



October 2014

CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT

Cornwall Beach Park Master Plan Report



ACKNOWLEDGMENTS

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Appendix F: Purpose Statement
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EXECUTIVE SUMMARY

The City of Bellingham (City) has completed the master planning phase for Cornwall Beach Park (Park), a new waterfront park located on Bellingham Bay. The proposed Park is located at the south end of the Waterfront District Sub-Area, and is the largest park within the District. The following Vision Statement for the Park was developed during the master planning process:

Cornwall Beach Park will be an iconic destination for all ages, abilities and interests offering a variety of recreation opportunities and waterfront access, with enhanced habitat for wildlife.

This report lays out the Park's vision in more detail. It provides an overview of the master planning and community involvement process, describes the Park's elements, and lists considerations and key steps for the Park's implementation.

The Park's Master Plan boundary primarily includes City property and Washington State Department of Natural Resources (WDNR) property, with smaller parcels owned by the Port of Bellingham and Whatcom County. Due to past use of the Park site for industrial and municipal landfill activities, the Washington State Department of Ecology (Ecology) has designated two environmental cleanup sites under the Model Toxics Control Act (MTCA). Both cleanup sites, known as the R.G. Haley and Cornwall Avenue Landfill sites, are moving through the Ecology-mandated MTCA cleanup process. The City has primary responsibility for the R.G. Haley site and is working in conjunction with the Port of Bellingham (Port), which is leading the Cornwall Avenue Landfill cleanup. While the two environmental cleanup actions are separate and distinct from the Park, they will have a major impact on Park development; therefore, they have required and will continue to require extensive coordination with the park planning process. The Park will be constructed after the selected cleanup remedy for each site is completed.

The Cornwall Beach Park Master Plan includes an Opinion of Probable Construction Costs for the proposed Park improvements. The total Opinion of Probable Construction Cost for these improvements is estimated at \$12,520,000, which includes construction costs, contingencies, and markups. Nearshore habitat elements and any private developer costs are estimated separately. Refer to Table 2 for a complete cost summary.



Photo: Anchor QEA

1. INTRODUCTION

The City of Bellingham (City) is planning to develop Cornwall Beach Park (Park), a new 17-acre waterfront park located on the northeastern shoreline of Bellingham Bay within the City's Waterfront District Sub-Area (Figure 1). The Park will be established over two former industrial or municipal waste disposal sites, the R.G. Haley site, and Cornwall Avenue Landfill site, which are both subject to Ecology-led remedial actions under the Model Toxics Control Act (MTCA). Once developed, the Park will become the City's largest waterfront park within the Waterfront District Sub-Area, creating a shoreline destination with enhanced public access, recreation, and wildlife habitat. The City has completed this Master Plan to guide the design and implementation of the Park. This report summarizes the master planning and community involvement process, describes the Park's vision, the primary elements of the Park, and addresses implementation considerations.

Extensive efforts were conducted in the context of the Waterfront District Sub-Area planning for more than a decade, covering shorelines and uplands (PCOB 2013). The Park site was considered an important link in the network of Bellingham's waterfront park and trail system. Documentation reviewed and prepared during the Park master planning process is included in Appendices A through G:

- **Appendix A:** The Existing Conditions Summary Memorandum summarizes the existing information gathered to inform the Master Plan and identifies data gaps. This includes existing Park site information related to the R.G. Haley and Cornwall Avenue Landfill cleanups, as well as an inventory of existing site information and a site survey. The memorandum summarizes the Park's applicable planning framework and the likely regulatory process for implementing potential Park improvements independent of cleanup actions.
- **Appendix B:** The Opportunity and Constraints analysis, completed subsequent to the Existing Conditions Summary Memorandum, graphically distills the site opportunities and constraints associated with the Park's physical features, natural resources, regulatory requirements, urban context, environmental cleanup, and potential programmatic needs.
- **Appendix C:** The Alternative Design Concepts and Comparison Table lists the alternative design concepts that were developed to cover a range of options for Park development, including maximizing recreation, maximizing habitat restoration, and an option that blends these two alternatives to inform the final Master Plan design direction.
- **Appendices D and E:** Meeting minutes from the public and steering committee meetings are provided; the meetings are further described in Section 3.
- **Appendix F:** The one-page Purpose Statement is provided; it is also described in Section 4.
- **Appendix G:** The detailed Opinion of Probable Construction Cost is provided; this information is also summarized in Section 5.

Due to the numerous considerations and potential restrictions that environmental cleanup could have on Park development, extensive coordination occurred with site stakeholders during the

Park master planning process. This coordination occurred in several ways. Several meetings and conference calls were held with the Park Master Plan team and the Port and City cleanup teams. In addition, there was extensive review and comment on the alternative designs and preliminary Master Plan by the two cleanup teams to ensure issues were well communicated and coordinated. See Section 6.2, Environmental Cleanup Coordination Issues, for more information on cleanup coordination that should be considered during implementation of the Park Master Plan.

FIGURE 1: VICINITY MAP



Feet
 0 1,000 2,000

Figure 1
 Cornwall Beach Park Master Plan
 Vicinity Map



Photo: Anchor QEA

2. COMMUNITY INVOLVEMENT

2.1. Public Meetings and Site Tour

The public was invited to participate in the Park master planning process by attending three public meetings and one site tour. In addition, information pertaining to the Park master planning process and an opportunity to submit written comments at any time was provided by the City through their website and by e-mail. PowerPoint presentations given at the public meetings and the public comments collected were published on the City's website (COB 2014).

Each public meeting was attended by members of the public, members of the Cornwall Park Master Plan Steering Committee, Bellingham Parks and Recreation staff, and the Consultant team. Table 1 lists the meetings that were held.

TABLE 1: PUBLIC MEETINGS

Date and Location	Stage in Master Planning	Approximate Attendance*
October 16, 2013 City Council Chambers	Background information gathering and preliminary program and design criteria	30
November 20, 2013 City Council Chambers	Conceptual Alternatives	30
April 23, 2014 Site Tour	Preliminary Master Plan	130
July 30, 2014 City Council Chambers	Preliminary Master Plan	15

*All Attendees

2.2. Steering Committee Involvement

The Cornwall Beach Park Master Plan Steering Committee included a cross-section of constituents, representing the South Hill Neighborhood Association, the Sehome Neighborhood Association, Port of Bellingham, Park and Recreation Advisory Board, Central Business District, Recreation program staff, as well as an at-large member, and an environmental-interest member. Three Steering Committee meetings were held during the master planning process, to provide the project status and elicit feedback. The meetings were held on October 10 and November 14, 2013, and April 17, 2014, at similar stages in development of the Master Plan as the Public Meetings.

2.3. Park Board and City Council Meetings

In June 2014, meetings with the City's Park Board and City Council were held to solicit comments on the Preliminary Master Plan. These meetings confirmed the general direction of the Master Plan, prior to the final public meeting. The final Park Board and City Council meetings, intended to obtain a recommendation and approval from City Council, will occur in fall of 2014 and will conclude the master planning process.



Photo: Anchor QEA

3. PARK VISION

"Cornwall Beach Park will be an iconic destination for all ages, abilities and interests offering a variety of recreation opportunities and waterfront access, with enhanced habitat for wildlife."

3.1. Purpose Statement

During the Master Planning process, in response to extensive Steering Committee and public input, the City developed a one-page Purpose Statement to inform the Park's design and decision making (Appendix F). The Purpose Statement includes a Park Vision (above), defines anticipated users and uses, and provides guiding principles for the Park design, and features and facilities for consideration:

Anticipated Users and Uses

Kids: Play on the beach, wade in the surf, run on hillsides and through open grass areas, ride bikes, fly kites, and enjoy a playground with nearby restroom facilities.

Teens and Young Adults: Play volleyball, sunbathe, launch hand-carried boats, play Frisbee, soccer, football and other sports, and enjoy concerts and outdoor festivals.

Adults: Meander along trails with scenic bay views, enjoy races and concerts, and access the beach for use of hand-carried boats, personal fitness and quiet meditation.

Seniors: Walk on trails, with ample access to benches, rain shelter and restrooms; enjoy picnics and community events.

Fish and Wildlife: Experience improved intertidal and upland habitats.

Guiding Principles for the Park Design

The following guiding principles ensure the Park's design realizes the intended vision:

- Provide a wide range of amenities and opportunities for all Park users
- Focus on the connection to Bellingham Bay
- Ensure user safety and security
- Create a destination for waterfront recreation
- Include commercial space to provide services for Park users
- Design for environmental sustainability, efficiency and reduced maintenance
- Incorporate crime prevention design principles
- Improve fish and wildlife habitat and habitat connectivity
- Design in collaboration with industrial site cleanup plans to ensure safety of Park users and habitat
- Preserve and enhance views

Features and Facilities

In order to translate the Park's uses and guiding principles into park features, the following features and facilities were deemed appropriate based on the input received:

- Open areas to accommodate large community outdoor events including concerts, festivals, and races
- Large destination playground
- Benches, picnic tables and shelters
- Ample vehicle and bike parking
- Park lighting and clear lines of sight for safety
- Railroad safety and sound reduction barrier
- Hill for seating, views and play
- Beaches with access to the water
- Intertidal zone enhancements to improve habitat and habitat connectivity
- Park trail system with shared use and pedestrian paths
- Park-related commercial facilities like recreation equipment rental/sales and a café for year-around park use
- Seasonal mobile vendors
- Fire pits
- Hand-carried boat launch facilities
- Public art



Photo: Anchor QEA

4. PARK ELEMENTS

The following sections describe the Park Master Plan elements included in the Final Master Plan. Figures 2 and 3 depict the final Park Master Plan in plan view and in aerial perspective view.

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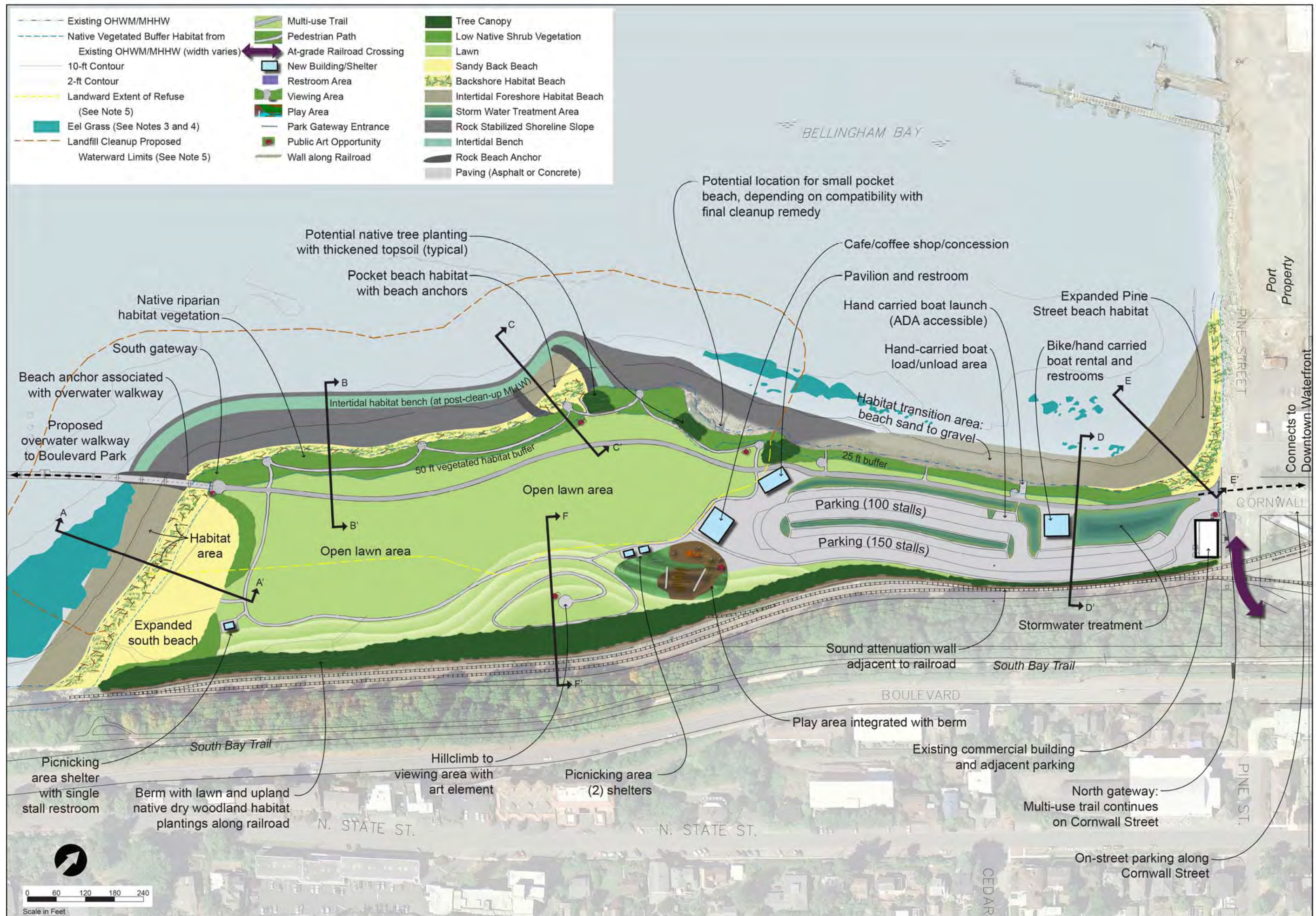


Figure 2
Cornwall Beach Park Master Plan
Conceptual Master Plan



Notes:
 1. Horizontal Datum: Washington State Plane North Zone, NAP 83, U.S. Feet.
 2. Vertical Datum: NAVD 88.
 3. Source: Boulevard Park 30% Design Drawings Berger ABAM 2010.
 4. Source: GeoEngineers 2012.
 5. Source: Digitized from Cornwall Landfill RI/FS Landau Associates 2013.



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4.1. Access and Circulation

4.1.1. Bike and Pedestrian Access and Circulation

A multi-use trail is proposed to extend through the length of the Park, connecting the Waterfront District and the main north entry at Cornwall Avenue, to the south end of the Park, and continuing on to Boulevard Park via the planned overwater walkway, which is currently in the permitting phase. The multi-use trail is proposed to be paved, Americans with Disabilities Act (ADA)-compliant, with a generous width to accommodate cyclists and pedestrians, as well as emergency and maintenance vehicles. In addition to the multi-use trail, a system of interconnected pedestrian paths meander throughout the Park, providing walking loops as well as access to the shoreline, viewpoints, recreation facilities, and the viewing hill. The pedestrian paths are proposed as compacted crushed gravel, ADA compliant, accommodating small maintenance vehicles, and narrower than the multi-use trail. A protective barrier is proposed where either the multi-use trail or pedestrian paths border native shoreline habitat plantings. This barrier could consist of a range of materials, from a 12- to 18-inch-diameter log edge, a low split-rail fence, or a split-rail fence with infill such as wire mesh or chain-link fabric.



Golden Gardens Park (Seattle) log-edged pathway
(Photo: Sea Turtle)



Luther Burbank Park (Mercer Island) split-rail fence with in-fill (Photo: Anchor QEA)

4.1.2. Vehicular Access and Parking

A short, two-lane entrance road is proposed to connect the main site entry at the south end of Cornwall Avenue to the parking area. Parking for 250 vehicles, including ADA parking, is proposed at the north end of the Park. Parking in this portion of the site is desirable because it

would concentrate parking near the vehicle entrance, and paving a substantial portion of the R.G. Haley environmental cleanup site would cost-effectively provide an impermeable surface for stormwater. Additional on-street overflow parking is available adjacent to the Park's north entrance on Cornwall Avenue. Once it is fully developed, the parking described above is intended to cover normal use of the Park throughout the year. For special events involving large numbers of people, additional off-site parking and shuttles may be required. The Master Plan includes a vehicle load/unload area adjacent to the hand-carried boat launch. A second vehicle load/unload area is proposed adjacent to the concessions building, park pavilion, and play area/picnic shelters located at the south end of the parking area. All paved areas with vehicle access will drain to stormwater treatment features on the edges of the parking area. Stormwater treatment is described in Section 4.4.3.

4.1.3. Water Access

The Park includes three accessible beach areas: the expanded Pine Street Beach, the expanded South Beach, and a small, centrally located pocket beach; all three are accessed via the ADA-accessible paths, described in Section 4.1.1. An ADA-accessible hand-carried boat launch is located on the south of the Pine Street Beach, adjacent to the load/unload area, parking, multi-use trail, and a concession building



Water access at Olympic Sculpture Park in Seattle (Photo: Anchor QEA)

intended to provide hand-carried boats. The Park also includes significant water views of Bellingham Bay, the San Juan Islands, and downtown. These views will be accessible throughout the Park's trail system, which includes several viewpoints. Water views will also be available from some parking stalls and from the entry drive. One hill and seven shoreline viewpoints are positioned to provide spectacular water views and places to sit and linger.

4.1.4. Future Related Access Projects

Two potential future projects would expand options to access the Park. The planned overwater walkway at the Park's southern end, which is currently in the permitting phase, would provide a multi-use trail connection to Boulevard Park.

Improved at-grade or a new grade-separated railroad crossing north of the Park would provide a safe crossing of the BNSF Railway tracks, for access to the Waterfront District and the Park. The potential for a grade-separated railroad crossing should be evaluated as part of a separate transportation project and was not addressed as part of the Park Master Plan.

4.2. Public Safety

To address potential public safety, noise, and other concerns associated with the BNSF Railway tracks, a 15-foot-high berm and wall are proposed to be constructed along most of the eastern boundary of the Park. The berm is proposed where space allows, and runs most of the length of the Park. The Park's north end is too spatially constrained to accommodate a berm; therefore, an 18-foot-high free-standing



BNSF train passing along Cornwall Beach Park
(Photo: Anchor QEA)

sound wall, similar to those used on highways, is proposed (Figures 5 and 6). The location of the berm and wall may shift, depending on a potential rail re-alignment, which has previously been discussed between BNSF and the City.

The 15-foot-high berm borders a retaining wall of the same height. Most of the berm will be lawn facing the Bay; however, the top portion is shown as gently sloping toward the BNSF Railway tracks and is proposed to be vegetated with native trees and low groundcovers, to allow for open site lines. This arrangement is consistent with Crime Prevention through Environmental Design principles, namely, to avoid creating hiding places that encourage camping or illegal activities. A security fence is proposed on top of the retaining wall to prevent access to the railroad tracks.

The Park is anticipated to have the same hours of operation as other City parks, which are open to the public from 6:00 am to 10:00 pm. Pathway lighting with a timer and/or motion sensor will run alongside the multi-use trail, to provide a safe route for nighttime Park users. Lighting will also be installed at the parking area, picnic pavilion, restrooms, and concession buildings. The intent is to only light the Park during hours of normal use and limit lighting to primary access and circulation routes.



Impromptu active play at Seahurst Park in Burien
(Photo: Anchor QEA)



Passive recreation along Dickman Mill shoreline in Tacoma (Photo: Anchor QEA)

4.3. Recreation Activity Areas

The following diverse recreation activity areas are located throughout the Park to provide a wide range of opportunities for users of all ages and abilities.

4.3.1. Open Lawn

An expansive open lawn provides a flat, grassy, multi-purpose area for recreation. The area can accommodate large organized events such as festivals, outdoor concerts, and staging of land or water races; small, informal uses such as Frisbee throwing and kite flying; informal sports such as soccer and football; and sunbathing and picnicking. The open lawn is proposed to be relatively flat but drain toward the Bay. It is bordered by a large grassy viewing hill, the multi-use trail, and other pedestrian pathways.



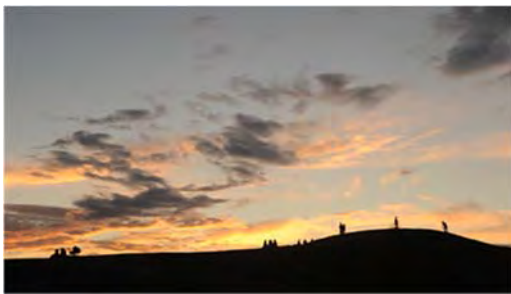
The Great Lawn at New York City's Central Park (Photo: Heath Brandon)

4.3.2. South Beach

As discussed Section 4.1.2, three beaches provide water access. The South Beach also provides an expanded sandy "dry beach" above current high tides. This dry beach area is proposed to have ample space for beach volleyball, kite flying, sunbathing, Frisbee throwing, and picnicking. There are opportunities for walking, beachcombing, and wading along the sloping foreshore of the beach; however, no lifeguarded swimming is anticipated.

4.3.3. Viewing Hill

The Park includes a viewing hill positioned along the site's eastern edge. The viewing hill is an expansion of the berm described in Section 4.2 and provides a high point for panoramic views of the surrounding scenery. The hill is oriented to best capture the expansive views of Bellingham Bay, the San Juan Islands, and sunsets. The hill's form is also intended to create an informal amphitheater around the open lawn by providing elevated seating for spectators during outdoor concerts and festivals. A pedestrian pathway winds up the hill to a viewpoint. The hill provides areas to sunbathe, fly a kite, and picnic.



Gasworks Park's (Seattle) viewing hill
(Photo: Wonderlane)



Viewpoint at summit of Gasworks Park viewing hill
(Photo: Eben Calhoun)

4.3.4. Play Area

A large play area is proposed to be centrally located near the parking, food concession, picnic shelters, pavilion, restrooms, and open lawn. The play area is integrated with the Park's berm feature, to provide the opportunity to incorporate varied topography into the play area design and integrate climbing structures and slides into the hillside. The play area also includes a spray park for water play. Seating for parents is proposed adjacent to the play area perimeter and in the adjacent picnic shelters.



Play area at Golden Garden's Park in Seattle
(Photo: Anna Spooner)

4.3.5. Pavilion and Picnic Shelters

A pavilion is located along the Park's shoreline and multi-use trail, just south of the parking area. The pavilion is an enclosed all-season structure with restrooms. Similar in concept to the Port of Bellingham's Squalicum Boathouse at Zuanich Point Park, the pavilion could house small special events and meetings, and provide a rentable space for weddings and other celebrations.

Three picnic shelters are proposed within the Park: one is located adjacent to the South Beach along a pedestrian pathway, and the other two are located directly adjacent to the play area, easily accessible from the parking area and trails. The shelters provide protection from sun, wind, and rain and are intended for use by smaller groups on a first come, first served basis.



Harbor House at Percival Landing in Olympia (Photo: Anchor QEA)



Squalicum Boathouse at Zuanich Point Park in Bellingham (Photo: Port of Bellingham)

4.3.6. Viewpoints

As described in Sections 4.1.2 and 4.3.2, the Park includes multiple viewpoints along the shoreline and atop the viewing hill. The viewpoints, which are offset from the multi-use trail and connected with pedestrian pathways, are intended to be intimate in size, bordered by low vegetation, and include benches for seating, and enjoying views of Bellingham Bay. The viewpoints also provide opportunities to integrate public art, as described in Section 4.5.1.



Viewpoint at Penrose Point State Park (Photo: Anchor QEA)

4.4. Habitat Enhancement

The Project site has been identified for over a decade as a location for potential nearshore habitat restoration, most recently in the City's nearshore habitat assessment for Bellingham Bay. (MacLennan et al. 2013). This assessment includes specific recommendations for enhancing habitat at the Park site. During the master planning process, the City decided to include development of conceptual habitat enhancement opportunities, especially to improve nearshore habitat connectivity at the Park. Proposed nearshore habitat at this site has been characterized as habitat benefitting juvenile out-migrating salmon and forage-fish spawning. These juvenile salmon and forage fish occur in the intertidal and shallow subtidal zones, but food resources for juvenile salmon, also include insects, which originate from terrestrial vegetation in the backshore (supratidal) and marine riparian zones (Brennan et al. 2004, and Toft et al. 2012). Proposed habitat improvements include fine-grained substrates, gentle slopes, native terrestrial and aquatic vegetation, and large woody debris. All habitat improvements will need to be compatible with capping and stabilization systems implemented as part of the remedial cleanup actions. The following habitat enhancement opportunities were identified:

4.4.1. Nearshore Habitat

The Puget Sound "Nearshore" is defined as "the narrow ribbon of land and shallow water that rings Puget Sound. The nearshore includes upland riparian area as well intertidal and subtidal areas found at the interface of the terrestrial and aquatic ecosystems" (PSNERP 2014).

