry

Invasive Plants	Habitats	Colors/Shapes/Textures
English Ivy	Snag (dead tree)	Something Red
Himalayan Black-berry	River or Creek	Something Soft
Bindweed	Animal Nest	Something Triangle Shaped
Herb Robert	Wetland	Something Yellow
Scotch Broom	Forest	Something Circle Shaped
Laurel	Bald rock outcropping	Something Prickly
Camilla	Grassland	Something Rough

Planning Your Green-Duwamish Journey

Recreate Responsibly

By keeping yourself healthy, keeps others safe, and preserves and protects our public lands, waters and parks.

Please follow these simple rules:

Know before you go

Check the status, if its crowded, have a backup plan. Remember to bring snacks, water, hand sanitizer and face coverings. Many locations don't have facilities near them.

Practice Physical Distancing

Keep your group size small. Be prepared to cover your nose and mouth and keep your distance (6') while giving others space. If you are sick, or have come in contact with someone who is ill recently — stay home. These locations can always be enjoyed at a later date.

Leave No Trace

Respect public lands and waters as well as Indigenous and local communities. Pack out *everything* you packed in, leaving no trash or pet waste (scoop the poop, depositing it in a waste bin). Stay on the pathways and trails, as plants are stressed and foot traffic can damage them. We have had a very dry summer, don't bring items that can start fires.

Stay Out of the Water

Even though the river water looks inviting, it can have strong currents depending on the amount of flow and can contain toxins from stormwater runoff. Be careful along steep banks that maybe unstable.

Raffle

At the end of your journey, tell us about your experience! Please visit: www.duwamishalive.org and click on the "Journal Entry" link.

Everyone who submits this online form will be entered into a raffle with the chance to win goodies. Duwamish Alive! will select the winners by the end of November, so *make sure to have your submission in by November 18th.*

What to Look For

Habitats

A healthy and safe habitat is critical for all living things, giving the necessary requirements to sustain life: *food, water, shelter and space*. Understanding the special habitat needs of wildlife, fish, plants gives you a better understanding of how you can help in keeping the environment healthy and provides a deeper understanding of nature's intricate web of life.

On your journey, identify the type of habitat in your location. Does it have a diversity of plants, are they native to the area? Each type of habitat supports wildlife that has adapted to its special characteristics. What wildlife would you expect to see in each of these habitats?

Forest: Trees dominate this type of habitat, which is home to 80% of the earth's biodiversity with ecosystems that are complex webs of organisms that include plants, animals, fungi and bacteria.

Grassland: Grasses dominate this type of habitat and are common in areas of lower rainfall. They tend to be wide open spaces.

Riparian: Is an area of plant life along the banks of a stream, river, pond, or lake.

Wetlands: Can have areas of standing water that support aquatic plants and many different species. It can be freshwater or saltwater. Examples of 3 types of wetlands are marshes, bogs, and swamps.

Urban: Ecosystems that are highly influenced by human activity such as urban rain gardens, green spaces, parks and landscaping within an urban setting.

Find Our Green-Duwamish



AIR
BEAVER
CARE
CHINOOK
CHUM
SOCKEYE
COHO
PINK
DUWAMISH
EAGLE

ECOSYSTEM
FOREST
GRASSLAND
GREEN
HABITAT
HERON
LITTER
OSPREY
OTTER
PEOPLE

PLANTS
POLLUTION
RIPARIAN
RIVER
STEWARDSHIP
STORMWATER
VOLUNTEER
WATER
WETLAND
SOIL

Activities

Leaf Rubbings

Find a leaf, get a thin piece of paper, peel a crayon and you are ready to make some nature art.



Step 1: peel paper off the crayon



Step 2: put leaf under paper on a hard surface, like a table



Step 3: rub crayon back and forth and leaf will start to appear on paper



Step 4: Enjoy your new art, now get creative and do more leaves!

Take a picture of your art & post on social media, #DA2020

Look for important habitat indicators

Salmon: Salmon need shaded, cool clean water with plants that attract insects for food. provide protection and a place to rest. Streams with gravel beds for spawning.

