
PROJECT: 18-1259 DEV, REST, MEADOWDALE BEACH PARK & ESTUARY RESTORATION

Sponsor: Snohomish County Parks Dept Program: Aquatic Lands Enhancement Acct Status: Active
Project Start Date: 07/01/2019 Agreement End Date: 06/30/2023

Final Report Status: Accepted 11/21/2023

Description

PROJECT AGREEMENT DESCRIPTION

Snohomish County will restore stream, estuary, and nearshore processes and develop ADA and saltwater beach access at Meadowdale Beach Park, located where Lund's Gulch Creek flows into the north end of Brown's Bay on Puget Sound (PS). Recreational water access enhancements include constructing a 9 foot wide concrete ADA accessible path under the south bridge abutment and a viewing platform on the beach. Restoration for rearing juvenile Chinook and other salmonids entails:

- ?? Removing 17,000 cy of fill to re-establish a 1.3 ac estuary.
- ?? Replacing a 6' culvert under the BNSF railroad and 128 lf (2,000 cy) of hardened shoreline armor with a 5-span railroad bridge creating a 90' opening for a widened channel meander to restore sediment delivery processes (80-250 CY/YR) to the nearshore and improve connectivity to nearshore pocket estuary habitat.
- ?? Removing 75 lf of streambank armor and placing LWD to improve instream habitat.
- ?? Planting native vegetation to enhance nearshore and creekside riparian habitat.
- ?? Relocating park infrastructure inland, including benches, picnic tables and a portable restroom enclosure.
- ?? Rerouting pedestrian circulation w/ crushed rock and asphalt paths with 7 viewpoints and 4 interpretive signs, a boardwalk over an existing wetland, and a pedestrian bridge over the creek for viewing salmon.

This project presents a resilient solution to a major stressor along a section of PS identified by PSNERP as "most degraded" to demonstrate a healthy coastal ecosystem can co-exist with critical transportation infrastructure. The project also increases eco-based recreational and educational experiences for 65,000 annual visitors, addresses public safety, and provides ADA access to 1 of only 3 County PS shoreline parks.

FINAL PROJECT DESCRIPTION

Snohomish County restored stream, estuary, and nearshore processes and developed ADA and saltwater beach access at Meadowdale Beach Park, located where Lunds Gulch Creek flows into the north end of Browns Bay on Puget Sound (PS). Recreational water access enhancements included constructing a 9-foot wide concrete ADA accessible path under the south bridge abutment and a viewing platform at the beach. Restoration for rearing juvenile Chinook and other salmonids entailed:

Removed 17,000 cy of fill to re-establish a 1.4 ac estuary.

Replaced a 6-ft culvert under the BNSF railroad and 128-lf (2,000 cy) of hardened shoreline armor with a 5-span railroad bridge. This created a 90-ft opening for a widened channel meander, restored sediment delivery processes (80-250 CY/YR) to the nearshore, and improved connectivity to nearshore pocket estuary habitat.

Removed 75 lf of streambank armor and placed LWD to improve instream habitat.

Planted native vegetation to enhance nearshore and creekside riparian habitat.

Relocated park infrastructure inland, including benches, picnic tables and a portable restroom enclosure.

Rerouted pedestrian circulation with crushed rock and asphalt paths and included 7 viewpoints, 4 interpretive signs, a boardwalk over an existing wetland, and a pedestrian bridge over the creek for viewing salmon.

This project presents a resilient solution to a major stressor along a section of Puget Sound identified by PSNERP as "most degraded" and it demonstrates that a healthy coastal ecosystem can co-exist with critical transportation infrastructure. The project also increased eco-based recreational and educational experiences for 65,000 annual visitors, addressed public safety, and provided ADA access to 1 of only 3 County Puget Sound shoreline parks.

Narrative

OVERALL GOAL ACHIEVED:

Snohomish County Parks and Recreation removed 130 feet of railroad embankment and an undersized box culvert, replacing them with a 5-span railroad bridge. This project's innovative approach of installing the 5-span railroad bridge solved two key issues simultaneously: providing safe ADA access to the beach and restoring the estuary to reconnect Lund's Gulch Creek to Puget Sound. Replacing the embankment and undersized culvert was critical for converting the park lawn into a high-functioning estuarine habitat to benefit salmon and provide the new pedestrian underpass. Several traditional design solutions were reviewed with the public and stakeholders, such as using a railroad overpass or expanding the culvert. However, these would only solve one of the issues and not both.

This marks the first stream mouth restoration project along Puget Sound, representing an initial step towards strategic restoration along the over 25-mile stretch of railroad embankment from Everett to Seattle. This project offers a resilient solution to a major stressor along a section of Puget Sound identified by PSNERP as the "most degraded," demonstrating that a healthy coastal ecosystem can coexist with critical transportation infrastructure. The project also increases eco-based recreational and educational experiences for 65,000 annual visitors, addresses public safety concerns, and provides ADA access to one of only three County Puget Sound shoreline parks.

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The project holds regional significance due to the railroad bridge component, the extent of estuary habitat and shoreline restoration, and their role in salmon recovery while making significant improvements to the park. One of the many factors supporting the restoration of this site is the 100+ acres of forest conservation area adjacent to the park. The restoration design repurposes a large portion of the park area near the railroad from passive recreation to a habitat focus. Through the project, habitat restoration and shoreline coastal processes have been reintroduced to the estuary and beach, including tidal hydrology, wave and storm influences on the deposition and transport of sediments, brackish water quality, estuarine vegetation, detritus accumulation, and the accumulation of wood for habitat.

PRIMARY OUTDOOR RECREATION OPPORTUNITY PROVIDED:

A major draw for visitors is the natural landscape, including the forested hike-in only access, the wildlife, and the beach. Prior to this project, the undersized culvert was often flooded and impassible. At times, people would cross over the railroad which was a dangerous situation and others needing ADA access could not access the beach at all. Through this project redevelopment, the primary recreation opportunity achieved was providing safe, year-round, ADA access to the beach. Recreational enhancements include the construction of a 7.5-foot wide concrete ADA accessible path adjacent to the south railroad bridge abutment and a viewing platform on the beach. During construction, a community member wrote to the County requesting an accessible beach mat to be added to the project. This type of beach mat will allow people using mobility devices to have increased access to the beach. The newly installed mat extends 50 feet out to the beach. Per WDFW requirements, the mat will only be installed between May 15th and September 30th of each year. The accessible parking area was renovated to improve paving and signage. New accessible paths were constructed to connect visitors with the accessible parking area, the beach, and throughout the lower park.

Throughout the park, other recreational opportunities include picnicking and gathering spaces, outdoor learning opportunities, walking trails, and beach access. The park is used for science-based programs focusing on water quality, marine plants and animals, as well as the creek ecology.

PRIMARY TYPE OF HABITAT PROTECTED OR RESTORED:

The estuary restoration was the project's overarching ecological goal. This included utilizing natural sediment and hydrologic processes to provide high-functioning, sustainable rearing habitat for juvenile Chinook, coho, and chum salmon, cutthroat trout, and other fish species. This habitat restoration and the creation of rearing habitat for salmon are key elements within the larger Puget Sound food web, including providing a food source for the endangered Southern Resident Orcas.