This nearshore definition includes lower (foreshore) and upper (backshore) areas of the beaches proposed in this Park. The three beach areas described in Section 4.1.2 provide expanded foreshore (intertidal) and backshore (supratidal) areas. These areas, which currently include armoring, steep slopes, and lack of suitable substrates, will be designed to have gentle shoreline slopes and fine-grained habitat substrates (sand and gravel) to improve habitat for migrating juvenile salmonids. Additional habitat structure and complexity could be provided with driftwood recruitment and native beach grass plantings within the backshore area (Figures 4, 5, and 6). Above the extreme high water elevation, marine riparian shoreline buffer plantings primarily consisting of shrub species are proposed to provide detritus inputs for aquatic species and terrestrial insect habitat. Shrubs, as opposed to trees, are emphasized in order to reduce

conflicts with views, and landfill-liner integrity concerns associated with tree roots. A few isolated stands of small trees proposed along the shoreline near the pocket beach will require additional soil depth to address landfill liner concerns.

An intertidal habitat bench extends from the centrally located pocket beach south to the expanded South Beach (Figures 4 and 5). The bench is designed at a low intertidal elevation that is more biologically productive than higher intertidal habitats and is therefore more conducive for migrating juvenile salmonids, based on monitoring of other similar urban waterfront habitats, such as the Olympic Sculpture Park in Seattle (Toft et al. 2012). The intertidal bench provides a gentle slope with fine-grained substrate.

South of the Pine Street Beach, a transitional area is proposed that changes from finer-grained beach sand and gravel at the expanded Pine Street Beach to a coarser gravel as it extends south. This expanded beach and transitional area provide improved slope and substrate conditions over the existing Pine Street beach substrates and the armored slope conditions to the south. Existing eelgrass beds depicted on the Master Plan are based on the latest eelgrass surveys from the two cleanup teams. Eelgrass that remains post-cleanup will be protected to the extent possible during final Park design and implementation.



Nearshore restoration at Seahurst Park in Burien
(Photo: Anchor QEA)



Nearshore restoration at Olympic Sculpture Park
in Seattle (Photo: Anchor QEA)

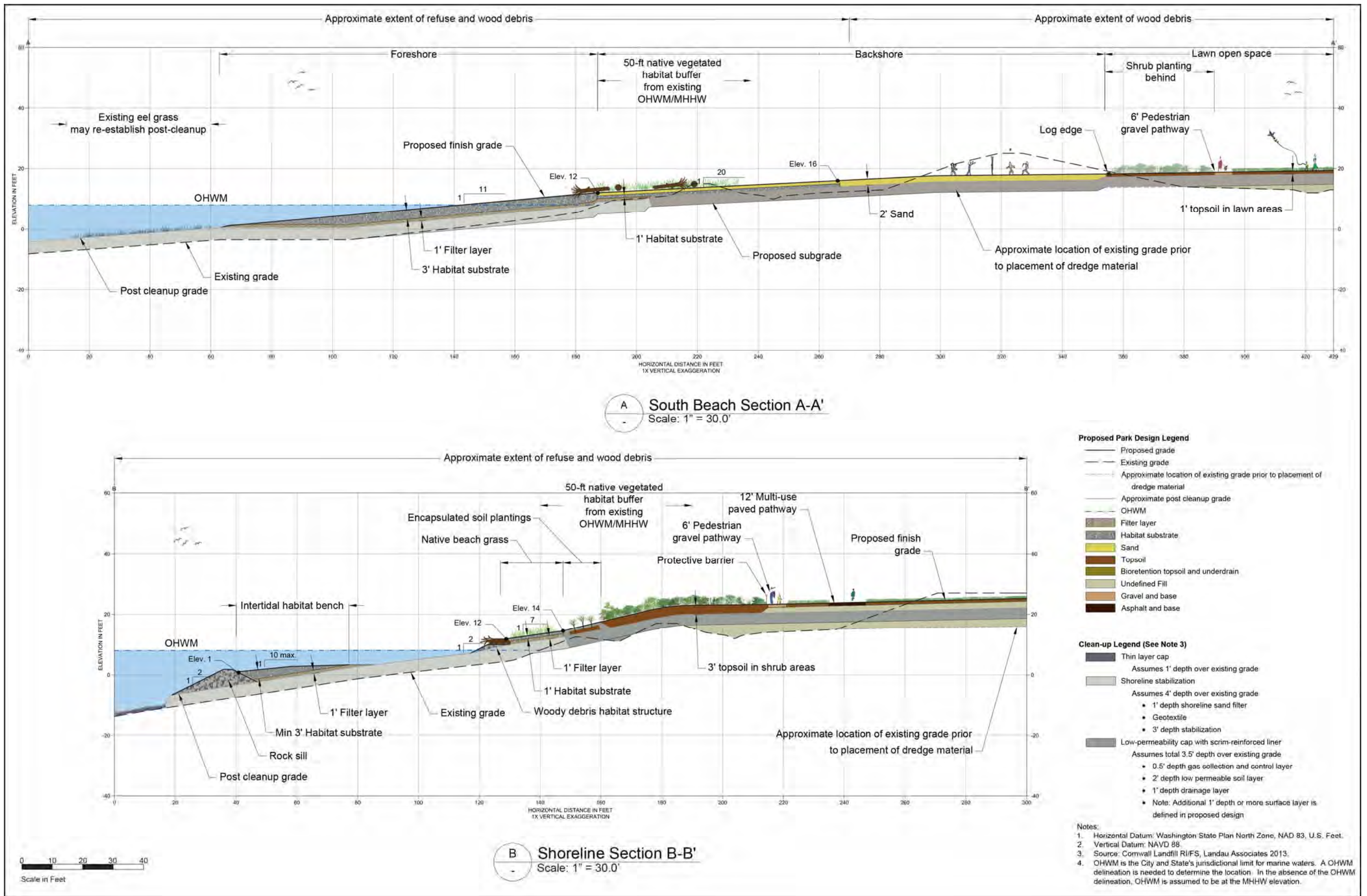
4.4.2. Marine Riparian and Upland Terrestrial Habitat

The Park includes areas of marine riparian and upland terrestrial vegetation. These areas are strategically located where sufficient soil depths for plant species groups will exist, to ensure that root systems will not compromise the remedial impermeable liner systems. Marine riparian plantings

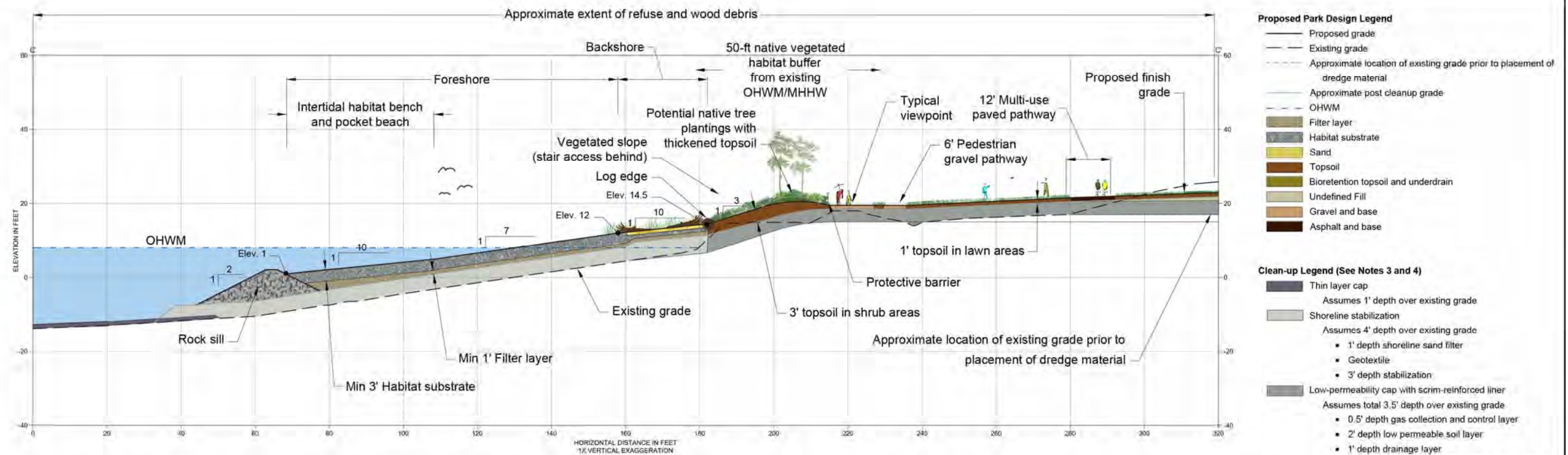
are included to achieve the buffer requirements of the City's Shoreline Master Program (SMP). The SMP requires a 50-foot buffer generally along the southern two-thirds of the Park shoreline and a 25-foot buffer along the remaining shoreline. The shoreline buffer marine riparian plantings include low native shrub areas and a few occasional groupings of small native trees. This native vegetation is intended to introduce marine riparian buffer function where it currently does not exist. These native shrubs and small trees will not obstruct water views, and will be salt-spray tolerant species suited to these conditions.



Riparian habitat Seahurst Park in Burien
(Photo: Anchor QEA)

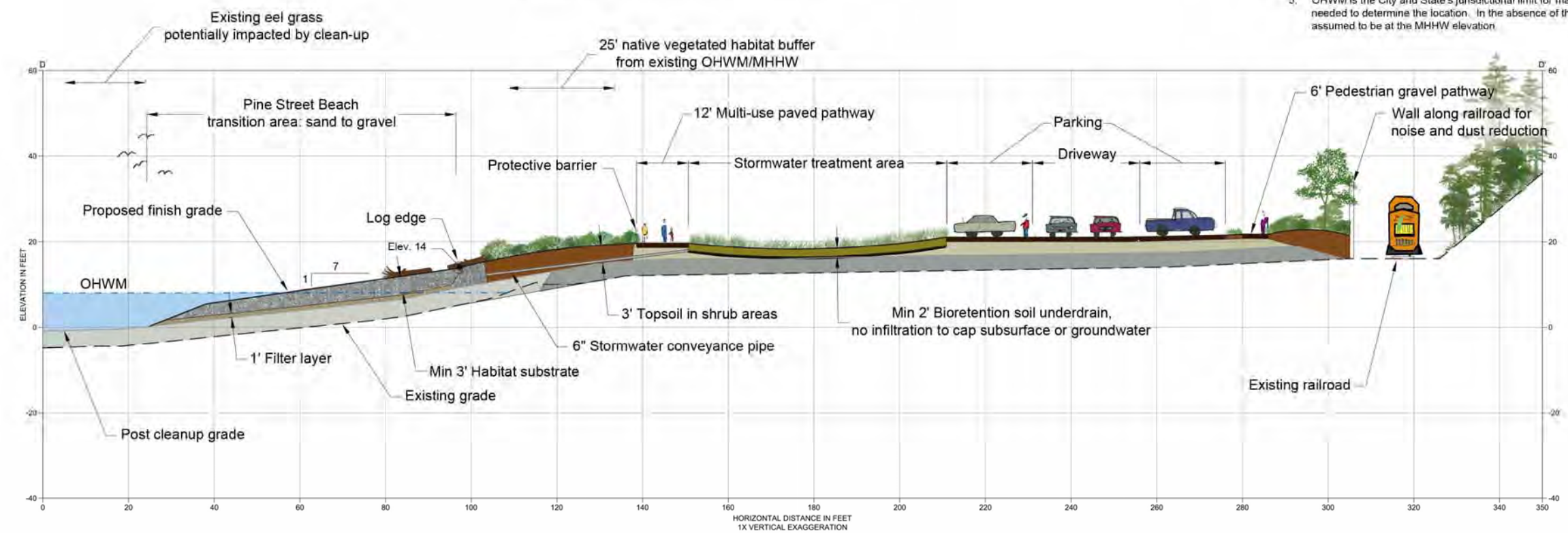


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C Pocket Beach Section C-C'
Scale: 1" = 30.0'

- Notes:**
- Horizontal Datum: Washington State Plan North Zone, NAD 83, U.S. Feet.
 - Vertical Datum: NAVD 88.
 - Source: Digitized from Cornwall Landfill RI/FS, Landau Associates 2013.
 - Pending Final Ecology Clean-up Remedy for Section D-D'
 - OHWM is the City and State's jurisdictional limit for marine waters. A OHWM delineation is needed to determine the location. In the absence of the OHWM delineation, OHWM is assumed to be at the MHHW elevation.



D Bioretention Swales Section D-D' (Pending Final Ecology Clean-up Remedy)
Scale: 1" = 30.0'

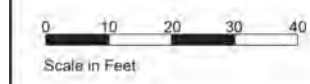
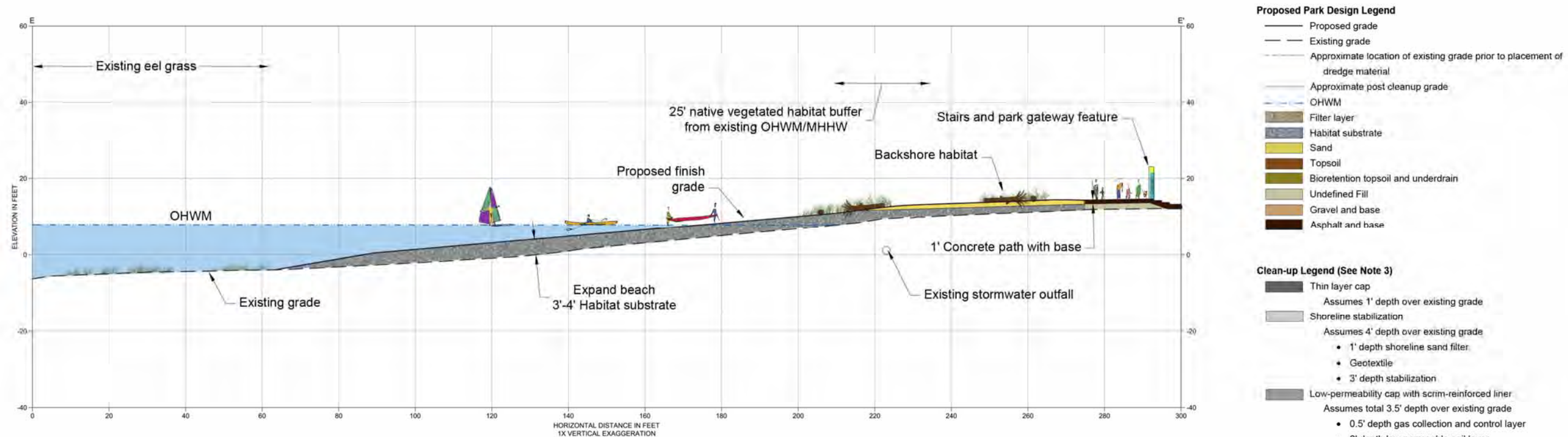


Figure 5
Cornwall Beach Park Master Plan
Sections C and D

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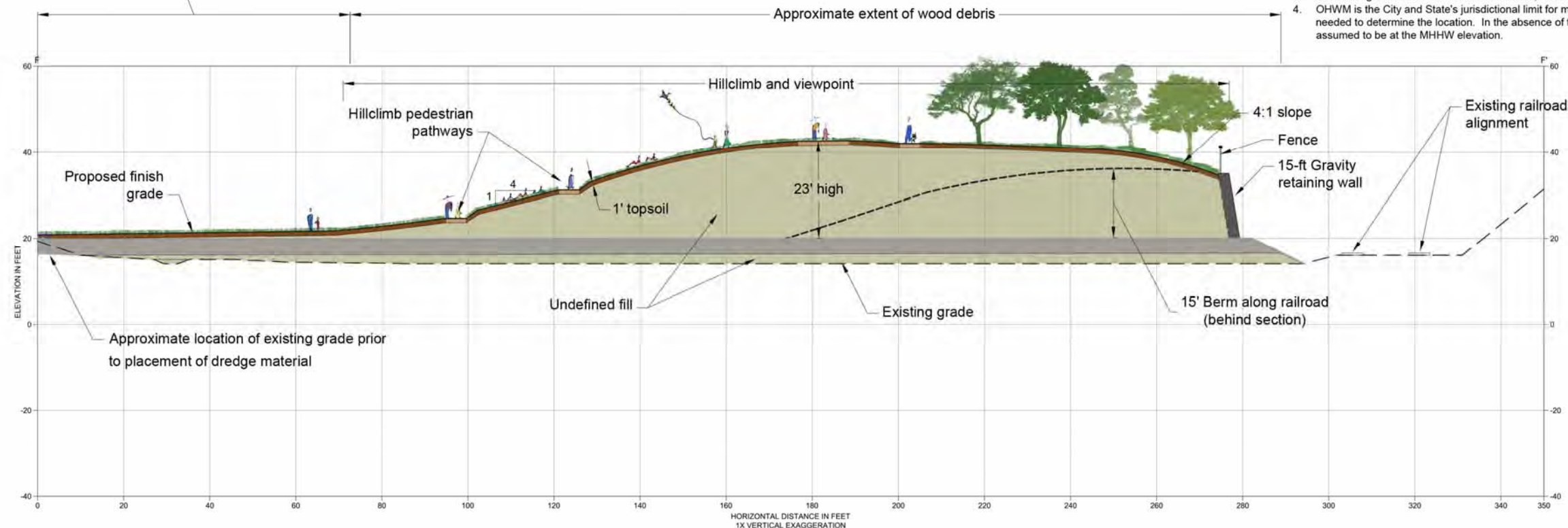


E Pine Street Beach Section E-E'
Scale: 1" = 30.0'

- Notes:
- Horizontal Datum: Washington State Plan North Zone, NAD 83, U.S. Feet.
 - Vertical Datum: NAVD 88.
 - Source: Digitized from Cornwall Landfill RI/FS, Landau Associates 2013.
 - OHWM is the City and State's jurisdictional limit for marine waters. A OHWM delineation is needed to determine the location. In the absence of the OHWM delineation, OHWM is assumed to be at the MHHW elevation.

Approximate extent of refuse and wood debris

Approximate extent of wood debris



F Hill/Berm Section F-F'
Scale: 1" = 30.0'

0 10 20 30 40
Scale in Feet

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Other native upland plantings run along the crest of the berm feature and include low native groundcovers and native woodland trees that are adapted to drier conditions similar to the adjacent bluff and nearby Chuckanut Mountains and San Juan Islands. Recommended tree species for the berm crest may include Garry Oak (*Quercus garryana*), Madrone (*Arbutus menziesii*), and Shore Pine (*Pinus contorta*).

All of the planted areas provide foraging and nesting habitat for insects, small mammals, and birds. The marine riparian and upland plantings provide a new habitat corridor connecting Bellingham Bay to the mature forested hillside located east of the Park and BNSF Railway tracks. The marine riparian area will be protected from Park user foot traffic with appropriate signage, or physical design elements, described in Section 4.1.1.

4.4.3. Section 4.4.3 Green Stormwater Treatment

Because of environmental cleanup restrictions, site stormwater infiltration into underlying soils should be avoided; therefore, the conceptual approach proposed in the Master Plan is to provide all site stormwater treatment above the liner that will be installed as part of the cleanup. Site stormwater will be conveyed to the treatment areas with imported compost-amended topsoils and vegetation; then, following treatment, this stormwater will be conveyed to the Park's shoreline. Green stormwater treatment elements include, but are not limited to, biofiltration swales, raingardens, and/or other vegetated treatment systems. These systems are proposed in conjunction with parking and the entry road on the Park's northern end. The site stormwater treatment area is a surface and near-surface feature vegetated with native species grown in compost-amended, imported soils. This stormwater treatment approach is consistent with state guidance on low-impact development in the Puget Sound Region (WSU and PSP 2012). The treatment area provides on-site stormwater treatment to protect both water quality in Bellingham Bay and marine riparian and upland wildlife habitat for wildlife insect production, birds, and small mammal foraging and nesting.



Pervious paving and raingarden stormwater treatment at Percival Landing in Olympia
(Photo: Anchor QEA)

4.5. Other Amenities

4.5.1. Public Art

A “One Percent for Public Art” program if implemented in the Waterfront District, could provide funding for public art to be incorporated within the final Park design. Art that is engaging with the waterfront’s natural environment, history, and culture provides rich opportunities for the Park. The final Master Plan locates several opportunities for public art installations, including at the main north and south Park entries, at two shoreline viewpoint locations, on the viewing hill, and within the play area. The north and south Park entry locations provide opportunities for wayfinding elements and defining a sense of arrival.



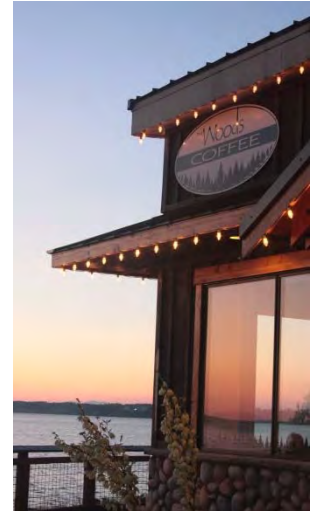
Sound Garden public art at Magnuson Park in Seattle (Photo: Anchor QEA)

4.5.2. Site Furnishings

Site furnishings are located throughout the Park and include benches, picnic tables, barbeques, bike parking, lighting, and receptacles for trash, recycling, and compostable materials. Benches for relaxing, viewing, and pausing are located along the multi-use trail and at the viewpoint areas. Site furnishings also provide opportunities for art integration. Picnic tables, barbeques, and receptacles are located within and adjacent to the picnic shelters. Bike parking is centrally located, adjacent to parking areas and the pavilion. Lighting, as described in Section 4.2, will be installed along the access drive and at the parking area, along the multi-use trail, and at the Pavilion and Concession buildings.

4.6. Park-related Concessions

The Master Plan proposes opportunity for two Park-related commercial buildings, which would house amenities for park users, but would be developed by the private sector. The intent is to serve the public and to provide additional “eyes on the park.” A coffee shop/café is envisioned in the central portion of the Park, at the south end of the parking area. This business, which may be similar to Woods Coffee at Boulevard Park, would provide food and drink to Park users as well as year-round heated seating areas. Other potential food concessions may include food trucks, which could use the paved area between the coffee shop/café and the south end of the parking lot. A recreation oriented equipment rental business, which may include bicycles, stand-up paddleboards, and/or hand-carried boats, is proposed in the northern portion of the Park, adjacent to the water side of the parking area and the hand-carried boat launch. This would offer Park users access to recreational equipment. Both businesses would include restrooms available to the public.



Woods Coffee at
Boulevard Park in
Bellingham

(Photo: Audrey Jr)



Photo: Anchor QEA

5. COST SUMMARY

Table 2 summarizes the Opinion of Probable Construction Costs to construct the proposed Cornwall Beach Park Master Plan. The total Opinion of Probable Construction Cost, in 2014 dollars, for the proposed Park upland improvements is \$12,520,000, which reflects the total construction cost and cost mark-ups, including mobilization, design and construction contingencies, 1% for public art, and tax. The total Opinion of Probable Construction Cost for Park improvements including the nearshore habitat elements and developer-funded commercial building are all included in Table 2.

