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TASK 2.3 – Community Meeting and Stakeholder Workshop Summary Report

TASK 2.4 – Project Recommendations Report

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LONG-TERM MAINTENANCE AND MANAGEMENT FUNDING STRATEGIES REPORT

SNOHOMISH COUNTY NEARSHORE BEACH RESTORATION

Prepared for

Snohomish County Marine Resources Advisory Committee

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1 OVERVIEW

Anchor QEA, LLC, and its subconsultant, Confluence Environmental Company, were contracted by Snohomish County (County) and the Snohomish County Marine Resources Committee (MRC) to develop a Long-Term Maintenance and Management Funding Strategies Report to identify potential mechanisms for funding the maintenance activities at the sites of the Snohomish County Nearshore Beach Restoration Project. The Nearshore Beach Restoration Project involved restoring the beach at Howarth Park and placing sandy material at five other beach locations between the cities of Everett and Mukilteo. The imported material supports shoreline habitats by adding beach sediments to the nearshore area that would naturally be supplied by coastal bluffs and streams if they were not disconnected as a sediment supply to the shoreline by the railroad. By design, the placed material will be naturally redistributed by waves and currents away from the locations it was deposited. Over time, there will be a need to place additional material in order to continue to realize the ecological and recreational benefits.

In anticipation of the need for future maintenance to prolong the benefits of the restoration, this Long-Term Maintenance and Management Funding Strategies Report was prepared to estimate the costs of future maintenance and identify and recommend strategies to fund these activities. This report documents the steps taken to develop the report, which included: 1) identifying the anticipated costs for future maintenance; 2) identifying and researching potential funding strategies; and 3) gathering input from stakeholders and community members on the primary funding strategies advanced by the project team. This report also summarizes recommendations on preferred funding strategies and next steps to move forward. This information is intended to guide the County's selection of funding strategies to pursue to secure funding for the anticipated future maintenance needs of the Nearshore Beach Restoration Project.

2 ANTICIPATED MAINTENANCE NEEDS AND COSTS FOR THE NEARSHORE BEACH RESTORATION PROJECT

In 2016, the Snohomish County Nearshore Beach Restoration Project was constructed to enhance and restore beach habitats at six sites between the City of Mukilteo and the downtown waterfront of the City of Everett (City). The majority of the construction took place at Howarth Park in Everett, where riprap and fill were removed and the beach was reconstructed by placing and grading appropriate beach materials. This included placing fine sediments, gravel, and logs. The Howarth Park restoration will benefit forage fish and juvenile salmon, in addition to increasing usable beach area for the more than 10,000 people who visit Howarth Park each year. Construction at the other five sites entailed placing clean sediments in the intertidal zone providing habitat for forage fish and juvenile salmon. Figure 1 shows the location of the restored sites; the numbered sites were defined as part of the feasibility study conducted for the project by Anchor QEA.

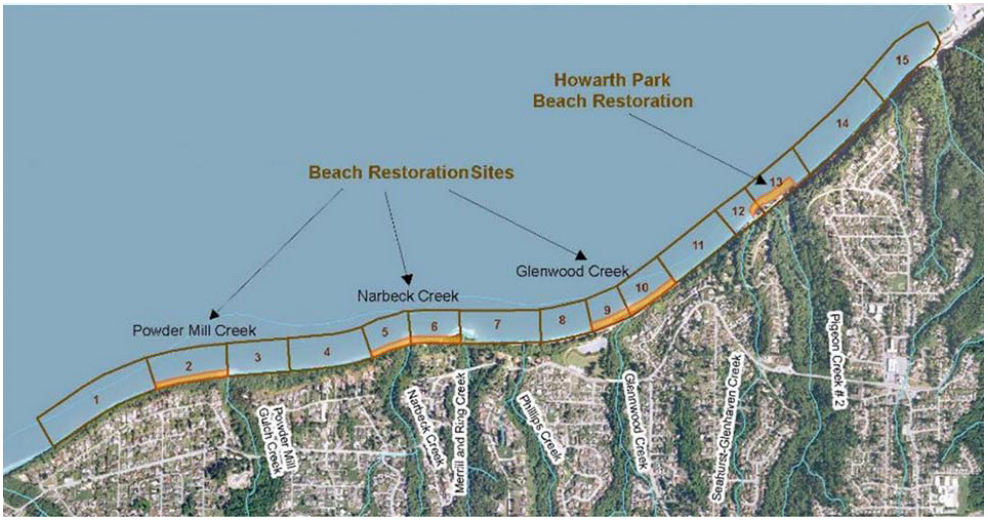

Figure 1
Nearshore Beach Restoration Project Area

Due to naturally occurring processes, fine sediments placed on the beach will be dispersed by naturally occurring littoral drift. Based on a site analysis, it is expected that the fine sediments will be dispersed in approximately 5 to 7 years, leaving the beach sites similar to pre-restoration conditions. Howarth Park is expected to retain the larger beach area because of placement of larger beach gravels at that site, but the overlying finer materials are

expected to move from the site within a similar time frame. To prolong the ecologic and public use benefits of the restored sites, it is expected that additional clean fine sediments should be added at regular intervals. Site maintenance includes placing additional clean fine sediments at the initial restoration sites. To verify the frequency and specific site locations of future maintenance, monitoring will be completed by the County through year 10 post-construction (i.e., 2026).

The proposed funding level needed for maintenance every 5 to 7 years is based on the level of effort for maintenance actions ranging from an assumed minimal material placement to placement of the entire original placement volume. Minimal material placement was assumed to include Howarth Park and one additional beach site. As mentioned previously, the specific beach site chosen for the minimum placement option will be informed by the results of post-project monitoring. The level of maintenance needed in the future will be dependent on various factors including the amount of material transported away from each restoration site (as determined through project monitoring efforts); funding availability; sediment availability; and County, City, Port of Everett (Port), and public support of continued beach nourishment.

Conceptual Opinions of Cost are provided in Table 1 based on a range of maintenance efforts, and include opinions of cost for construction, design, and permitting. Costs have been provided for two nourishment material sources: 1) dredged material stockpiled at a nearby upland site similar to Parcel O; and 2) quarry-sourced material. The range in costs between the two different source materials should provide lower and upper bookend costs for the maintenance options based on conservative assumptions. Conceptual Opinions of Cost for construction, design, and permitting of the various maintenance options were estimated using costs for the original Nearshore Beach Restoration Project and other assumptions, as shown in Appendix A. The range of maintenance options provided in Table 1 reflects the uncertainty associated with future funding availability.

Table 1

Conceptual Opinions of Cost (2016 dollars)

Maintenance Option	Option 1	Option 2	Option 3	Option 4
Sites Renourished	Howarth Park and Beach Sites 2,5,6,9, and 10	Howarth Park and Beach Sites 2,5, and 9	Howarth Park and Beach Site 9	Howarth Park
Construction (Dredge Material Source)[1]	$954,000	$692,000	$510,000	$341,000
Construction (Quarry-Sourced Material)[2]	$1,470,000	$1,060,000	$778,000	$518,000
Design[3]	$70,000	$60,000	$50,000	$40,000
Permitting[4]	$50,000	$50,000	$50,000	$50,000

Notes:

1 Cost is based on contractor costs for the original construction project, assuming dredged material is available from a nearby upland stockpile location (similar to Parcel O).

2 Cost is based on contractor costs for the original construction project, assuming dredged material is replaced with choice fill material, which is sourced from a quarry.

3 Design costs represent revisions to the existing design drawing and updated specifications for use in bidding to reflect changed site conditions, source material procurement and haul means and methods, and permitting conditions. Costs taken from design costs for the original project. Costs assume no changes to design of placement or placement method at the project sites.

4. Permitting costs could vary widely depending on who does the permitting (e.g. the County vs. a consultant) and the permitting strategy employed for the work in the future. Permitting costs are expected to be about the same level of effort for all options.

3 POTENTIAL FUNDING STRATEGIES

The approach for identifying viable funding strategies was to first identify a broad list of potential funding strategies, research information on the list, discuss the feasibility of implementing identified strategies with the County, and then move forward with a subset of strategies that best fits the funding need. The ideal funding strategy would be one that provides a reliable source of funding for the amounts needed for construction of maintenance actions (i.e., between $340,000 and $1,400,000) and on the time frame needed for maintenance (i.e., every 5 to 7 years). In practice, the overall funding strategy for maintenance could be a combination of individual funding strategies if necessary to meet the funding need.

The initial list of potential funding strategies was identified through research as well as input from the County, MRC, and other stakeholder representatives. In general, two types of funding strategies were identified: 1) those that had potential to provide a reliable funding source; and 2) those that were more opportunistic but considered less likely to lead to a reliable funding stream for multiple maintenance cycles. In developing the list, the project team also identified a number of potential cost reduction opportunities that could lessen the amount of money needed to acquire, transport, and place the beach nourishment material. The initial list of strategies included the following:

- Funding strategies
  - U.S. Army Corps of Engineers (USACE) cost sharing (Section 204 or through an incremental cost sharing agreement)
  - Snohomish Conservation District (CD) grant opportunity
  - Formation of a beach management district
  - Formation of a parks district
  - In-lieu fee mitigation program
  - Mitigation banking program
  - Snohomish County Conservation Futures
  - County or City Real Estate Excise Tax (REET)
- Opportunistic funding sources
  - Grant funding

  - Non-profit/donation
  - Opportunistic mitigation needs
- Cost reduction opportunities
  - In-kind donation of services
  - Constructability review from marine contractors and operators
  - Marine contractor/operator on-call contract
  - Alternative sediment source

This initial list was then researched to understand more about how this project's needs fit the purpose of the potential funding source and to identify the pros and cons of each source. Information was gathered using a variety of methods including online research, case studies, and phone interviews.

The gathered information on each funding strategy was then reviewed by the County, MRC, and the consultant team to identify the subset of funding strategies to carry forward and gather stakeholder and community input on. The original funding strategies list was narrowed to a subset based on criteria including feasibility of implementation, potential level of funding available, and staff capacity required. The opportunistic funding sources and cost-reduction opportunities were considered potentially feasible in the future but not warranting further development at this time or input from stakeholders and the community.

The funding strategies selected to move forward for additional consideration are as follows:

- USACE Cost Sharing (Section 204 or through an incremental cost sharing agreement)
- Snohomish CD grant opportunity
- Formation of a beach management district
- County REET funds

An overview of each of these funding strategies, including the identified pros and cons, is provided in the following subsections. The researched information for those funding strategies not selected to carry forward for implementation, including the opportunistic sources and cost reduction opportunities, is provided in Appendix B.