Pollinators: This includes bees, butterflies, wasps, hummingbirds, all needing a source of clean water, a diversity of flowering plants from spring through fall and nesting places such as tree snags, sandy soil, tree branches.

Birds: Bird species have diverse habitat needs from food sources of plants, insects, fish, mammals and other birds. Shelters for nesting in trees, caves, rocks and on the ground. All require clean water sources.

Bats: Bats need clean, fresh water, insects to eat which is why they are found along streams and bodies of water. They live in shelters such as tree hollows, caves, rock crevasse and even in barns. They are the only known flying mammal and also pollinate special types of plants.

Amphibians: Frogs, salamanders, newts and other amphibians need both water and damp soil along with plentiful food sources of insects. Frogs are an important indicator of habitat health.

Plants: Each habitat has unique plants that have developed over long periods of time, adapting to the unique features of the location, its soil, weather conditions, temperatures, water, animal life, human influence etc. As you visit different locations notice the types of plants that are thriving and which ones aren't what does this tell you about the habitat of the area and what types of species use this habitat? Do you see changes in the environment? What do you think are the causes?

Be sure to take leaf rubbings from different plants at different locations. Use the instructions on page 16, taking extra paper and crayons for this activity. BE CREATIVE!



Challenges

Habitat Loss due to increasing urbanization of natural areas which has increased pressure on many local and migrating species as they lose their sources of food, shelter and water. Establishing new and restoring existing natural areas that provide critical healthy habitat is essential in maintaining our watershed's health.

Climate Change is one of the most critical impacts to environmental health, causing rapid changes in weather patterns which native species, both animal and plant life, aren't able to adapt to causing stress and breakdowns across ecosystems. The warming of streams and the river from higher temperatures along with increased levels of silt from erosion in the water threaten the survival of our Pacific Northwest salmon and the species that depend upon them such as the orca.

Pollution both air and water pollution greatly affect the health of our environment and its ecosystems. The primary source of pollution comes from transportation—both air and water. Storm water runoff from our roads emptying into drains, streams and the river, is the number one source of toxic pollution in Puget Sound. Vehicles are the primary source of air pollution as well.

Invasive Plants Species are non-native plants introduced to this area that outcompete native plants and takeover ecosystems, negatively impacting the balance of nature. Due to their aggressive nature and ability to spread rapidly, invasive plants can limit the growth and survival of native plants and species that depend upon them. This greatly reduces the health of the habitats in which they occupy. Invasive species can be difficult to remove from an area once established, so it's best to prevent their spread as much as possible. *Brushing off your shoes before you enter and leave a natural area*, can prevent the spread of invasive seeds.



Learn More Online:
Pugetsoundstartshere.org

Climate change impacts in King County - King County

King County Noxious Weeds

Stewardship - Volunteer

Working together, we can make a difference!

Join in with your community to improve the health of our lands and waters with local organizations. To find the one right for you, check out their website and volunteering opportunities:

Common Acre Commonacre.org

DNDA, Delridge Neighborhood DNDA.org

DIRT Corps thedirtcorps.com

Duwamish Alive Coalition duwamishalive.org

Duwamish River Cleanup Coalition

duwamishcleanup.org

Duwamish Tribe duwamishtribe.org

EarthCorps earthcorps.org

ECOSS ecoss.org

Forterra forterra.org

Friends of the Hill

Green River Coalition greenriver-coalition.org

Green Seattle Partnership greenseattle.org

Green Tukwila TukwilaWA.gov/GreenTukwila

King Conservation District kingcd.org

King County Parks

kingcounty.gov/services/parks-recreation/parks.aspx

Midsound Fisheries midsoundfisheries.org

Puget SoundKeeper Alliance pugetsoundkeeper.org

SEATTLE **PARKS** FOUNDATION

Green-Duwamish Journey Locations

Green River

Riverview Park

S. 255th, Hawley Rd, Kent, WA 98032 (South of trail head)

The Green-Duwamish River is special, home to all 5 salmon species including the endangered Chinook which is a critical food source for the Southern Resident Orca. This area offers special side channels for the young salmonoids to find shelter while resting and feeding as they make their way to Puget Sound.