The Park Master Plan Opinion of Probable Construction Costs presented in this section does not include excavation or environmental cleanup costs; it is assumed that all excavation occurs during the Cornwall Avenue Landfill and R.G. Haley Site environmental cleanups and that all necessary cleanup activities are completed prior to implementing the Park Master Plan. If feasible, some Park master planned elements may occur concurrent with cleanup activity. The

Opinion of Probable Construction Cost does not include any containment or shoreline stabilization measures related to the cleanup and only include Park and habitat-related elements above the upland drainage layer and shoreline stabilization system, as described in the Cornwall Avenue Landfill Remedial Investigation/Feasibility Study (RI/FS) (Landau 2013). Similar post-cleanup conditions involving capping remedies are assumed for both the Cornwall Avenue Landfill and R.G. Haley cleanup sites.

Furthermore, the Master Plan's total Opinion of Probable Construction Cost does not include the following items: transit stop design and installation, BNSF Railway relocation, pedestrian railroad crossing design and installation, design/engineering fees, project management, survey, planning and design review, construction-phase project management and administration, construction inspection, environmental permitting, and habitat monitoring.

TABLE 2: OPINION OF PROBABLE CONSTRUCTION COST

Item	Estimated Cost
Site Demolition & Clearing, Temporary Facilities	\$ 50,000
Utilities, including Stormwater Treatment	\$ 720,000
Access and Circulation, including Site Furnishings	\$ 1,249,000
Activity Areas	\$ 1,896,000
Railroad Berm and Viewing Hill	\$ 2,810,000
Pavilion and Shelters	\$ 870,000
Markups (Mobilization, Contingencies, One Percent for Public Art, and Sales Tax)	\$ 4,925,000
Total Master Plan Park Improvements	\$ 12,520,000
Opinion of Probable Construction Cost, in 2014 dollars*	
Nearshore Habitat Elements	\$ 7,306,000

Developer-funded Park-related	\$ 2,225,000
Concessions Opinion of Probable	
Construction Costs*	

*Not included: Environmental cleanup costs, Design and Engineering, Permitting, Construction Management, and City administrative and project management costs. Work is limited to Park property and does not include transportation improvements and work in street-right of way.



Photo: Betsy Watters

6. PROJECT IMPLEMENTATION

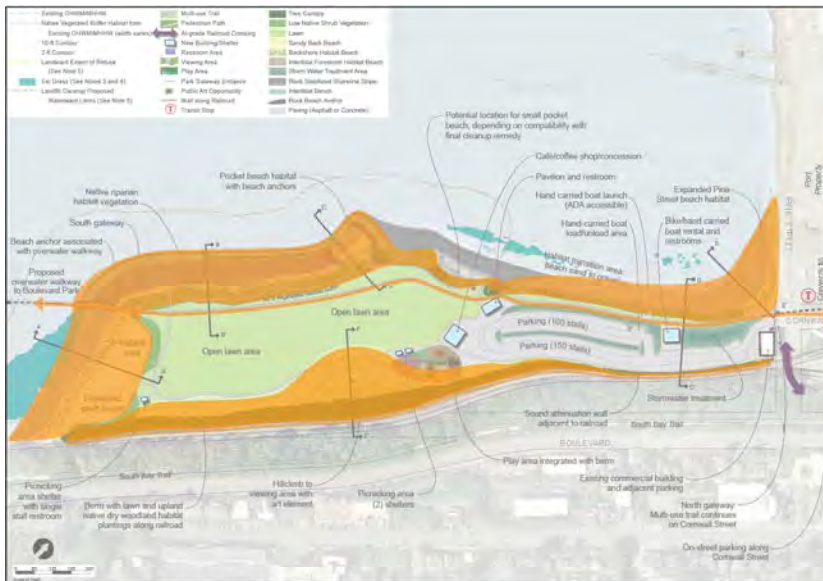
6.1. Phasing Plan

Figure 7 provides a graphic representation a preliminary phasing plan for project implementation. The plan involves three phases, beginning with shoreline and major earthwork; then pedestrian and vehicular circulation, utilities, and plantings; followed by Park amenities, including buildings, children's play area, art, and site furnishings. If any of the Phase 1 work can be cost-effectively and feasibly integrated with either or both of the environmental cleanup projects, there would potentially be significant scheduling and cost efficiency benefits to the City. Following is a list of the phases:

- **Phase 1:** Shoreline habitat and beaches, multi-use trail, earthwork for berm and viewing hill, including the berm's integrated wall along the railroad and the noise barrier wall along the railroad at the site's north end, and minimum topsoil and lawn

- **Phase 2:** Parking area, stormwater treatment areas and utilities, all pedestrian pathways, remaining topsoil in planting areas and all low shrubs and tree planting areas, all irrigation, and all viewpoints
- **Phase 3:** Park pavilion building and picnic shelters, park concession buildings, play area, Park gateways/entrances, public art, and site furnishings, including lighting

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PHASE 1

- Shoreline habitat & beaches
- Minimum topsoil & lawn
- Multi-use trail
- Wall along railroad
- Berm and hill



PHASE 2

- Parking
- Stormwater treatment area
- Utilities
- Pedestrian Paths
- Viewpoints
- Irrigation



PHASE 3

- Park pavilion and shelters
- Park concession buildings
- Play area
- Park gateways entrances
- Public art
- Site furnishings

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6.2. Environmental Cleanup Coordination Issues

As described in Section 1, the two environmental cleanup teams were involved and provided feedback throughout the master planning process. The Cornwall Avenue Landfill environmental cleanup team has completed an RI/FS (Landau 2013), and Ecology has approved a preferred cleanup alternative (Ecology 2014). The remedial design phase for the cleanup site is anticipated to start in the fall of 2014. The R.G. Haley environmental cleanup team is developing the Feasibility Study section of an RI/FS to be submitted to Ecology in late 2014. This follows an interim action at the site in 2013, which included the installation of an absorbent cap along a small area of the shoreline where oil was seeping out and leaving an intermittent sheen on Bellingham Bay (GeoEngineers 2014). Because Ecology has not yet selected a preferred final cleanup alternative, the post-remedy grading is not known for the R.G. Haley site. The following summarizes the issues identified by the environmental cleanup teams:

6.2.1. Site Grading, Drainage, and Groundwater

- Excavation should be minimized for the Park Master Plan and its implementation. Costs for any additional removal resulting from excavation would be covered under Park implementation costs, as they are not driven by cleanup goals.
- The R.G. Haley site does not have a preferred alternative design in place at this time, and the post-remedy nearshore grades are unknown. Proposed habitat improvements are subject to change and refinement based on the final remedy design and post-cleanup conditions.
- Post-cleanup earthwork should be minimized in locations with contaminated media. This includes excavations, but also placement and settlement of materials, which could potentially affect groundwater movement below the containment system, especially related to the berm and viewing hill construction areas. (See related comments, below.)
- All grades should have positive drainage.
- Stormwater infiltration through either cleanup site to the local groundwater table should be avoided. Stormwater treatment features should be surficial only, using a method suitable to separate the vegetation and surficial topsoil from the underlying remedial caps and contaminated media. All treated stormwater above the low-permeability cap needs to be

conveyed to Bellingham Bay using methods consistent with covenant restrictions, institutional controls, and Ecology requirements.

- Drainage features should be constructed over the cap to allow for sea-level rise elevation gain.
- The current location of the viewing hill and berm features overlap a portion of the groundwater plume(s) and may require the installation of monitoring wells.

6.2.2. On-site Relocation of Material

- The environmental cleanup teams will evaluate the feasibility of relocating material from either cleanup site (i.e., excavated sediment and/or soil) for re-use within the Park. The viewing hill and berm could be potential locations to use this material.
- Any relocation of material will have to be evaluated by the cleanup teams and approved by the Ecology Settlement.
- Differential and total settlement impacts should be considered during design of the parking lot, structures, and utilities. Settlement will likely occur due to the large amount of wood waste on both cleanup sites and the presence of municipal waste at the Cornwall Avenue Landfill site.
- The grading associated with the viewing hill and berm will require preloading and/or modifications to the grades to address the additional settlement that will result from the thickened fill areas.

6.2.3. Utility Corridors and Foundations

- All utility corridors and foundations should be placed over remedial caps, as feasible. If installation of utilities cannot be installed over the cap, installation will be subject to covenant restrictions and institutional controls.

6.2.4. Structures

- Buildings and foundations will need to consider the potential effect of seismic events.

- Building structure foundations will be subject to covenant restrictions and institutional controls. Soil gasses originating from both cleanup sites that have the potential to enter enclosed spaces will need to be managed to meet agency approval. Potential strategies include passive and active collection and venting and additional impermeable membrane.

6.3. Permitting

The future implementation of the Park improvements requires applying for and obtaining an array of federal, state, and local permits and approvals. City environmental, land-use, and construction permits would be applicable to all park improvements. Federal and state environmental permits primarily pertain to work below the Ordinary High Water Mark and/or the Mean Higher High Water Mark. Agencies potentially having jurisdiction over work in water areas include the U.S. Army Corps of Engineers, Washington State Departments of Ecology, Natural Resources, and Fish & Wildlife. Federal permits involve significant review and comment by other federal agencies and Native American Tribes to ensure compliance with multiple federal laws. Timeframes for obtaining federal and state permits vary considerably, with minimum timeframes being one year or less, and potentially extending to multiple years, depending on the issues and parties involved.

6.4. Funding

The City has identified a variety of potential funding sources for developing Cornwall Beach Park; however, dedicated funding is not in place. Potential funding sources for all phases of the Park include the following:

- Park Impact Fees
- Local levy or bond
- Local Infrastructure Finance Tool (LIFT)
- Washington Recreation and Conservation Office grants
 - Aquatic Land Enhancement Account
 - Land and Water Conservation Fund

- Salmon Recovery Funding Board
- Estuary and Salmon Restoration Program
- Washington Wildlife and Recreation Program/Local Park and Water Access
- State Legislative Appropriations
- Federal Surface Transportation Program (Multi-use Trails)

LIFT funding is derived from the tax revenue as part of the downtown waterfront redevelopment district that gets directed back to the City from the State.

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Appendix A:
Existing Conditions
Summary Memorandum

TECHNICAL MEMORANDUM

To:	Jonathan Schilk, City of Bellingham	Date:	September 6, 2013
From:	Peter Hummel, Anchor QEA Gisele Sassen, Anchor QEA Rick Goode, Anchor QEA Anna Spooner, Anchor QEA Mark Herrenkohl, Herrenkohl Consulting LLC	Project:	131006-01.01
Re:	Cornwall Beach Park Master Plan Task 2 – Existing Conditions Summary		

This memorandum summarizes existing information that will be used to support the Cornwall Beach Park Master Plan (Project). This includes existing Cornwall Beach Park (Park) site information collected by the project team related to the R.G. Haley and Cornwall Avenue Landfill cleanups, as well as an existing site information inventory and site survey. The memorandum also includes the Park's applicable planning framework and the likely regulatory process for implementing potential Park improvements. Finally, this memorandum identifies Project data gaps.

EXISTING SITE INFORMATION

Overview

The Park site is located on the northeastern shoreline of Bellingham Bay, at the southern terminus of Cornwall Avenue and within the City of Bellingham's (City's) downtown Waterfront District Planning area. Cornwall Avenue provides a direct connection between the Park site and downtown Bellingham. The Park site is located north of Boulevard Park and west of Bellingham's South Bay Trail. At the Park site's north entrance, Wharf Street provides a connection to Pine Street, crosses the BNSF Railway Company (BNSF) railroad, and then climbs up the steep bluff to Boulevard Street. Boulevard Street is a major linkage between downtown to the north and the Fairhaven neighborhood to the south, where Boulevard Street becomes South State Street (see Figure 1).

Site History and Environmental Cleanup Summary

R.G. Haley Environmental Cleanup Site

The R.G. Haley cleanup site is located within the northern half of the Park site at the intersection of Cornwall Avenue and Wharf Street; it comprises approximately 6 acres of upland property and 1.25 acres of nearshore and aquatic lands. The site includes two properties: the eastern property, which is owned by the City, and the western property, which is Washington state lands administered by the Washington Department of Natural Resources (WDNR). The site is contaminated with wood treatment chemicals, and the City is working with Washington State Department of Ecology (Ecology) to design and carry out a cleanup action.

The R.G. Haley cleanup site was historically the location for industries including lumber, coal, and wharf operations from the mid-nineteenth century through the mid-twentieth century. In 1951 the site was predominantly used for wood treatment. The R.G. Haley International Corporation was the last company to treat wood on the site from 1955 to 1985, when all wood treatment activities stopped. The Douglas Management Company purchased the site from R.G. Haley International Corporation in 1990. In 2000 Ecology identified the R.G. Haley site as one of several cleanup sites in the Bellingham Bay Comprehensive Strategy, a guidance document that seeks to integrate cleanup, restoration, and land use on a bay-wide scale. In 2001 and 2002, oil was observed seeping into Bellingham Bay along the northern portion of the site, and contaminants were detected in soils and groundwater inland of the oil seep. The Douglas Management Company negotiated an Agreed Order, dated April 5, 2005, with Ecology to conduct a remedial investigation/feasibility study (RI/FS) on the site. To reduce the release of contaminants into Bellingham Bay, subsequent emergency actions were conducted in coordination with Ecology, such as installing a sheet pile wall along the shoreline and installing shoreline erosion protection (Ecology 2013a).

GeoEngineers completed the draft final RI/FS on behalf of the Douglas Management Company in 2007. The RI/FS identified areas of contamination that require remediation to comply with Model Toxics Control Act (MTCA) and Sediment Management Standards (SMS). Site soil, groundwater, and sediment were found to contain contamination as a result

of the site's wood treatment facilities. Contaminating constituents of concern included diesel and oil-range hydrocarbons, pentachlorophenol (PCP), carcinogenic polycyclic aromatic hydrocarbons (cPAHs), other semi-volatile organic compounds (SVOCs), and dioxins/furans (GeoEngineers 2007).

The 2007 draft final RI/FS identified cleanup alternatives and selected a preferred alternative. The City purchased the site from Douglas Management Company in 2009 (Ecology 2013a). Since purchasing the property, the City has amended the Agreed Order with Ecology to remove Douglas Management Company and add the City as a signatory party, and revise the RI/FS report, including further evaluation of cleanup alternatives. A final RI/FS has not been released to date.

The site is currently undergoing an interim cleanup action under a second amendment to the Agreed Order due to an intermittent oil seep within the site's intertidal area that was discovered in December 2012; the oil seep is creating an oil sheen within Bellingham Bay. In June 2013, GeoEngineers completed an Interim Action Work Plan for the City and in accordance with Ecology, which presents an interim design that effectively contains the oil in the short term while the RI/FS process is completed, and a final remedy for the site is selected (GeoEngineers 2013). The interim action will place an engineered cap over the shoreline area to absorb oil flowing from the intermittent seep. A liner and large rocks will be placed over the cap to prevent erosion.

The interim action construction is scheduled for fall 2014, and site-wide long-term construction is slated to begin in 2015.

Cornwall Avenue Landfill Cleanup Site

The Cornwall Avenue Landfill cleanup site is located within the southern half of the Park site, just west of the BNSF railroad and South Bay Trail. The site covers approximately 13 acres of upland property and 3.5 acres of near shore and aquatic lands. As with the R.G. Haley site, the Cornwall Avenue Landfill site includes two properties: the eastern property, owned by the City, and the western property, owned by the State of Washington and administered by WDNR. Until recently, the eastern portion of the site had been jointly

owned by the Port of Bellingham (Port) and City. The Port is leading the cleanup effort, but the City owns the land.

In the late nineteenth century, the site housed a sawmill operation with log storage and wood disposal. In 1953, the Port leased the site to the City, whereupon the City used the site as a municipal waste landfill. In 1965, the landfill was closed and a layer of soil was placed overtop the waste. Between 1971 and 2005, Georgia-Pacific used the site for log storage and warehousing operations. In 2005, the City purchased an ownership interest in a portion of the site, and in 2012, the City purchased the remaining portion of the Port-owned site (Landau 2013).

Initial contamination investigations started in 1992 after a beachcomber discovered medical waste at the toe of the landfill. Investigations expanded in 1996, and between 1998 and 1999, Landau Associates conducted the RI for the Port, under a second amendment to the Agreed Order.

The landfill site is contaminated with an estimated 295,000 cubic yards of municipal waste and 94,000 cubic yards of wood waste. The Port and the City are working with Ecology to design and carry out a cleanup action through the RI/FS process. Contamination includes groundwater and sediment contamination and primary constituents include elevated nitrogen compounds, elevated dissolved metals, volatile organics, phthalates, polychlorinated biphenyls (PCBs), PAHs, phenols, and diesel- and oil-range petroleum hydrocarbons. The adjacent R.G. Haley site also appears to be impacting soil and groundwater within the landfill site (Landau 2013). Also, the landfill site's sediment is affected by mercury contamination from the adjacent Whatcom Waterway site.

As an interim action, in 2011, the Port placed approximately 47,000 cubic yards of dredged material from the Port's Squalicum Harbor Gate 3 Floats F & G Replacement and Outer Harbor Maintenance Dredging project onto the landfill site. This cleanup strategy, summarized in an amendment to the Agreed Order, sought to reduce stormwater from infiltrating into the landfill waste and carrying contaminants into Bellingham Bay. The dredged material contains metals, PAHs, phthalates, dioxins/furans, and ammonia, and the

proposed final remedy for the site, as presented in the draft final RF/FS report, will include a liner and cap as containment measures (Landau 2012).

Currently, the draft final RI/FS is open for public review and comment through September 20, 2013. Cleanup design and permitting is slated for 2014, and long-term cleanup is scheduled for 2015, which will comply with MTCA and SMS standards (Ecology 2013b).

The draft Cornwall Avenue Landfill RI/FS presents a preferred alternative site plan for the landfill cleanup site. The site plan indicates the extent of the sediments and upland cap, and shows a shoreline stabilization system running adjacent to the entire shoreline. The upland cap is shown as a low-permeability cap with a reinforced liner (Landau 2013).

More information on specific historic features known and documented at the Park site is included in this memorandum in the section titled Historic and Cultural Resources.

Site Inventory of Physical Features

The following subsections summarize existing information that describes the Park site's physical features, including site context, natural resources, and stormwater features. For more details on available site data, see Appendix A for a list of data provided by the City.

Park Site: Ownership, Land Use, and Zoning

The City will operate the Park. The City owns the area between the rail line and the inner harbor line on the Cornwall Avenue Landfill and R.G. Haley cleanup sites. The property waterward of the inner harbor line is owned by the state of Washington and managed by WDNR; the City and WDNR are negotiating a new lease for this property. There are two additional areas of ownership that should be considered in the planning for the Park. The three-story recently renovated office building at the corner of E. Pine Street and Cornwall Avenue is privately owned and is not part of the park or the Master Plan; however, compatibility of planned park improvements with this private site around issues such as traffic and access should be considered. The Port owns a small corner of the pocket beach at the north end of the park and master planning area. Referred to as either Cornwall Cove or Pine Street Beach, the beach is located at the terminus of E. Pine Street and is a current

recreation site that is understood to be included in the Master Plan. The City has an option to acquire this property from the Port at no additional cost as part of a previous property exchange agreement.

The majority of the Park site is zoned as Waterfront District Commercial Mixed Use. This zoning designation allows for commercial, light industrial, residential, office, public, and institutional uses. The southern tip of the Park site is zoned Public. The Public zone designation is for a range of public uses, including parks, recreational facilities, trails, open space, schools, and other local governmental facilities.

Adjacent Properties: Ownership, Land Use, and Zoning

BNSF operates an active rail line that generally runs east of the Park site and west of the steep hillside and Boulevard Street. This railroad line is the main north-south connection between Vancouver British Columbia and Seattle, receiving heavy freight and passenger train traffic. A potential rail realignment has been discussed between BNSF and the City and was considered in this planning effort.

The South Bay Trail runs parallel to the Park site's eastern boundary. The South Bay Trail is a regional multi-use trail. East of the South Bay Trail and east of Boulevard Street, there are residential condominiums and housing in Bellingham's Sehome (north of Cedar Street) and South Hill (south of Cedar Street) neighborhoods. This area is zoned Residential Multi-family. In the South Hill neighborhood the Residential Multi-family zoned area only extends to North Forest Street, where it transitions to Residential single.

The remainder of the Bellingham Waterfront District planning area is north of the Park site. In the shipping terminal area, the Port owns the upland located inshore of the inner harbor line. WDNR has oversight of the state-owned lands beyond the inner harbor line (this includes about half of the marine terminal), but the area is included within the Port's Port Management Agreement. The former Georgia-Pacific West Mill Site was historically owned by Georgia-Pacific, which operated a pulp mill on the site, but ownership has since been transferred. This area includes various properties. The area between the rail line and the waterway is now owned by the Port, with the exception of the cogeneration facility, which is owned by Encogen Northwest, LP, and several BNSF-owned rail properties. The area

between the bluff and Cornwall Avenue and between Pine Street and Roeder Avenue has fragmented ownership, including BNSF, Port, City, and private owners.

The Downtown Area of the Bellingham Waterfront District is also zoned Waterfront District Commercial Mixed Use like the Cornwall Beach Park area, while the rest of the Waterfront District is zoned Waterfront District Industrial Mixed Use. The City and Port are partnered to complete environmental cleanup of the remainder of the area and create an urban, mixed-use redevelopment district with public space, residential units, commercial spaces, and light industry.

The shoreline parcels south of the Park site are owned by the Port, City, and BNSF. Boulevard Park is located approximately 0.5 mile south of the Park site; this entire area is zoned Public. Boulevard Park is a large waterfront park with a beach, food concession, restrooms, picnicking areas, and playground. It also includes a fishing dock and overwater boardwalk. The City is currently proposing to construct a new overwater walkway starting at the north of Boulevard Park and extending to the southern end of the Park site. Permits were submitted in 2010 and construction, slated to begin in summer 2015, will be coordinated with the South State Street Manufactured Gas Plant and Cornwall Avenue Landfill cleanup sites (Bellingham 2013a). The following text describes the proposed overwater walkway in greater detail.

Boulevard Park Overwater Walkway

The overwater walkway would range from 7 to 14 feet in width, with benches. The walkway would be constructed of steel and concrete with wood pedestrian guardrails to meet Americans with Disabilities Act requirements. The landing to the south will connect to Boulevard Park, which is connected to the Coast Millennium Trail route. The structure will be supported by 48 bents spaced approximately 50 feet on center; each bent includes two 24-inch steel piles, for a total of 96 piles, and a precast/cast-in-place concrete pile cap.

The overwater walkway would have a landing at the southwest portion of the site. The landing would include a ramp with a 5% slope that would transition the grated overwater walkway to the Park's future trail system. The walkway connection and ramp would require a fill pad to meet grades.

Climate

The City's climate is a temperate, marine climate characterized by wet winters and dry summers. Average temperatures range from the mid-40s in winter to the mid-70s in summer (U.S. Climate Data 2013). The Olympic Mountains to the west provide a rain shadow and protect the City from heavy rain; the average rainfall in Bellingham is 35 inches, and the wettest month is typically November.

Climate Change and Sea Level Rise

The most significant climate change related impact pertaining to the Park site is predicted sea level rise. The Port is planning for a 2.4-foot sea level rise in Bellingham Bay over the next 100 years (Landau 2013).

Wave Analysis

In support of the Boulevard Park overwater walkway 30% design, Coastal Geologic Services (CGS) generated a wave model and summary report to estimate the wave climate and wave propagation during storm conditions. The study area included the west shore of Boulevard Park. The report describes predominant winds approaching from the southwest creating significant wave heights reaching greater than 4 feet in a 5-year event and greater than 5 feet in a 50-year event.

Earlier Bellingham Bay wave statistics were analyzed by Anchor QEA in 2008 to support the Whatcom Waterway project and are similar to the CGS findings previously discussed. These data found a largest hourly average significant wave height of greater than 3 feet and the largest hourly average maximum wave height of greater than 5 feet (Anchor QEA 2010).