3.1 U.S. Army Corps of Engineers

USACE is a federal agency whose mission is to "deliver vital public and military engineering services; partnering in peace and war to strengthen our Nation's security, energize the economy and reduce risks from disasters" (USACE 2016a). One of USACE's roles is to support navigation by maintaining and improving channels. The following two strategies exist for funding maintenance through USACE:

- Cost sharing through Section 204 of the Water Resources Development Act of 1992 (WRDA)
- Cost sharing through a Memorandum of Understanding (MOU) with a local sponsor (e.g., county or city)

3.1.1 Cost Sharing through Water Resources Development Act Section 204

WRDA Section 204 focuses on the beneficial use of dredged materials (USACE 2016b). USACE can restore, protect, or create aquatic wetland habitats in connection with maintenance dredging of an authorized federal navigation project. In the current WRDA Section 204, the cost-sharing split for construction is 75% USACE and 25% local sponsor. If this program could be utilized for future beach nourishment at the project sites, County costs for construction would be approximately 25% of the costs shown in Table 1.

USACE is currently revising implementation guidance for Section 204, which will likely be completed in 2017. Information obtained during the stakeholder meeting conducted as part of this work (see Section 4.1) indicated that this maintenance work would not be eligible for this program in the future (once the revised guidance for the program is implemented). Pros and cons of implementing this funding strategy are summarized in Table 2.

Table 2
Pros and Cons associated with USACE Section 204 Funding Strategy

Pros	Cons
• Potential to continue using dredged material as the source for beach nourishment at the project sites. • Potential reduction in costs for the project. • Sediment dredged from the upper settling basin in the Snohomish River is currently placed on City; however, this placement site is being decommissioned. The Port needs some other location for this material and is considering placement of material at a site across the river from the current location. There is potential to identify the project sites as additional or alternative placement locations for the dredged material. • Establishes a regular program that can be applied each time maintenance funding is needed. • Potential for significant cost reduction for the County with the opportunity to fund the full maintenance option shown in Table 1.	• The amount of material dredged and the frequency of dredging events may change over time based on federal funding available for the work. • The maintenance work may not be eligible for this program when the new guidance is implemented in 2017. • Implementing this program with USACE requires a long process. Time frame to implement the program is long—on the order of 5 years. • The process includes an initial study by USACE to determine if the problem may have a federal interest. If the USACE headquarters office approves this effort, a feasibility study begins at federal expense to define problem and choose a plan to implement. • The County and USACE would need to develop a project cooperation agreement that outlines the cost sharing agreement for the project. • The costs for County personnel to coordinate with USACE throughout this process, as well as any legal or other counsel required to put together or review agreements, is not included in the cost sharing for the project.

3.1.2 Cost Sharing through a Memorandum of Understanding

Currently, USACE dredges portions of the Snohomish River to support navigation and the Port, as the local sponsor, supplies a disposal location. Other local sponsors, such as a county or city, can enter into an MOU with USACE to share costs during planned dredge events. For this strategy, a local sponsor would pay the incremental cost difference between what the USACE would normally spend to dredge and dispose of material and what it would cost to transport that dredged material to the project sites. The additional costs to be paid by the local sponsor would include those associated with using different dredging methods, if required; different types of equipment or barges needed; different ways to transport and place dredged materials; and differences in the transportation distance.

The process of preparing an MOU is initiated by the local sponsor preparing a letter to USACE. USACE then evaluates the request and if acceptable would then work with the local sponsor to establish the details of the agreement.

Currently, it is anticipated that the Port will need to secure a new disposal site for materials dredged from the upper settling basin in the next few years. The USACE regulatory process for evaluating a new proposed disposal site is underway. It may be possible to include the Nearshore Beach Restoration Project area as a future disposal site for the dredged materials. The cost to use the restoration project area would need to be evaluated relative to costs for other disposal sites to determine any additional costs to transport and place the material. Pros and cons of implementing this funding strategy are summarized in Table 3.

Table 3
Pros and Cons associated with USACE MOU Funding Strategy

Pros	Cons
• Potential to continue using dredged material as the source for beach nourishment at the project sites. • Potential reduction in costs for the project. • Sediment dredged from the upper settling basin in the Snohomish River is currently placed on City property; however, this placement site is being decommissioned. The Port needs some other location for this material and is considering placement of material at a site across the river from the current location. There is potential to identify the project sites as additional or alternative placement locations for the dredged material. • Establishes a regular program that can be applied each time maintenance funding is needed. • Potential for significant cost reduction for the County with the opportunity to fund the full maintenance option shown in Table 1. • Local sponsor can initiate process with USACE simply by submitting a letter of interest. Upon receipt of the letter, USACE initiates its process for evaluating the adequacy of the request for federal interests.	• The amount of material dredged and the frequency of dredging events may change over time based on federal funding available for the work. • Incremental costs that would be paid by the County could be on par or higher than initial construction costs to place beach nourishment material, depending on dredging methods and disposal locations identified by the Port for the upper settling basin.

If this strategy is used for future beach nourishment at the project sites, County costs for construction could be reduced from Table 1. The degree to which costs would be reduced is dependent on many factors that are not known at this time, including dredging methods preferred by USACE for future dredging work, complexity of construction methods needed to haul material from the dredged location, the cost to haul material to the Port and USACE identified disposal site for the dredged material, environmental regulations, and permitting conditions. It is possible that using the dredged material for beach nourishment at the project sites under an MOU in the future could be more costly than sourcing the material from a quarry (see Table 1).

3.2 Snohomish Conservation District

The Snohomish CD is a sub-unit of state government whose mission is to "work cooperatively with others to promote and encourage conservation and responsible use of natural resources" (Snohomish Conservation District 2016). Typical CD projects include technical assistance for landowners regarding flooding and drainage issues, implementing best management practices (BMPs) for agricultural lands, forestry planning, and various education and outreach in schools and to the public. The Snohomish CD covers a majority of unincorporated Snohomish County and the Camano Island portion of Island County.

CDs in Washington receive basic funding from the Washington State Conservation Commission. The Snohomish CD receives additional funding in the form of an assessment on properties within the district under the Revised Code of Washington (RCW) 89.08. The current annual assessment in Snohomish County is equal to $5/parcel and $.05/acre.

The current assessment is set to expire in 2020. In order to continue receiving this funding, the Snohomish CD must propose a new assessment that could be the same rate or a new rate. To determine the correct parcel assessment, the Snohomish CD is exploring the potential to change the structure of the assessment to be distributed more evenly among properties based on services provided. For example, parcels with agricultural uses would be charged a different rate than shoreline parcels. This would allow the Snohomish CD to more evenly distribute funding to services directly associated with the properties in the areas. This presents a unique opportunity to partner with the Snohomish CD during this process and

support its work to increase services provided to shoreline landowners and projects benefitting the marine resources of the County.

While future funding availability is unknown at this point, funding for maintenance through this strategy would likely come in the form of a grant, according to Snohomish CD staff. The system could mirror a successful local grant program managed by the King CD. The King CD program provides grants for projects that "directly improve the condition of natural resources, provide education and outreach to increase awareness, build capacity to enhance implementation of natural resource improvement projects and implement pilot or demonstration projects" (King CD 2016). According to a conversation with Snohomish CD staff, the program would likely have a set funding cap for grant fund availability. A project, such as the Nearshore Beach Restoration Project, would be eligible for these grant funds.

This idea is in the early planning stages for the Snohomish CD and has yet to be fully explored. The internal process for the Snohomish CD will be initiated in fall 2016. In the coming year, public and political input will be sought to understand the viability of this new fee structure and how funding will be distributed among projects and programs. Pros and cons of implementing this funding strategy are summarized in Table 4.

Table 4
Pros and Cons associated with Snohomish Conservation District Funding Strategy

Pros	Cons
• Expansion of the CD assessment could be used to fund other activities in the interest of local citizens along the shoreline, including a technical assistance program for shoreline landowners. • Use of existing programs improves ease of implementation. Local citizens are already familiar with the Snohomish CD and fee assessment. • Low staff time required for the County compared to other strategies. A majority of the staff time would be from the Snohomish CD with coordination from County staff. • Current County assessment ends at the end of 2019. New assessment study (fee analysis)	• May be difficult to gain political approval to raise current assessment rate. • Assessment rates are revisited every 5 years by the County. Process requires an ordinance approved by County Council, including two public hearings—one held by the County and the other by Snohomish CD. • Project differs from those usually pursued by Snohomish CD, which include education and outreach, installation of water quality and farm BMPs, stream restoration, assessment of drainage and flooding issues, etc. • Howarth Park is not currently in the district. Projects generally need to be located in the

Pros	Cons
would be implemented in 2018. Timeline aligns with nourishment schedule described above. • Goal of new assessment is to fund wider variety of projects, including shoreline restoration projects. • While funding potential is low, strategy likely could provide local match for another strategy.	district to receive funding. Potential to show benefit to areas within the district and Puget Sound will still be likely to receive funding, but this is not certain. • Funding would likely be competitive grant-based with a set funding cap (to be determined). This strategy would likely need to be paired with another strategy to make up the difference.

3.3 Beach Management District

Beach management districts are special purpose districts funded by local assessments or fees to protect beaches. According to RCW 36.61, lake or beach management districts can be created to finance "the improvement and maintenance of lakes or beaches located within or partially within the boundaries of the county." No beach management districts currently exist in Washington, but there are lake management districts, which are similar and authorized under the same RCW.

Beach management districts can be set up in a variety of ways, including the geographic area along with the activities funded by the district. The district area could range from a relatively small area in the project vicinity to a broader geographic portion of the county, or multiple counties. The activities funded by the district could focus solely on the restoration project maintenance activities or could be broadened to include other activities such as new beach access or expanded restoration work.

The beach management district would be funded by a special assessment applied to parcels within the district boundaries. The assessment fees are commonly set up such that the amounts vary depending on distance from the beach resources providing benefits. The total amount of special assessments collected for a beach management district cannot exceed the estimated cost of the proposed beach improvement or maintenance activities. Using lake management districts as examples of potential fee amounts associated with a beach management district, the annual fees for lake management districts in Washington range from $40 to $260 for a lakefront parcel and up to $30 for other property owners (Patterson et al. 2014).

A beach management district would create a new program in the County that could fund a variety of projects beyond Nearshore Beach Restoration Project maintenance. Other projects could include additional shoreline restoration, investigation of increasing beach access in the district, improvement of park facilities, and overall improvement of users' beach experience. A beach management district could provide a consistent funding source to benefit a variety of shoreline topics.