This project removed the hard-armored railroad embankment along the shoreline, increased the channel meander width from 6 feet (through the culvert) to 90 feet wide, improving sediment delivery to the beach and helping to dissipate floodwaters. It also restored a tidal marsh pocket estuary, which involved improving groundwater and subsurface conditions, planting native plants, placing large woody debris, and working around the existing wetland. Additionally, it has initiated efforts to enhance and restore the nearshore and stream riparian buffers and in-stream habitat.

IDENTIFY WHAT WAS RESTORED AND DEVELOPED WITH GRANT FUNDS:

- Removed 17,000 cy of fill to re-establish a 1.3 acre tidal estuary
- Removed the 6ft wide, undersized culvert and 130lf (2,000 cy) of hardened shoreline armor. Constructed a 5-span railroad bridge creating a 90lf opening to allow the widened channel meander to restore the natural sediment transport processes (80-250 CY/YR) to the nearshore and improve connectivity to nearshore pocket estuary habitat.
- Bridge opening allows for dissipation of flood waters, and allows the creek to meander dynamically over time and supports natural habitat
- Removed 75lf of streambank armor
- Places 53 pieces of Large Woody Debris in the lower creek and restored estuary that improves instream habitat conditions
- Planted native vegetation, including trees and shrubs, to enhance nearshore and stream riparian habitat
- Removed restroom building and large park lawn space and replaced it with estuary
- Located new park amenities inland to make room for the restored estuary. New park amenities include a restroom enclosure and picnic table to match the architectural style of the existing ranger house, picnic tables in picnic nodes, benches, a foot wash station, security light.
- Rerouted pedestrian circulation through the site to include a new pedestrian bridge stream crossing and a raised boardwalk over the eastern edge of the estuary and existing wetland
- Pedestrian walkways were constructed with crushed rock, asphalt, and concrete
- The new paths include 7 picnic table or bench viewpoints and 4 interpretive sign nodes
- A new ADA accessible concrete path crosses under the railroad bridge and terminates at one of the park's 7 viewpoints. This path increases safety for pedestrians accessing the beach.
- The new ADA compliant path allows year-round access to the beach.
- Enhances the park user experience overall through the provision of diverse natural habitat
- Enhances environmental education opportunities by providing the 4 new interpretive signs, learning spaces, and creek overlook space at the new pedestrian bridge.

HISTORY OF PROJECT IMPLEMENTATION

The park is centered around Lund's Gulch Creek, a salmon-bearing perennial stream, located on the floor of the gulch. Until recently, the creek once drained to Puget Sound through a 6 foot-wide box culvert under BNSF Railway tracks. The lower creek and estuarine delta are habitat for multiple salmonid species, including juvenile Chinook salmon, which are listed as threatened under ESA, as well as coho and chum salmon, and cutthroat trout.

The County entered into an agreement in 1988 with BNSF for shared use of the culvert for the purpose of providing public beach access as a condition of the Washington State Interagency

Committee for Outdoor Recreation, now RCO acquisition funding. To facilitate access, a boardwalk (first wooden, then replaced with steel grating) was installed above the approximately 2-foot-deep by 4-foot-wide channel within the 50-foot-long culvert. The culvert was significantly undersized for the creek, and during high flow conditions a wide portion of the lower park would flood.

High-flow events also commonly caused the deposition of sediment at the upstream end of the box culvert. This material restricted the movement of fish into and out of the creek. The sediment also deposited on adjacent park recreational areas. In addition, the trapping of sediment in these areas degraded the important nearshore habitat-forming process.

PROJECT IDENTIFICATION

The County initiated the project at Meadowdale Beach Park to address deficiencies resulting from a hard armored railroad embankment with an undersized culvert, which affects habitat, sediment transport, park user experience, and public safety. The railroad embankment located within a 100-foot-wide railroad right-of-way parallels the shoreline and separated the tidelands from the park's lawn area at the bottom of the ravine. To address these deficiencies, the project's restoration design included removing a portion of the embankment and the culvert and replacing it with a five-span railroad bridge, excavating fill material to restore a tidal-marsh pocket estuary, and enhancing nearshore and stream riparian buffers. While the project is focused on Endangered Species Act (ESA)-listed juvenile chinook, it will benefit multiple species.

LANDOWNER ENGAGEMENT

This project is the culmination of a multi-year process between the County, public, and project stakeholders. From early feasibility studies in 2014 through the final design, there were opportunities for the community, local organizations, and the tribes to provide input. This process included stakeholder and community meetings to review evaluation criteria for the project, proposed alternatives, and selection of a preferred alternative. The well-attended meetings typically began with a presentation, followed by a question and-answer sessions related to habitat, railroad, and other elements of the park.

Several groups, kindergarten through college-age visit this park for science-based programs and the project was strongly supported by these groups. During the design process, ideas were explored for how the site could support future environmental education. The groups helped identify themes for interpretive signs including geologic and site

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history, natural sediment flows, purpose of the restoration project, and ethnographic themes of salmon species. The County hosted several educational events for the project including presentations to WRIA 8 Salmon Recovery Council, the Pilchuck Audubon Society, and on-site presentations to students. This was a successful approach to gaining strong community support and in educating the community about the project benefits and its ecological impact in our region.

The County hosted several stakeholder and one-on-one meetings, presentations, and site visits with local partners, including regulatory agencies, the Tulalip Tribes, City of Lynnwood, City of Edmonds, WRIA 8 Salmon Recovery Council, Sno-King Watershed, Snohomish County Marine Resources Committee, the Edmonds Stream Team, and Washington Utilities and Transportation Commission. These meetings focused on reviewing project evaluation criteria, gaining insight into concerns, outlining future coordination efforts with each group, reviewing alternatives, sharing updates, educating about project goals, and selection of the preferred alternative. Feedback was generally positive, with questions ranging from long-term maintenance needs, habitat restoration, and railroad bridge aesthetics, to accommodating potential sea level rise. One such example was a site visit with the Tulalip Tribes following the development of the preferred design alternative. They gave feedback on the development of the stream, placement of woody debris, understory and riparian vegetation, sequencing construction to align work for anadromous fish and sand lance spawning. They gave advice on the pedestrian bridge design to avoid negative stream hydraulics and accommodate for lateral stream movement. Their feedback on the estuary restoration and historic and educational features and similar feedback from other participating groups, was instrumental in the development of the final plan. The strong partnerships formed throughout the process, serve as an example to agencies and can inform other Puget Sound restoration projects.

A strong relationship was also formed between BNSF and the County through this project. Following the successful installation of the railroad bridge, BNSF and the County began having monthly coordination meetings to discuss other project opportunities and collaboration.

DESIGN DEVELOPMENT

The project began with a 2014-2026 feasibility study which included a public and stakeholder process to identify needs and proposed solutions. A preferred alternative, the railroad bridge option with the pedestrian underpass, was selected to move forward. Evaluation criteria were established prior to developing the initial alternatives. These criteria resulted from multiple meetings with the County, public, and project stakeholders and they ranged in categories such as habitat restoration, sustainability, public safety, parks and recreation, BNSF and Railway coordination, and budget. Seven initial concepts were developed and reviewed through the public and stakeholder process; they were eventually narrowed down to three preferred alternatives in 2016.