Stewardship: City of Kent, Green River Coalition

Fenster Nature Park

2027 4th St SE, Auburn, WA 98002

Pack a picnic and enjoy the Fenster family farm that once occupied the main area of the park. The unfettered riverbanks have allowed the river to carve and wander creating a natural and dynamic environment which spawning salmon can easily be viewed.

The best spot to view salmon is to head straight down the path from SE 4th St, crossing the main gravel trail, directly to the river. You'll pass between newly planted trees and mulch piles.

From the riverbank keep an eye out near log jams or along the gravel bar you're sure to see salmon! The river is actively migrating here, *so please be aware of eroding banks and keep your distance.*" Try to identify what type of salmon you are viewing.

Stewardship: Mid Sound Fisheries Enhancement Group

Flaming Geyser Park

23700 S.E. Flaming Geyser Road, Auburn, WA 98092

The park is centered around a unique geological feature, a "flaming geyser," or cluster of once-active methane seeps. The flame no longer burns because of the depletion of its methane source. But the history of the flame, told in interpretive panels at the location, will pique park goers' curiosity about the living nature of planet Earth. Salmon can also be seen spawning in the river next to the park. What types of salmon are you seeing? Each species spawns at a different time in the fall.

For Salmon Viewing Information: Salmon Seeson, King County

Build Your Own Backyard Habitat

Today, there are fewer places on Earth that haven't been affected by human activity. As a result, natural habitat is disappearing and now the number one threat to wildlife and native species, both in the plant and animal worlds. You can make a difference by providing habitat elements in your yard and community that local species need — inviting wildlife back to the land it once occupied.

- Understand the local wildlife in your area and their habitat needs. What type would you like to attract and support?
- Are you on a migratory path for certain bird species, what are their habitat needs and when do they visit?
- Research habitat requirements of water, food, shelter and space along with their activity patterns.
- Provide a diverse and rich source of plants, both native and ornamental. Native plants have adapted to local growing conditions, requiring less water and maintenance. Wildlife have evolved to be in sync with native plant growth cycles, emerging and feeding when certain native plants are blooming or developing seeds.
- Include areas that provide shelter and homes for wildlife, such as nesting features, trees, rock piles etc.
- Don't use chemicals such as pesticides, herbicides or fertilizers. Use natural amendments to create healthy soils which plants need to repel insects. Have tolerance for insects as they are critical food source for wildlife and plants.

Learn More:

National Wildlife Federation: *Attracting Birds, Butterflies, and Other Backyard Wildlife*,

David Mizejewski

Plants of the Pacific Northwest Coast, Jim Pojar & Andy MacKinnon

Welcoming Wildlife to the Garden, Johnson, McDiarmid & Turner

Planning your Journey

This Green-Duwamish Journey includes many special locations, some very popular and many special gems, only known to the locals. Each has been chosen for its environmental value, history and cultural importance. Together they tell the rich story of the place we call the Green-Duwamish.

Before European-American settlers came to this area in 1851, it was inhabited by Southern Coast Salish tribes, primarily the Duwamish Tribe, dating back 4,000 years with over 17 villages containing 90 longhouses in what is now the Seattle area .

The great Duwamish River included the Cedar, Green, White and Black rivers as its tributaries with its mouth spanning the Duwamish Valley from hillside to hillside, providing a rich and abundant source of food and materials for the indigenous peoples. The river was a critical part of tribal life as a source of transportation, food, medicine, and other resources integral to their life.

As the area became increasingly settled, the Duwamish Valley was altered for both commercial and agricultural use which has continued over time while removing the indigenous peoples. In the early 1900's the river system along with the re-sculpting of Seattle's hills, was significantly altered by changing the course of the rivers and lowering the water level of Lake Washington. The Duwamish River was significantly reduced in size by only having the Green River as its main tributary which is why we now call it the Green-Duwamish River and Watershed. During this restructuring of the watershed, the river's rich marsh delta at its mouth, was filled in from the hills removed from what is now downtown Seattle, destroying an important resource for tribes but providing a growing city with critical flat land to build its industry.