Creation of a beach management district can be a long process that involves many steps. An outline of the steps required to create a beach management district (based on Patterson et al. 2014) is as follows:

1. **Initial assessment and strategic plan.** Determine need for district and if there is public support to establish a district. The geographic extent of a proposed district is determined at this stage.
2. **Initiation of petition.** A core group of residents, a non-profit group, or others spearhead a petition process in order to generate petition signatures from ten landowners, or landowners of at least 15% of the acreage within the proposed district area.
3. **County resolution of intent.** County legislators adopt a resolution of intent either after a successful petition or indirectly (without a petition).
4. **County hearing.** The county legislators set a hearing date and provide notice to all landowners in the proposed district. A hearing must be scheduled at least 30 days and no more than 90 days after the adoption of a resolution, unless an emergency exists. Notice of hearing is to be published at least twice in newspapers of general circulation in the proposed district and mailed to landowners and the Washington Department of Fish and Wildlife (WDFW), Washington State Department of Natural Resources, and Washington State Department of Ecology.
5. **County legislators alter proposal (optional).** During and after the hearing, the legislators may change the proposal, though additional notices or hearings may be needed to do so.
6. **County legislators' decision.** After the hearing, the legislators consider the feasibility of the district. If they decide favorably, they submit the proposal to the landowners of the proposed district through an election.

7. **Authorize election, including specifics.** County legislators set date and language for election. Each dollar of proposed charge on a property counts as one vote available to its owner.
8. **Public campaign.** Undertake a public campaign to get the proposed district approved by voters.
9. **Public vote.** The election is by mail ballot. Passage of the proposition requires a simple majority of votes cast.
10. **Establishment of program.** If the vote is favorable, the county adopts an ordinance creating the beach management district. Notice of district's creation must be published within 10 days of adopting the ordinance (RCW 36.61.090 -.100).
11. **Subsequent actions.** Substantial increases in funding may require another election. Decisions regarding funding must be made during public hearings. The organization and mechanisms for administering funds, including offices and staff is established.

Pros and cons of implementing this funding strategy are summarized in Table 5.

Table 5
Pros and Cons associated with Beach Management District Funding Strategy

Pros	Cons
• Consistent funding mechanism for future nourishment as a result of annual tax that would be added to County Code. • Beach management district funds could be used to fund more than beach nourishment. Could be used on other nearshore projects of interest to local community. • Various active neighborhood associations exist in potential district area. • Funding level likely higher than a majority of other strategies. Exact funding level not determined at this point.	• Requires public support. County would need to conduct a survey of residents to determine level of support for this strategy. Case studies of lake management districts generally demonstrate public approval of the program. • Must have buy-off from all jurisdictions owning land in the potential beach management district. • Long timeline and expense for implementation. Process may require more than 5 years, which is more time than available before the first beach nourishment is needed. Costs for creating a beach management district could potentially range from $200K to $500K. • Requires significant staff and consultant resources to conduct research, develop plan, and conduct outreach needed to implement a beach management district. Will likely require a paid staff with either the County or City to manage the

Pros	Cons
	district, although this role could potentially be filled by an elected board member. • RCW 36.61 does not specifically list restoration or nourishment as an approved activity for use of funds but does use the term "maintenance." Need to determine if beach management district funding can be used for this purpose. If not, this strategy may require a legislative change.

3.3.1 Relevant Examples

To illustrate how this type of funding has been implemented in other locations, two examples of existing management districts are described as follows.

3.3.1.1 Barnes Lake Management District (Tumwater, Washington)

The Barnes Lake Management District is located in the City of Tumwater, Washington, at Barnes Lake. The district was created in response to invasive species growing in and near the lake. The district is managed by the City of Tumwater and works with a Steering Committee of Barnes Lake residents. The Steering Committee comprises residents from each area of the lake. The Steering Committee recommends projects to the City of Tumwater, and the City Council decides which projects to implement. Projects typically relate to invasive species and algal growth in the lake but also include some education and wetland habitat management and preservation (City of Tumwater 2016).

Lakefront residents are charged an annual assessment of about $240/parcel. Other residents with views of the lake are charged at a lower rate that is reassessed annually (Table 6). These annual fees amount to an annual budget of approximately $17,000 (City of Tumwater 2016).

Table 6
Existing Barnes Lake Management District Annual Assessment Schedule

Property Class	Rate	Number of Properties	Total Revenue Per Class
Residential with Frontage	$240	26	$6,240
Undeveloped Residential with Frontage	$120	3	$360
Public/Commercial	$480	3	$1,440

Property Class	Rate	Number of Properties	Total Revenue Per Class
Condo with View	$192	21	$4,032
Condo without View	$96	50	$4,800
Residential with View	$77	5	$385
Undeveloped Residential with View	$48	1	$48

Source: Herrera Environmental Consultants, Inc. Barnes Lake Integrated Aquatic Vegetation Management Plan 2016. Prepared by City of Tumwater's Barnes Lake Management District. April 1, 2016. Available from: http://www.ci.tumwater.wa.us/Home/ShowDocument?id=9092.

3.3.1.2 Jupiter Island Beach Protection District (Jupiter Island, Florida)

The Jupiter Island Beach Management District has the same boundaries as the Town of Jupiter Island in Florida. The purpose of the district is to provide "protection of the beach and lands within the district from erosion and damage from storms, waves, currents and high water subject to state and federal permit requirements." The district is managed by a Beach District Manager who is a Town staff member and overseen by the Town Commission. Projects funded by the district including construction and maintenance of erosion control structures and renourishment of town beaches (Town of Jupiter Island 2016).

Annual revenue for the district from property taxes is $2.8 million per year. The district has a budget of more than $22 million when the tax revenue is combined with other sources (Town of Jupiter Island 2016).

3.4 Snohomish County Real Estate Excise Tax Funds

According to Washington State law, cities and counties can collect a real estate excise tax (REET) on all real estate sales. The three different REET funds that can be collected under various authorities are as follows:

1. REET 1 – A 0.25% tax on selling price paid by seller. Revenues must be spent on capital projects listed in the capital project plan. This is allowed under RCW 82.46.010.
2. REET 2 – RCW 82.46.035 authorizes collection of a second 0.25% tax on the selling price of real estate paid by seller.
3. Conservation area acquisition and maintenance – Optional 1% REET for conservation areas may be collected by the legislative authority under RCW 36.32.570. At this

time, San Juan County is the only jurisdiction that has levied this tax. This revenue must be used for the acquisition and maintenance of conservation areas. There is an additional tax of 1% on the selling price of real estate paid by the buyer. Howarth Park may be defined as a conservation area, but this would likely require a legal determination.

At the end of 2016, the use of REET funds for maintenance will be changing. The old rule allows use of REET 1 revenue for operations and maintenance of existing REET 1 capital projects and REET 2 revenues for existing REET 2 eligible capital projects. The new rule, starting January 1, 2017, limits use of REET funds for maintenance projects and creates a new definition of maintenance by stating that, "the use of funds for labor and materials that will preserve, prevent the decline of, or extend the useful life of a capital project. Maintenance does not include labor or materials costs for routine operations of a capital project" (MRSC 2016).

Both the City and County collect REET on real estate sales, and both were explored under this study. City REET dollars have a more limited scope than those of the County, and the City's REET funding is not considered to be an available funding source for this project. County REET revenues have declined since the recession in 2008 because there was a drop in real estate sales (Snohomish County 2014). This fund is very dependent on the status of the economy and can fluctuate. It may not be a reliable funding source in the long term.

Pros and cons of implementing this funding strategy are summarized in Table 7.

Table 7
Pros and Cons associated with REET Funding Strategy

Pros	Cons
• Funding level is the greater of $100,000 or 25% of the total available dollars, not to exceed $1 million. This funding level could make up some of what is needed to fund renourishment in partnership with another strategy. • No additional costs to be incurred by the County or citizens. • Existing funding mechanism that would be adapted to fund nourishment.	• Will likely need a legal interpretation whether REET could be used for nearshore maintenance. • Account balance fluctuates with real estate market, making this an uncertain source of funding for future nourishment. Impacts of the economic downturn in 2008 are still affecting allocation of REET revenues today. • Projected REET 2 funding already allocated through 2020; however, renourishment on an

Pros	Cons
• Low staff time required compared to other strategies. Similar to Conservation Futures. • Potential for funding to be available in maintenance timeline described above. • Nearshore Beach Restoration Project is already listed in the *2015-2020 Capital Improvement Program* (Snohomish County 2014). • Potential to be a consistent funding source if County Council sees project as providing benefit to County citizens.	assumed 5-year interval would require nourishment material to be placed starting in 2021. • Funds allocated to Snohomish County Surface Water Management in upcoming years are approximately $400,000. Prior to the 2008 economic downturn, the division received approximately $3 million (according to County staff). It is unknown whether additional funds could be budgeted for beach nourishment. Strategy may need to be paired with additional funding mechanism.

4 STAKEHOLDER AND COMMUNITY INPUT

After selecting a subset of funding strategies to move forward, a communications plan (Appendix C) was developed for gathering additional input on the selected strategies from stakeholders and the public. The communications plan summarizes the recommended strategies described in Section 3 and outlines a plan to communicate the intent and goals of the maintenance work. The communications plan guided external messaging for this project and included a stakeholder and community meeting to discuss preferred funding strategies.

The project team conducted a stakeholder meeting on September 8, 2016. Stakeholders were identified based on involvement in the project and identified funding strategies. Representatives from key organizations were invited to attend the meeting to provide input on preferred strategies. The meeting included a presentation about the recently completed construction and preferred funding strategies identified for maintenance. A majority of the meeting was allocated to a roundtable discussion to give each attendee time to talk about preferred strategies or concerns to be addressed before moving forward with selecting strategies.

Following the stakeholder meeting, a community meeting was scheduled for September 12, 2016, with the goal of gathering public input on the potential funding strategies. A few of the potential strategies would require public support if implemented, for example, in the case of an assessment. The community meeting included a presentation and discussion among attendees and project staff. The meeting also highlighted the recently completed restoration project and reopening of Howarth Park, which was important to local residents and emphasizes the need for future project maintenance.

Appendices D and E provide complete meeting summaries for the stakeholder and community meetings, respectively. A high level summary of the input received at each of those meetings is provided in the following subsections.

4.1 Stakeholder Workshop

Stakeholder input from the September 8, 2016, meeting is documented in Appendix D. The discussion in Section 3 reflects stakeholder input provided during this meeting.

The overall consensus of the stakeholder meeting attendees, after hearing about the four options explained in this report, was that a beach management district is the preferred funding strategy. Meeting attendees felt this strategy would be able to stand on its own and has the potential to fund full maintenance of the Nearshore Beach Restoration Project and potentially additional projects. While this strategy may require the most effort and time to initiate, it likely will have the greatest benefit to the Nearshore Beach Restoration Project and a variety of other shoreline projects in the City and throughout the County. It is anticipated that other funding strategies have limitations on funding availability and would need to be paired with other alternatives. Grant funding was one of these that should still be investigated, and another source could be used as a local match requirement.