For the three final conceptual alternatives that moved forward for evaluation, the following design criteria were considered during the design process:

- Preliminary hydraulic evaluation, which was used to determine opening sizes
- Balancing habitat restoration and recreational uses
- Providing ADA-compliant beach access
- BNSF structure standards
- Anticipated coordination requirements with BNSF during construction

These three alternatives included: 1. A three span bridge with a pedestrian underpass, a three-span bridge but keep the existing culvert as the pedestrian underpass, and finally, a railroad bridge large enough for a 90' wide channel migration zone and a pedestrian underpass. Ultimately, the third option led to the final design as it best met the original evaluation criteria. Following this conceptual design process, the project moved into further analysis, permitting and stakeholder consultation, and then construction documentation. For additional information, please see attached "Preliminary Design Report".

DESIGN TEAM

The design process was managed by Logan Daniels with Snohomish County Parks. Design Team Consultants included Anchor QEA, Shannon & Wilson, and Hanson Professional Services.

CONTRACTOR

The General Contractor was Strider, Inc. The lead construction manager for Strider was Ryan Bormann.

CONSTRUCTION SUPERVISION

Construction supervision was provided by Rob Marchand, Senior Park Planner with Snohomish County Parks and Recreation and Mike Roberts with Anchor QEA. Snohomish County will certify that construction is complete per the plans.

CHANGE ORDERS

With BNSF, there were 2 time extension change orders and a change order to add budget.

With the contractor, the largest change order on the project is a result of the project delay because BNSF could not install the railroad bridge in the original timeline due to wildfires in California. This delayed the project by over 1 year and caused rework of the estuary restoration and stream bypass. The primary work areas affected by this were the estuary, railroad bridge installation, culvert removal, and beach grading. Other elements that had not begun construction (paths, planting, restroom enclosure, ADA parking, pedestrian bridge, etc) were less affected as they were simply delayed and not reworked.

Another larger change order was for the removal and replacement of the new picnic shelter. Early in construction, it was determined that the existing picnic shelter needed to be replaced. This change order included demolition of the existing picnic shelter, design and permitting of the new shelter, and construction of the new picnic shelter.

Overall, the construction project, including several change orders, is within the anticipated construction budget.

FISH UTILIZATION

The environmental goals of the project have been successfully achieved. 130' of embankment was removed, restoring the channel meander from 6' to 90'. This allows water and sediment to flow freely, preventing floods, restoring sediment delivery (80-250 cyds annually) and 7 nearshore ecosystem processes, and addressing maintenance issues. The park lawn was converted into a 1.3 acre tidal estuary, restoring natural shoreline, stream hydrology, and high-functioning, sustainable rearing habitat for juvenile Chinook (endangered) and other fish species. Throughout construction, the creek flowed through a bypass tunnel. With the bypass removed, salmon returned to the creek to spawn. Early monitoring at the site shows that the large woody debris placed in the estuary are effective in providing fish spawning sites. Nearly 550' of stream and riparian buffers were enhanced upstream of the estuary, using native plants and large woody debris that creates off-channel habitat. The installation of the 5-span railroad bridge replaced the culvert and embankment. The pedestrian underpass has ensured safe, ADA access to the beach, free of deposited gulch sediments and flood waters for visitors year-round. Installation of fences and signs prevents trespassing over the railroad and drastically reduces safety risks. The visitor experience is enhanced by adding natural habitats, invasive plant removal, and native planting. Educational opportunities are created with signs, group learning areas, and a footbridge over the creek for viewing of fish migration.

The long-term monitoring at the site has begun. Lunds Gulch Creek is known to support coho and chum salmon spawning, all life stages of cutthroat trout, and estuary rearing by juvenile chinook salmon. In recent years, student volunteers with the Edmonds Stream Team survey the creek for salmon adults returning to spawn. Creek walks occur approximately weekly between mid-September and mid-December depending on flow conditions and volunteer availability. In 2022 surveys, 40-50 adult salmon – mostly chum salmon – were observed in the creek. Sampling for 2023 is not underway at the time of reporting. The Tulalip Tribes have conducted fish sampling in the estuary and lowermost reaches of Lunds Gulch Creek in 2018 and 2021-2023. The sampling is conducted using electrofishing techniques. In 2023 sampling conducted between February and May, the Tulalip Tribes captured chinook, coho, and chum salmon, cutthroat trout, starry flounder, and multiple sculpin species.

LESSONS LEARNED

This project is the successful result of a process led by Snohomish County Parks & Recreation for over a decade. This project's success is thanks to the consultants and tenacious project managers that guided ongoing coordination with BNSF and other agencies from design and through construction. The key takeaways include:

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1. Consultants such as Hanson Professional Services, with experience coordinating between agencies and BNSF are invaluable to the success of the project. With their unique knowledge of transportation and railway functions and requirements, they help guide coordination, design, conversations, and overall understanding to bridge the gap between owner and BNSF.
2. Leave flexibility in design and construction schedules to accommodate working with BNSF. Given their critical role in commerce, BNSF schedules shift. When wildfires in California in 2021 were occurring, BNSF resources were needed there which put the Meadowdale construction project on hold. This ultimately resulted in a sizeable change order and a delay of the project for over 1 year. These changes may be unavoidable, so it is important to maintain flexibility.
3. Given the scale, timeline, budget, variety of funding sources, and number of unknowns of this project, on similar projects, it would be good to explore alternative delivery methods such as Progressive Design-Build or General Contractor/Construction Manager.
4. Being a public park with beach access, this park is bustling with visitors throughout the year. The stream channel bisects a portion of the beach and beach visitors often hop across the channel to reach either side of the beach. Similarly, the large channel meander area just under the BNSF bridge is often full of visitors playing in the water and hopping from rock to rock to explore objects in the stream. While this behavior is typical of a public park, it has been observed that beach visitors place cobbles and small rocks across the stream channel to make it easier to cross from one side of the stream to the other. These human-made crossings could act as a barrier for fish and it will be important that Snohomish County frequently observe and remove these human-made crossings in order to ensure there are no barriers for the fish. This note has been added to the stewardship plan.
5. A key to the success of this project included bringing multiple partners and project supporters together early. For Meadowdale, this process began over 10 years ago. This project was a huge undertaking and Snohomish County benefitted from collaboration with and support from many partners from interagency teams, County Council members, State senators and representatives, the Governor, BNSF, and the Tribes. The support from the community, neighbors, and local volunteer groups played a big role in spreading the word and garnering support as well. The County received support from several local, state, and federal funding sources and that came with strong support for the project itself. The lesson learned is: with a project this size, and with this many complexities, forming strong, collaborative relationships with local, state, and federal entities is key to success.

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Questions

#1: Describe the location of where the RCO funding acknowledgement sign is displayed at the site.

Description is required

The RCO funding acknowledgement sign, which also includes other funders, has been mounted to the concrete columns at the pedestrian bridge. The placement of this sign was specifically selected due to the location's high visibility at the entrance to the lower park and estuary. A graphic and picture of the funding acknowledgement sign is included in the attachments.

#2: Is there an opening ceremony or ribbon cutting event planned or has one already occurred?

Yes

Yes, the Ribbon Cutting event was held on October 6th. A second Public Opening Event took place Saturday October 7th.

Description is required

#3: Is there anything else about this project you would like to clarify or explain?