Learn More:

Native Seattle, Histories From the Crossing-Over Place, Coll Thrush

The River That Made Seattle, BJ Cummings

Green-Duwamish Journey Locations

Duwamish Hill Preserve

3800 S 115th St, Tukwila, WA 98168

Visit one of the area's few glacial remnants (older than even Mount Rainier), which has several unique microclimates including the rare Rocky Bald habitat. Rocky balds feature many species of flora and fauna that are rarely seen along the banks of the Duwamish River. Hike to the top for an impressive view of Mt Rainier and a view point for tribal members watching for visitors traveling down the river. This is a cultural site in the Puget Sound Salish *Epic of the Winds* legend.

Stewardship: Green Tukwila, Friends of the Hill, Forterra

Tukwila Community Center

12424 42nd Ave S, Tukwila, WA 98168

The community center was designed with a strong connection to the river and its wildlife, especially the 5 species of salmon that live in the river along with green infrastructure such as parking lot rain gardens.

Stewardship: Green Tukwila

Codiga Park

50th Place South, Tukwila, WA 98178

This hidden gem was once a dairy farm owned by the Codiga family, like so many farms that supplied Seattle its local food in its early days. The pathway, framed in native plants, takes you to the river's edge where salmon, osprey and the occasional blue heron can be seen along its sandy banks. Across on the west bank, a community effort of restoring native habitat has helped revitalized this section of the river.

Stewardship: Green Tukwila

Learn More:

Once & Future River, Reclaiming the Duwamish, Tom Reese & Eric Wagner



Green-Duwamish Journey Locations

Tukwila

Hamm Creek/Turning Basin

10000 West Marginal Way South, Tukwila

Hamm Creek Estuary is one of the only two salmon spawning creeks in the Duwamish section of the river. It also supports abundant wildlife such as river otters, beavers, osprey along with salmon among others. The first effort to recognize that the Duwamish Waterway was a river which needed saving from the industrial abuses of the past, was born by John Beal, a veteran of the Vietnam war. Through John's experience of healing the creek it also restored his health from the effects of war. As other veterans joined his efforts, the Veterans Conservation Corps was born helping veterans recover from the detrimental effects of their war experience. It also created a new type of treatment: eco-therapy.

Stewardship: Veterans Conservation Corps, Seattle City Light, King County

North Winds Weir/Cecil Moses Park

11099 27th Ave S, Tukwila, WA 98168

A diverse wildlife can be viewed at this location as it has become a model of successful habitat restoration. Located at the critical transition zone of salt and freshwater mixing that is especially important to threatened salmon in the Green-Duwamish River watershed, it provides critical habitat for migrating salmon. Check the tidal charts, at low tide the rocks off the north side of the bridge near the eastern shore are visible. This is a Coast Salish cultural site known as North Wind's Weir of the Southern Puget Sound Salish *Epic of the Winds* creation story.

Stewardship: King County

Duwamish Gardens

11269 East Marginal Way S , Tukwila, WA 98168

Duwamish Gardens was described as "the soul of the Italian immigrant community", providing produce to the growing City of Seattle. River otters can often be seen at the far end of the park. The pocket park provides easy water access for paddle boards, kayaks and canoes. This area is also a location in the Salish *Epic of the Winds* creation story and is represented in artwork incorporated in the park.

Stewardship: Green Tukwila

Green-Duwamish Journey Locations

West Seattle

Delridge Wetland

5601 23rd SW Ave, Seattle, WA 98106

This is a one-acre neighborhood wetland which contains one of the many small streams that flow into Longfellow Creek and ultimately the Duwamish River. Its wetlands are being restored to improved water quality for Longfellow Creek and provide an outdoor learning classroom for Louisa Boren School students. It's an innovative example of turning a community problem of flooding from stormwater into an educational and environmental asset for the community.

Stewardship: DNDA, King Conservation District and Louisa Boren School

Longfellow Creek at Brandon Street

2600 SW Brandon St, Seattle, WA 98106

Longfellow Creek, called *t7áWee* or smelt creek by the Duwamish Tribe is one of the four largest in urban sub-watersheds in Seattle, 2,685 acres (1,087 ha), flowing north from its headwaters at the 10,000-year-old Roxhill bog in Roxhill Park for 3.38 miles (5.4 km) along the valley of the Delridge neighborhoods and out in to Puget Sound.