4.2 Community Meeting

Public input from the September 12, 2016, community meeting is documented in Appendix E. Related to the funding strategies, community members expressed some favorable interest in a beach management district covering a large geographic area (e.g., entire county or even combined across King and Snohomish counties) to share the costs among all who benefit. There was also interest in approaching BNSF Railway as a landowner with responsibility for nearshore habitat to contribute financially. In addition, the idea of using WDFW fishing/shellfish license fees as a potential funding source for future beach nourishment at the project sites was discussed.

5 RECOMMENDED NEXT STEPS

The following next steps are for each of the recommended strategies discussed above. For a number of strategies, likely more than one strategy would be needed to fund maximum maintenance of the project site. While maintenance of the site likely will not be required for at least 5 years, it is recommended to initiate work on any of these strategies as soon as possible to ensure funding is available when nourishment is needed.

5.1 U.S. Army Corps of Engineers

Once new implementation guidance for WRDA Section 204 is released in 2017, the County should review to determine if this project can fit within those guidelines. A follow-up discussion with USACE representatives should also be conducted to verify the County's understanding of the revised guidance document. The cost sharing through the MOU is a particularly promising funding strategy and should be considered as a viable option moving forward. The amount of cost savings to the County will depend on the Port and USACE decisions concerning the new disposal site for the upper setting basin. The County should continue to engage the Port in discussion of proposed disposal sites to ensure that Howarth Park and the beach sites remain on the list of potential disposal sites. If the nearshore project sites are not chosen as a disposal site for the dredged material, then the County should take the lead on developing a cost sharing MOU request letter to USACE. If the nearshore sites are chosen as disposal sites, the opportunity to nourish all of the previously nourished sites, and potentially the entire reach, exists depending on the amount of material available from the dredging event. Additional discussions with USACE at that point will be required to develop realistic cost estimates for the County's portion of the work depending on dredge methods proposed by USACE for the work.

5.2 Snohomish Conservation District Grant Opportunity

As the Snohomish CD moves forward with revising its fee assessment structure, it is recommended that project representatives get involved with the process and promote the inclusion of nearshore beach restoration and maintenance activities among the eligible project types for CD funding. This participation could begin by meeting with Snohomish CD District Manager, Monte Marti, to discuss shoreline fee assessments and potential uses of

these funds. The goal of these conversations would be to gain a better understanding of the Snohomish CD's plans and potential for future beach nourishment maintenance funding.

5.3 Formation of Beach Management District

Meetings between the City and County planning departments and management should occur to determine if this strategy is feasible to move forward. Following those discussions, if there is support for moving forward with this funding strategy, it is recommended that an initial assessment be conducted to begin to define options for the geographic scope and range of activities to include in the mission of the district. Additional outreach should be conducted to local residents to gauge the level of support for this strategy. It is recommended that expert input be sought to provide information on legal issues, economic analysis (e.g., assessment rate structure), and overall political and community support. The City has expressed concern over this strategy.

5.4 Snohomish County Real Estate Excise Tax

The first step is to determine if County REET funding can be used for maintenance of the Nearshore Beach Restoration Project. This will likely require a legal opinion from the County. If regular REET revenues cannot be used for maintenance, a potential alternative is to investigate the feasibility of collecting an additional REET for conservation area acquisition and maintenance. This would be an additional 1% tax on real estate sales that would need to be approved by voters.

5.5 Additional Recommendations

The initial list of funding strategies included opportunistic funding sources and cost reduction strategies. The opportunistic funding sources should always be kept in mind and pursued if the opportunity presents itself. The cost reduction strategies included some activities that could be pursued now to reduce costs and potentially improve the certainty of the cost estimates (e.g., constructability review by marine contractors).

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APPENDIX A
CONCEPTUAL OPINIONS OF COST TABLES AND ASSUMPTIONS

Table A-1 Construction Costs for Maintenance Option 1, Original Construction Means/Methods[1]

Maintenance Option 1 includes placement of beach nourishment material at Howarth Park[2] and Beach Sites 2, 5, 6, 9, and 10

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 5,000
Procure, Haul, and Place Beach Nourishment Material	21,895	TON	$ 31	$ 678,745
Erosion/Water Pollution Control	11,500	EST	$ 1	$ 11,500
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 4,000	$ 4,000
Contractor Surveying	1	LS	$ 24,000	$ 24,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 2,500	$ 2,500
Subtotal				**$ 728,145**
Mobilization[3] (20% of Subtotal)				$ 145,629
Sales Tax 9.2%				$ 80,387
Total				**$ 954,161**

Table A-2 Construction Costs for Maintenance Option 2, Original Construction Means/Methods[1]

Maintenance Option 1 includes placement of beach nourishment material at Howarth Park[2] and Beach Sites 2, 5, and 9

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 5,000
Procure, Haul, and Place Beach Nourishment Material	14,355	TON	$ 31	$ 445,005
Erosion/Water Pollution Control	11,500	EST	$ 1	$ 11,500
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 4,000	$ 4,000
Contractor Surveying	1	LS	$ 18,000	$ 18,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 2,500	$ 2,500
Subtotal				**$ 488,405**
Mobilization[3] (from Option 1)				$ 145,629
Sales Tax 9.2%				$ 58,331
Total				**$ 692,365**

Table A-3 Construction Costs for Maintenance Option 3, Original Construction Means/Methods[1]

Maintenance Option 1 includes placement of beach nourishment material at Howarth Park[2] and Beach Site 9

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 3,000
Procure, Haul, and Place Beach Nourishment Material	9,280	TON	$ 31	$ 287,680
Erosion/Water Pollution Control	8,000	EST	$ 1	$ 8,000
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 3,000	$ 3,000
Contractor Surveying	1	LS	$ 15,000	$ 15,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 2,500	$ 2,500
Subtotal				**$ 321,580**
Mobilization[3] (from Option 1)				$ 145,629
Sales Tax 9.2%				$ 42,983
Total				**$ 510,192**

Table A-4 Construction Costs for Maintenance Option 4, Original Construction Means/Methods[1]

Maintenance Option 4 includes placement of beach nourishment material at Howarth Park[2]

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 3,000
Procure, Haul, and Place Beach Nourishment Material	4,640	TON	$ 31	$ 143,840
Erosion/Water Pollution Control	6,000	EST	$ 1	$ 6,000
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 2,000	$ 2,000
Contractor Surveying	1	LS	$ 8,000	$ 8,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 1,500	$ 1,500
Subtotal				**$ 166,740**
Mobilization[3] (from Option 1)				$ 145,629
Sales Tax 9.2%				$ 28,738
Total				**$ 341,107**

Table A-5 Construction Costs for Maintenance Option 1, Revised Construction Means/Methods[1]

Maintenance Option 1 includes placement of beach nourishment material at Howarth Park[2] and Beach Sites 2, 5, 6, 9, and 10

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 5,000
Procure, Haul, and Place Beach Nourishment Material	21,895	TON	$ 49	$ 1,072,855
Erosion/Water Pollution Control	11,500	EST	$ 1	$ 11,500
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 4,000	$ 4,000
Contractor Surveying	1	LS	$ 24,000	$ 24,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 2,500	$ 2,500
Subtotal				**$ 1,122,255**
Mobilization[3] (20% of Subtotal)				$ 224,451
Sales Tax 9.2%				$ 123,897
Total				**$ 1,470,603**

Table A-6 Construction Costs for Maintenance Option 2, Revised Construction Means/Methods[1]

Maintenance Option 1 includes placement of beach nourishment material at Howarth Park[2] and Beach Sites 2, 5, and 9

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 5,000
Procure, Haul, and Place Beach Nourishment Material	14,355	TON	$ 49	$ 703,395
Erosion/Water Pollution Control	11,500	EST	$ 1	$ 11,500
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 4,000	$ 4,000
Contractor Surveying	1	LS	$ 18,000	$ 18,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 2,500	$ 2,500
Subtotal				**$ 746,795**
Mobilization[3] (from Option 1)				$ 224,451
Sales Tax 9.2%				$ 89,355
Total				**$ 1,060,601**

Table A-7 Construction Costs for Maintenance Option 3, Revised Construction Means/Methods[1]

Maintenance Option 1 includes placement of beach nourishment material at Howarth Park[2] and Beach Site 9

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 3,000
Procure, Haul, and Place Beach Nourishment Material	9,280	TON	$ 49	$ 454,720
Erosion/Water Pollution Control	8,000	EST	$ 1	$ 8,000
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 3,000	$ 3,000
Contractor Surveying	1	LS	$ 15,000	$ 15,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 2,500	$ 2,500
Subtotal				**$ 488,620**
Mobilization[3] (from Option 1)				$ 224,451
Sales Tax 9.2%				$ 65,603
Total				**$ 778,674**

Table A-8 Construction Costs for Maintenance Option 4, Revised Construction Means/Methods[1]

Maintenance Option 4 includes placement of beach nourishment material at Howarth Park[2]

Item	Quantity	Unit	Unit Price	Total
Locate and Protect Underground Utilities	1	LS	$ 5,000	$ 3,000
Procure, Haul, and Place Beach Nourishment Material	4,640	TON	$ 49	$ 227,360
Erosion/Water Pollution Control	6,000	EST	$ 1	$ 6,000
Project Temporary Traffic Control	1	LS	$ 1,800	$ 1,800
Record Drawings	1	LS	$ 2,000	$ 2,000
Contractor Surveying	1	LS	$ 8,000	$ 8,000
SPCC Plan	1	LS	$ 600	$ 600
Construction Submittals	1	LS	$ 1,500	$ 1,500
Subtotal				**$ 250,260**
Mobilization[3] (from Option 1)				$ 224,451
Sales Tax 9.2%				$ 43,673
Total				**$ 518,384**

APPENDIX B
FUNDING STRATEGIES TABLE

Snohomish County Nearshore Beach Restoration Project – Long-Term Maintenance and Management Report
Funding Strategies Table – Strategies Not Recommended

In 2016, the Snohomish County Nearshore Beach Restoration Project enhanced and restored beach habitats at four sites between the City of Mukilteo and the downtown waterfront of the City of Everett. The project entailed placing beach materials in the intertidal zone that will naturally be dispersed by wind and wave energy acting on the sites. To prolong the benefits of the restoration, maintenance of the sites—namely the placement of additional beach materials—will be necessary at regular intervals on the order of every 5 to 10 years. Anchor QEA and Confluence Environmental were contracted by Snohomish County (County) to develop a Long-Term Maintenance and Management Plan to identify potential mechanisms for funding the maintenance activities at the sites. This document is an initial deliverable developed as part of this work and will be included as part of the final Plan.