Yes

This project has received two awards. The first is the 2023 Puget Sound Regional Council Vision 2050 Award for the "On the Ground" category. This award showcases "projects that show real-world examples of VISION 2050 in action today, including housing, mixed-use development or redevelopment, expanding access to opportunity, open space preservation, and transportation investments" (from Puget Sound Regional Council). The second award is the 2023 National Recreation and Park Association Innovation in Conservation Award. "This award recognizes a park and recreation agency leading an innovative project that creates localized solutions for addressing global or regional environmental challenges (from NRPA)." The design team and Snohomish County will continue to seek awards and celebrate the success of this project as an example and inspiration for other agencies.

Description is required

#4: Was the project's original design modified? If yes, explain the major changes here and attach the new design document (As Built) in PRISM.

Yes

During construction, it was determined that the existing picnic shelter was not structurally sound and needed to be replaced. A new picnic shelter was designed to match the architectural style of the other on-site structures. The decorative column wraps, originally planned to be added to the existing shelter, were removed from the scope of work. Based on consultant recommendation, the County is working on design and permitting for a new retaining wall at the upper ADA drive. This retaining wall is anticipated to be complete within a year. Shortly after the beach was reopened to the public in early 2024, a community member reached out to Parks to request a beach access mat so that people using wheelchairs could better access the beach. Parks and our consultant quickly put together plans for the mat, received permit approval, and installed the beach access mat. This mat will be a seasonal installation.

Description is required

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Worksites

Worksite #1: Meadowdale Beach Park

Worksite Address (Optional)

Street Address 15433 75th Place West

City Edmonds

State, Zip WA 98026-4006

Worksite Details

Worksite #1: Meadowdale Beach Park

Worksite Name Meadowdale Beach Park

WORKSITE DESCRIPTION

All project activities were conducted at Meadowdale Beach Park. Railroad Bridge construction occurred within BNSF R/W (milepost 21.7 to 21.9) with temporary access berms necessary for bridge construction and materials staging located on the two adjacent county-owned parcels including the tidelands to the west of BNSF right-of-way and lower park land to the east of the BNSF right-of-way. Restoration activities including fill removal, substrate placement, native planting, and riparian enhancement occurred on BNSF right-of-way, county-owned tidelands, lower lawn area and lower 850' reach of Lund's Gulch Creek. The access road requires soil reinforcement for haul of fill material.

Geographic Coordinates

From mapped point: Latitude 47.859810 Longitude -122.334798

For Directions: Latitude 47.858058 Longitude -122.333326

SITE ACCESS DIRECTIONS

From I-5, take the exit for 220th St SW (Exit 179). Turn west onto 220th St SW. Turn north (right) onto 76th Ave W which becomes 75th Pl W. There is a gate at this entrance which requires a pin code to open the gate (call 425-388-6600 for the gate code). This driveway is the access point to the Ranger residence and the accessible parking area only. There is limited parking at this entrance, but official visitors may park in the lower parking lot. Additional Park access is available from 156th St SW and requires a 1-1/4 mile hike to the lower park and estuary.

Properties

Worksite #	Worksite Name	Property Name	Sponsor Verified	RCO Verified	RCO Verified Map
1	Meadowdale Beach Park	BNSF Railroad Right of Way	✓ Clarification	✓	N/A
1	Meadowdale Beach Park	Snohomish County - Meadowdale Beach Park	✓ Clarification	✓	N/A

Development/Restoration Metrics

Current Agreement

Final

Worksite: Meadowdale Beach Park (#1)

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Targeted salmonid ESU/DPS (A.23)	<input type="checkbox"/> No Salmon ESU or Steelhead DPS <input checked="" type="checkbox"/> Chinook Salmon-Puget Sound ESU <input type="checkbox"/> Chinook Salmon-unidentified ESU <input checked="" type="checkbox"/> Chum Salmon-Puget Sound/Strait of Georgia ESU <input type="checkbox"/> Chum Salmon-unidentified ESU <input checked="" type="checkbox"/> Coho Salmon-Puget Sound/Strait of Georgia ESU <input type="checkbox"/> Coho Salmon-unidentified ESU <input type="checkbox"/> Pink Salmon-Odd year ESU <input type="checkbox"/> Pink Salmon-unidentified ESU <input type="checkbox"/> Steelhead-Puget Sound DPS <input type="checkbox"/> Steelhead/Trout-unidentified DPS	<input type="checkbox"/> No Salmon ESU or Steelhead DPS <input checked="" type="checkbox"/> Chinook Salmon-Puget Sound ESU <input type="checkbox"/> Chinook Salmon-unidentified ESU <input checked="" type="checkbox"/> Chum Salmon-Puget Sound/Strait of Georgia ESU <input type="checkbox"/> Chum Salmon-unidentified ESU <input checked="" type="checkbox"/> Coho Salmon-Puget Sound/Strait of Georgia ESU <input type="checkbox"/> Coho Salmon-unidentified ESU <input type="checkbox"/> Pink Salmon-Odd year ESU <input type="checkbox"/> Pink Salmon-unidentified ESU <input type="checkbox"/> Steelhead-Puget Sound DPS <input type="checkbox"/> Steelhead/Trout-unidentified DPS
Targeted species (non-ESU species)	None Unknown Brook Trout Brown Trout Bull Trout Cutthroat Forage Fish Kokanee Lamprey Rainbow <input checked="" type="checkbox"/> Searun Cutthroat	None Unknown Brook Trout Brown Trout Bull Trout <input checked="" type="checkbox"/> Cutthroat <input checked="" type="checkbox"/> Forage Fish Kokanee Lamprey Rainbow <input checked="" type="checkbox"/> Searun Cutthroat <p>Note: The overarching ecological goal of the project is to restore the estuary of Lund's Gulch Creek, including natural sediment and hydrologic processes in order to provide high-functioning, sustainable rearing habitat for non-natal juvenile Chinook (listed as threatened by the Endangered Species Act), as well as coho and chum salmon, cutthroat trout, and other fish species, within the park setting. In addition, the DCNR monitoring team is monitoring for the presence of juvenile forage fish such as surf smelt, Pacific sand lance, Pacific herring, eulachon, and northern anchovies in the upper and lower estuary.</p>
Miles of Stream and/or Shoreline Treated or Protected (C.0.b)	0.17 <p>Note: Includes the area treated using SRFB funding (0.06 miles) and the stream reach treated upstream of the estuary to the existing pedestrian bridge for salmon habitat. The total length of the stream from existing OHWM to existing pedestrian bridge, plus connection to the small pond</p>	0.24 <p>Note: 0.16 is the length from west side of BNSF bridge to upstream of timber pedestrian bridge. 0.08 miles of channel from the west edge of the BNSF bridge to the outfall to Puget Sound (at low tide).</p>

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within the larger project is 0.17 miles which includes the 0.06 miles within the estuary. There will be large woody debris placement and riparian enhancement within this entire reach.