Topography and Bathymetry

The Park site contains several areas with differing topographic features. The Cornwall Avenue Landfill site is relatively flat and mostly unpaved, but it contains two large stockpiled areas consisted of dredged, plastic-covered sediments (as described above). Several swales east of the stockpiles collect water and divert it to a stormwater detention basin in the southeastern portion of the site (see the Stormwater Conceptual Analysis

section). The stockpiles have 3H:1V side slopes and are 11 feet high. The R.G. Haley site is generally flat and mostly paved, with a slight slope to the north and east towards Bellingham Bay. A drainage ditch runs the length of the Park sites, along the eastern and western sides of the BNSF rail line. East of the BNSF rail line, the site consists of a steep hillside that reaches to the South Bay Trail and Boulevard Street, nearly 50 feet above the Park site.

The majority of the shoreline is over steepened with local rock (Chuckanut Sandstone boulders), cobbles, and other riprap consisting of concrete and other debris. Within the R.G. Haley site, a portion of the shoreline contains a vertical sheet pile bulkhead. There are two existing pocket beaches, located at the southern and northern ends of the Park site. A piling and chain-link fence acts as a groin structure and helps retain fine-grained sediment in the southern beach, which is much smaller than the northern beach. The larger northern beach, Cornwall Cove, is at the 90° corner between the R.G. Haley portion of the Park site and the Port owned Bellingham Shipping Terminal to the north.

The shoreline bathymetry is steepest at the top of bank (which extends above tidal influence), becoming progressively less steep farther offshore to the deep sub-tidal zone. The substrate in the intertidal and shallow sub-tidal zones is predominately gravel, sand, and silt, with some larger concrete cobbles and landfill debris. The shoreline transitions to a more moderate slope (approximately 6H:1V slopes) in the intertidal and shallow sub-tidal zone. The bathymetry at the two beaches is significantly gentler slopes all the way to the top of the shoreline.

Approximately 150 feet offshore the bathymetry transitions to an even more gradual slope in the deep sub-tidal zone.

Existing Vegetation

The Park site is currently relatively open and native vegetation is limited. Native vegetation is found primarily on the steep bluffs east of the BNSF railroad, in limited patches along the shoreline of the R.G. Haley site, at the Pine Street beach backshore, and in off-shore eelgrass beds. Some limited wetland vegetation is present along the east edge of BNSF railroad (as described in the Hydrology section of this memorandum). East of the railroad, along the steep hillside there is a relatively mature deciduous-dominated forest with big leaf maple

(*Acer macrophyllum*) and red alder (*Alnus rubra*) trees and native shrubs such as oceanspray (*Holodiscus discolor*). Along the shoreline of the R.G. Haley site there are small numbers (fewer than 20) of relatively young (15 to 20 years old) Douglas fir (*Psuedotsuga menziesii*) and red alder (*Alnus rubra*) trees. In addition, there are many younger native black cottonwood trees (*Populus trichnocarpa*; less than 5 years old) growing out of cracks in the pavement. The backshore of the Cornwall Cove beach at the north end of the site has a dense stand of native beachgrass (*Elymus mollis*). Offshore, extensive eelgrass (*Zostera marina*) beds have been documented in the lower intertidal and shallow sub-tidal zone (WDNR 2008). Most of the remainder of the site uplands are dominated by non-native invasive species such as Himalayan blackberry (*Rubus armeniacus*) and tansy ragwort (*Senecio jacobaea*), as well as several species of non-native grasses. During future planned cleanup efforts, any vegetation that exists within the Park site will likely be removed.

The team has collected City geographic information system (GIS) data, which include forest canopy cover and kelp bed locations, as well as WDNR GIS data, which include eelgrass bed locations. These data indicate the following: the steep slope adjacent to the Park site and the BNSF is characterized as a forested area; the Park site's shoreline does not have any kelp beds; there are several eelgrass beds located adjacent to the Cornwall Avenue Landfill and R.G. Haley sites.

In addition to the GIS eelgrass data, there are several surveys that include eelgrass locations at the Park. An eelgrass survey was completed for the proposed Boulevard Park Overwater Walkway encompassing the area that would likely be impacted by the overwater walkway. This survey shows eelgrass beds along the southern shoreline of the Park beginning at approximately -2.0 feet mean low lower water (Grette 2009). It appears that an eelgrass survey was also completed for the Cornwall Avenue Landfill cleanup RI/FS. The preferred alternative graphic in the draft final RI/FS report indicates that there are eelgrass beds along the Park site's southern shoreline and along the Park's central shoreline, at the boundary between the Cornwall Avenue Landfill and R.G. Haley cleanup sites (Landau 2013).

Existing Soil Data

The City GIS data indicate that the site's soil type is "Urban Land." This soil type has a 0% to 14% ponding frequency and is partially hydric. The City's GIS data map the northern

portion of the sites with unconsolidated artificial fill, including modified land, and the southern portion of the sites with sedimentary, continental sedimentary deposits, or rocks (e.g., the Chuckanut Formation). The Interim Action Completion Report for the Cornwall Avenue Landfill Interim Action (Landau 2012) includes a figure illustrating the site's geologic layers for the landfill site. The figure provides a cross section of the site's geologic layers, including the approximate depth of the landfill refuse and the silty, gravel fill and interim stockpile placed above.

The City maps the Park's entire shoreline as a potential wave erosion area and indicates that the site is within a very high seismic risk area.

Site Utilities

The following summarizes the existing on-site utilities:

- **Sewer:** A north-south sewer main runs adjacent to the site along Boulevard Street.
- **Stormwater:** A stormwater line runs east-west along Cedar Street and enters the northern portion of the Park site. There are two stormwater manholes located along the line within the Park (see the Stormwater Conceptual Analysis section). The stormwater line outfalls into Bellingham Bay.
- **Potable Water:** There are four water hydrants located at the Park site.

Stormwater Conceptual Analysis

Existing Stormwater Conditions

The Cornwall Avenue and R.G. Haley sites are located at the base of a steep vegetated bluff that rises vertically to the east up to Boulevard Street. The BNSF railroad tracks run parallel with the base of the bluff, creating a depression between the bluff base and the railway that collects surface water runoff and groundwater seepage from the bluff. Water is typically present within this depression year-round. A culvert running beneath the railway connects the depression to another excavated depression located on the west side of the railroad tracks at the south east corner of the Cornwall site (Landau 2013). The upland portions of each site are relatively flat, and stormwater runoff currently infiltrates or is conveyed or sheet flows in a variety of directions.

Temporary drainage improvements at the Cornwall site were completed in 2011 as part of the interim action. Onsite runoff is currently collected in stormwater conveyance swales, which flow towards the south end of the Site to an existing stormwater detention basin; the detention basin infiltrates collected runoff and, during heavy rainfall events, discharges runoff into Bellingham Bay (Landau 2013).

The upland portion of the R.G. Haley site is relatively flat and stormwater runoff currently infiltrates, or is conveyed or sheet flows towards the shoreline. Two existing significant outfalls are located on the site. Both are part of the City storm drain system, and they are described further as follows:

A 24-inch corrugated polyethylene storm drain that daylights to the public beach area at the northwest corner of the R.G. Haley site. This outfall drains a portion of the south end of Wharf Street and is connected to several catch basins along Wharf Street.

A 36-inch outfall crossing the R.G. Haley site. This outfall drains approximately 34 acres of residential area located between the site and the Western Washington University campus

There are several historical outfalls located on the R.G. Haley and Cornwall sites, which were part of the storm drain systems for former building structures and paved areas. It is anticipated that these historical outfalls and associated piping and drainage structures can be abandoned during cleanup activities.

Anticipated Stormwater Improvements

As described in the Site History and Environmental Cleanup Summary section, the R.G. Haley site is still early in the RI/FS process and a preferred cleanup alternative has not been selected. It is anticipated that both sites will follow similar remediation approaches, including the use of low-permeability caps combined with stormwater management to limit potential infiltration of surface water into the subsurface waste materials. For the Cornwall Avenue Landfill site, a preferred cleanup alternative has been proposed and includes the following items related to stormwater management (Landau, 2013):

- Reduced infiltration of stormwater into impacted subsoils from placement of an upland cap of low-permeability soil and a reinforced liner, pavement, and buildings
 - Upgradient stormwater actions to BNSF property and decommissioning the remaining malfunctioning stormwater collection system
 - Shoreline stabilization system to prevent erosion of impacted subsoils
-

- Placement of a sand filter layer to treat groundwater prior to discharge to surface water

The proposed approach to stormwater management for the Park is to utilize low-impact development (LID) techniques to the extent practicable. It is not anticipated that the proposed stormwater improvements will treat all stormwater runoff. In events where stormwater flows or volumes exceed the target treatment level, the untreated stormwater would bypass treatment and discharge into Bellingham Bay.

The preferred cleanup alternative for the Cornwall Avenue Landfill site provides the ability to incorporate LID stormwater management, provided there is sufficient and adequate backfill materials between the finished grade and the capped impacted subsoils. Site grading should be designed to maximize the function of LID stormwater management as well as for Park access, use, and aesthetics. Grading and surface features are key elements in the Park design, as they limit the depth of infiltration and control the surface water flow and subsurface water flow between capped soils and the nearly fully vegetated Park site surface. Final grades, surface features, vegetation, and backfill above capped subsoils may be selected to maximize the treatment of stormwater through the use of bioretention and minimize the rate of stormwater flow from the Park site into Bellingham Bay.

Stormwater design for the planned Park site improvements should be conducted in accordance with the 2012 Stormwater Management Manual for Western Washington.

Existing Hydrology Data

The Park site is located within the Bellingham Bay watershed and Central Bellingham sub-basin.

The City's GIS database does not identify any wetlands or streams within the Park site; however, during a site reconnaissance, Anchor QEA staff noted that there are wet areas and areas of standing water at the base of the slope east of the railroad and at the north end of the Park site near Wharf Street. Anchor QEA staff have no knowledge of actual wetlands being identified or delineated within the Park site.

Site Survey: Available Source Data

Using existing as-built drawings, surveys, CAD, and GIS data, Wilson Engineering has compiled a site survey with topography and bathymetry. Wilson Engineering has also field verified the survey data to prepare the final survey document for the Park site. The final survey is provided in the City's vertical and horizontal datum (vertical datum: North American Vertical Datum [NAVD] 88, horizontal datum: North American Datum [NAD] 93/83, using Washington State Plane Coordinates).

Following is a list of survey sources that have been compiled (also see Appendix A, List of Available Data Sources):

- **Previous Site Surveys:** 1997 Inner Harbor WDNR survey
 - **As-built Drawings:** The City has provided as-built drawings (CAD files) from the Cornwall Avenue Landfill Interim Action beneficial reuse grading work completed in 2012. These as-built drawings provide survey information for the entire Park site and show the current topography of the stockpiled soils within the Cornwall Avenue Landfill site.
 - **Topography and Bathymetry:** The City has provided GIS and CAD bathymetry and topography. The CAD data were used during the interim actions' cleanup activities.
 - **GIS Data:**
 - The City has provided the following GIS information: utilities (storm, sewer, and water); water bodies (Bellingham Bay, lakes, and streams); coal mines; forest canopy; geology; watersheds and sub basins; landslides and alluvial fans; potential wave-erosion areas; seeps and springs; seismic hazard areas; soils (USDA Natural Resources Conservation Service) and wetlands.
 - WDNR has provided their latest eelgrass beds locations in Bellingham Bay. These data range from 2000 to 2011 and include eelgrass beds adjacent to the site that were mapped in 2008.
 - Whatcom County GIS data includes parcels and Federal Emergency Management Agency flood zones.
 - **Utilities:** Utilities in and adjacent to the Park site are documented in the survey efforts conducted for the R.G. Haley and Cornwall Avenue Landfill RI/FS and interim actions. Utility data are also available using the City-provided GIS data. All of the
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utility data, including types and location of existing utilities, have been compiled and field verified for the Project survey).

- **Property Boundaries:** As described previously, Whatcom County GIS data include parcels boundary data. The parcel data indicate that the BNSF rail line runs east of the Park site along the Park's southern boundary. Along the Park site's northern boundary, the BNSF rail line crosses into the Park site, bisecting its northeast corner. The BNSF rail line right-of-way does not appear to correlate well with the available GIS parcel data.

The Inner Harbor WDNR survey includes the location of the relocated inner harbor line.

PLANNING FRAMEWORK AND PERMIT REQUIREMENTS

This section provides an overview of the planning context for the City's waterfront and park system and the regulatory aspect of the Park site master planning effort. This section identifies which permits and regulatory approvals might be required to implement future Park site improvements as identified in the Master Plan.

Planning Framework

The City has embarked on an extensive waterfront planning effort over more than a decade that covers more than 200 acres of downtown shorelines and uplands, of which the Park site is an important feature. The Park site has been identified in several planning documents as an important link in the network of Bellingham's waterfront park and trail system, including the 2008 *City of Bellingham Parks, Recreation and Open Space Plan* Update (Bellingham 2008a); the 2004 *Waterfront Vision and Framework Plan: Connecting Bellingham with the Bay* (PCOB 2004); the mayor's 2008 *Waterfront Connections Plan* (Bellingham 2008b); the Draft 2012 *Waterfront District Subarea Plan* (BCOB 2012); and the 2013 update of the *City of Bellingham Shoreline Master Program* (Bellingham 2013b). Two of these planning documents are briefly summarized in the following sections.

Waterfront District Subarea Plan

The Park site is located within the Waterfront District planning subarea, which is being redeveloped jointly by the City and the Port. The purpose of the subarea plan is to create a

vision for the redevelopment of the City's waterfront. The goal of the redevelopment is to transition from its entirely industrial past to a vibrant mixed-use urban redeveloped waterfront that joins industrial and commercial uses, with trail access and open-space uses for public enjoyment.

The Cornwall Beach Park Area is identified in the subarea plan as an important shoreline open space and trail connection linking downtown Bellingham and the northern parts of the waterfront district, with the proposed overwater walkway leading to Boulevard Park and the Taylor Avenue dock in the south. Chapter 5 of the subarea plan discusses multi-modal circulation and describes a shoreline trail alignment along the redeveloped area connecting the Waterfront District to the proposed overwater walkway. The Park itself, as the largest park in the waterfront district, is described in the subarea plan as including various active and passive recreational facilities, including a small amphitheater for concerts.

Figure 7-1 in Chapter 7 calls out the "Cornwall Cove" pocket beach near the north entry to the Park site. The remainder of the Park site is called out in the subarea plan as "Bay Park" and includes a bike and pedestrian trail, lawn for informal gathering and recreation, beach access, habitat restoration, seating along walkways and under trees, and the overwater walkway connection to Boulevard Park. Chapter 7 also includes a small oblique plan showing a redesigned "Cornwall Beach Park."

The shoreline is envisioned to be restored with native vegetation, and it would include walkable natural beach areas and a new pocket beach along the southern shoreline. Chapter 3 of the subarea plan discusses habitat restoration opportunities and shows shoreline restoration opportunities along the entire shoreline (Figure 3.2, Habitat Restoration Opportunities). The plan also calls for maintaining the existing pocket beach near the north entry to the Park as a popular water and hand-held boating access point, and to possibly expand this area to provide better access and parking once the Port's maintenance shop (which is currently limiting the available space) is redeveloped to allow for these other uses.

A low-density development pad is proposed within the Park site in the subarea plan. This development pad shows potentially residential or office uses within the Park site; however, in recent discussions with the Parks Department, more viable uses in a private development

pad are likely to include retail that is compatible with park uses (such as a coffee shop concession). Other access considerations in the subarea plan include a potential future trail connection from the South Bay Trail via a pedestrian bridge over the railway tracks.

Bellingham Parks, Recreation, and Open Space Plan

The Bellingham Parks, Recreation, and Open Space plan (PRO Plan) outlines general goals and objectives and specific recommendations, and it includes an implementation plan to expand and enhance Bellingham's overall park and trail system. The PRO Plan identifies existing facilities and facility needs, as well as development standards and guidelines. The stated goals address the need for a "high quality, diversified parks, recreation and open space system that provides for all age and interest groups," and to "provide an interconnected system of high-quality, accessible multi-use trails and greenway corridors that offer diverse, healthy outdoor experiences within a rich variety of landscapes and natural habitats, accessing significant environmental features, public facilities and developed local neighborhoods and business districts."

Developing Phase One of Cornwall Beach Park area is recommended as a high priority. A Waterfront Hand Launch is recommended as a Special Use at the Park. The Park area is also identified in the Recommended Facilities Plan for Open Space as part of a proposed corridor along the waterfront connecting to the larger network of open space corridors throughout the City and into the County. A proposed trail connection through the Park site is shown on the figure entitled Recommended Facilities Plan – Trails.

Community Parks are defined in Appendix A of the PRO Plan as follows:

"Community parks are larger than neighborhood parks and are intended to serve a broader range of activities and users. Their focus is on meeting the recreation needs of several neighborhoods with more specialized activities, as well as preserving unique landscapes, open spaces or environmental features. They allow for group activities and offer other recreation opportunities, such as programmed sports facilities not generally found at the neighborhood level. Due to their

larger size, they are often designed to serve both as a neighborhood park function as well as having expanded and unique activities.”

REGULATORY CONSIDERATIONS

Critical Areas

Careful consideration must be given during the master planning process to how to avoid, minimize, and mitigate impacts to critical areas as defined in the Bellingham Municipal Code Chapter 16.55 – Critical Areas (Bellingham 2013c).

The site contains various critical areas including geological hazard areas – steep slopes mainly east of the railroad tracks – and potential wetlands located at the toes of the slope. City GIS wetland mapping indicates a potential continuous wetland area with an approximate 50% cover along the entire Park east of the railroad.

Historic and Cultural Resources

Several cultural resources surveys have been conducted in or immediately adjacent to the project area (Artifacts Consulting 2007, Wessen 2010, Goetz et al. 2009). The project area contains at least one, and possibly two, recorded archaeological sites and one historic structure.

Neither of the archaeological sites has been evaluated for eligibility for national or state historic registers. Site 45WH762 is the possible remains of the Sehome Coal Company Wharf. It consists of pilings in Bellingham Bay adjacent to – and extending into the northern portion of – the project area. It is unclear how many pilings, if any, exist in the uplands beneath existing fill. It also has not been conclusively determined which pilings belong to which former structures. Site 45WH833 is the remains of a sunken vessel, possibly the tug TYEE. The tug was built in 1884 and sunk by the Sehome wharf in 1945. A sonar image of the wreck shows pilings that are suggested to be remains of the wharf. The location of the wreck is shown in Department of Archaeology and Historic Preservation records to be about 1,000 feet southwest of the Sehome wharf site (45WH762).

The historic structure is the Bloedel Donovan Lumber Mill office at 100 E. Pine Street. It has been recommended eligible for listing in the National Register of Historic Places, the Washington Heritage Register, and the Bellingham Local Landmark Registry. No formal determination has been made.”

Depending on the project elements to be implemented, potential adverse impacts could result from ground disturbing activities, as well as from off-shore work potentially impacting the sunken vessel; its exact location is not known.

Shoreline Master Program

The City of Bellingham’s 2013 SMP update designates the Park site as part of the “Waterfront District (WD).” As indicated in Table 1, the City of Bellingham’s SMP identifies the Park shoreline under two shoreline designations within the Waterfront District” (WD) Marine Reach 7: “shoreline mixed use” at the R.G. Haley site, and” recreational use” at the former Cornwall Avenue Landfill site, as shown on the Marine Shoreline Map for reaches 1 through 8 (Bellingham 2013d).

The following elements are allowable in the “shoreline mixed use” zone with a Shoreline Substantial Development Permit:

Water dependent (WD) water related (WR) and water enjoyment (WE) uses are permitted; various setbacks, buffers and height restrictions apply. Habitat restoration is not required. Non-water-oriented (N-W-O) uses are permitted only if they support or are an accessory to a permitted use, or if they adaptively reuse or preserve a historic structure.

The following elements are allowable in the “recreational use” zone with a Shoreline Substantial Development Permit:

WD, WR, and WE (on land: e.g. park, plaza; in structures, e.g. museum, restaurant) uses are permitted; various setbacks, buffers and height restrictions apply. No habitat restoration is required for these uses.

Habitat restoration is required for N-W-O uses. These are only permitted in structures if they are concurrent with WD, WR, or WE uses.

Potential Permit Requirements for Park Master Plan Implementation

The future implementation of the Park improvements requires applying for and obtaining an array of federal, state, and local permits and approvals. The following table lists the permits and approvals anticipated including regulatory triggers (actions that create the requirement to obtain a given permit), timeframes, and the general requirements associated with each permit and approval. None of this information applies to master planning of the Park site. However, it is included to illustrate the needed permits and approvals and associated issues that could arise during implementation that potentially affect the feasibility of specific park design elements considered in the master planning process. In addition, permitting and regulatory processes should be considered in the phased implementation sequencing for the Master Plan.

Table 1
Potential Permits and Approvals

Permit/Approval	Agency	Trigger	Approximate Agency Review Timeframe	Notes
Federal Jurisdiction: Permits				
CWA Section 404 (Section 404 permit)	USACE	Discharge of dredged or fill material into waters of the United States, including adjacent special aquatic sites such as wetlands	3 months ¹ for a NWP; up to 1 year for an individual permit	Could be applicable to the Park project for proposed shoreline modifications that involve grading (dredging) or fill below MHHW. USACE will solicit comments on permit application from interested tribes (Lummi Indian Tribe); applicant is asked to respond to any comments received from tribes.
Rivers and Harbors Act Section 10 (Section 10 Permit)	USACE	Any proposed work in, over, or under navigable waters of the United States that affects navigable capacity	3 months ¹ for a NWP; up to 1 year for an individual permit	Would apply to in-water work, including pile installation. USACE will solicit tribal comments as noted previously.
Federal Jurisdiction: Associated Approvals				
NEPA Compliance	Lead federal agency	Projects with a federal nexus (e.g., led by a federal agency, receiving federal funding, located on federal lands, or requiring a federal permit)	3 months to 1 year or more	Other than USACE’s NEPA evaluation as part of federal permit process, NEPA review is not anticipated for the Park project at this time. If federal funding is applied to project, NEPA compliance will need to be demonstrated by the funding agency.
ESA Section 7 Consultation	NOAA Fisheries and U.S. Fish and Wildlife Service (collectively called “the Services”)	All projects with federal nexus are subject to Section 7 of the ESA, which requires federal agencies to ensure that projects they authorize, permit, or fund do not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify critical habitat	6 months to 1 year	Federal nexus for the Park would be associated with USACE permit and/or federal funding for project. Depending on the program elements included in the Master Plan, project elements may fit within established programmatic agreements between the Services and USACE, which could limit the extent of documentation required. If not, a biological assessment would be required to support the USACE permit process.
Magnuson-Stevens Fishery Conservation and Management Act EFH Consultation	NOAA Fisheries	Consultation is required to ensure that federal actions adequately avoid, minimize, or mitigate any activity that may affect EFH	6 months to 1 year	EFH consultation occurs concurrently with ESA consultation.
National Historic Preservation Act Section 106 Consultation	Federal lead agency in coordination with the Washington Department of Archaeology and Historic Preservation	Projects with a federal nexus are subject to Section 106 of the National Historic Preservation Act, which evaluates actions that have the potential to affect cultural, archaeological, or historical properties	2 months to more than 1 year ²	Initial screening of existing cultural resource information for the Park site indicates that several cultural resources surveys have been conducted in or immediately adjacent to the project area The project area contains at least one, and possibly two, recorded archaeological sites and one historic structure. Adverse effects to cultural resources could occur depending on the project elements.
State Jurisdiction				
CWA Section 401 Water Quality Certification	Ecology	Applying for a federal permit or license to conduct any activity that might result in a discharge of dredge or fill material into water or non-isolated wetlands or excavation in water or non-isolated wetlands	3 months ¹ to 1 year (processed with CWA Section 404)	May not be required if a NWP from USACE can be applied to the project.
CZMA Federal Consistency Determination	Ecology	Projects that contain a federal nexus proposed within any of Washington's 15 coastal counties	3 months ¹ to 1 year (processed with CWA Section 404)	If the CZMA is approved as part of a NWP, no further action will be required.
CWA Section 402 National Pollutant Discharge Elimination System Construction Stormwater General Permit	Ecology	Required for all soil-disturbing activities where 1 or more acres will be disturbed and have a discharge of stormwater to a receiving water or storm drains that discharge into a receiving water (i.e., wetland, creek, river, marine water, ditch, or estuary)	2 months or more	Anticipated to be required due to the size of the area of potential disturbance.