The tables presented below provide information on funding strategies and cost reduction strategies for future beach nourishment for the Snohomish County Nearshore Beach Restoration Project that were identified and assessed by the project team but that are not recommended as a primary funding strategy. The strategies in Table 1 are opportunistic strategies that should be pursued if the opportunity is presented but will not be actively pursued as a secure future funding source for the project. Strategies in Table 2 are those that were identified as not being feasible for this project due to various reasons that are noted in the description. Table 3 identifies a number of ways to reduce the construction costs of future beach renourishment but are not funding strategies that were pursued during this project. In each table, a brief description of the strategy is provided along with identified pros and cons of the approach. Funding levels required for beach nourishment are based on the cost estimate in Appendix A.

Table 1. Opportunistic Funding Strategies

Opportunistic Funding Strategy	Brief Description	Pros	Cons
Non-Profit Donations	Organizations with conservation interests and significant funding, which may include: • Vulcan • Forterra • Northwest Straits Foundation <u>Funding Source:</u> Variable based on non-profit but generally donors. <u>Regulation(s):</u> N/A	• Once partnership formed, staff capacity required could be shared with non-profit. • If the construction is facilitated through the non-profit, the effort and costs for construction and bid document development and review may be able to be streamlined compared to the County process.	• Timeline for funding is uncertain. Dependent on non-profit and funding availability. • Variable funding depending on non-profit. • Agenda of non-profit organization would need to be aligned with project goals. Non-profit may have other agenda items that they would need to apply to the project to warrant funding. • May be difficult to get project started and create partnerships with non-profits. • No existing program. Additional staff capacity may be required for startup and coordination.
Grants	Grant funding opportunities that may fund nearshore maintenance include: • Ecosystem and Salmon Recovery Board • Salmon Recovery Funding Board • National Oceanic and Atmospheric Administration • U.S. Fish and Wildlife Service • Additional nationwide grant opportunities that generally fund East Coast projects but are available for West Coast projects <u>Funding Source:</u> Various state and federal agencies based on grant source. Grant awards may range from $50,000 – $1,500,000. <u>Regulation(s):</u> N/A	• Low staff time required compared to other strategies. Process would involve general grant application. • Potential for preferred maintenance option but dependent on grant source.	• Short-term (one-time) funding opportunity. • Not a reliable source for future funding. • Level of funding is not guaranteed and will depend on funding available at time of application. • Maintenance is not generally a favorable project—a restoration project would likely take priority for funding. This preference may change in the future. • Generally, a local match is required to receive grant funds.

Opportunistic Funding Strategy	Brief Description	Pros	Cons
Mitigation	Mitigation opportunities that may arise due to activities by large agencies or companies that impact the aquatic environment and require mitigation to acquire permits. The list includes: • Port of Everett • Boeing Company • Burlington Northern Santa Fe • Sound Transit • Washington State Department of Transportation/State Ferries Funding Source: Agency or company in need of mitigation site due to impacts of project on the environment would fund this strategy. Funding for maintenance could occur through a company constructing a project near the project site and being required to mitigate for impacts. If accepted by permitting agency, the company could use beach nourishment project as mitigation site. Regulation(s): • Federal Rule on Compensatory Mitigation: 33 CFR Parts 325 and 332 and 40 CFR Part 230	• Low or no additional costs to be incurred by the County or citizens. If a mitigation opportunity arose, company would fund activity. May require some County staff time for coordination.	• Funding level dependent on extent of mitigation needed. Preferred maintenance option not guaranteed. • Likely short-term (one-time) funding. • Staff time variable and dependent on project. • Difficult to plan for availability of funding with this strategy.

Table 2. Funding Strategies

Funding Strategy	Brief Description	Pros	Cons
Mitigation Banking	Reason not pursued: Strategy would require large startup costs and time. If there was an interest from other organizations and staff availability, this strategy may be worth pursuing but is not recommended at this time. A study would need to be conducted first to determine demand for this type of program in the County. Description: According to the U.S. Environmental Protection Agency, a mitigation bank is a wetland, stream, or other aquatic resource that has been restored, established, enhanced, or preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 or a similar state or local wetland regulation. In Washington State, there are two types of mitigation banks (wetland and conservation banks) but neither have a marine component. Mitigation banks are one form of mitigation allowed by federal rule. Funding Source: Credits are sold to permittees that are required to provide compensatory mitigation for impacts to aquatic resources. Obligation for mitigation is then transferred to mitigation bank sponsor.	• Three wetland mitigation banks already exist in the County and are widely utilized (Paine Field Wetland Compensation Bank Program, Skykomish Habitat Mitigation Bank, and Snohomish Basin Mitigation Bank). The Blue Heron Conservation and Mitigation Bank is in the Snohomish River estuary and is currently under review. • Potential for consistent funding source if enough mitigation credits are sold and future nourishment is allocated in budget.	• The majority of mitigation banks in Washington are part of the Wetland Mitigation Banking Program. A few conservation banks exist that sell credits for fish habitat. • Lengthy startup process to create mitigation bank. The process for creation of existing banks ranged from approximately 2-10 years. Process would include market analysis of demand, potential pilot project, prospectus, creation, and approval of program instrument by agencies including USACE, Washington Department of Fish and Wildlife, and Ecology. • High staff capacity required to create, maintain, and operate bank. The County could partner with another entity to be the bank sponsor in order to reduce County staff capacity needed. • Public ownership may present challenges not experienced by private mitigation banks in the County. • Success of mitigation bank is dependent on demand for mitigation credits. Level of funding needed would be included in the budget during development of the bank. • If selling wetland credits, this would create competition with existing wetland mitigation banks to offer best price. • No nearshore or beach nourishment mitigation banks were identified in the United States during research.

Funding Strategy	Brief Description	Pros	Cons
	Funding for beach nourishment would require creation of a mitigation bank, which would be the first of its kind in Washington. The process includes drafting prospectus to initiate conversation with U.S. Army Corps of Engineers (USACE) and Washington State Department of Ecology (Ecology), drafting and finalizing instrument, and final approval by regulatory agencies. <u>Regulation(s):</u> • Washington Administrative Code Chapter 173-700, Wetland Mitigation Banks • Revised Code of Washington (RCW) 90.84, Wetlands Mitigation Banking		
In-Lieu Fee (ILF) Mitigation	<u>Reason not pursued:</u> Strategy would require large startup costs and time. Other ILF programs have experienced significant challenges with implementation. If there was an interest from other organizations and staff availability, this strategy may be worth pursuing but is not recommended at this time. A study would need to be conducted first to determine demand for this type of program in the County. <u>Description:</u> The objective of ILF mitigation is to provide compensatory mitigation for unavoidable adverse impacts to the waters of the United States, waters of the state of Washington, and tribal waters including wetlands, aquatic resources, and their buffers. ILF programs sell credits to permittees whose obligation to provide compensatory mitigation is then transferred to the sponsor of the ILF program. ILF projects are usually constructed after impacts have occurred and fees have been collected. Mitigation must be implemented according to a watershed approach (e.g., use Salmon Conservation Plan, habitat assessments, nearshore characterization, etc.) to determine projects and fees. There are three approved ILF programs in Washington: Hood Canal Coordinating Council, King County, and Pierce County. <u>Funding Source:</u> Permittees pay a fee to the sponsor (non-profit or governmental natural resource agency) to mitigate impacts to aquatic resources. Permittees can pay into the account until reaching the pre-determined budget for the mitigation project. Mitigation project is constructed after all funding is secured. Funding for beach nourishment would come from the creation of an ILF program in the County, with this project being one of the projects under the program. Demand for purchasing credits would need to be assessed in the County in addition to how an ILF program would function with existing mitigation banks. Creation	• Could be administered by Snohomish County Surface Water Management. • Potential for consistent funding source if enough mitigation credits are sold to fund nourishment budget, including all anticipated future nourishment activities. • Program could be used to fund other projects in the County.	• Lengthy startup process to create ILF program. Existing ILF program creation ranged from 3-5 years to complete certification process. This time frame could work with the beach nourishment schedule described above. • High staff capacity required to initiate program. Additional staff would be needed to run program after implementation. • Level of funding is dependent of number of credits available and sold. Funding for preferred maintenance is not guaranteed. Necessary funding level should be determined up front since all credits sold would be used to fund all future maintenance activities. • ILF mitigation must be allowed in City of Everett code to be used in incorporated areas. • Federal rule states preference for mitigation activities in this order: mitigation bank credits, in-lieu fee program credits, and permittee-responsible mitigation. Since mitigation banks exist in the County, ILF mitigation may not be the preferred option. • Credits usually cost more than those for mitigation bank. Since mitigation banks exist in the County, buying ILF program credits may be less desirable. • Success of program is dependent on demand for mitigation credits. Need to assess if demand exists for additional mitigation bank in the County and if demand exists for nearshore habitat mitigation. • Existing programs in Washington have struggled to locate projects and use ILF funding. • Requires long-term commitment from the County to administer the program. • Project site must be protected in perpetuity by all landowners.

Funding Strategy	Brief Description	Pros	Cons
	of an ILF program involves various steps including research, potential pilot program, prospectus, program instrument, and approval by regulatory authorities including USACE and Ecology. Regulation(s): • Federal Rule on Compensatory Mitigation: 33 CFR Parts 325 and 332, 40 CFR Part 230		
Snohomish County Conservation Futures	Reason not pursued: Snohomish County Conservation Futures funding can only be used for maintenance if the property was acquired with the same funding. Since the property is owned mainly by the City of Everett, this project is not a fit for Snohomish County Conservation Futures. Description: The Snohomish County Conservation Futures is an annual property tax used for purpose of acquiring interest or rights in property for preservation. County Council determines allocation of these funds as guided by the Conservation Futures Program Advisory Board. Funding Source: Annual property tax of 6.25 cents per $1,000 of assessed value. According to RCW 84.34.240, up to 15% of the conservation futures revenue may be used for the maintenance and operation of any property acquired with conservation futures funding. Funding for beach nourishment would come from the portion of the funds allocated for property maintenance. Not feasible since property must be acquired with conservation futures funds to be eligible for maintenance. Regulation(s): • Snohomish County Code 4.14 – Conservation Futures Property Tax Fund • RCW 84.34.230 and 84.34.240 – Open Space, Agricultural, Timberlands – Current Use – Conservation Futures	• No additional costs to be incurred by County or citizens. • Existing funding mechanism would be adapted to fund nourishment. • Low staff time required compared to other strategies. Would require time up front to get project on funding schedule but would require minimal coordination after first year. • Funding allocated by County Council on annual basis. Timeline aligns with nourishment schedule described above. • Potential to be a consistent funding source if County Council sees project as providing benefit to County citizens.	• Funds are typically used for acquisition projects. • According to RCW 84.34.240, funds may be used for the purpose of "maintenance and operation of any property acquired with these funds." Also, "revenues from this tax may not be used to supplant existing maintenance and operation funding." Depending on County interpretation of the code, the project site may need to be acquired using conservation futures funds to be eligible for the maintenance funding. This would require code revisions. • Percentage of fund allocated for maintenance may not be enough for preferred maintenance option but could fund some alternatives.