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Project Identified In a Plan or Watershed Assessment (C.0.c)	Shared Strategy Development C https://www.westcoast.fisheries.n	<i>Not Collected at Closure</i>
	WRIA 8 Salmon Recovery Coun Conservation Plan 10-year Upd http://www.govlink.org/watershe	
Priority in Recovery Plan	The plan cited above (Appendix E) outlines the strategies to address the highest priority stressors on Chinook salmon in WRIA 8. The Meadowdale project targets the following: 1) reconnect backshore areas and pocket estuaries, 2) restore natural marine shorelines, and 3) protect and restore functional riparian vegetation (Appendix E, pages E-2, E-14, E-15). Implementation of the project will achieve 50% of the habitat goal identified in the plan for pocket estuary restoration (App D-2, D-3)	<i>Not Collected at Closure</i>
Type Of Monitoring (C.0.d.1)	Implementation Monitoring ✓ None	Implementation Monitoring ✓ None Note: Monitoring at the site began prior to construction, continued during construction, and will continue for 10 years afterwards or longer. Please see the attached Meadowdale Beach Park Restoration Monitoring Plan.
Monitoring Location (C.0.d.2)	<input checked="" type="checkbox"/> No monitoring completed <input type="checkbox"/> Downstream <input type="checkbox"/> Onsite <input type="checkbox"/> Upslope <input type="checkbox"/> Upstream	<input type="checkbox"/> No monitoring completed <input checked="" type="checkbox"/> Downstream <input checked="" type="checkbox"/> Onsite <input type="checkbox"/> Upslope <input checked="" type="checkbox"/> Upstream Note: The Monitoring Plan includes monitoring activities in five distinct areas. From upstream to downstream, the monitoring areas are defined as follows and shown in Figure 1 in the attached Monitoring Plan (page 10 of 62): ? Lower Lund's Gulch Creek – Portion of the stream where restoration occurred; upstream end is pedestrian bridge near Park Ranger's house. ? Creek Outlet – Transitional area as creek widens as it enters the restored upper estuary. ? Upper Estuary – Restored tidal estuary landward of the railroad including the area under the railroad bridge. ? Lower Estuary – Estuary waterward of the railroad bridge and including the entire shoreline delta. ? Adjacent Nearshore – Adjacent areas north and south of the project area. These outlined areas on the map outlines are the general boundaries of each monitoring area;

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these are not strict outlines of the extent of sampling. For example, vegetation monitoring in the upper estuary may extend outside of the outline shown in Figure 1 in the attached Monitoring Plan (page 10 of 62). The drone surveys to collect aerial imagery extend across the entire project area. Future drone surveys should collect data throughout the survey area established by the Tulalip Tribes in earlier surveys, as shown in Figure 2 in the attached Monitoring Plan (page 11 of 62).

Estuarine / Nearshore Project

Total Amount Of Estuarine / Nearshore Acres Treated (C.9.b)	1.3	1.4
Note: 1.4 acres (based on measurement of as-built survey)		
Culvert modification / removal (C.9.f.1)		
Total cost for Culvert modification / removal	\$1,505,114	<i>Not Collected at Closure</i>
Note: Total bridge cost is estimated to be \$7,644,980, which includes bridge installation and railroad berm fill removal. The County has other funding available to cover the full cost of the bridge but is not reporting as match in PRISM, in order to ease grant reimbursement admin.		
Number of Culverts Modified/Removed To Allow Fish Passage (C.9.f.2)	1	1
Acres Opened To Fish Passage through culvert modification/removal (C.9.f.3)	6.3	6.3
Note: This area is based on a 27.2 ft bank-full width multiplied by the length of the stream downstream of passage barriers (1.9 miles).		
Miles of stream made accessible by removal or modification of culvert		1.90
Note: The total length of stream before it reaches another culvert (after the removal of the BNSF right-of-way culvert). This number is approximated from the Surface Water Management Drainage Inventory Map.		
Estuarine planting or native plant establishment (C.9.r.1)		

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Total cost for estuarine planting or native plant establishment	\$12,111	<i>Not Collected at Closure</i>
	Note: Total estuarine planting (emergent plant installation) is \$50,670. The full cost of estuarine planting is not included as a match in PRISM, in order to ease the grant reimbursement admin. The total project riparian/estuarine planting costs are \$84,000. Riparian costs are not included within this grant request.	
Acres of Estuarine planting or native plant establishment (C.9.r.3)	0.8	0.8
	Note: This planted area includes areas above sand placement and starter-channel cobble placement.	
	Note: 0.82 Acres: edge of plant area above sand placement and channel cobble to edge of riparian area [plant area above log edging]	
Species (scientific) name(s) of plants. (C.9.r.2)	Aster subspicatus, Deschampsia cespitosa, Grindelia integrifolia Scirpus americanus, Sidalcea hendersonii, Carex lyngbyei, Plantago maritima, Potentilla anserina ssp. Pacifica, Carex obnupta, Dodonaea viscidiflora, for remainder see L-3 plan	
	Cornus sericea Lonicera involucrata Rubus spectabilis Carex obnupta Dodonaea viscidiflora Lysichiton americanus Scirpus microcarpus Schoenoplectus acutus Tolmiea menziesii Aster subspicatus Carex lyngbyei Deschampsia cespitosa Potentilla anseri	

Removal of existing fill material (C.9.g.1)

Total cost for Removal of existing fill material	\$850,566	<i>Not Collected at Closure</i>
	Note: Total estuarine creation cost is estimated to be \$2,201,195. This total cost includes upland clearing, cut and fill, fill removal/disposal, soil amendment, starter-channel cobble, sand placement, coir fabric installation, and spiral nail reinforcement of access road necessary for dump truck fill removal. The full cost is not being reported in PRISM as match in order to ease the grant reimbursement admin.	
Acres of Estuary Treated through fill material removal (C.9.g.2)	1.3	1.4

General Site Improvements

Develop circulation paths or access routes

Total cost for development of circulation paths or access routes		<i>Not Collected at Closure</i>
Enter length of circulation paths and routes by surface type	Feet	Feet
Asphalt		995
Boardwalk		45
Concrete	75	100
Crushed rock		890
Recycled materials		0
Total	75	2,030
		Note: Other Material: 40 If of single span pedestrian bridge
Minimum width of the circulation paths or access routes		6
		Note: 6 feet
Lighting provided (yes/no)	Yes	Yes
Install lighting (general security)		