Permit/Approval	Agency	Trigger	Approximate Agency Review Timeframe	Notes
HPA	WDFW	Proposed activity that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt- or freshwaters of the state	2 months or more (cost: \$150); cannot apply for HPA until SEPA process is complete	WDFW will be interested in ensuring proposed Park improvements will minimize/avoid impacts to existing eelgrass beds and improve fish habitat.
Aquatic Lands Use Authorization	WDNR	Proposed actions that take place on State-owned aquatic lands	3 to 6 months (existing lease modification or review)	A portion of the site is under a current WDNR lease. Any proposed improvements on WDNR lease lands require coordination with WDNR.
Local Jurisdiction				
SEPA Compliance	City of Bellingham	Any proposal that requires a state or local agency decision to license, fund, or undertake a project, or the proposed adoption of a policy, plan, or program can trigger environmental review under SEPA	3 to 6 months	SEPA compliance is expected to be expedited under the planned action ordinance expected to be in effect for the Bellingham Waterfront District at the time of permit submittal.
Shoreline Permit	City of Bellingham	Proposed activities occurring within the Shoreline Management Act jurisdiction (generally within 200 feet of MHHW)	1 month to more than 6 months	The site is located within the Waterfront District designation under the City of Bellingham’s SMP. The R.G. Haley site is designated as “shoreline mixed use” and the former Cornwall Avenue Landfill portion of the site is designated “recreational use.” Proposed elements for the Master Plan will likely be allowable under these designations and processed as substantial development permits (upland and shoreline improvements and restoration).
Critical Areas Ordinance Compliance	City of Bellingham	Triggered by proposed activities occurring within sensitive areas or their buffers (e.g., landslide-prone areas, steep slopes, seismic areas, wetlands)	1 to 2 months	This review will likely be combined with a shoreline permit process.
Other Local Permits and Approvals (Building, Fill/Grade, Land Use, Noise, etc.)	City of Bellingham	Required for proposed activities within City jurisdiction	Varies by permit or approval	Pre-submittal meeting with City of Bellingham Planning Department will help to define extent of required local permits.

Table notes:
This list of permits and approvals is based on Anchor QEA experience of resource agency review timeframes and is subject to change based on project complexity and locale, as well as agency workload considerations.

1

Current review times may be longer due to USACE personnel shortage and backlogs and may extend to 6 months.

2

Review times are currently extended to about 6 months due to USACE workload issues

Abbreviations used in table:

CWA = Clean Water Act

CZMA = Coastal Zone Management Act

Ecology = Washington State Department of Ecology

EFH = Essential Fish Habitat

ESA = Endangered Species Act

HPA = Hydraulic Project Approval

MHHW = mean higher high water

NEPA = National Environmental Policy Act

NOAA = National Oceanographic and Atmospheric Agency

NWP = Nationwide Permit

SEPA = State Environmental Protection Act

SMP = Shoreline Master Plan

USACE = U.S. Army Corps of Engineers

WDFW = Washington Department of Fish and Wildlife

WDNR = Washington Department of Natural Resources

It is likely that proposed improvements at the Park will be constructed in phases over a period of time, with varying permitting requirements for each phase depending on the final remedies selected for the cleanup sites and the proposed elements of the Master Plan. The planned action ordinance to be adopted by the City of Bellingham will allow for an expedited State Environmental Policy Act (SEPA). SEPA should be conducted first and may encompass all phases of the Master Plan. Once the SEPA review is complete, subsequent permitting efforts can be conducted in accordance with the various construction phases. The project phasing effort should consider efficiency in permitting processes, to help streamline the overall implementation of improvements.

There are some standard requirements from regulatory agencies involved with permitting shoreline projects on Puget Sound that will be incorporated into the plans for the proposed improvements in the Master Plan. These include both design elements (e.g., use of grated decking on any proposed overwater structures) as well as construction methods (e.g., vibratory pile installation). Based on our experience on past shoreline projects, improving shoreline habitat for migrating juvenile salmonids, protecting eelgrass beds, placing habitat friendly substrates, moderating shoreline slopes, and reducing shoreline armoring will be viewed favorably by the resource agencies. However, the post cleanup site conditions may only allow for very limited shoreline and habitat restoration to be implemented. Early and continued outreach to agency staff is recommended as the project moves forward to ensure their feedback is captured as appropriate.

DATA GAPS

Currently known data gaps include the following:

- **Extent of Eelgrass Beds:** There are several sources describing the extent of eelgrass beds adjacent to the site, as documented in the Site Survey: Available Source Data section. In the Cornwall Avenue Landfill RI/FS Preferred Alternative graphic, the eelgrass bed locations are different than the other sources. The source of these data is unknown and it is not available to the team in a CAD format.
 - **Gaps in Survey Information:**
 - There is an area lying north and east of the intersection of East Oak Street and Cornwall Avenue for which there are no data at all. Similarly, there is an area at
-

- the southeastern corner of the Park site that has no coverage east of the railroad tracks.
- The “Interim Action Area” survey generally lacks detail. The bathymetry was performed in 2006, and should no longer be considered current. The 2006 survey work did not include locating pilings, boulders, derelict structures, or storm drain structures within the intertidal zone. These data currently are not at standard for engineering design, and plan review and approval. Much of these data should be updated when the City certifies the new LIDAR/Photogrammetric Survey for the area in the near future. To assess the scope of additional information needed, Wilson Engineering will need a copy of the new survey.
 - The data representing contours east of the railroad tracks are not at a standard that should be used for engineering design, although it may be suitable for planning and permit review. The data appear to be based on a limited sampling and/or old photogrammetric data without accompanying LIDAR. These data should be considered no better than a 5-foot contour interval representation of the actual surface.
 - The parcel boundaries are based solely upon record data and should be considered a data gap.
 - Much of the existing data’s relevant metadata are not included in the files used to create the survey. That is a terminal breach of the chain of evidence that would enable a surveyor to certify the accuracy of the mapped product.
- **Railroad main track realignment:** Anchor QEA has received a PDF version of the potential track realignment from the Draft Waterfront District Subarea Plan. A version in a CAD format would be useful for accuracy but is not a necessity for master planning.
 - **R.G. Haley Cleanup:** Currently capping is the proposed remedy for the R.G. Haley site, but this remedy may not be sufficient and long-term materials may need to be removed. This would likely affect the north end of the Cornwall Avenue Landfill site, and there is an area of overlap that may require additional remedy on the Cornwall Avenue Landfill site. This area of overlap should provide the most flexibility to accommodate unknown post-cleanup conditions.
 - **Extent of wood waste:** The extent of refuse at the Cornwall Avenue Landfill site is shown inconsistently on various documents. There have been some changes over
-

time to mapping of the extent, but the wood waste would generally extend farther waterward than the municipal refuse. The extents need to be accurately determined.

- **Wetland Delineation:** A wetland reconnaissance or delineation, including wetland extent and location, has not been completed to verify wetlands or other jurisdictional features (e.g., ditches carrying waters of the United States).
 - **Landau Interim Action Report:** This report refers to a critical area report that would be helpful during the Project: Landau Associates. 2011b. Critical Area Report, Cornwall Avenue Landfill Interim Action Project, Bellingham, Washington. Prepared for the Port of Bellingham. November 2.
-

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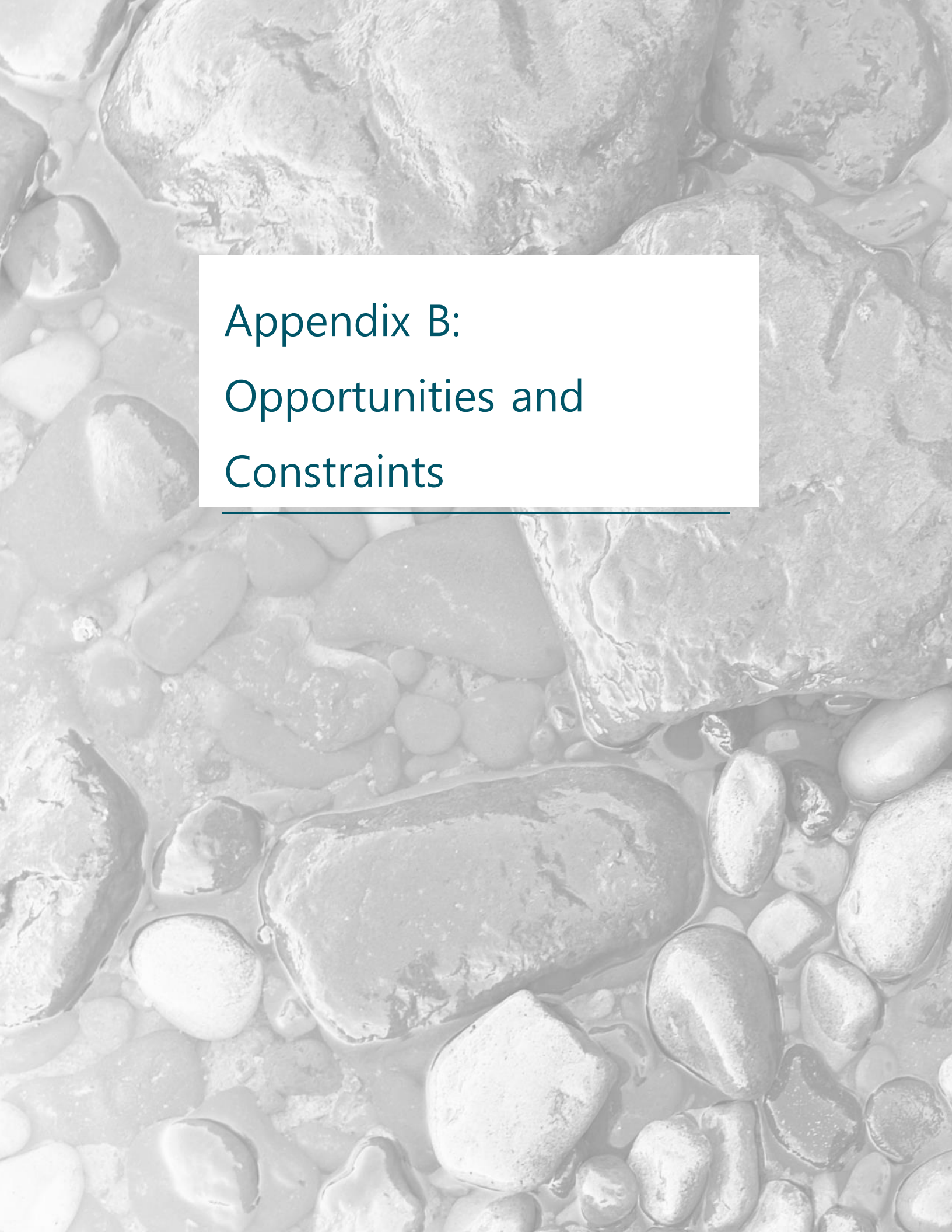
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APPENDIX A

LIST OF AVAILABLE DATA SOURCES

Appendix A List of Available Data Sources				
Description	Date	Author	Filename	AQ Notes
Cleanup Documents				
Draft Final RI/FS for RG Haley Site	2007	GeoEngineers	027500201DraftFinal RI-FS.pdf	
RG Haley Interim Action Work Plan	2013	GeoEngineers	RG Haley 2013, 06-12 Interim Action Work Plan -- https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=220	
Cornwall Landfill Interim Action Completion Report	2012	Landau Associates	CornwallFinalIACompletion_rpt	
Cornwall Landfill Remedial Investigation/Feasibility Study - Public Review Draft (report)	2013	Landau Associates	2013 Cornwall RI-FS Public Review -- https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=3928	
Wind Wave Analysis				
Wave Model For Blvd Park Shoreline Improvements	2012	Coastal Geologic Services	Blvd-Park-CGS-FINAL-Wave-Tech-Rpt.pdf	
Bellingham Bay Station information	2008	Evans Hamilton, Inc.	Bellingham Bay Station 1_Mar2008_May2008_CurrentData.txt	
Bellingham Bay Station information	2008	Evans Hamilton, Inc.	Bellingham Bay Station 2_Mar2008_May2008_CurrentData.txt	
Bellingham Bay Station information	2008	Evans Hamilton, Inc.	Bellingham Bay Station 3_Mar2008_May2008_CurrentData.txt	
Bellingham Bay Station information	2008	Evans Hamilton, Inc.	Bellingham Bay Station 4_Mar2008_May2008_CurrentData.txt	
2008 station 1 data	2008	Provided by City	Bellingham_Bay_ST1_AWAC1000_Waves.xls	
2008 station 2 data	2008	Provided by City	Bellingham_Bay_ST2_AWAC600_Waves.xls	
Oceanographic Data Collection Stations, Whatcom Waterway PRDI Data Report		Anchor QEA	WW_PRDI_DataReportWithFigure12.pdf	
Aerials				
Oblique aerial	2012	Google image, oblique	Aerial View East.pdf	
Oblique aerial	2012	Google image, oblique	Aerial View North.pdf	
Aerial	2013	Provided by City	CornwallBeachParkAerial.jpg	
GIS Data				
GIS Data Compilation Map: aerial base with parcels, ownership, utilities, railroad, overwater walkway location, some bathy along west side, streets, South Bay Trail	2013	Provided by City	Cornwall 2013 compilation.pdf	
GIS Data Compilation, Map: Site aerial base with parcels, railroad, overwater walkway location, interim material placement locations, streets, South Bay Trail	2013	Provided by City	Cornwall 2013.pdf	
Survey Data (including As Builts)				
Survey - Harbor Area and Tidelands in Front of Blvd Park	2010	Provided by City	Aquatic Lease ROS (01-26-10).dwg	
Asbuilt for interim placement with topography and stormwater utilities	2013	Provided by City	as-built cleanup.jpg	XRGB4606.dwg appears to have the asbuilt information along with survey base information
30% Submittal - Grading and Paving plan and sections drawings of Blvd Park launch point for Overwater Walkway	2010	Provided by City	C-04.dwg	
JPEG version of Interim Design CAD drawing, includes world file	2013	Provided by City	cleanup dwg with surveyed base.jpg	
Bathymetry for area between Blvd Park and Cornwall Site	2013	Provided by City	CONTOURS_NEW.dwg	
RG Haley Site Interim Action Area	2013	Provided by City	ec0018_interimarea_10x(LDC2009) COB_1 (1).dwg	
DNR Inner Harbor Survey	1997	Provided by City	Inner Harbor DNR 1997 survey.pdf	The CAD data for Interim Design appears to have this data
Boulevard Park Survey	2010	Provided by City	Overall North Boulevard Park (01-27-10).pdf	I believe we (Berger ABAM) has this data...?
Blvd Park Overwater Walkway proposed plan, includes eel grass and MHHW		Provided by City	prop_plan.dwg	
Topo and bathy for Blvd Park Overwater Walkway area - includes western portion of Cornwall site, includes MHHW, railroad location		Provided by City	topo.dwg	
Survey Base - parcels, railroad, eel grass at west, bathy at west, existing paving, inner and outer harbor lines		Provided by City	XRBS4801.dwg	
Bathymetry for entire site and context		Provided by City	xBATHY CURRENT (WA83-NF-MLLW).dwg	
Survey base - with as built information		Provided by City	XRGB4606.dwg	
Interim grading design with calculated volumes		Provided by City	XR-GRAD.dwg	
Conceptual Designs				
Cornwall Landfill Preferred Alternative	2009	Landau Associates, adapted from Anchor Environmental	Cornwall Shorline Concepts.pdf	It would be helpful to get this in CAD.
City Documents				
List of potential program elements for park design	2013	Provided by City	httpwww.cob.orgdocumentsplanningwaterfront2012-12-17-chapter-7.jpg	
Other				



Appendix B: Opportunities and Constraints





Appendix C:
Alternative Design
Concepts and
Comparison Table

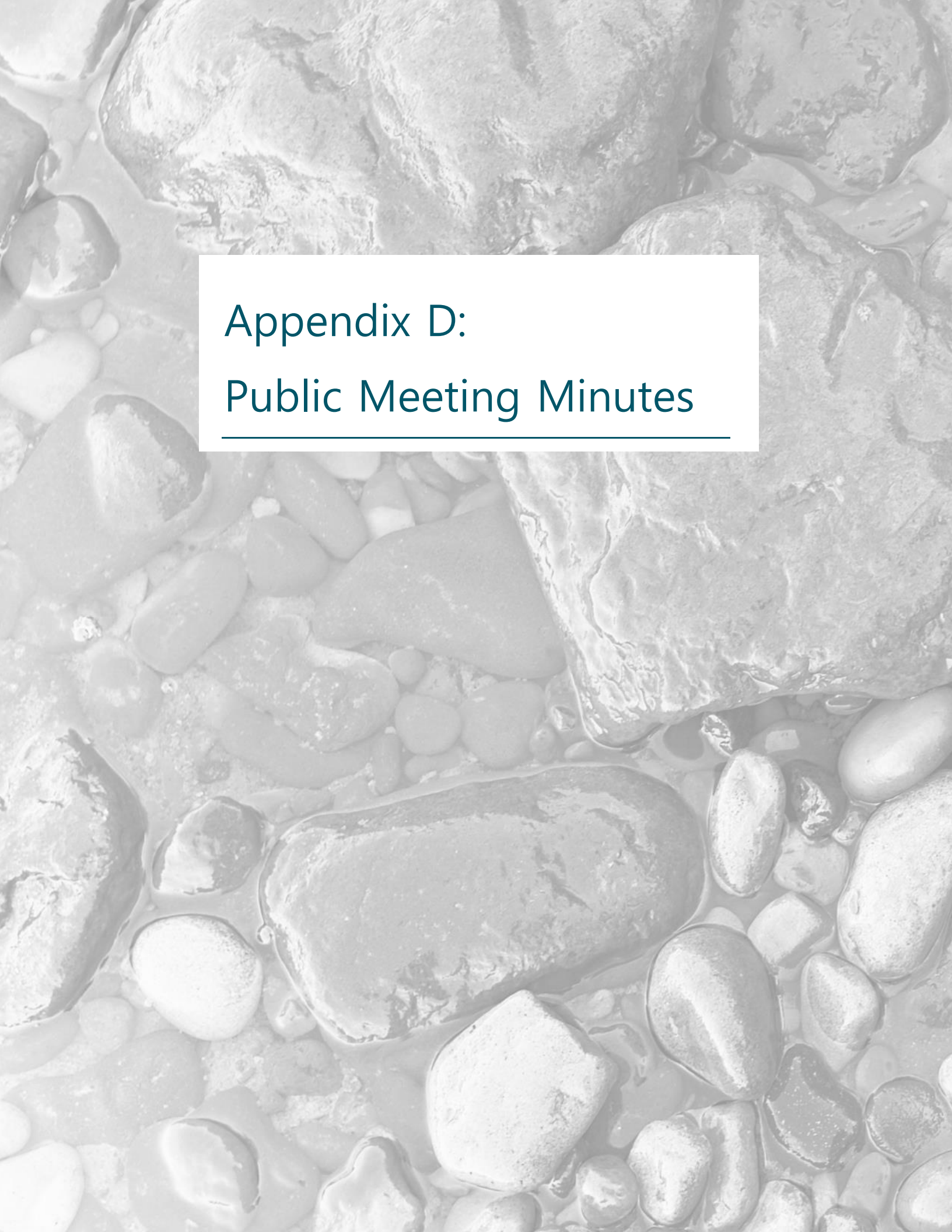






ALTERNATIVES COMPARISON TABLE – CORNWALL BEACH PARK MASTER PLAN

	Alternative 1	Alternative 2	Alternative 3
ACCESS/CIRCULATION			
Provide direct multi-use trail route	MEDIUM	HIGH	LOW
Provide pedestrian access (linear feet of autonomous pedestrian trails)	MEDIUM (3,500 LF)	HIGH (4,500 LF)	MEDIUM (3,500 LF)
Provide pedestrian gathering spaces (gathering space area)	HIGH	LOW	MEDIUM
Provide shoreline access to “touch the water” (number of shoreline access points)	LOW (2)	HIGH (4)	MEDIUM (3)
Provide parking (total number of stalls)	HIGH (300 Stalls)	LOW (100 Stalls)	MEDIUM (200 Stalls)
Provide vehicle access (linear feet of vehicle access within park boundary)	HIGH (1,450 LF)	LOW (850 LF)	HIGH (1,400 LF)
Provide vehicle access/parking along the shoreline for viewing opportunities	HIGH	LOW	LOW
ENVIRONMENTAL CONSIDERATIONS			
Improve upland habitat (total area of habitat planting areas)	LOW (120,000 SF)	HIGH (328,000 SF)	MEDIUM (180,000 SF)
Enhance subtidal substrate (linear feet of subtidal substrate enhancements)	NONE (0 LF)	HIGH (1,800 LF)	NONE (0 LF)
Provide intertidal bench (linear feet of intertidal bench)	NONE (0 LF)	HIGH (1,800 LF)	HIGH (2,000 LF)
Improve nearshore habitat (area of beach expansion)	LOW	HIGH	MEDIUM
Improve stormwater collection and treatment of on-site and off-site stormwater	MEDIUM	HIGH	MEDIUM
Daylight existing stormwater outfall and connect upland and intertidal habitat	LOW	HIGH	LOW
RECREATIONAL, COMMERCIAL, AND MIXED-USE OPPORTUNITIES			
Provide development areas compatible with park (total area)	HIGH (2.4 AC, 70,000 SF of building space)	LOW (3,000–5,000 SF)	MEDIUM (13,000–15,000 SF)
Provide open lawn area (total area)	MEDIUM (270,000 SF)	LOW (247,000 SF)	HIGH (280,000 SF)
Provide viewing areas (total number of viewing areas)	HIGH (3)	MEDIUM (2)	MEDIUM (2)
Install picnicking facilities, including covered and outdoor/uncovered (total number of picnic shelters and total area)	HIGH (24,000 SF, 1 large pavilion, 1 large shelter, 3–4 small shelters)	LOW (16,000 SF, 1 large pavilion, 1 large shelter, 1 small shelter)	MEDIUM (18,000 SF, 1 large pavilion, 1 large shelter, 2 small shelters)
Provide children's play area and potentially other features: rock climbing wall, spray park, and skate dot (total area)	HIGH (32,000 SF)	LOW (6,200 SF)	MEDIUM (25,000 SF)
Provide multi-purpose hard-surfaced courts (total area)	HIGH (12,000 SF)	LOW (6,400 SF)	MEDIUM (11,000 SF)
RELATIVE TOTAL COST	HIGH	LOW	MEDIUM



Appendix D:

Public Meeting Minutes



Meeting Minutes: Public Meeting No. 1

Cornwall Beach Park Master Plan

October 16, 2013, 7:00 to 8:30 PM

City of Bellingham – Council Chambers

Minutes: Peter Hummel and Gisele Sassen

ATTENDEES

Name	Organization	Role
Jonathan Schilk	Bellingham Parks and Recreation	Parks Department Project Manager
Ray Ballweg	South Hill N.A.	Steering Committee Member
Susan Gardner	At Large	Steering Committee Member
Brian Gouran	Port of Bellingham	Steering Committee Member
Geoff Middaugh	Parks and Recreation Advisory Board	Steering Committee Member
Tristan Smith	South Hill N.A.	Steering Committee Member
Bert Webber	Environmental Interest	Steering Committee Member
Peter Hummel	Anchor QEA	Consultant Team Project Manager
Gisele Sassen	Anchor QEA	Consultant Team Member
Members of the Public		Approximately 20 members of the public attended the open house and most provided comments. Names of participants were noted on a sign-in sheet (see attachment to these minutes).