Table 3. Cost Reduction Strategies

Cost Reduction Strategy	Brief Description	Pros	Cons
Use USACE Dredge Material	Dredging of the upper basin in the Snohomish River is often done via clam shell dredging, and it is possible the County could supply a barge to USACE to fill during dredging, and take that material directly to the project sites.	• Same source of material as used in the original construction project, so substrate sizes would be expected to be similar. • Once in place, same approach could be applied in each round of maintenance. • Could be applied regardless of whether the Section 204 WRDA funding approach is implemented.	• Requires getting agreement in place with USACE. • Cost savings are uncertain and depend on cost to USACE compared to other disposal options available to them.
In-Kind Donation	Port, city, county, or private entity donates labor or equipment.	• Local governments can accept donations if they are for public purposes.	• Still requires funding from the County. • High costs of labor or equipment may make it unlikely that entity would be interested in donating. • Only a few options exist for entities that own necessary equipment and in the vicinity of the project to make this viable.
Constructability Review from Marine Contractors and Operators	The County reaches out to marine contractors and operators to provide a constructability review of the initial construction means and methods to determine if different means and methods could be used to reduce costs for future nourishment.	• Cost will be low to none to gather information.	• Contractors and operators may not be fully forthcoming in the discussion. • Contractors and operators may conflict themselves out of the work by providing the County with this service. • Still requires funding from the County.
Marine Contractor/ Operator On-Call Contract	Develop standing on-call contract for marine contractor/operators with the appropriate equipment and experience to conduct the work.	• Once in place, staff time required to negotiate the bid process at the County would be minimized. • Opportunity to take advantage of other dredging activities that may provide appropriate dredged materials for placement on site. • Contractors would be familiar with the site and the work; this may increase the quality and reduce costs for work over time.	• Up front cost to the County to develop on-call contract that may never be used. • Costs for contracts may exceed the amount of the contract that the County can fund off an on-call roster. • Cost for construction itself would not be reduced; the cost savings would be incurred through reduction of the time and effort for bidding the work through the County's bidding procedures. • Availability of equipment needed for the work would still be uncertain, and mobilization time and cost is expected to be on par with original construction project (unless different means and methods are used).
Alternative Sediment Source	Track dredging projects in surrounding area that may provide alternative appropriate sediment source.	• Alternative sources of dredged material could provide source material in between nourishment intervals (if needed) or provide additional material in case quantities from the original source are too low to meet project needs. • Alternate source material may be cheaper to acquire and transport than the original source based on means and methods used to load material onto barges for transport and/or a disposal site for that material has not been identified (or is costly to use).	• No guarantee of availability of sediment. • As assessed in initial efforts for the Snohomish County Nearshore Beach Restoration Project, it can be difficult to locate clean sediment with correct composition for site. • Timing may not align with desired nourishment. • Requires some additional funding from the County. • Likely short-term (one-time) sediment source. • May require significant County staff time to coordinate the effort.

APPENDIX C
COMMUNICATIONS PLAN

Communications Plan for the
Snohomish County Nearshore Project Long-Term Maintenance and Management Report

Anchor QEA and its sub-consultant Confluence Environmental Company were contracted by Snohomish County (County) to develop a Long-Term Maintenance and Management Plan to identify potential mechanisms for funding the maintenance activities at the sites of the Snohomish County Nearshore Beach Restoration Project. This memorandum outlines the public outreach strategy based on the primary funding strategies identified in Task 2. A subset of the communications strategies identified in this document will be applied under this contract, including both a stakeholder and community meeting, which are discussed in more detail below. The remaining strategies are recommended for the County to implement at a later date. This document is an initial deliverable developed as part of this work and will be included as part of the final Plan.

BACKGROUND

In 2016, the Snohomish County Nearshore Beach Restoration Project enhanced and restored beach habitats at six sites between the City of Mukilteo and the downtown waterfront of the City of Everett. One site was Howarth Park, where shoreline armoring and fill were removed and then the beach was reconstructed by placing and grading appropriate beach materials. The other five sites entailed placing beach materials in the intertidal zone that will naturally be dispersed by wind and wave energy acting on the sites. To prolong the benefits of the restoration, maintenance of the sites by placing additional beach materials will be necessary at regular intervals. Future maintenance is not currently funded.

As part of the restoration project, three stakeholder workshops were held and initial community outreach was conducted in the project vicinity. Community outreach included a public meeting in April 2014, mailings to local residents, articles in the Everett Herald, press releases, and distribution of informational materials through other various outlets. So far, stakeholders and local residents have been supportive of the project and will be key to moving forward some of the recommended maintenance funding strategies.

For the Long-Term Maintenance and Management Plan, outreach will be conducted to gather input on the five primary funding strategies selected by the project team. Stakeholder and community input gathered through the outreach will be presented in meeting summaries and added to the final Plan. This input, combined with research information and input from potential funders along with the County, will guide the County's selection of a maintenance funding strategy or strategies.

PURPOSE OF COMMUNICATIONS PLAN

The purpose of this communications plan is to outline the recommended outreach activities that will be used to gather input from stakeholders and the community on the five proposed funding strategies. This communications plan also suggests additional outreach activities that could be conducted by the County to solicit public input on the selected strategy or strategies.

COMMUNICATIONS STRATEGY

The communications strategy outlined below is divided into two steps to gather input for implementation of a selected funding strategy. Step one includes strategies that will be completed as part of the Anchor QEA contract in order to gather stakeholder and community input to assist the County in selecting a funding strategy or strategies for implementation. Step two includes optional methods that may be completed by the County after the Anchor QEA contract is complete to collect additional input needed to either select or implement a specific funding strategy. Input on the variety of funding strategies will be key to successful implementation of some selected funding strategies. Table 1 identifies the recommended communication methods to be implemented in steps one and two.

Table 1. Recommended Communications Strategy

Funding Strategy	Communications Method			
	Step One		Step Two	
	Stakeholder Meeting	Community Meeting	Direct Mailing and Survey	Neighborhood Association Meetings
U.S. Army Corps of Engineers	X	X		
Snohomish Conservation District	X	X	X[a]	
Snohomish County Conservation Futures	X	X		
Optional Communications				
Real Estate Excise Tax of City or County	X	X		
Formation of Beach Management District	X	X	X	X

Note: a) Communications should be coordinated with Snohomish Conservation District planned outreach concerning fee assessment.

Step One

Stakeholder Meeting

The purpose of the stakeholder meeting is to gather input from a variety of stakeholders on the primary funding strategies. The input will be used to determine preferred strategies that are feasible for implementation and supported by involved parties. It is recommended that the stakeholder meeting present a summary of the project information developed to date, including estimated maintenance costs, cost reduction strategies, the proposed primary funding strategies, and other opportunistic funding approaches. Actions needed to implement this tactic include:

- Selection of and invitation to stakeholders
- Venue coordination
- Develop informational materials for meeting as needed
- Prepare PowerPoint presentation
- Gather input from stakeholders on each strategy
- Summarize information in meeting summary

Community Meeting

The purpose of the community meeting is to update residents on the status of the project and inform them of the research conducted as part of this project. Input on the primary funding strategies will be gathered from attendees. The input will be used to inform the County's decision on a selected funding strategy or strategies that are feasible for implementation and supported by involved parties. It is recommended that the community meeting present a streamlined summary of the project information developed to date, including estimated maintenance costs, cost reduction strategies, and the five primary funding strategies being considered. Actions needed to implement this tactic include:

- Coordinate with Snohomish County Public Works Media Staff
- Coordinate with the City of Everett Office of Neighborhoods and Communications Officials
- Venue coordination
- Advertise to local residents and community groups, including neighborhood associations
- Write press release for the County
- Develop informational materials for meeting as needed (may be the same or similar to stakeholder meeting)
- Prepare PowerPoint presentation
- Gather input from community members on each strategy
- Summarize information in meeting summary

Step Two

Direct Mailing and Survey

The purpose of a direct mailing is to provide information to residents about the selected funding strategy or strategies. The mailing would provide information on work completed to date and how the County will be moving forward with providing funding and maintenance for the project site. The mailing could also be used as a way to request information or participation from the community if needed for the selected strategy. A survey could be combined with the mailing to gather input on the feasibility of implementation and position of the public on raising tax rates. The method would depend on County staff time and budget available to conduct a survey and the desired response rate.

Neighborhood Association Meetings

The purpose of neighborhood association meetings is to introduce the project to local residents who are involved in the community. Most neighborhood associations in the area hold regular monthly or bi-monthly meetings. For this strategy, County staff would attend neighborhood association meetings in the project vicinity and give a short presentation on the project and hold a discussion to gather input on tax funding alternatives. Meetings would need to be coordinated with the City of Everett Office of Neighborhoods and City of Everett staff. Gaining the support of these associations could be key to implementation of funding strategies involving public taxes.

TIMELINE

Outlined below are timelines for both step one and step two communications. Table 2 lists the recommended tasks and schedule to prepare and conduct the step one outreach activities described above.

The bulleted list below includes a proposed timeline for optional step two communications that are not included in this contract, but that are recommended for a subset of the funding strategies that may be selected for implementation.

Schedule for Step Two Project Outreach (optional)

- October to December 2016: Direct Mailing and Survey
- January to May 2017: Attend Neighborhood Association Meetings

Table 2. Schedule for Step One Project Outreach (by week)

Task	8/1 – 8/5	8/8 – 8/12	8/15 – 8/19	8/22 – 8/26	8/29 – 9/2	9/5 – 9/9	9/12 – 9/16	9/19 – 9/23
Schedule stakeholder and community meetings (Consultant)								
Book meeting venues (Consultant, with County to pay if needed)								
Develop outreach materials, if needed (Consultant, with input from County)								
Advertise for community meeting (Consultant and County)								
Press release to County for distribution (Consultant)								
Prepare PowerPoint presentation (Consultant will draft)								
Attend meetings and gather input, date TBD (Consultant and County)								
Write meeting summaries (Consultant, with County review)								

APPENDIX D
STAKEHOLDER MEETING SUMMARY

SNOHOMISH COUNTY NEARSHORE BEACH RESTORATION
LONG-TERM MAINTENANCE AND MANAGEMENT PROJECT

Stakeholder Meeting Summary
September 8, 2016
Snohomish County Campus, Admin West, Room 3358

Meeting Attendees (in person)
Elisa Dawson, Snohomish County Surface Water Management
Graham Anderson, Port of Everett
Sarah Brown, Snohomish County Marine Resources Committee
Hannah Spohn, Snohomish County Surface Water Management
Kym Anderson, U.S. Army Corps of Engineers
John Hicks, U.S. Army Corps of Engineers
Laura Arber, Washington Department of Fish and Wildlife
Logan Daniels, Snohomish County Parks
Ryan Williams, Snohomish Conservation District
Michael McHugh, Tulalip Tribes
Dave Lucas, Snohomish County Surface Water Management
Kathy Ketteridge, Anchor QEA
Paul Schlenger, Confluence Environmental Company
Alyson Rae, Confluence Environmental Company

Meeting Attendees (on phone)
Glen Gaz, Burlington Northern Santa Fe
Sean Callahan, National Marine Fisheries Service
Bob Hillmann, City of Everett Parks Department

Nearshore Beach Restoration Project
Dave Lucas presented an overview of the Nearshore Beach Restoration Project and construction completed to date. The purpose of the project is to restore beach habitat to improve conditions for salmon and forage fish and expand usable beach area at Howarth Park. During 2.5 months, from June to August 2016, riprap was removed and relocated further from the beach and closer to the base of the tower structure at Howarth Park. The riprap was covered with a sand and gravel mix with logs placed on top, above ordinary high water. A fenced off area will be planted with native vegetation in fall 2016. In addition to work at Howarth Park, fine sediments were placed at five additional locations along the nearshore between Howarth Park and the City of Mukilteo. Dave showed various before and after construction photos from Howarth Park and Site 9.