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Total cost for Install lighting (general security)		Not Collected at Closure	
Number of general security lights installed	1		1
Install site furnishings			
Total cost for Install site furnishings		Not Collected at Closure	
Select the site furniture / amenities	Benches Bike racks Bike repair station Drinking fountains Fire pits Flag poles Grills Pet waste bag dispensers Picnic tables Planters Recycling/Trash receptacles Other	<input checked="" type="checkbox"/> Benches <input type="checkbox"/> Bike racks <input type="checkbox"/> Bike repair station <input type="checkbox"/> Drinking fountains <input type="checkbox"/> Fire pits <input type="checkbox"/> Flag poles <input type="checkbox"/> Grills <input type="checkbox"/> Pet waste bag dispensers <input checked="" type="checkbox"/> Picnic tables <input type="checkbox"/> Planters <input type="checkbox"/> Recycling/Trash receptacles <input checked="" type="checkbox"/> Other	Note: Other amenities include the new picnic shelter, the foot wash station, and the restroom enclosure for portable restrooms. Benches: 5 Picnic Tables: 5 (new) 9 total Other: 2 foot wash stations, 1 drinking fountain
Shoreline protection			
Total cost for Shoreline protection		Not Collected at Closure	
Linear feet of shoreline protection	240		265
	Note: Plantings on the beach. Sheetpile to protect ADA trail from being undercut by stream/estuary.		Note: includes sheet pile wall and planting on south of bridge (220 LF) and plantings on north side of bridge (45 LF)
Select the shoreline protection type	<input type="checkbox"/> Boulders <input type="checkbox"/> Bulkhead <input type="checkbox"/> Log boom <input checked="" type="checkbox"/> Plantings/vegetation <input type="checkbox"/> Retaining wall <input type="checkbox"/> Rip rap <input checked="" type="checkbox"/> Rock armor <input type="checkbox"/> Seawall <input checked="" type="checkbox"/> Sheet piles	<input type="checkbox"/> Boulders <input type="checkbox"/> Bulkhead <input type="checkbox"/> Log boom <input checked="" type="checkbox"/> Plantings/vegetation <input type="checkbox"/> Retaining wall <input type="checkbox"/> Rip rap <input checked="" type="checkbox"/> Rock armor <input type="checkbox"/> Seawall <input checked="" type="checkbox"/> Sheet piles	
Instream Habitat Project			
Total Miles Of Instream Habitat Treated (C.4.b)	0.17		0.24
	Note: Includes stream reach upstream of estuary where enhancement will be achieved with funds outside of SRFB.		Note: 0.16 mi from west side of BNSF bridge to upstream of timber pedestrian bridge. 0.08 miles of channel from the west edge of the BNSF bridge to the outfall to Puget Sound (at low tide).
Channel structure placement (C.4.d.1)			

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Total cost for Channel structure placement	\$16,175	<i>Not Collected at Closure</i>
	Note: Cost for large wood channel structure installed within the estuarine area are provided in metric. Large wood channel structure features will also be installed upstream of the estuarine area at an additional cost of \$9,442 for a total of \$25,617. Salvaged material will be used for these features.	
Material Used For Channel Structure (C.4.d.2)	Deflectors/Barbs Flood Fencing Gabions ✓ Individual Logs (Anchored) ✓ Individual Logs (Unanchored) ✓ Logs Fastened Together (Logjam) None Other Engineered Structures Rocks/Boulders (Fastened Or Anchored) Rocks/Boulders (Unanchored) ✓ Stumps With Roots Attached (Rootwads) Weirs	Deflectors/Barbs Flood Fencing Gabions ✓ Individual Logs (Anchored) ✓ Individual Logs (Unanchored) ✓ Logs Fastened Together (Logjam) None Other Engineered Structures Rocks/Boulders (Fastened Or Anchored) Rocks/Boulders (Unanchored) ✓ Stumps With Roots Attached (Rootwads) Weirs Note: 53 total pieces of large woody debris were placed in the estuary or in the stream.
Miles of Stream Treated for channel structure placement (C.4.d.3)	0.17	0.17
		Note: upstream of bridge
Pools Created through channel structure placement (C.4.d.5)	0	0
Number of structures placed in channel (C.4.d.7)	53	53
	Note: Includes 12 of the largest woody debris pieces (salvaged on-site) placed within the pocket estuary, with an additional 15 pieces placed near the bridge abutments; 22 medium-size pieces would be located within the existing stream channel, and 4 within the restored pond that will be reconnected to the stream.	

Riparian Habitat Project

Total Riparian Miles Streambank Treated (C.5.b.1)	0.20	0.24
	Note: includes stream reach from OHWM to existing pedestrian bridge as well as riparian fringe around estuary.	Note: 0.16 mi from west side of BNSF bridge to upstream of timber pedestrian bridge. 0.08 miles of channel from the west edge of the BNSF bridge to the outfall to Puget Sound (at low tide).
Total Riparian Acres Treated (C.5.b.2)	1.7	1.7
Planting (C.5.c.1)		

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Total cost for Planting	\$134,028	<i>Not Collected at Closure</i>
Note: Total cost for Riparian Habitat Project (\$134,028) include planting (\$38,111) and temporary irrigation (\$95,917) to establish plants in the first two growing seasons.		
Species Of Plants planted in riparian (C.5.c.2)	Picea sitchensis Thuja Plicata Tsuga heterophylla Acer macrophyllum Alnus rubra Malus fusca Picea sitchensis Pinus contorta var. "contorta" Pseudotsuga menziesii Salix hookeriana Salix scouleriana Tsuga heterophylla Thuja Plicata Acer circinatum Amelanchier alnifolia Cornus sericea Corylus cornuta Holodiscus discolor Mahonia aquifolium Oemleria cerasiformis Physocarpus capitatus Rosa nutkana Rubus parviflorus Sambucus racemosa Symphoricarpos albus see L-3 for remaining	Rhamnus purshiana Picea sitchensis Pinus contorta var. "contorta" Pseudotsuga menziesii Salix hookeriana Salix scouleriana Tsuga heterophylla Thuja Plicata Acer circinatum Amelanchier alnifolia Cornus sericea Corylus cornuta Holodiscus discolor Lonicera involucrata Mahonia aquifolium Oemleria cerasiformis Philadelphus lewisii Physocarpus capitatus Rosa nutkana Rubus parviflorus Rubus spectabilis Sambucus racemosa
Acres Planted in riparian (C.5.c.3)	1.7	2.1
Miles of streambank planted (C.5.c.4)	0.17	0.16
Average Riparian Width	50	50
Note: Avg buffer width on each of stream Note: average width of planting area north and south of stream		

Trails

Trail bridge development

Total cost for Trail bridge development				Not Collected at Closure			
				New	Renovate	New	Renovate
Number of trail bridges				1	0	1	0
				Note: A pedestrian bridge over the creek.		Note: This includes both the steel bridge and the boardwalk.	
Select the bridge types				<input type="checkbox"/> Aluminum <input type="checkbox"/> Cable suspension <input type="checkbox"/> Concrete <input type="checkbox"/> Glulam <input type="checkbox"/> Log <input type="checkbox"/> Railroad trestle <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Wood <input type="checkbox"/> Other		<input type="checkbox"/> Aluminum <input type="checkbox"/> Cable suspension <input type="checkbox"/> Concrete <input type="checkbox"/> Glulam <input type="checkbox"/> Log <input type="checkbox"/> Railroad trestle <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Wood <input checked="" type="checkbox"/> Other	
Provide the length and width of each bridge (feet)				a. Ped Bridge: 10' x 40' b. Boardwalk: 10' x 45'			

Water Access

Develop access point

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Total cost for Develop access point		<i>Not Collected at Closure</i>
Number of designated water access points	1	1
Describe the designated water access point (stairs, ramp, etc.)	The 9' concrete paved ADA accessible path will be located under the southern railroad bridge abutment.	This 7' concrete, accessible path is located at the terminus of the new trail, under the railroad abutment. It terminates at an overlook at the beach and includes a seasonal beach access mat.

Cultural Resources

Cultural resources

Cultural resource work completed	<i>Collected at Closure</i>	Acres excavated Hours of monitoring required Number of structures documented	Number 7 672 1
Total cost for Cultural resources	\$29,000 Note: Related to SRFB metrics.	<i>Not Collected at Closure</i>	
Acres surveyed for cultural resources	6.50 Note: Acreage includes the area shown on the APE which includes access road which requires improvements for construction of the estuary and riparian restoration funded outside of SRFB funds but critical for salmon		6.50
Number of trail miles surveyed for cultural resources			0 Note: The trail wasn't part of the cultural resources survey.