This first of three scheduled public meetings was held to present the work on the park master plan that has been accomplished to date and to obtain comments on the preliminary program elements, and the design criteria for the park master plan. In addition to a PowerPoint presentation, four easels were set up displaying the opportunities and constraints maps, a survey for the site and an areal photograph of the site. A sign-in sheet (attached) and comment forms were made available to the public.

The meeting started with Jonathan S. thanking the members of the public for attending the meeting. Next, he clarified that the purpose of the meeting was to gather public input on the park master plan, and that any cleanup-related comments should be directed to the Washington State Department of Ecology (he provided contact information to the public). He then presented a PowerPoint presentation providing project context and background

Cornwall Beach Park Master Plan

information, including an overview of the project schedule and, specifically, the dates of future public meetings.

Next, Peter H. presented the opportunities and constraints associated with the site, and he discussed preliminary project goals and design program elements to be potentially included in the master plan. He provided a number of examples of parks that were successfully established on former cleanup sites.

A number of steering committee members attended the meeting and introduced themselves to the public before the meeting was opened up to public comment.

The public was instructed to limit comments and questions to approximately 2 minutes, that written comment forms could also be submitted, and all comments will be displayed on the City's website. Comment forms were distributed following the presentation. All verbal comments and questions were recorded on a flip chart by Gisele S., a summary of which is presented below, in the sequence provided.

SUMMARY OF PUBLIC COMMENTS

- What does the fill material (currently placed on the Cornwall Landfill site) consist of?
- Is the material polluted?
- Why is a master plan being done now that cleanup is still being figured out?
- Is there possibly dioxin in fill material? Lummi have written a letter regarding this issue.
- How large are the fill piles?
- How high will the site be raised?
- Consider seniors and people with disabilities and provide easy access and parking for picnics and other activities.
- Will there be swimming?
- It would be nice to have an area to walk dogs (on leash).
- Easy access and lots of seating is important. Local artists could design seating and signs.
- Is the Boulevard Park Overwater Walkway a done deal?

Cornwall Beach Park Master Plan

- Olympic Sculpture Park: What kind of monitoring was done for that site? What inventories have been done for Cornwall? Do we know what the biological baseline is?
- Consider giving naming rights to the Park to the Lummi Indian Tribe.
- Consider constructing wetlands next to railroad tracks.
- Include viewing stations, viewing towers to view the habitat areas, and carefully designed inter-tidal habitat areas.
- Place the railroad and parking over contaminated areas.
- No commercial development in parks.
- Keep dogs out of habitat areas.
- Provide Americans with Disabilities Act access from S. Bay Trail (via old railroad right-of-way).
- Add logs and enhance the shoreline to enhance the existing seal habitat.
- The site used to be a tribal (Lummi?) trade area – can this be reflected in the name of Park? Can related art be added?
- Consider an off-shore marine park, e.g., for diving, etc.
- Provide vehicle access and parking on Cornwall Avenue; consider on-street and off-site parking.
- Could the Port of Bellingham give up parking that could instead be used for the park?
- Walking access is appropriate for most.
- Consider the deer and seal populations currently using the site. Provide more logs.
- Make places for kids.
- What is the status of the walkway design?
- Will there be sandy beaches? Build systems to encourage sand to stay in place, e.g., soft shore structures.
- Stabilize beach materials.
- Create a series of off-shore habitat islands for bird nesting, away and safe from dogs.
- Provide plenty of logs – they are nice to sit on.
- Create a hill for kids to run.
- Provide access for seniors and families. Parking needs to be close to activities, like it is at Boulevard Park, which is a nice example.
- Consider angle parking along the street to limit impervious surface.

Cornwall Beach Park Master Plan

- Provide trails away from faster bicycle traffic, i.e., regional versus pedestrian trails.
- Provide many benches; like in Boulevard Park.
- Woods Coffee at Boulevard Park is very popular for seniors.
- Connect terrestrial, intertidal, and subtidal habitats.
- Consider wildlife and habitat connectivity – need larger connected habitat throughout Bellingham Bay.
- Most attention is usually given to near-shore habitat improvements – there is a lack of terrestrial habitat; consider wildlife.
- It would be great to have an event/stage area; it can be just an informal grassy area
- This is a great opportunity to create a “jewel” of a park; it will be an asset to the community and will support the economy. But don’t overdevelop it – provide more natural areas.
- Expand the area that the plans depict to show more context and connections at the next public meeting, especially the Boulevard Park connection to the south.
- Consider a transportation hub plan for 50 years in future.
- Satellite parking and shuttle may be good options for events.
- Where did the development pad come from? Does that need to be included? Is that a given?
- A carousel park – like in Riverside Park in Spokane – could be fun, or a ferris wheel.
- Keep the park as natural as possible, to provide scenic vistas and for public enjoyment of the shoreline.
- Is there funding for habitat restoration as part of this project?
- There are sawdust deposits between Boulevard Park and the park – consider in cleanup.

NEXT STEPS

The next public meeting is scheduled for **November 20, 2013**, and alternative plans will be presented at this meeting.

MEETING ADJOURNED



Cornwall Beach Park Master Plan

November 20, 2013, 7:00 to 8:30 PM

City of Bellingham – Council Chambers

Minutes: Peter Hummel and Gisele Sassen

ATTENDEES

Name	Organization	Role
Jonathan Schilk	Bellingham Parks and Recreation	Parks Department Project Manager
Leslie Bryson	Bellingham Parks and Recreation	Parks Planning and Development Manager
Ray Ballweg	South Hill N.A.	Steering Committee Member
Susan Gardner	At Large	Steering Committee Member
Brian Gouran	Port of Bellingham	Steering Committee Member
Geoff Middaugh	Parks and Recreation Advisory Board	Steering Committee Member
Tristan Smith	South Hill N.A.	Steering Committee Member
Bert Webber	Environmental Interest	Steering Committee Member
Peter Hummel	Anchor QEA	Consultant Team Project Manager
Gisele Sassen	Anchor QEA	Consultant Team Member
Mark Herrenkohl	Herrenkohl Consulting	Consultant Team Member
Jim Johannesson	Coastal Geologic Services	Consultant Team Member
Members of the Public		Approximately ## members of the public attended the open house and most provided comments. Names of participants were noted on a sign-in sheet (see attachment to these minutes).

This second of three scheduled public meetings was held to present the work on the park master plan that has been accomplished since the last public meeting and to clarify questions and obtain comments on the three preliminary alternative design plans developed for the park. In addition to a PowerPoint presentation, four easels were set up displaying the three alternatives and a matrix summarizing and comparing the alternatives by their major program elements. The previously presented opportunities and constraints maps, a survey



Cornwall Beach Park Master Plan

for the site, and an aerial photograph of the site were displayed as well. A sign-in sheet (attached) and comment forms were made available to the public.

The meeting started with Jonathan S. thanking the members of the public for attending the meeting; he then presented a PowerPoint presentation providing project context and background information, including an overview of the project schedule. He clarified that the purpose of the meeting was to gather public input on the park master plan, and that any cleanup-related comments should be directed to the Washington State Department of Ecology (he provided contact information to the public).

Jonathan S. gave an overview of the first public meeting and summarized public comments received, indicating that all comments are available on the City's public comment tracker.

Next, Peter H. presented an overview of potential habitat improvements as part of the project. He provided a brief synopsis of applicable guidance documents and principles of habitat improvements, and how these principles and concepts of habitat improvements could be applied to the Cornwall Beach Park project. Subsequently, he presented the three alternative design plans that were developed for the project representing a most- and a least-developed alternative as well as a blend of the two.

Following the presentation, the public was asked to provide comments and to ask questions. Jonathan S. instructed all to limit comments and questions to approximately 2 minutes. Comment forms were distributed; Jonathan indicated that written comment forms could also be submitted, and that all comments will be displayed on the City's website. Gisele S. recorded all verbal comments and questions on a flip chart, a summary of which is presented below, in the sequence provided.



Cornwall Beach Park Master Plan

SUMMARY OF PUBLIC COMMENTS

- Have the design team and the City considered a Lummi Heritage Center, as part of the commercial development pad?
 - Peter H. explained that the park gateways were shown to include Native American art work by the Lummi Tribe or others.
- What is the status of the overwater walkway? Are the Lummi's issues resolved?
 - Leslie B.: There have been talks, and the Mayor met with the Lummi Tribe today.
- The park site was a dump and is contaminated – how do you plan for a park over a waste site?
- Residential development is a concern given these conditions.
- Cleanup and park planning need to be coordinated – they don't appear to be compatible.
- The cleanup alternatives currently considered vary widely and may not be compatible with Master Plan alternatives.
- The master plan process seems to occur too early compared to cleanup.
 - Peter H. explained that the master plan is an early stage of design and that it assumes the sites to be in post clean-up conditions. He pointed out that many public parks were built over clean-up sites and that he personally has been involved in about ten parks of this nature in the Puget Sound region.
- A soft shoreline approach, including beaches, is an attractive park feature.
- Extend Pine Street beach or shore access farther west.
 - Jim J. explained that these options are limited, as the beach is as it wants to be at a 45° angle, and that there is no option to alter the shoreline outside of the park property (extension would fall within the Port's property).
- Pedestrian/walkable access to the park is extremely important.
- Consider another railroad crossing at the south end of the park, which would allow for people to park on State Street and walk from there.



Cornwall Beach Park Master Plan

- Include a lot more salmon habitat and include variety of habitats, including salt marsh and mud flats. Habitats should be connected, more of a mosaic, and not segmented.
- There is concern that planting will compromise the containment liner over the cleanup areas.
 - Brian G. and Peter H. clarified that the liner will only be placed over landfill and the topsoil layer will vary in depth; trees would be installed in appropriate locations so as not to compromise the liner and other containment measures.
- Provide wildlife habitat away from dogs and disturbing activities, i.e., provide a habitat corridor.
- It is important not to allow water from the hill slope to seep through the contaminated areas; an infiltration trench is needed to separate clean water.
- Will the park gentrify the area and displace people who live in their cars at the Pine Street beach?
- An Alternative 4 concept is needed. Consider “boatels” (upland boat houses with high-stacked boats) as a commercial use.
- Increase the number of “boatels” over time; revenue could pay for removing waste over time.
- The park is a great opportunity for boating access and events.
- Having beaches and kayak and hand-launch sites is good use at the park.
- When will the detailed design occur?
- There needs to be more emphasis on habitat enhancement; not enough habitat is included.
- Pedestrian trails are too close to the water, and they should not run parallel to the water; instead, they should be shown as spur trails leading to view and access points at the shore.
- Having the three to four beaches is great, but the 2.4 acres of development are unfortunate; however, a good location for commercial use is over the most contaminated (and contained) areas. That may be a good use over the containment cap.



Cornwall Beach Park Master Plan

- Include less urban park uses, such as tennis and basketball courts, etc. They are better suited for parks in more urban areas; they're not an appropriate use for this site.
- It is important to deal with surface water; create wetlands.
- Link the park to other open space and shoreline areas. Show the park in the context of other open space, i.e., how it fits in overall .
- How much of the shoreline will be stabilized with riprap? As much as possible, limit (exposed) riprap for better salmon/forage fish habitat and public access.
- It would be easier for people to visualize the design if 3-D surfaces were created; it is better to illustrate and communicate design.

NEXT STEPS

- Jonathan informed the meeting attendees that as a next step, a preferred conceptual master plan would be prepared that will incorporate comments received. This preferred plan will be presented at the third public meeting for this project, in January.
- Before adjourning the meeting, Jonathan pointed out that the “name the park” process has started and that the City is currently soliciting input from the public.

MEETING ADJOURNED



Cornwall Beach Park Master Plan

Wednesday, July 30, 2014, 6:30 PM to 8:00 PM

City of Bellingham – Council Chambers

Minutes: Peter Hummel and Gisele Sassen

Review Draft

ATTENDEES

Name	Organization	Role
Leslie Bryson	Bellingham Parks and Recreation	Parks Planning and Development Manager
Peter Hummel	Anchor QEA	Consultant Team Project Manager
Gisele Sassen	Anchor QEA	Consultant Team Member
Jim Johannessen	Coastal Geologic Services	Consultant Team Member
Amy Kraham	City of Bellingham	Project Manager for R.G. Haley Cleanup
Brian Gouran	Port of Bellingham	Project Manager for Cornwall Landfill Cleanup and Steering Committee Member and
Geoff Middaugh	Parks and Recreation Advisory Board	Steering Committee Member
Jean Hamilton	Sehome Neighborhood Association	Steering Committee Member
Ray Ballweg	The South Hill Neighborhood Association	Steering Committee Member
Members of the Public		Approximately seven members of the public attended the open house and most provided comments. Names of participants were noted on a sign-in sheet (see attachment to these minutes).

MEETING SUMMARY

This is the last of three scheduled public meetings that were held to present the preliminary master plan, including the habitat restoration concepts developed for the park. The meeting provides an opportunity to clarify questions and obtain comments on the master plan.



Cornwall Beach Park Master Plan

In addition to a PowerPoint presentation, several easels were set up displaying the master plan and a perspective sketch, six cross-section views, and the preliminary phasing plan. A one page statement of purpose handout was made available to the public.

The meeting started with Leslie thanking the members of the public for attending the meeting and letting them know that she replaced Jonathan Schilk as Project Manager for the project. She introduced members of the steering committee, as well as Amy Kraham, the City's Project Manager for the R.G. Haley cleanup site, Brian Gouran, the Port's Project Manager for the Cornwall Landfill cleanup site, and the consultant team who were attending the meeting.

Following this introduction, Leslie and Peter used a PowerPoint presentation to provide information on the project background, the public involvement process, and how public input was incorporated into the design of the Master Plan. They also presented the preliminary master plan, cross-sections, and phasing plan.

Following the presentation, the public was asked to provide comments and to ask questions. Gisele recorded all verbal comments and questions on a flip chart, a summary of which is presented below, in the sequence discussed.

SUMMARY OF PUBLIC COMMENTS

1. *QUESTION:* What is the status of determining a name for the park?

RESPONSE: The naming of the park is a process that has not been completed yet. The list has been shortened to five preferred names, of which "Klipsin Park" rose to the top. This name has been presented to the Lummi Tribe for comment.. A final park name will be approved by the City Council. Cornwall Beach Park is not expected to be the permanent name.

2. *COMMENT:* Why isn't a stage provided for concert events in the park, similar to Boulevard Park?



Cornwall Beach Park Master Plan

RESPONSE: The intent was to allow for concerts and other large events, but to keep the large open lawn area as flexible as possible. Placing structures over the former landfill is also a long term maintenance concern, as they may be subject to differential settlement.

A small concrete pad with electrical power outlets could possibly be provided, or just the electrical power outlets.

3. *QUESTION:* Will this presentation be available on the City's website? Can comments still be submitted after this meeting?

RESPONSE: Yes, the City will make the presentation available and comments can still be submitted.

4. *QUESTION:* How will the development of the park be financed?

RESPONSE: The City has only very limited funding in place and is currently evaluating various funding sources.

Initially, installation of lawn areas and possibly trail base are anticipated be included as part of the environmental cleanup.

5. *QUESTION:* Could the Port and businesses near the park help finance its development?

RESPONSE: They already do, via tax revenue as part of the downtown waterfront redevelopment district that gets funneled back to the City from the State. This is called the Local Infrastructure Finance Tool (LIFT).

6. *QUESTION:* Are off-shore benefits part of cleanup? Or of Phase I of the park implementation?

RESPONSE: If possible, suitable components of the Park may be implemented concurrently with cleanup; the habitat bench may be one such element.



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7. *QUESTION:* Although the habitat restoration is a good opportunity, can it be built to maintain the integrity of the cap for health and safety?

RESPONSE: Yes, the cap will be engineered to be stable and protective of human health and the environment as required by the Washington Department of Ecology. ,
The habitat restoration will be constructed so as not to interfere with the cap and stabilization systems.

8. *QUESTION:* Will kayak launching be near the parking for easy access?

RESPONSE: Yes.

9. *QUESTION:* Sand volleyball is a great use for the upper beach. It would be good to have it designed to a standard court size, with appropriate edges, net poles, etc.

RESPONSE: Comment noted.

10. *COMMENT* It would be great to have firepits.

RESPONSE: The park design is at a conceptual level and while fire pits are not shown on the plan, they are in the purpose statement as a potential use of the site.

11. *QUESTION:* Was the grade-separated railroad crossing deleted? It had previously been shown on the alternative plans.

RESPONSE: Yes, it is no longer shown on the preliminary master plan, but it will be documented in the master plan report that the public is interested in including it as part of future pedestrian and bike transportation linkages to connect the park with the surrounding trails and neighborhoods.

12. *QUESTION:* The previous plans had the culvert converted to a daylighted stream. Is that no longer part of the plan?

RESPONSE: It was determined that the daylighting this drainage utility is not compatible with the R.G. Haley site environmental cleanup.

13. *QUESTION:* Should the parking be smaller to generate less run-off?



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RESPONSE: No, parking is a good use at that site because it fits well with the cleanup strategy, large events are likely taking place at the park, and it is likely that there will be high demand for parking during other times, similar to Boulevard Park.

Anchor QEA has done preliminary calculations on the area needed for treatment of stormwater generated by the parking and roads for the park. The areas shown for stormwater are sufficient to treat this on-site runoff.

Conceptually, this treatment is shown in swales and raingardens on-site, but over the cap. Treated water will be discharged to the bay, and will not infiltrate through the cleanup cap.

14. *QUESTION:* There are seeps coming from the slope. How will they be addressed?

RESPONSE: This will be dealt with as part of the two cleanup actions.

15. *COMMENT:* Cross-sections show very large trees (appear to be Douglas fir) on the berm. Recommend using smaller, dry tolerant trees, carefully such as Garry Oak, Madrone, and shore pine, in this area since the berm will consist of dry, well-draining soils.

RESPONSE: The master plan is not at the level of detail where specific plant species are being selected. These are good comments, consistent with the Park Steering Committee feedback, and this input will be addressed in the master plan report.

16. *QUESTION:* How much of the site area is habitat versus other uses, especially in the upland? Every bit of habitat created is an addition—there is nothing now!

RESPONSE: An acreage calculation of this kind has not occurred, but can easily be included in the master plan. The acreages will be broken out between upland and aquatic and by habitat type.



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17. *QUESTION:* Is an Environmental Impact Statement (EIS) required for the Park development?

RESPONSE: No, an Environmental Impact Statement (EIS) has already been completed for the entire Waterfront District. A determination will be made on a phase by phase basis about whether a project specific Environmental Checklist is needed for subsequent work at the park to implement the master plan.

18. *QUESTION:* How safe will it be to go into the water? Will there be access to water? Kids swimming? (Question appeared to cover physical safety in terms of boating, sharp objects or obstructions, life guards, and safety from a health perspective.

RESPONSE: Yes, the water will be safe to access. Since these are Washington Department Ecology-led cleanups, and the post-cleanup use is a park, the standard for the cleanup must be compatible with this use. There will be access to the water that is free of obstructions, and has a suitable substrate. Decisions about a formal swimming area or lifeguard are more programmatic, and have not been determined,

19. *COMMENT:* It may be better to pull the main trail away from shore to leave more room for habitat; also the spur trails may be eliminated.

RESPONSE: Trails are included to both keep people on paths and protect adjacent buffer habitat areas. Without these access points there is a higher likelihood that the public will make their own trails and have a larger impact on the habitat areas.

20. *QUESTION:* Will there be access for larger boats? Motorized boats?

RESPONSE: No facilities for power boats are proposed, and the shallow water is not compatible with larger sail and power boats. There are better places for boaters nearby (Squalicum Harbor) with deeper water and existing mooring facilities.

Warning signs may be installed to alert boaters of shallows.



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21. *QUESTION:* How large will the berm/hill be? Would the trains still be seen from the South Beach?

RESPONSE: The berm and wall will terminate at the upper end of the south beach, due to space constraints. Therefore, the trains may be seen from the south beach.

22. *QUESTION:* Was parking on Port property and on-street parking for large events considered?

RESPONSE: Yes, on-street parking is available on Cornwall Avenue, and shuttles are considered for large events from off-site parking on suitable sites, which could potentially include Port property.

23. *QUESTION:* Will there be another public tour of the site?

RESPONSE: Possibly.

NEXT STEPS

- Finalize the Master Plan and Report
- Obtain Park Board approval – September 2014
- Obtain Council approval – October 2014

MEETING ADJOURNED

Appendix E:
Steering Committee
Meeting Minutes

Meeting Minutes: Steering Committee Meeting #1



Cornwall Beach Park Master Plan

October 10, 2013, 7:00 to 9:30 PM

Maritime Heritage Park—Parks and Recreation Building

Minutes: Peter Hummel and Gisele Sassen

ATTENDEES

Name	Organization	Role
Jonathan Schilk	Bellingham Parks and Recreation	Parks Department Project Manager
Ray Ballweg	South Hill N.A.	Steering Committee Member
Susan Gardner	At Large	Steering Committee Member
Brian Gouran	Port of Bellingham	Steering Committee Member
Jean Hamilton	Sehome N.A.	Steering Committee Member
Geoff Middaugh	Parks/Rec. Advisory Board	Steering Committee Member
Cerise Noah	CBD	Steering Committee Member
Lance Romo	P/R Recreation Division	Steering Committee Member
Tristan Smith	South Hill N.A.	Steering Committee Member
Bert Webber	Environmental Interest	Steering Committee Member
Peter Hummel	Anchor QEA	Consultant Team Project Manager
Gisele Sassen	Anchor QEA	Consultant Team Member

Following brief introductions, Jonathan presented a PowerPoint presentation providing project context and background information. He also provided an overview of goals for the master plan. Peter followed up with presenting opportunities and constraints associated with the site, and talked about preliminary project goals and design program elements to be potentially included in the master plan. A project information brochure was provided to all meeting participants that included general project information, a project schedule, a design criteria and goals statement, a preliminary design program, and the opportunities and constraints maps developed for the site. During the presentation the following items were discussed:

1. How should cleanup-related comments from the public be addressed at the public meeting to keep the focus on the park master plan instead?
 - Brian G. said that comments related to the cleanup should be directly addressed to the Department of Ecology (Ecology).
 - Contact information for Ecology will be made available to the public at the public meeting.

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- Geoff M. stated that it is important to clarify the standard of cleanup at the meeting; what are we cleaning up to?
 - Susan G. suggested we provide examples of parks established on Brownfield sites, especially local sites that the public may already be using (e.g., Little Squalicum Beach, Maritime Heritage Park, Boulevard Park, West Bay Park, etc.).
 - Peter H. said that Mark Herrenkohl, part of the consultant team, will address the cleanup levels established by Ecology and answer technical questions as appropriate at the public meeting.
2. Jean H. noted that a coal-loading facility existed just outside (northwest of) the site. She thought that this may be a good interpretive opportunity.
 3. Brian G. indicated that the preparation of the grading plan would inform the cleanup, as Ecology has stated that they want the land use to inform the cleanup.
 4. The question came up whether the Pine Street beach is safe for public use. Brian G. and Jonathan S. explained that they were waiting for test results.
 5. Geoff M. suggested not showing the track realignment proposed by BNSF as part of the master plan, because the controversial coal train issue has the potential to “derail” the discussion around the master plan at the public meeting. He suggested just showing the RR right-of-way.
 6. Jonathan S. explained that the realignment would occur outside of the BNSF right-of-way.
 7. Geoff M. suggested that the consultant team review the WRIA 1 restoration plans for the site.
 8. Bert W. stated that the planning boundary for the master plan should include the full extent of the refuse from the Cornwall Avenue landfill, including the in-water portion (intertidal and shallow subtidal).
 9. Brian G. said that the cleanup remedy will address the full extent. Jonathan S. stated that the planning boundary is somewhat flexible and this suggestion will be considered.