Nearshore Long-Term Maintenance and Management
Kathy Ketteridge provided an overview of long-term maintenance and management of the Nearshore Beach Restoration Project. The shoreline along the project area is naturally a bluff that has been altered since the construction of the Burlington Northern Santa Fe railroad. Much of the beach is sediment starved as the railroad blocks sediment from the bluff from reaching the beach. The existing beach

sediment is typically located near stream mouths. When designing the project, the project team decided to place sediment where it already existed, near streams, with hopes that it would maximize the retention time of the placed material on site and provide a planform for accumulation of incoming sediment from down drift areas (see Section 4 in Anchor QEA 2012[1]). . Sediments placed at the sites during construction included dredge material from the Snohomish River and fill material that was purchased for the project. The gradation of the choice fill material was chosen based on the results of the alternatives evaluation for the project and includes material in size ranges suitable for forage fish spawning (2 to 7 mm) but with coarser sized materials to increase the stability of the material on site (see Section 6, Anchor QEA 2012[1]). The dredged material was used in the project because it contains sediments in the forage fish spawning range and it was readily available for beneficial use. The material placed on the beach is expected to remain for approximately 5 to 7 years based on littoral drift. This time frame is an estimate and could vary based on natural conditions at the site. Physical and biological monitoring are planned for upcoming years. Snohomish County plans to monitor the site through year 10. This monitoring will help inform the level of future maintenance that is needed.

The Long-Term Maintenance and Management project is exploring potential costs and funding options to replace the fine sediments used during construction in 2016. Estimated costs were determined using a variety of maintenance levels from full to partial to minimum maintenance. Future maintenance levels will be determined based on funding availability, project success, and sediment source availability. The cost estimates presented at the stakeholder meetings include construction costs only, not permitting or design. Estimates for permitting and design costs will be discussed in the final report.

Michael McHugh noted that during construction, the Tulalip Tribes were not notified in a timely manner of construction that impacted commercial tribal fisheries. The tribe is concerned about future coordination with tribal fisheries so that they can work around potential interferences such as construction.

Meeting attendees discussed the future of Parcel O as a source of sediment for the project. Graham Anderson (Port of Everett) noted that the Port currently has a temporary easement to Parcel O from the City of Everett, the owner of Parcel O. The Port places sediment dredged from the Snohomish River on Parcel O. That easement currently ends in December 2017 and the City has noted that the parcel may not be available for future sediment storage after that date.

The Port is exploring other options for the sediments once the easement ends. A few alternatives exist, including Jetty Island or permitting other sites such as south Smith Island. Kym Anderson suggested that the project team consider alternatives if Parcel O is not available for use. At minimum, estimate the cost of procuring sediment from another site. Bob Hillmann suggested talking with City of Everett Public Works regarding future planned uses of Parcel O. Perhaps an alternative plan could be discussed if multiple projects are benefitting from sediment storage at the site.

[1] *Alternatives Evaluation and Basis of Design Report*. Nearshore Sediment Assessment. Prepared for Snohomish County and Snohomish County Marine Resources Advisory Committee. Prepared by Anchor QEA. March 2012.

Funding Strategies

Paul Schlenger presented an overview of the funding strategies investigated throughout the project. After meetings with Snohomish County staff, the consultant team, and additional research, an initial list of eleven strategies was narrowed down to five that were presented in more detail:

- U.S. Army Corps of Engineers (USACE) cost sharing
- Snohomish Conservation District
- Snohomish County Conservation Futures
- Snohomish County Real Estate Excise Tax
- Formation of Beach Management District

Roundtable Discussion

Meeting participants had a roundtable discussion about the funding strategies presented. Meeting participants shared recommended funding strategies and factors to consider.

Ryan Williams, Snohomish Conservation District

- Snohomish Conservation District Grant Opportunity
    - Snohomish Conservation District is planning to kick off its fee analysis at the end of September 2016 with the goal of implementation by January 2018.
        - Funding available would likely be from a grant round that would follow what the King Conservation District has already implemented.
        - Uncertain whether new fee structure will be publicly and politically viable.
    - Strategy is definitely a possibility but would not fund full maintenance and may be better used as a matching source. Maximum funding would likely be $50,000 to $100,000.
- Beach Management District
    - May be difficult to get this strategy rolling, but the benefits could be high.
    - Would need to determine where support would come from for this district. Public might not understand how to get this started.

Kym Anderson, USACE

- Grant funding
    - Why is this not a preferred strategy? The project team reply is summarized as follows:
        - Typically will not be full funding (local match requirement), and granting agencies will not fund maintenance.
        - Not a consistent fund source for maintenance timeline.
        - This strategy is opportunistic and is likely worth pursuing in the future.
- USACE: two potential funding sources
    - Water Resources Development Act Section 204 process (see John Hicks' comments below)
    - Memorandum of Understanding – Contributing Funds

- Federal Standard – USACE must use the least costly but still environmentally acceptable approach to dredged sediment handling and management.
- If there are any additional incremental costs associated with alternative disposal (than what was planned by the USACE), the local sponsor would need to pay this cost.
    - For example, if an alternative dredging technique was used (than what the USACE usually uses), the County would need to pay the difference between these methods.

John Hicks, USACE

- USACE
    - Section 204 Process
        - Implementation guidance for Section 204 is currently being reworked. Changes likely include:
            - Cost share is 65% USACE and 35% local match for construction.
            - Operations and maintenance is 100% sponsor paid. This means one-time sediment placement is a possibility, but recurring nourishment is not.
            - Different from past guidance, the secretary can make recommendations for projects that are not the least cost alternative but that involve environmental restoration.
        - Implementation guidance will become clearer over the next year (by end of 2017).
        - Recommends waiting for new implantation guidance to be released, but it will be a long process. Section 204 likely will not be able to be applied for this project.
- Beach Management District (preferred)
    - In other parts of the United States, they work very well (e.g., Galveston, Texas)
    - Parks Department often manages the district.
    - Great way to benefit both restoration and recreation. Case studies of districts using funding for beach nourishment in other areas.
    - While not an easy funding strategy to implement, there is definitely a large funding source available here.

Logan Daniels, Snohomish County Parks

- Conservation Futures
    - Parks Department manages conservation futures.
    - This is not a viable funding strategy as conservation futures cannot be used on a project unless that project was acquired with conservation futures funds.
- Beach Management District (preferred)

- Consider a larger beach management district area. Taxpayers may be more supportive of the idea if a larger group was contributing. For example, along the railroad from King County through Snohomish County.
- As an example, another local shoreline restoration project, Meadowdale Beach County Park, has had great public support and citizens express concern for local beaches and shorelines.

Laura Arbor, Washington Department of Fish and Wildlife

- Beach Management District (preferred)
  - People living along the shoreline have the largest interest in the shoreline and they care about the beaches.
  - Great way to get people who live along the shoreline involved in the future of their beach.
  - Strategy makes the most sense locally and has been brought up for a number of scenarios in other meetings. This strategy would be the solution to many projects involving shoreline restoration.
- Question: What about when large storm events hit the beach? What would happen if the beach was washed away before 5 years?
  - Kathy noted that for other similar projects, a maintenance plan is usually prepared with plans for both long-term maintenance and short-term emergency maintenance for a trigger event.
  - In this project, after the trigger event causes the need for immediate maintenance, there would be emergency placement of fill. This would require a permitting mechanism, funding, and materials to be available. None of these are currently in place to provide emergency maintenance for the Nearshore Beach Restoration Project.
- Opportunistic Mitigation
  - Mitigation on marine shorelines for shoreline impacts (instead of conducting mitigation in the Snohomish estuary).
  - May be opportunity for this (e.g., with the Port of Everett).
  - The Port of Everett often has long-term impacts from other projects but maintenance for this project, if used as mitigation site, would be only a short term opportunity. Thus, the project might not be a good fit as the maintenance is not a long-term opportunity and may not fit mitigation requirements.
- Note: There is potential for this project to have a 5-year regional permit for re-nourishment.

Sarah Brown, MRC Member

- Beach Management District (preferred)
  - More certainty about funding availability with this strategy.
  - A few things would be needed for this strategy to be successful:
    - Local citizens understand larger picture of the purpose of the district. There is a strong interest among citizens in creating more beach access.

        - A district would provide other benefits such as park trash service, increased parking, and improved overall beach experience.
        - Outline the specifics about what public would need to pay for the district fees.
            - For example, the City of Mukilteo charged approximately $5/parcel to fund purchase of the Japanese Gulch property.
            - Fee needs to be a reasonable amount for the amount of benefits received.
- Snohomish County Real Estate Excise Tax (REET; preferred)
    - This strategy is preferable since there are no additional costs to County citizens and a large sum of money may be available.
    - A downside of this strategy is that the funding may not be guaranteed each time it is needed.

Bob Hillmann, City of Everett

- Snohomish County REET
    - Currently, there are high demands on City of Everett REET funds.
    - The City has strict requirements on what these funds can be used for, which generally includes repairs and renovations. A legal opinion would be needed on this.
- Beach Management District
    - This strategy would need administrative approval from the City of Everett to move forward. Bob suggests meeting with the Planning Department initially to discuss this possibility.
- Parcel O
    - As discussed above, the project team should have a discussion with the City of Everett Public Works about placement of material and future planned uses of Parcel O.
    - Bob will brainstorm with Dave and Kathleen Herrmann about initiating another project on the beach that could benefit from sediment storage at Parcel O.
- Grant funding is worth pursuing if the opportunity arises.