Architectural & Engineering

Architectural & Engineering (A&E)

Total cost for Architectural & Engineering (A&E)	\$292,719	<i>Not Collected at Closure</i>
Did A&E costs exceed billed amount (Yes/No)	<i>Collected at Closure</i>	No

General restoration activities

Other restoration activities

Total cost for Other restoration activities	\$100,000	<i>Not Collected at Closure</i>
Describe the other restoration activities	Relocating park infrastructure: new benches, picnic tables, restroom enclosure. Rerouting pedestrian circulation: crushed rock and asphalt paths, 7 viewpoints, a boardwalk over existing wetland,	Relocated park amenities such as benches picnic tables, restroom facility, and picnic shelter. Added pedestrian pathways, beach access mat, viewpoints, a wetland boardwalk, educational signs, and accessible parking improvements.
Restoration signs		
Total cost for Restoration signs	\$15,000	<i>Not Collected at Closure</i>
Number of signs installed	4	4

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Overall Metrics

	Current Agreement	Final
Completion Date		
Projected date of completion	06/30/2023 Note: The expected completion date is 12/31/2020 as provided in the proposal narrative. The 2023 date provides additional time for riparian plant stewardship.	9/29/2023

Nearshore

Primary nearshore process	<input type="checkbox"/> Sediment supply and transport <input type="checkbox"/> Beach erosion and accretion <input type="checkbox"/> Detritus recruitment and retention <input type="checkbox"/> Distributary channel migration <input type="checkbox"/> Exchange of aquatic organisms <input type="checkbox"/> Freshwater input <input type="checkbox"/> Solar radiation <input type="checkbox"/> Tidal channel formation and maintenance <input checked="" type="checkbox"/> Tidal hydrology <input type="checkbox"/> Wind and waves	<input type="checkbox"/> Sediment supply and transport <input type="checkbox"/> Beach erosion and accretion <input type="checkbox"/> Detritus recruitment and retention <input type="checkbox"/> Distributary channel migration <input type="checkbox"/> Exchange of aquatic organisms <input type="checkbox"/> Freshwater input <input type="checkbox"/> Solar radiation <input type="checkbox"/> Tidal channel formation and maintenance <input checked="" type="checkbox"/> Tidal hydrology <input type="checkbox"/> Wind and waves
Secondary nearshore process	Beach erosion and accretion Detritus recruitment and retention Distributary channel migration Exchange of aquatic organisms Freshwater input <input checked="" type="checkbox"/> Sediment supply and transport Solar radiation Tidal channel formation and maintenance Tidal hydrology Wind and waves None	Beach erosion and accretion Detritus recruitment and retention Distributary channel migration Exchange of aquatic organisms Freshwater input <input checked="" type="checkbox"/> Sediment supply and transport Solar radiation Tidal channel formation and maintenance Tidal hydrology Wind and waves None
Shoreforms	<input type="checkbox"/> Barrier Embayments <input checked="" type="checkbox"/> Beaches <input type="checkbox"/> Coastal Inlets <input type="checkbox"/> Deltas <input checked="" type="checkbox"/> Embayments <input type="checkbox"/> Rocky shores	<input checked="" type="checkbox"/> Barrier Embayments <input checked="" type="checkbox"/> Beaches <input type="checkbox"/> Coastal Inlets <input type="checkbox"/> Deltas <input type="checkbox"/> Rocky shores

Planned Operation & Maintenance Costs

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Estimated FTE's	Collected on Application	Not Collected at Closure
Estimated O&M Costs	Collected on Application	Not Collected at Closure
O&M Funding Source(s)	Collected on Application	Not Collected at Closure
O&M Activities	Collected on Application	Not Collected at Closure

Funding not reported to RCO

Provide the dollar amount spent to complete the scope of this project identified in PRISM that was not included in the grant or as match to the grant in the project agreement.	Collected at Closure	Note: \$7,259,787.07 (FRA grant) reimbursed for 3,377,710.32 \$2,700,000.00 (NOAA) \$300,000.00 (NOAA grant) reimbursed
Value of federal funds leveraged	Collected at Closure	\$0.00 Note: There was a federal FRA grant on this project but it funded the culvert removal and railroad bridge and was not used as a match for RCO funds.

Sites Improved

Stream miles restored	0.20	0.24 Note: Includes length from new channel opening at Puget Sound to edge of estuary and from edge of estuary to timber pedestrian bridge.
Project acres developed		0.15 Note: new areas developed include ped bridge/boardwalk and gravel trail north of ped bridge/boardwalk
Project acres renovated		1.60 Note: 1.6: any park renovation area that is not pocket estuary or riparian buffer; includes southern trail to beach, lawn area/picnic shelter/bathroom, parking lot, and access road
Project acres to be restored	3.00 Note: 1.3 pocket estuary; 1.7 riparian buffer	3.50 Note: the target was 3.0 which included 1.3 acre pocket estuary and 1.7 acre riparian buffer; calculated the final beach grading, estuary, and the wetland area where planted.

Project Goals

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Goals, purpose, and expected benefits (A.17)

The goals of this Meadowdale Beach Park Estuary Restoration project is to restore Lund's Gulch Creek to a more natural meander and deliver sediment to the beach, and to re-establish and connect a historic 1.3-acre pocket estuary in the park to the Puget Sound shoreline to benefit Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and coho salmon, which is a federal species of concern.	The goals of the Meadowdale Beach Park Estuary Restoration project is to restore Lund's Gulch Creek to a natural meander, deliver sediment to the beach, and to re-establish and connect the historic 1.3-acre pocket estuary to the Puget Sound shoreline. This will restore the hydrologic processes in order to provide high-functioning, sustainable rearing habitat for non-natal juvenile Chinook (listed as threatened by the Endangered Species Act), as well as coho and chum salmon, cutthroat trout, and other fish species, within the park setting.
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Final Report, Project 18-1259

Development/Restoration Costs

Final amounts include a pending billing
Date of Last Released Billing 01/19/2023

Proposed

Final

Worksite: Meadowdale Beach Park (#1)

SPLIT OUT FINAL TOTAL BELOW		Proposed	Final
		\$958,176	\$3,766,517
General Site Improvements Costs			\$75,000
			Note: Demolition, site furnishings
Trails Costs			\$100,000
			Note: pedestrian bridge, abutment walls, guardrail, trails, pile wall/cap & edge wall, paving, site concrete, ped area paving and crushed rock
Water Access Costs			\$25,000
			Note: In original estimate, this included developing the access point under the railroad bridge. The cost of the pedestrian walkway under the railroad bridge was \$167,010.00. This number includes the shoreline protection/capped abutment wall between the pedestrian walkway and the estuary.
Instream Habitat Costs (C.4.a)		\$16,175	\$577,868
			Note: Change order for LWD after estuary had to get reconstructed. Sand, gravel, substrates, armoring, and large woody debris.
Riparian Habitat Costs (C.5.a)		\$134,028	\$281,250
			Note: \$281,250: includes a portion of the planting and irrigation costs.
Estuarine / Nearshore Costs (C.9.a)		\$2,367,791	\$1,913,965
Cultural Resource Costs		\$29,000	\$36,888
			Note: 5 invoices from Equinox Research & Consulting International Inc
Architectural & Engineering Costs		\$292,719	\$357,517
General Restoration Activity Costs		\$115,000	\$399,029
Difference			\$0