Following the presentation each steering committee member was asked to identify their most important ideas, concerns, and considerations for the master planning of this Project. The following responses were provided by the steering committee:

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Lance R:

- Concerned about trying to include too much in the park
- Have less single use park elements—provide space for more flexible/multi-use elements instead
- Provide low-key site-related commercial/retail uses that support water related and water dependent uses appropriately. For example, don't need a coffee shop right on the water if it displaces a more appropriate use like watercraft rental

Jean H:

- Likes opportunities for families to get to the water's edge, including canoe put-in
- People want to be on water; good thing to have sufficient parking and easy access
- Concerned about design of back (landward/less visible side) of an earthen berm to buffer the railroad; this may create hiding spaces for homeless people

Susan G:

- Wants many points of access to water, over it, on it, in it
- Make water access healthy and safe
- Wants eyes on the park without over-commercializing
- Safety after dark is important!
- Consider different access opportunities

Brian G:

- Avoid Boulevard Park times 2—don't replicate program elements at Boulevard Park—make this park unique!
- Likes access to water—is key
- Have amenities at this park that don't exist anywhere else

Tristan:

- Prevent heavy use by geese, keep lawns clean
- Envision all day fun, at least 4-hour family visits. Provide a wide enough range of recreation opportunities at the park to allow for this duration of use
- Provide facilities to support this use: food, shelter, restrooms

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- Kids love gravel beaches for play (beaches do not have to be all sand-kids enjoying throwing rocks in the water)

Cerise N:

- Likes beach improvements
- Likes hand carried watercraft put-in
- Concerned about homeless and related lack of feeling safe; for example, South Bay Trail doesn't always feel safe
- Park lighting is important for safety reasons
- Extend park hours: enjoy the sunset transition to night
- Likes the park ranger idea
- Likes fire pit, running water and electricity at shelters
- Need places for children to play
- Parking and services are needed: food, restrooms, showers (in- or outdoor)
- Include opportunities for environmental education with a focus on sustainable energy/green stormwater infrastructure

Bert W:

- Are there any water quality issues with the potential daylighting of the storm drain? Would like to see the stormwater/base flow in the 30" pipe used to create wetlands on site; this could be designed to provide treatment prior to discharge to the Bay
- Concerned about the park planning area not including all of the intertidal and adjacent subtidal areas. Would like to expand the planning area to include these.
- The expansion of the south pocket beach should consider what reconfiguration of the shoreline is necessary to ensure stability of the beach materials
- There is a well-established homeless camp near the Wharf St./Pine St. intersection

Ray B:

- Provide opportunity to acknowledge Native American Heritage; include totem poles and/or other Native American art work from local tribes
- Likes a fine soft sandy beach, as opposed to gravel
- Does not like commercial uses like cafes/coffee shops in parks, too much infrastructure (parking) using up park space to support it; these types of facilities attract use that is not park related

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- Create wetlands using stormwater near 30 inch stormdrain
- Likes the large pavilion in “Marina Park” (Kirkland-showed photos); provides shelter for a lot of people and activities on a rainy day
- Provide a couple of crossings over railroad at north and south ends of the park

Geoff M:

- Wants safe green space and beach/water access
- Consider in-water conditions for usability
- Create a park that is not single activity-focused but flexible and multi-use
- Park feels like a regional park—or a park with a regional draw
- Avoid having a lot of single-use commercial spaces
- Be clear to public about what is non-negotiable about the RR realignment
- Carefully consider the type of commercial uses—emphasize the park uses, not the commercial uses that are not supporting park uses
- Site is near WWU—consider students’ potential partying activity
- Has the waste subsidence issue been looked at?

Jonathan and Peter thanked the committee for their participation and encourage them to attend the October 16th public meeting.

MEETING ADJOURNED



Cornwall Beach Park Master Plan

November 14, 2013, 7:00 to 9:30 PM

Squalicum Creek Park

Minutes: Peter Hummel and Gisele Sassen

ATTENDEES

Name	Organization	Role
Jonathan Schilk	Bellingham Parks and Recreation	Parks Department Project Manager
Ray Ballweg	South Hill N.A.	Steering Committee Member
Susan Gardner	At Large	Steering Committee Member
Brian Gouran	Port of Bellingham	Steering Committee Member
Jean Hamilton	Sehome N.A.	Steering Committee Member
Geoff Middaugh	Parks/Rec. Advisory Board	Steering Committee Member
Cerise Noah	CBD	Steering Committee Member
Lance Romo	P/R Recreation Division	Steering Committee Member
Tristan Smith	South Hill N.A.	Steering Committee Member
Bert Webber	Environmental Interest	Steering Committee Member
Peter Hummel	Anchor QEA	Consultant Team Project Manager
Gisele Sassen	Anchor QEA	Consultant Team Member

Jonathan presented the agenda for the meeting and provided project updates since the last steering committee meeting. He gave an overview of the first public meeting and summarized public comments received, indicating that all comments are available on the public comment tracker. Then he handed out the City's "park naming" procedure and explained that the current name is a working name only, and that the public is asked to participate in the naming process.

Next, Peter presented an overview of potential habitat improvements as part of the project. He provided a brief synopsis of applicable guidance documents and principles of habitat improvements, and how these principles and concepts of habitat improvements could be applied to the Cornwall Beach Park project. He distinguished between aquatic and upland habitat improvement opportunities; Gisele provided a brief overview of applicable upland habitat guidance applicable to the project. Subsequently, Peter presented the three



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alternative design plans that were developed for the project, after which he presented the three alternatives:

- Alternative 1: Recreation Focus
- Alternative 2: Habitat Focus
- Alternative 3: Blended Approach

The presentation focused on comparing how the main program elements (including parking and vehicle access, pedestrian access, recreational and commercial uses and facilities, habitat restoration, and shoreline access) differed in each alternative. During the presentation the following items were discussed:

1. Susan G. asked how to best envision the size of the commercial pad. Johnathan explained that the commercial pad size of 2.4 acres compares to about one city block.
2. Geoff M. asked how the grading plan would address maintaining the integrity of the capping material in areas where trees would be planted. Brian G. explained that the material to be graded as part of this project represents a sub layer and that the final grading will include a topsoil layer in addition.
3. Parking????Boulevard Park etc. . .

Following the presentation, each steering committee member was asked to provide comments on the alternatives. The following is a summary of the comments provided by the steering committee:

Jean H.:

- People want to get to the water.
- She likes elements from the recreation and habitat focused alternatives, but prefers Alternative 3 overall.
- A commercial presence is good – it provides “eyes on the park.”
- Rock climbing could be a liability; it may be better not to include it.
- Consider alternative climbing options, e.g., smaller boulders?



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- Daylighting of stormwater could spell trouble for kids; she is concerned with the water being deep and swift. The water needs to be shallow to be safe.
- Water quality may also be an issue if kids come in contact with the water. There is a lot of water, but using the water to create wetlands may be acceptable; Cornwall Park is a good example.

Cerise N.:

- She prefers Alternative 1; there is something for everyone.
- Having two restroom locations is better.
- A spray park is a good alternative to allow kids to play with water, if water quality is a concern.
- She would like to have more time to review the alternatives and provide comments after a more thorough review.

Susan H:

- The restrooms shown in the south end are too isolated; it would be better to locate them in a more visible spot.
- She prefers the layout of parking in pods over parking shown in Alternative 1, as the pods provide better parking.
- She likes the Americans with Disabilities Act (ADA)-accessible parking near the shoreline.
- The park needs to be accessible to all.
- Add accessible picnic area (including ADA tables) near the water and parking.
- Consider including water bird perching areas; include trees at shore for perching.

Brian G:

- He likes the big hill with a viewpoint, on Alternative 2.

Lance R.:



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- He likes the daylighting concept; he does not see an issue with kids
- There is never enough parking in parks; even Lake Padden parking is not enough, especially during events.
- Locate parking near the railroad, not at the shoreline; he hates it when people use these areas for overnight van camping.
- Consider that the parking-pods concept actually takes away parking spaces.
- Flex space for parking is a good idea, e.g., something similar to Bloedel Donovan Park.
- Tailor the parking around high use during summer, and provide event overflow parking.
- He loves the big hill shown on Alternative 2.
- He dislikes that the multi-use trail bisects the large open grass area.
- There is no need for coffee shop.
- Do not include sport courts and the like; include water-related facilities only.

Burt W.:

- How will the South Beach be built over the refuse cap?
- What will the grades look like, because the cap will add several feet?
- Is erosion a concern, and would erosion compromise the integrity of the containment?
- The South Beach will attract kids; parking will need to be close by.
- He appreciates the habitat considerations.
- Use stormwater for habitat. Run across the toe of slope all the way along the site to discharge near the South Beach. This design could become a water quality demonstration project.
- Extend parking to the south end, for better access.

Tristan S.:

- What is a multi-purpose hard surface? How viable is the inclusion of sports courts?
- Why is no intertidal habitat improvement shown on Alternative 1? Can it be added?



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- He likes the large South Beach.
- He likes the parking pods configuration and keeping parking away from the shoreline.
- He likes the turn-around shown on Alternative 3 and the large hill on Alternative 2.

Geoff M.:

- He likes the emphasis on habitat, as shown in Alternative 2.
- This is the perfect place for non-motorized boating.
- Move the trail along the shoreline, as opposed to cutting across the open grass area, and balance with habitat.
- Consider planting madrone and Garry oak on the hill slope, as it currently has poor habitat quality.
- He likes daylighting of stormwater, and the large hill.
- Please identify which wildlife species we are designing for.
- Make sure not to create mosquito habitat.
- He appreciates the work the design team has done on the alternatives.

Ray B.:

- He feels that only Alternative 2 seems like a real park and not like a “Bellwether (hotel) with a lawn in front.”
- Add some more parking to Alternative 2.
- He likes daylighting of stormwater.
- Boat rentals would be a good fit for this site.

NEXT STEPS

Jonathan will send PDFs of the three alternatives to the steering committee members, and the steering committee may provide additional comments via e-mail.

MEETING ADJOURNED

Cornwall Beach Park Master Plan

April 17, 2014, 7:00 to 9:00 PM

Fireplace Room

Minutes: Peter Hummel and Gisele Sassen with City revisions

ATTENDEES

Name	Organization	Role
Leslie Bryson	Bellingham Parks and Recreation	Parks Department Project Manager
Jonathan Schilk	Bellingham Parks and Recreation	Parks Department
Ray Ballweg	South Hill N.A.	Steering Committee Member
Susan Gardner	At Large	Steering Committee Member
Brian Gouran	Port of Bellingham	Steering Committee Member
Jean Hamilton	Sehome N.A.	Steering Committee Member
Geoff Middaugh	Parks/Rec. Advisory Board	Steering Committee Member
Lance Romo	P/R Recreation Division	Steering Committee Member
Tristan Smith	South Hill N.A.	Steering Committee Member
Bert Webber	Environmental Interest	Steering Committee Member
Peter Hummel	Anchor QEA	Consultant Team Project Manager
Gisele Sassen	Anchor QEA	Consultant Team Member

PART 1: INTRODUCTION AND PRESENTATION

Jonathan presented the agenda for the meeting and provided project updates since the last steering committee meeting. He stated that Cerise Noah, representing the Central Business District, was no longer available to be part of the steering committee for this project due to other commitments, and he informed the steering committee of a change in project management on the City's side. Leslie Bryson took on the role of the project manager in his place due to workload balancing.

Leslie indicated that a Habitat Design Task had been added to the scope of work in order to respond to a City Council decision to emphasize habitat restoration at the waterfront redevelopment area. The addition to the scope allows for a coordinated effort between the design team, the City's natural resources department, the cleanup teams, and resource agencies. This additional effort would also affect the overall project schedule. Leslie handed

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out and summarized the Master Plan Purpose Statement, which was developed to guide the master planning process.

The following items were discussed during Part 1 of the meeting:

1. Geoff asked when Ecology will make a decision on the cleanup. He stated that he is often asked how a master plan can be completed when there are two cleanup actions that are still in progress.

Response: Brian responded that Ecology is close to a decision for the former Cornwall Landfill site, but that Ecology's decision for the R.G. Haley action is about 6 to 8 months behind. Leslie stated that because of the many unknowns related to the cleanup actions, the master plan would be less detailed than a typical master plan; it's more of a concept plan. The written document accompanying the master plan will address the various constraints.

2. Bert asked how far into the subtidal area the cleanup would extend.

Response: Brian said the cleanup would extend into the subtidal area; capping would occur along the shoreline, well into the subtidal area. The capping material would vary from finer to larger material (based on wave energy at various depths), to avoid eroding refuse into the bay.

3. Ray asked if the commercial uses envisioned for the park would include condos.

Response: Leslie answered that the actual use would be decided by the City Council. Jonathan said that the public had expressed a desire for smaller-scale development like a café or concessions, boat rental, etc.

Next, Peter presented the preliminary park master plan, covering the main park elements, and he then focused on the six cross-sections prepared for the habitat design. He explained the various site constraints due to site conditions and the associated cleanup, as well as shoreline regulations. He stated that habitat restoration design for this site is intended to emphasize nearshore habitat restoration, and that all restoration work would occur on top of the engineered cap.

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PART 2: COMMENTS AND DISCUSSION

The following items were discussed during and following the presentation:

1. Ray asked if the cap would be stable, to prevent refuse from being pushed out into the bay.

Response: Brian explained that the cap would be engineered to be stable, and Peter added that all habitat restoration activities would occur over the intact cap.

2. Lance asked if bike parking was included and how large the concessions were.

Response: Bike parking will be provided. The concessions are assumed to be 2000 sf for a boat/bike related concession and 3000 sf for a café/coffee shop concession for cost estimating purposes. However these concessions could be larger or smaller depending on actual use.

3. Geoff asked if the 30 inch storm drain would remain buried, and if there was any surface water or daylighted stream; Jean added that there are ditches right now.

Response: Peter confirmed that the 30 inch storm drain will remain, and Gisele added that no daylighting was proposed due to high costs associated with anticipated removal, handling, and disposal of contaminated material, and concerns with infiltration. Peter also mentioned that the ditches, etc. that Jean mentioned is part of a temporary drainage system that will be removed when the park is developed. The goal is to generally drain the site toward the shoreline and to prevent any infiltration to the existing soils (as part of the cleanup).

4. Susan said that members of the public expressed a need for Americans with Disabilities Act (ADA) access to restrooms and picnic facilities. She also asked whether people would be able to walk onto the railroad tracks, and how tall the sound wall would be.

Response: Peter responded that there would be ADA and easy access to the facilities. To prevent access to the railroad, there would either be a fence or wall, in addition to a berm.

Jean asked if the flyover access from the South Bay Trail over the BNSF railroad to the park was still part of the project.

Response: Leslie indicated that this type of connection would likely not be addressed as part of the master plan, other than stressing the need for good access in the written portion of the master plan.

5. Geoff asked what material would be used to create the berms.

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Response: Peter and Leslie responded that, currently, it is assumed that the berm would be constructed with imported clean soil material. However, the actual composition of materials would be determined among the City, the Port, and the cleanup teams. If there were to be an opportunity to use refuse/on-site soils as part of the berms, the cap would be constructed over that refuse/on-site soils so that these materials are fully contained.

6. Lance commented that there was no need for another coffee shop – especially because it takes away from parking for other park users.
7. Susan agreed and added that other uses should be considered, e.g., workshop space or a boat shop instead of retail, food truck pads instead of a coffee shop, and some sheltered eating spaces.
8. Jean also preferred food trucks, and Ray also thought that there was no need for another coffee shop.

Response: Leslie indicated that the City is open to and appreciates these suggestions for activating the park with uses related to it.

9. Geoff thought that the preliminary master plan looked like a “Boulevard Park II,” not necessarily a bad thing. 250 parking stalls seemed high to him, and he wondered how this number was determined. He also stated that there will likely not be an over-water walkway in his lifetime and the master plan should address that. He referred to the Padden Creek Estuary buffer planting as a good example to consider when designing the buffer vegetation for the park.

Response: Peter pointed out that Cornwall Beach Park is very different from Boulevard Park, specifically, as follows:

- *Beaches are at a much larger scale and have other associated uses for recreation and habitat, not found at Boulevard Park*
- *Cornwall Beach Park has a very different scale than Boulevard Park, i.e., it is wider, and has more opportunities for larger numbers of people and larger events.*
- *The center of the park consists of wide open space, that is a total of approximately 4 acres or, for comparison, as large as both a high school soccer and football field combined.,*
- *There are significant topographic variations proposed, i.e., berm and hill, providing viewing opportunities and play area experiences not found at Boulevard Park.*

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10. Geoff asked what it would cost to remove all of the historically placed fill to recreate the mudflat as the Lummi Tribe would like to see.

Response: Brian responded that he couldn't remember the estimated cost, but it would be well over \$100,000,000 for both cleanup sites. (After the meeting Brian reported Cornwall alone would cost \$78.2 million for full removal) In comparison, the landfill cleanup as planned would cost about \$9,000,000.

11. Bert commented that he would like to see the following:

- Play area closer to the water and not near the railroad berm
- Additional parking farther south in the park
- Concrete wall all along the railroad tracks
- Residential, not commercial, development (located with back to railroad wall) to keep eyes on park

Response: Peter explained that many uses were considered for activating the park, including commercial and limited residential, and that these ideas were narrowed down to include facilities that are related to park use, and relatively small scale.

12. Tristan thought that comparing the size of Boulevard Park and Cornwall Beach Park would be very helpful. He suggested that the comparison be expressed as percentages of the total park area used for parking, play area, and commercial use. He thought this would be helpful to show at the public meeting as well.

13. Susan asked if the park was closed after dark for safety reasons, and if there would be lighting.

Response: Leslie explained that by City Code, parks are open year round, from 6:00 a.m. to 10:00 p.m., unless a different time is adopted for a specific Park. Peter added that security lighting along the main trail and in the parking lot is included in the cost estimate.

14. Susan pointed out that the lawn areas at Boulevard Park are very wet, and that she is hoping that this could be avoided at this park. Lance added that geese droppings are also a problem.

Response: Peter said that the wet ground is likely due to poor drainage. Also, geese prefer open-lawn areas extending to the shoreline and typically avoid areas that have a shrub and/or tree buffer between the lawn and the shore. Such a vegetated buffer is proposed for the Cornwall Beach Park Preliminary Master Plan and this will help control geese.

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15. Lance thought that the boating facility was too small to accommodate outriggers; otherwise he did not see any problem with the location for the boating facility.
Crossing the driveway is acceptable. He added that the park, because of its location, is not suitable to support wind sports, such as, kite surfing, etc., but it is excellent for rowing/paddling.
16. Jean asked how large the central pocket beach is and thought that this might become a popular place for weddings and other events, as would likely the hill; Ray wondered why the pocket beach appeared to extend out from the shoreline.
Response: Peter answered that the graphics showing the beaches will be modified to indicate what portions are below, versus above, tidal influence. The pocket beach is approximately 100 feet long and 80 feet wide. It is flanked by two low rock structures ("drift sills") to retain the beach materials.
17. Susan asked if there are any perching places for birds, and if something like that could be installed in water.
Response: Leslie said that in water perches may be hard to be permitted, and Peter thought that some snags could be installed on land (where trees are indicated) if there is sufficient soil depth to hold them in place.
18. Geoff stated that he does not like the idea of having residential uses in the park. He also would like to see the play area closer to the water and not close to the berm. Brian and others instead thought that it was a unique opportunity to incorporate a berm/hill into a play area. He thought that kids would love it.
19. Bert asked if the Tribes are involved in the habitat design.
Response: Leslie indicated that they have not been contacted at this time.
20. Geoff indicated that the Parks Board is considering what to name this park. This is a public process and a number of park names are under consideration. Some of the finalist names include: Klipsun Park; Salish Park; Lummi View Park; Island View Park; and others.

NEXT STEPS

1. Set date for the public meeting (Leslie)
2. Notify steering committee of the next public meeting (Leslie)
3. Prepare materials for the public meeting (Consultant Team and City):
 - Prepare an overlay to compare Boulevard Park with Cornwall Beach Park

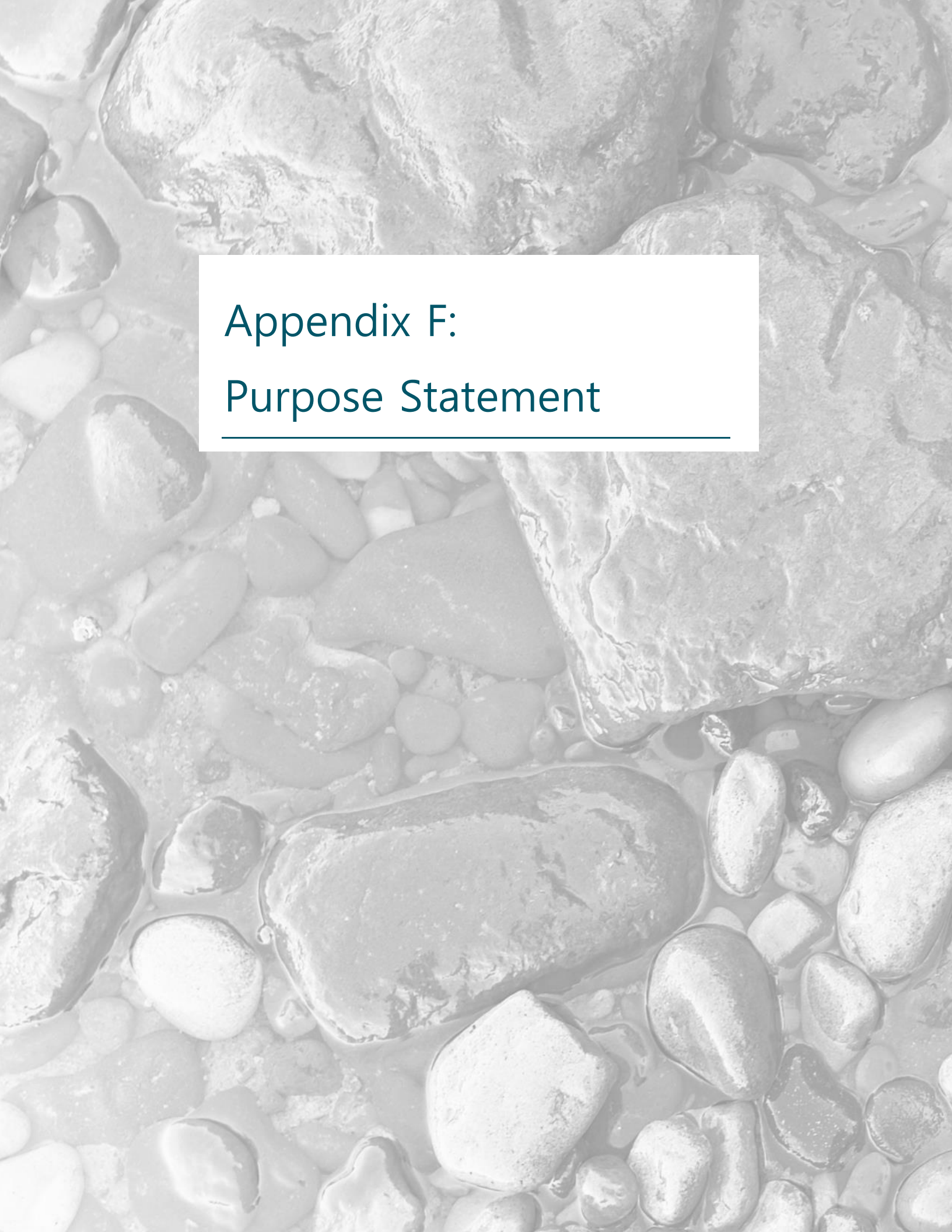
Cornwall Beach Park Master Plan

- Provide percent of total park area used for parking, commercial and play areas, etc., for each park
- Present a comparison of costs between removing all fill (to restore mudflats), and the currently proposed cleanup (Brian/cleanup teams)
- Present photos of the buffer vegetation at the Padden Creek Estuary as an example
- Show more clearly on the plan drawing what is tidally inundated and what is not.