Sean Callahan, National Marine Fisheries Service

- Beach Management District
    - Would be most beneficial to provide long-term funding for maintenance.
    - This option is highly political.
- Opportunistic Mitigation
    - For example, mitigation for landslides. If a landslide occurred on the landward side of the railroad tracks, the potential for that material to be placed in the nearshore area, as opposed to being hauled offsite.
    - Figuring out quick permitting would be key.

Wrap Up and Next Steps

Kathy thanked everyone for attending the meeting and providing input on funding strategies for future maintenance of the Nearshore Beach Restoration Project. A community meeting will be held on Monday, September 12, 2016, to discuss strategies with community members.

APPENDIX E
COMMUNITY MEETING SUMMARY

COMMUNITY MEETING SUMMARY FOR THE SNOHOMISH COUNTY NEARSHORE BEACH RESTORATION PROJECT LONG-TERM MAINTENANCE AND MANAGEMENT PLAN

September 12, 2016, 5:45 to 7:00 p.m.
Lions Hall, Forest Park, Everett

Approximately 20 community members attended the community meeting. The agenda for the meeting is provided below and followed by notes from the meeting.

Time	Topic
5:45 – 5:50	Introductions
5:50 – 6:10	Nearshore Beach Restoration Project Background and Update
6:10 – 6:20	Nearshore Long-Term Maintenance and Management
6:20 – 6:40	Potential Funding Strategies
6:40 – 7:00	Discussion and Q&A

Introduction
Kathy Ketteridge, project manager and lead engineer for the Anchor QEA consultant team, welcomed meeting attendees and thanked them for taking time to attend the meeting and participate in the discussion on future funding of the Nearshore Beach Restoration Project.

Meeting Goals and Overview
Ms. Ketteridge presented an overview of the meeting agenda. The goals of the meeting are to provide an update on the Nearshore Beach Restoration Project that has now been constructed and gather input on funding strategies that are being assessed to ensure the project sites will be maintained for future use.

Nearshore Beach Restoration Project Background and Update
Kathleen Herrmann, lead staff for the Snohomish County Marine Resources Committee and co-project manager for the County, presented an overview of the Nearshore Beach Restoration Project and construction completed to date. The Nearshore Beach Restoration Project was started 5 or 6 years ago with the goal of augmenting sediment supply along the shoreline to improve habitat for endangered species (Chinook) and improve public access to the beach. The project is a partnership with various agencies including the City of Everett and Port of Everett.

The nearshore is the area from where light can penetrate the water to the top of the bluffs along the shoreline. It is a dynamic area that is important to many species in Puget Sound including juvenile Chinook. The bluffs are fairly unstable, and in areas without armoring, landslide materials from bluffs provide a supply of beach sand for the nearshore. In the project area, the railroad is located in the nearshore, which impacts natural movement of sediment.

For this project, the beach nourishment augments the sediment that is lacking due to the railroad location. The project also buried a rock bulkhead at Howarth Park as it is still needed to protect the pedestrian tower. Monitoring was conducted for 4 years prior to construction and will be conducted after to determine success of the project.

Ms. Herrmann showed a map of the project area from the City of Mukilteo to the Port of Everett. The project area is divided into 15 segments that are small drift cells. During the initial project study, the team determined which areas would be most likely to keep sediment for a long period of time and have the greatest benefit to forage fish habitat. Five locations were selected for beach nourishment.

Construction of the project occurred from June to August of 2016. Barges were loaded with dredged sediment on the Snohomish River. The amount of sediment placed on the projects sites was approximately equal to 1,520 semi-truck loads of material. Nourishment was completed without grading and will be allowed to be naturally dispersed by waves along the beach. Eventually, the finer sediments will be washed away and the courser gravel will emerge. Ms. Herrmann showed various before and after construction photos from Howarth Park and Site 9.

Nearshore Long-Term Maintenance and Management

Ms. Ketteridge provided an overview of long-term maintenance and management of the Nearshore Beach Restoration Project. The shoreline along the project area is naturally a bluff that has been altered since the construction of the Burlington Northern Santa Fe (BNSF) railroad. Much of the beach is sediment starved as the railroad blocks sediment on the bluff from reaching the beach. Sediments placed at the sites during construction included beach gravel with finer sediments on top. The finer material placed on the beach is expected to remain for approximately 5 to 7 years due to natural processes. This time frame is an estimate and could vary based on natural conditions at the site. Physical and biological monitoring are planned for upcoming years. Snohomish County plans to monitor the site through year 10. This monitoring will help inform the level of future maintenance that is needed.

The Long-Term Maintenance and Management project is exploring potential costs and funding options to replace the fine sediments used during construction in 2016. Estimated costs were determined using a variety of potential maintenance levels:

- Full maintenance: place full initial volume
- Partial maintenance: place portion of total initial volume
- Minimum maintenance: place finer sediments at Howarth Park and one other beach site

Future maintenance levels will be determined based on funding availability, project success, and sediment source availability. Costs for future maintenance range from $200,000 to $1 million every 5 to 7 years assuming use of similar source material and construction means and methods as the original construction project. If interagency collaborations prove successful, there are some scenarios where costs could be less expensive, such as the project sites being designated as one of the primary disposal locations for the material dredged from the upper settling basin of the Snohomish River.

There are three goals for the long-term maintenance and management portion of this project:

- Estimate costs for beach maintenance in 5 to 7 years
- Brainstorm funding strategies for future maintenance
- Gather stakeholder and public input on strategies

Funding Strategies

Paul Schlenger, lead biologist with Confluence Environmental, presented an overview of the funding strategies investigated throughout the project. After meetings with Snohomish County staff, the consultant team, and additional research, an initial list of eleven strategies was narrowed down to five that were presented in more detail.

- U.S. Army Corps of Engineers (USACE)
    - Currently, USACE dredges the Snohomish River for navigation purposes and has to dispose of these dredged materials.
    - When dredging, USACE pays the regular costs to dispose of the materials.
    - The funding strategy for the County would be to create a memorandum of understanding with USACE where the County pays any additional costs of disposal (on top of what USACE would regularly pay) to dispose of the materials at the beach nourishment sites versus the upper settling basin.
- Snohomish Conservation District Grant Opportunity
    - A portion of the Conservation District revenue is through a parcel-based assessment.
    - Currently, the Conservation District does not have a shoreline program but is interested in incorporating these areas into its work plan.
    - The Conservation District parcel assessment expires in 2019, so they are initiating a process to analyze their fee structure and assess whether they could collect fees differently to expand their funding.
    - Potential funding through this strategy would likely be a competitive grant.
- Snohomish County Real Estate Excise Tax
    - An existing Snohomish County tax fund from the sale of real estate that funds capital projects.
    - Use of these funds would be determined by County Council.
- Formation of Beach Management District
    - Creation of a special purpose district funded by a new assessment for property owners in a specified area around the project.
    - This strategy has larger-scale benefits along the shoreline beyond the scope of nearshore maintenance, including improving beach access.
    - The scope and purpose of the district would be determined during the creation process.
    - There are currently no beach management districts in Washington, but they do exist throughout the United States.
    - Washington does have lake management districts, which are similar.
    - Case Study: Barnes Lake Management District

Discussion and Questions

The first level of bullets are the questions and comments from the public. The project team responses are provided in the sub-bullets.

- What about culverts/streams at Howarth?
    - The two culverts were carefully considered during design so that sediment placement did not bury the pipes.
- Will the logs stay where they were placed on the beach? What is the purpose?
    - The logs provide habitat for fish and wildlife.
    - Logs will likely stay in place as they were placed above highest astronomical tide.
    - One resident noted that the logs are not visually appealing.

- What about project monitoring?
    - Snohomish County is planning to monitor the site through year 10 post-construction.
    - Grant funding was secured from the Estuary and Salmon Restoration Program for beach monitoring by scientists and the University of Washington, who are studying the effects of shoreline armoring on beach conditions and biological resources.
- Will sediment be available for future nourishment?
    - This is unknown, but it is expected to be available since the river will continue to need to be dredged.
    - Restoration Site 2 will likely be depleted the quickest, but the material will be distributed down-drift. It is likely that the Howarth Park sites will see great benefit over time since they are down-drift of all other sites.
- How do we determine if the project is successful?
    - Monitoring—for both fish and wildlife and human access benefits.
    - Main motivation for this project is for Chinook salmon and forage fish habitat.
    - Forage fish are prey for salmon.
        - Forage fish have specialized habitat requirements and need finer sediments for spawning.
- Why are funding recommendations not focused on fish and wildlife habitat fund sources?
    - Some construction funding was for habitat but some was for public access (e.g., U.S. Environmental Protection Agency funding).
    - Plan to opportunistically pursue funding sources such as grants.
    - Project has great benefits to people including improving the beach experience.
- What about the railroad paying remediation fees?
    - There is currently no agreement in place to do this. BNSF representatives participated actively in this project.
- What is the current fee schedule for bluff owners (Conservation District)?
    - Rate is currently $5/parcel countywide.
- Beach Management District costs should be shared countywide. May need to make a wide district area so that it is fair among property owners.
- Perhaps consider a multi-county beach management district, for example between King and Snohomish. There is sediment movement between counties.
    - Beach Management District is a citizen-activated process. Consensus of homeowners needs to go to County Council to initiate district.
- A community member thanked the MRC and Snohomish County for completing the project, saying it has improved his quality of life.
- One resident brought up the recent City of Everett Parks Department community survey and the potential idea to create another overpass to the beach. Bob Hillmann of the City's Parks Department said that at one point, the City was discussing placing an overpass near Harborview but this is no longer an option due to the landowner not being willing to sell the property.
- What about culvert replacement/removal along the railroad?
    - Not planned at this time. Project work along railroad is very difficult and expensive.
    - Design is not the issue—coordination for construction is expensive and challenging.
    - Snohomish County is working on a project to rank culverts for BNSF.
- What about Meadowdale? This project seems like a good example of a culvert for people and fish.

    - This project to replace an undersized culvert through the BNSF right-of-way would address a variety of challenges related to beach access for people, fish habitat, and stream sediment impoundment upstream of the culvert.
- What about the proposed Japanese Gulch estuary project and the railroad?
    - This project starts downstream of the railroad. It would provide an opportunity to expand upon past successful upstream work in the creek system.
- Are there plans to accelerate eelgrass or kelp at the site?
    - There will be no planting of eelgrass or kelp at the site. Eelgrass would be expected to naturally expand into any additional areas suitable for eelgrass that result from the project.
- What about USACE participation?
    - USACE participation has been positive in this project so far. USACE representatives provided helpful information on the funding strategies. Two USACE representatives participated in the recent stakeholder meeting for the project.

The meeting concluded at 7:08 p.m. Meeting attendees were asked to complete the comment form with any input on the recommended funding strategies.