Billed Summary

Final amounts include a pending billing
Date of Last Released Billing 01/19/2023

Category	Project Agreement		Expended	Totals To Date	
	RCO	Total		Non Reimbursable	Total Billed
Development and Restoration					
Construction	2,616,376.06	3,251,273.71	2,704,719.40	704,280.76	3,409,000.16
AA&E	287,701.94	357,517.29	357,085.04	432.25	357,517.29
Development and Restoration Total	2,904,078.00	3,608,791.00	3,061,804.44	704,713.01	3,766,517.45
Total	2,904,078.00	3,608,791.00	3,061,804.44	704,713.01	3,766,517.45

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Sponsor Match

	Proposed	Final
Project Funding		
Federal Funds		
State Funds (A.11)	\$2,904,078.00	\$2,613,670.20
Pending Billing - RCO Share Approved	Collected at Closure	\$290,407.79

Match Details

Match Category	Match Type	Proposed	Final
Converted Match	Converted Matching Share		
Amount		\$158,176.00	\$0.00
Other Monetary Funding	Appropriation - Local		
Amount		N/A	\$862,439.46
Funding Organization			Snohomish County REET2
Other Monetary Funding	Grant - Federal		Unable to tie Billed match to Proposed match. Please make corrections as needed, or leave if correct.
Amount		N/A	\$0.00
Funding Organization			
Grant Program			

Project Funding Total	\$2,904,078.00	94.83 %	\$2,904,077.99	77.10 %
Sponsor Match Total	\$158,176.00	5.17 %	\$862,439.46	22.90 %
Project Total	\$3,062,254.00	100.00 %	\$3,766,517.45	100.00 %
Total Billed			\$3,766,517.45	
Difference			\$0.00	

Final Report, Project 18-1259

Attachments

PHOTOS (JPG, GIF)

Photos (JPG, GIF)

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Share
	09/30/2023	Inspection Photos	DRAFT18-1259Final.Inspctn.Meadowdale-rev.pptx.PPTX	RachelD	DRAFT18-1259Final.Inspctn.Meadowdale-rev.pptx.pptx, 580541 Final Report, 11/21/2023, Accepted	✓
	09/22/2023	Stewardship plan	SAL-AppE-ResStewardshipPlan.pdf	RachelD	SAL-AppE-ResStewardshipPlan.pdf, 579964 Final Report, 11/21/2023, Accepted	✓
	09/15/2023	Monitoring or Stewardship Plan	Meadowdale Beach Park Restoration Monitoring Plan_Final_2022	RachelD	Meadowdale Beach Park Restoration Monitoring Plan_Final_20220726.pdf, 578056 Final Report, 11/21/2023, Accepted	✓
	09/15/2023	Note to file	award-PSRC Vision 2050.pdf	RachelD	award-PSRC Vision 2050.pdf, 578054 Final Report, 11/21/2023, Accepted	

Certify & Submit

Status History

Report Status	Date	User	Note
Accepted	11/21/2023	Elizabeth Butler	Excellent Final Report -- Thank you!
Submitted	11/17/2023	Rachel Dotson	
Draft	07/14/2023	Rachel Dotson	

PROJECT: 18-1259 DEV,REST, MEADOWDALE BEACH PARK & ESTUARY RESTORATION

Sponsor: Snohomish County Parks Dept Program: Aquatic Lands Enhancement Acct Status: Active
Project Start Date: 07/01/2019 Agreement End Date: 06/30/2023

PROPERTY: BNSF Railroad Right of Way (1: Meadowdale Beach Park)

Property Basics

Acquisition ☐ Development/Restoration ☒

Property Location

Property Name BNSF Railroad Right of Way
Property Address (optional) adjacent to 15433 75TH PL W
City Edmonds
State WA **Zip** 98026

Property Description This property includes the double set of tracks, embankment, and culvert. Work includes removal of culvert, embankment, portable restroom enclosure, path and installation of 5 span railroad bridge and estuary under the bridge
Associated Worksite Meadowdale Beach Park (#1)

Landowner

Landowner Name Burlington Northern and Santa Fe Railroa
Address (optional) PO Box 961056
City Fort Worth
State TX **Zip** 76161-0056
Landowner Type Private

Control and Tenure

Instrument Type Landowner Agreement
Timing Existing
Term Type Perpetuity
Yrs
Expiration Date
Note A C&M agreement which will replace current agreement was prepared by BNSF and executed by the County and BNSF prior to construction.

Parcel Numbers

County Name	Parcel Number	Mapped	Notes (optional)
No parcels			

Recording Numbers

Instrument Type	Recording Number	Notes
No recordings		

Sponsor Clarification

BNSF Railroad right-of-way was not acquired as part of this project. There are no parcel numbers for the BNSF right-of-way. The BNSF right-of-way is adjacent to County-owned parcels 27040500200100 and 00500900000500.

☒ The above information is correct and complete

RCO Notes

☒ Property data verified by RCO Staff

Property Report: BNSF Railroad Right of Way (Worksite #1: Meadowdale Beach Park)

Attachments

PHOTOS (JPG, GIF)
Photos (JPG, GIF)

PROJECT DOCUMENTS AND PHOTOS
Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
No attachments match filter criteria						

PROJECT: 18-1259 DEV,REST, MEADOWDALE BEACH PARK & ESTUARY RESTORATION

Sponsor: Snohomish County Parks Dept Program: Aquatic Lands Enhancement Acct Status: Active
Project Start Date: 07/01/2019 Agreement End Date: 06/30/2023

PROPERTY: Snohomish County - Meadowdale Beach Park (1: Meadowdale Beach Park)

Property Basics

Acquisition ☐ Development/Restoration ☒

Property Location

Property Name	Snohomish County - Meadowdale Beach	Property Description	Prop. incl. tidelands, creek, riparian buffer, wetlands and access road. Work incl 17,000 CY cut to restore 1.3 ac estuary, sand nourishment, cobble starter channel, native plantings. Stockpile/staging areas in lawn. Soil reinforcement along road.
Property Address (optional)	15433 75TH PL W		
City	Edmonds		
State	wa Zip 98026	Associated Worksite	Meadowdale Beach Park (#1)

Landowner

Landowner Name	Snohomish County Parks Department
Address (optional)	6705 Puget Park Dr
City	Snohomish
State	WA Zip 98296
Landowner Type	Local

Control and Tenure

Instrument Type	Sponsor owned property (deed)
Timing	Existing
Term Type	Perpetuity
# Yrs	
Expiration Date	
Note	

Parcel Numbers

County Name	Parcel Number	Mapped	Notes (optional)
No parcels			

Recording Numbers

Instrument Type	Recording Number	Notes
No recordings		

Sponsor Clarification

No parcels were acquired as part of this project.

☒ The above information is correct and complete

RCO Notes

☒ Property data verified by RCO Staff

Property Report: Snohomish County - Meadowdale Beach Park (Worksite #1: Meadowdale Beach Attachments

PHOTOS (JPG, GIF)
Photos (JPG, GIF)

PROJECT DOCUMENTS AND PHOTOS
Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
No attachments match filter criteria						