Stewardship: Seattle Parks & Recreation, King Conservation District, Puget Soundkeeper Alliance

Longfellow Creek at Dragonfly Park,

4111 28th Ave SW, Seattle, WA 98106



This is a magical little pocket park with its iconic fish bone bridge, dragonfly pavilion and tree covered creek. A path winds its way down to Longfellow Creek, home to many wildlife including spawning coho and chum salmon. Look for signs of salmon, where in the stream are you seeing them? What type of habitat is this and what wildlife live here?

Stewardship: Seattle Parks & Recreation, DNDA, Puget Soundkeeper Alliance

Green-Duwamish Journey Locations

Pigeon Point Park

1901 SW Genesee St, Seattle, WA 98106 (south end of parking lot)

The park is part of the West Duwamish Greenbelt which is the city's largest remaining contiguous forest covering over 500 acres. Its home to various wildlife, including a rookery of the Great Blue Heron, foxes, bald eagles, hawks, frogs, salamanders and more. Can you find traces of wildlife, what types of plants do you see? Take a leaf rubbing of your favorite plant.

Stewardship: Seattle Parks & Recreation, DNDA, Pathfinder School

Duwamish Longhouse and Cultural Center

4705 W Marginal Way SW, Seattle, WA 98106

Learn about the rich history and culture of the Duwamish Peoples known as *dx̣ẉḍəẉʔaḅṣ*, the People of the Inside, who have lived in this region for thousands of years. Experience a Longhouse, how it supports their culture, find other locations of villages in the area, you might be living next to one. Understand the deep connection with nature, the river and its salmon. Experience life before European-American settlement and it's costs to the tribe.

Stewardship: Duwamish Tribe

T107 Park

4500 Duwamish Trail, Seattle, WA 98106

Across the street from the Longhouse, is the location of the ancient Duwamish village, *həʔapus*, (Ha-AH-poos) dating back to 600 AD and a designated site in the National Register of Historic Places. The village had several longhouses, providing home for hundreds of Duwamish in the fall, winter and early spring. It also is the last section of the original shoreline in the lower river after it was channelized and armored. Visualize what life would be like if you were a member of the tribe. What types of food, clothing and other resources would you gather from the tidal marshes and forest? Why do you think this was home during only part of the year? Look for the diverse wildlife, what do you see for their habitat?

Stewardship: Port of Seattle



Green-Duwamish Journey Locations

Herrings House Park

4570 W Marginal Way SW, Seattle, WA 98106

Directly across from the Duwamish Longhouse and part of the ancient Duwamish village of *həʔapus*, (Ha-AH-poos), this location experienced much of the industrialization that provided the city's economic strength over the years. With that also came high levels of contamination of the water, soil and air so much so that it was designated by the EPA in 2001 as one of the nation's most toxic sites and the first 5 river miles a Super Fund Site. As a part of the cleanup effort, Herrings House Park was created to provide special habitat for salmon, one of the few habitat sites in the channelized section of the lower river. This is a very constructed habitat site, can you see the differences in the habitat, its health compared to other locations?

Stewardship: Seattle Parks & Recreation

Green Wall, Georgetown

7201 East Marginal Way S, Seattle, WA 98108

Check out this green structure, which is a 126 foot long and 13 feet high green wall in front of CDL Recycle facility – an innovative green method of addressing the high levels of air pollution present in the Duwamish Valley, a heavily industrialized area of the city. Structures such as this are being used globally to combat air pollution, reduce rising urban temperatures, and bring nature to highly urbanized areas that can't accommodate trees. These green walls can be used for large commercial areas or small privacy fencing. Can you think of creative ways to use this method to improve areas of your community?

Stewardship: DIRT Corps & Duwamish River Cleanup Coalition

Community Street Rain Gardens, Georgetown

800 S. Orca Street, Seattle, WA 98108

These parking strip rain gardens show the power of neighbors working together to reduce their street's stormwater runoff by building simple, beautiful rain gardens that capture the water and filter it through the soil instead of it running, untreated into the drainage system which dumps it into the river.

Stewardship: Orcas Street Neighborhood & DIRT Corps

Learn More:

The People of Cascadia, Heidi Bohan

Chief Seattle and the Town That Took His Name, David Buerge