MEETING ADJOURNED

Leslie Bryson Additional Meeting Notes:

1. Settlement in the landfill waste area will occur at a faster rate than other areas, therefore placement of buildings should be outside of the landfill boundary. A vapor removal system will likely be required with buildings.
2. 1' of drainage material will be placed over the membrane covering the cap. 1-2 feet of topsoil will be placed over the drainage material.
3. Why was second pocket beach eliminated? The second pocket beach originally shown at RG Haley was questioned by the Cleanup team, but might be put back in after more is known.
4. There will be smaller, finer material at the South Beach and Glass Beach than at the pocket beach.
5. Several mentioned concern with a restroom at the south beach area as being too far from the main activity area of the park. Brian Gouran countered that it was a good idea because the south beach would be very popular for families with young children.



Appendix F:

Purpose Statement

CORNWALL BEACH PARK MASTER PLAN

Conclusions based on input from agencies, staff and the public

Vision

Cornwall Beach Park will be an iconic destination for all ages, abilities and interests offering a variety of recreation opportunities and waterfront access, with enhanced habitat for wildlife.

Anticipated Users/Uses

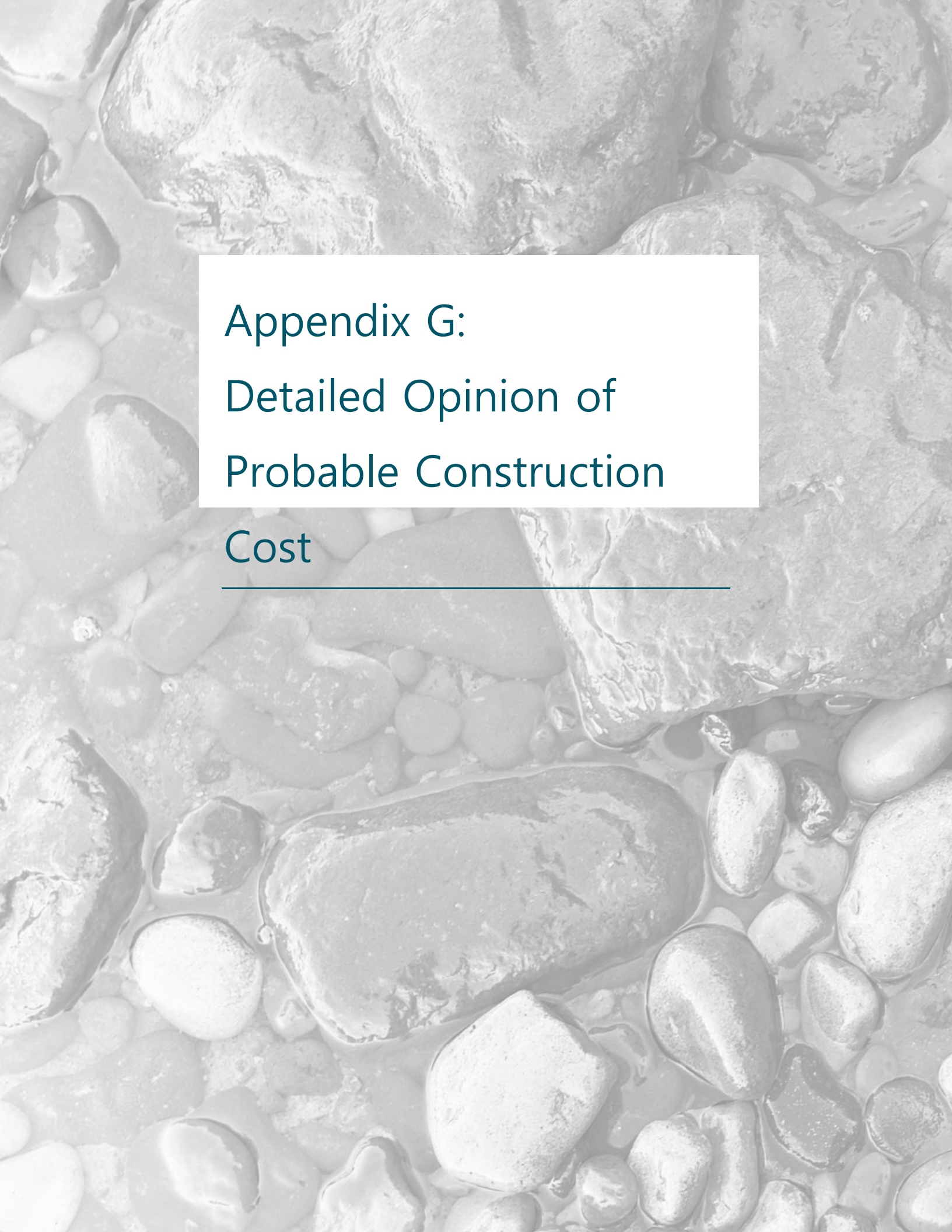
- Kids - Play on the beach & wade in the surf, run on hillsides & open grass areas, ride bikes, fly kites and enjoy a playground with nearby restroom facilities.
- Teens/Young Adults - Play volleyball, sunbathe and launch human powered watercraft, play Frisbee, soccer, football and other sports, enjoy concerts and outdoor festivals.
- Adults - Meander along trails with scenic bay views, enjoy races and concerts, access the beach for use of watercraft, personal fitness and quiet meditation.
- Seniors - Walk on trails with ample access to benches, rain shelter and restrooms; enjoy picnics and community events.
- Wildlife – Experience improved intertidal and upland habitats.

Guiding Principles for the Park Design

- Provide a wide range of amenities and opportunities for all park users;
- Focus on the connection to Bellingham Bay;
- Ensure user safety and security ;
- Create a destination for waterfront recreation;
- Include commercial space to provide services for park users;
- Design for environmental sustainability, efficiency and reduced maintenance;
- Incorporate crime prevention design principles;
- Improve fish and wildlife habitat;
- Design in collaboration with site cleanup plans to ensure safety of park users and habitat; and
- Preserve and enhance views.

Features/Facilities Being Considered

- Open areas to accommodate large community outdoor events including concerts, festivals, exhibits & races;
- Large destination playground;
- Benches, picnic tables and shelters;
- Ample vehicle and bike parking;
- Park lighting and clear lines of sight for safety;
- Railroad safety and sound reduction barrier;
- Hill for seating, views and play;
- Beaches with access to the water;
- Intertidal zone enhancements to improve habitat and habitat connectivity;
- Park trail system with shared use and pedestrian paths;
- Park related commercial facilities like recreation equipment rental/sales and a café for year-around park use;
- Seasonal mobile vendors;
- Fire pits;
- Human powered watercraft launch facilities; and
- Public art.

The background of the entire page is a grayscale photograph of smooth, wet river stones. The stones are of various sizes and shapes, some large and flat, others smaller and more rounded. They are covered in water droplets, which create highlights and reflections across their surfaces. The overall texture is smooth and glossy.

Appendix G: Detailed Opinion of Probable Construction Cost

Opinion of Probable Construction Cost - Final Master Plan				
Item	Qty.	Unit	Unit Cost	Subtotal
1. Site Demolition & Clearing				
a. Clear Site Vegetation	14	AC	\$1,000.00	\$ 14,000.00
Subtotal Demolition & Clearing				\$ 14,000.00
2. Site Temporary Facilities				
a. Temporary Construction Fencing	3,000	LF	\$ 3.00	\$ 9,000.00
b. Silt Fencing (site perimeter)	6,000	LF	\$ 4.00	\$ 24,000.00
c. Temporary In-water Sediment Curtain - Included in Specific Park Areas as Applicable	0	LF	\$ -	\$ -
Subtotal Temporary Facilities				\$ 33,000.00
3. Site Earthwork				
a. Excavation - See Assumptions at End of Cost Estimate	0	CY	\$ -	\$ -
b. Fill and Grading - Fill Import and Placement are Included in Specific Park Areas as Applicable	0	CY	\$ -	\$ -
Subtotal Site Earthwork				\$ -
4. Vegetated Berm and Wall along Railroad				
a. Import and Place Common Fill (15-ft high berm)	21,778	TON	\$ 18.00	\$ 392,000.00
b. Import and Place Topsoil (Min. 3-ft depth in Forested Area; 1-ft depth in Lawn Area)	10,093	CY	\$ 30.00	\$ 302,777.78
c. Erosion Control Fabric - Jute	10,611	SY	\$ 6.00	\$ 63,666.03
d. Native Tree (5 gallon, 30-ft O.C.)	101	EA	\$ 65.00	\$ 6,546.70
e. Native Groundcover (1 gallon, 3-ft O.C.)	10,072	EA	\$ 14.00	\$ 141,005.90
f. Hydroseed	37,000	SF	\$ 0.33	\$ 12,210.00
g. Mulch (3" depth)	1,069	CY	\$ 30.00	\$ 32,083.33
h. Irrigation	37,000	SF	\$ 1.20	\$ 44,400.00
i. Gravity Retaining Wall along Railroad - 15' Height	24,000	FF	\$ 20.00	\$ 480,000.00
j. Concrete Sound Wall along Railroad (Space Constrained Areas at North, 18-ft high)	760	LF	\$ 378.00	\$ 287,280.00
k. Chainlink Fence along Railroad on Wall (6-ft high)	1,600	LF	\$ 13.10	\$ 20,960.00
Subtotal Vegetated Berm and Wall along Railroad				\$ 1,782,929.75
5 Viewing Hill (Berm Excluded)				
a. Import and Place Common Fill (25-ft high berm)	46,791	TON	\$ 18.00	\$ 842,240.00
b. Import and Place Topsoil (Min. 1-ft depth)	2,204	CY	\$ 30.00	\$ 66,111.11
c. Erosion Control Fabric - Jute (on 3:1 or steeper slopes)	4,833	SY	\$ 6.00	\$ 28,999.97
d. Hydroseed	59,500	SF	\$ 0.33	\$ 19,635.00
e. Irrigation	59,500	SF	\$ 1.20	\$ 71,400.00
Subtotal Viewing Hill				\$ 1,028,386.08
6. Open Lawn (Berm and Viewing Hill Excluded) and South Upland Recreation Beach				
a. Import and Place Pit Run Fill (for drainage/slope to shoreline)	15,000	TON	\$ 25.00	\$ 375,000.00
b. Import and Place Topsoil (Min. 1-ft depth)	10,370	CY	\$ 30.00	\$ 311,111.11
c. Hydroseed	280,000	SF	\$ 0.33	\$ 92,400.00
d. Irrigation	280,000	SF	\$ 1.20	\$ 336,000.00
e. Import and Place Sand (depth varies, 1-ft. min, in upland recreation beach)	6,375	TON	\$ 40.00	\$ 254,986.67
Subtotal Open Lawn				\$ 1,369,497.78

Opinion of Probable Construction Cost - Final Master Plan					
7. Pathways, Viewpoints, Gateways, and Site Furnishings					
a.	Import and Place Pit Run Fill	3,281	TON	\$ 25.00	\$ 82,029.63
b.	Install Crushed Surfacing Base (6-inch) for Multi-use Pathway	971	TON	\$ 25.00	\$ 24,266.67
c.	Install Hot Mix, Asphalt Paving (3-inch) for Multi-use Pathway	485	TON	\$ 80.00	\$ 38,826.67
d.	Crushed Gravel Surfacing for Pedestrian Pathways (4-inch depth)	341	CY	\$ 35.00	\$ 11,925.93
e.	Crushed Gravel Surfacing for Viewpoints (4-inch depth; each viewpoint assumed 800 sf)	69	CY	\$ 35.00	\$ 2,419.75
f.	Entry Gateways (1 at north entry; includes signage, paving and lighting)	1	LS	\$ 60,000.00	\$ 60,000.00
g.	Concrete Stairs at North Entry and ADA Ramp	90	LF	\$ 100.00	\$ 9,000.00
h.	Handrail at North Entry Stairs	12	LF	\$ 65.00	\$ 780.00
i.	Concrete Stairs at Pocket Beach (6-ft width)	120	LF	\$ 100.00	\$ 12,000.00
j.	Handrail for Stairs at Pocket Beach	20	LF	\$ 65.00	\$ 1,300.00
k.	Install Benches	0	EA	\$ 1,500.00	\$ -
l.	Install BBQs	15	EA	\$ 220.00	\$ 3,300.00
m.	Install Picnic Tables	30	EA	\$ 4,000.00	\$ 120,000.00
n.	Install Trash Receptacles	15	EA	\$ 350.00	\$ 5,250.00
o.	Install Recycle Receptacles	15	EA	\$ 350.00	\$ 5,250.00
p.	Install Bike Racks	10	EA	\$ 400.00	\$ 4,000.00
q.	Multi-use Pathway Lighting (metal halide pole light fixtures and foundation)	20	EA	\$2,300.00	\$ 46,000.00
Subtotal Pathways, Viewpoints, Gateways, and Site Furnishings					\$ 426,348.64
8. Stormwater Treatment Areas					
a.	Import and Place Bioretention Topsoil (Min. 2-ft depth)	2,444	CY	\$ 30.00	\$ 73,333.33
b.	Gravel for Underdrains	3,667	SY	\$ 9.00	\$ 32,999.67
c.	PVC Geomembrane 40 mil	33,000	SF	\$ 1.50	\$ 49,500.00
d.	Conveyance Piping (6-inch diameter)	1,000	LF	\$ 25.00	\$ 25,000.00
e.	Gravel Level Spreader	187	TON	\$ 50.00	\$ 9,333.33
f.	Native Shrub (2 gallon, 5-ft O.C.)	305	EA	\$ 25.00	\$ 7,621.25
g.	Native Groundcover (1 gallon, 3-ft O.C.)	847	EA	\$ 14.00	\$ 11,855.27
h.	Native Grasses (1 gallon, 3-ft O.C.)	5,716	EA	\$ 8.25	\$ 47,156.47
i.	Mulch (3" depth)	306	CY	\$ 30.00	\$ 9,166.67
j.	Irrigation	33,000	SF	\$ 1.50	\$ 49,500.00
Subtotal Stormwater Treatment Areas					\$ 315,465.99
9. Parking, Load/Unload Areas, and Adjacent Hardscape Areas					
a.	Import and Place Pit Run Fill (Assumes 2.5-ft)	20,222	TON	\$ 25.00	\$ 505,555.56
b.	Install Gravel Base for Asphalt Paving (10-inch)		TON	\$ 25.00	\$ -
c.	Install Crushed Surfacing for Asphalt Paving (8 inches)	5,393	TON	\$ 20.00	\$ 107,851.85
d.	Install Hot Mix Asphalt Paving (3-inch)	2,022	TON	\$ 80.00	\$ 161,777.78
e.	Install Wheelstops	250	EA	\$ 66.00	\$ 16,500.00
f.	Parking Lot Lighting (single head light pole, light fixtures, and foundations)	20	EA	\$2,200.00	\$ 44,000.00
Subtotal Parking, Load/Unload Areas, and Adjacent Hardscape Areas					\$ 835,685.19
10. Buildings and Shelters					
a.	Restroom Facility at South Beach	1	LS	\$ 54,000.00	\$ 54,000.00
b.	North Concession RR and Active Venting System	0	LS		\$ -
c.	Pavilion Building	1,500	SF	\$ 250.00	\$ 375,000.00
d.	Active Venting System for Pavilion Building	1	LS	\$ 150,000.00	\$ 150,000.00
e.	Restroom Facility within Pavilion Building	500	SF	\$ 250.00	\$ 125,000.00
f.	Active Venting System for Restroom Facility within Pavilion Building	1	LS	\$ 50,000.00	\$ 50,000.00
g.	Pavilion Building Foundation	2,000	SF	\$ 22.30	\$ 44,600.00
h.	Picnic Shelters ((3) 200 sf shelters)	600	SF	\$ 89.98	\$ 53,988.00
i.	Picnic Shelter Foundations	600	SF	\$ 22.30	\$ 13,380.00

Opinion of Probable Construction Cost - Final Master Plan				
Subtotal Buildings and Shelters				\$ 865,968.00
11. Play Area				
a. Poured in place - rubber surfacing (assumes half of play area)	9,000	SF	\$ 13.00	\$ 117,000.00
b. Crushed rock base for rubber surfacing (4-inch depth)	187	TON	\$ 18.00	\$ 3,360.00
c. Engineered wood fiber surfacing (assumes half of play area; 12-inch depth)	333	CY	\$ 25.00	\$ 8,333.33
d. Geotextile and drains for wood fiber surfacing	1	LS	\$ 10,000.00	\$ 10,000.00
e. New play equipment	1	LS	\$ 213,750.00	\$ 213,750.00
f. Perimeter Seatwall	285	LF	\$ 100.00	\$ 28,500.00
g. Spray Park (800 sf element within play area)	1	LS	\$ 152,000.00	\$ 152,000.00
Subtotal Play Area				\$ 532,943.33
12. Utilities				
a. Water to Pavilion Building (metered), (3) Picnic Shelters, and Play Area	1	LS	\$ 108,000.00	\$ 108,000.00
b. Electrical hookups for Site Lighting, Pavilion Building (metered), and Special Event Space	1	LS	\$ 107,000.00	\$ 107,000.00
c. Communications for Pavilion Building	1	LS	\$ 62,000.00	\$ 62,000.00
d. Sewer Forcemain Extension, Sewer Sumps, and Grinder Pumps	1	LS	\$ 63,200.00	\$ 63,200.00
e. Natural Gas for Pavilion Building (metered)	1	LS	\$ 23,100.00	\$ 23,100.00
f. Structure Stormwater Collection and Conveyance (separate from item 11)	1	LS	\$ 41,000.00	\$ 41,000.00
Subtotal Utilities				\$ 404,300.00
Subtotal Master Plan Opinion of Probable Construction Cost				\$ 7,608,524.76
			Mobilization 5%	\$ 380,426.24
			Subtotal	\$ 7,988,950.99
			Design Contingency (30%)	\$ 2,396,685.30
			Subtotal	\$ 10,385,636.29
			Construction Contingency (10%)	\$ 1,038,563.63
			Subtotal	\$ 11,424,199.92
			Public Art (1%)	\$ 114,242.00
			Subtotal	\$ 11,538,441.92
			Sales Tax (8.7%)	\$ 1,003,844.45
TOTAL MASTER PLAN OPINION OF PROBABLE CONSTRUCTION COST*				\$ 12,542,286.37

Opinion of Probable Construction Cost - Final Master Plan				
NEARSHORE HABITAT ELEMENT COSTS				
13. South Beach Expansion				
a. Temporary In-water Sediment Curtain	500	LF	\$ 35.00	\$ 17,500.00
b. Insert Rock Rip-rap for Beach Anchor (5-ft depth; at overwater walkway)	770	TON	\$ 65.00	\$ 50,050.00
c. Import and Place Filter Layer (1-ft depth)	2,756	TON	\$ 50.00	\$ 137,822.22
d. Import and Place Sand/Pebble (3-ft depth in foreshore)	8,269	TON	\$ 50.00	\$ 413,466.67
e. Import and Place Sand/Pebble (1-ft depth in backshore)	2,125	TON	\$ 50.00	\$ 106,250.00
f. Half-buried Log Edge	0	LF	\$ 20.00	\$ -
g. Imported Driftwood	20	EA	\$ 600.00	\$ 12,000.00
h. Beach Grass (1 gallon, 2-ft O.C.)	6,582	EA	\$ 8.25	\$ 54,301.39
Subtotal South Beach Expansion				\$ 791,390.27
14. Pocket Beach and Intertidal Bench				
a. Temporary In-water Sediment Curtain	1,400	LF	\$ 35.00	\$ 49,000.00
b. Import and Place Rock Rip-rap for Beach Anchors (5-ft depth)	255	TON	\$ 65.00	\$ 16,582.22
c. Import and Place Filter Layer (1-ft depth)	4,281	TON	\$ 50.00	\$ 214,044.44
d. Import and Place Rock Rip-rap Sill for Intertidal Bench	15,014	TON	\$ 65.00	\$ 975,924.44
e. Import and Place 2 1/2" Crushed Rock (Average 3-ft depth) for Intertidal Bench	5,644	CY	\$ 35.00	\$ 197,555.56
f. Import and Place Gravel/Pebble (3-ft depth) for Pocket Beach Foreshore	2,259	TON	\$ 50.00	\$ 112,933.33
g. Import and Place Gravel/Pebble (1-ft depth) for Pocket Beach Backshore	367	TON	\$ 50.00	\$ 18,355.56
h. Import and Place Sand (1-ft depth) for Pocket Beach Backshore	367	TON	\$ 40.00	\$ 14,684.44
i. Half-buried Log Edge at Pocket Beach	0	LF	\$ 26.00	\$ -
j. Imported Driftwood	6	EA	\$ 600.00	\$ 3,600.00
k. Beach Grass (1 gallon, 2-ft O.C.)	1,703	EA	\$ 8.25	\$ 14,051.67
Subtotal Pocket Beach and Intertidal Bench				\$ 1,616,731.67
15. Pine Street Beach Expansion				
a. Temporary In-water Sediment Curtain	700	LF	\$ 35.00	\$ 24,500.00
b. Import and Place Sand/Pebble and Gravel/Pebble (Min. 4-ft depth)	14,436	TON	\$ 50.00	\$ 721,777.78
c. Import and Place Filter Layer (1-ft depth; in areas within proposed clean-up cap)	871	TON	\$ 50.00	\$ 43,555.56
d. Log Edge	0	LF	\$ 26.00	\$ -
e. Imported Driftwood	14	EA	\$ 600.00	\$ 8,400.00
f. Beach Grass (1 gallon, 2-ft O.C.)	1,732	EA	\$ 8.25	\$ 14,289.84
g. Thickened Concrete Edge along Adjacent Pathway	100	LF	\$ 33.00	\$ 3,300.00
Subtotal Pine Street Beach Expansion				\$ 815,823.17

Opinion of Probable Construction Cost - Final Master Plan				
16. Shoreline Buffer Planting				
a. Import and Place Rock Rip-rap Sill for Beach Grass Planting Area	1,400	TON	\$ 65.00	\$ 91,000.00
b. Import and Place Filter Layer for Beach Grass Planting Area (1-ft depth)	700	TON	\$ 50.00	\$ 35,000.00
c. Import and Place Gravel/Pebble and Sand for Beach Grass Planting Area (1-ft depth)	700	TON	\$ 45.00	\$ 31,500.00
d. Place Encapsulated Soil Tubes (in conjunction with shoreline stabilization placement)	1	LS	\$ 140,000.00	\$ 140,000.00
e. Encapsulated Soil Plantings	415	EA	\$ 15.00	\$ 6,225.00
f. Import and Place Topsoil (Min. 3-ft depth)	10,718	CY	\$ 30.00	\$ 321,533.33
g. Erosion Control Fabric - Jute (on 3:1 or steeper slopes)	10,718	SY	\$ 6.00	\$ 64,306.66
h. Vegetation Protection Barrier - Split Rail Fence with Woven Wire Infill	2,550	LF	\$ 71.00	\$ 181,050.00
i. Native Tree (5 gallon, placed in small groupings)	30	EA	\$ 65.00	\$ 1,950.00
j. Low Native Shrub (maximum 3-ft height, 2 gallon, 5-ft O.C.)	2,673	EA	\$ 25.00	\$ 66,831.41
k. Groundcover (1 gallon, 3-ft O.C.)	4,950	EA	\$ 14.00	\$ 69,306.65
l. Mulch (3" depth)	893	CY	\$ 30.00	\$ 26,794.44
m. Irrigation	0	SF	\$ 1.50	\$ -
Subtotal Shoreline Buffer Planting				\$ 1,035,497.49
	Subtotal Master Plan Nearshore Habitat Break Out Opinion of Probable Construction Cost			\$ 4,259,442.61
			Mobilization 10%	\$ 425,944.26
			Subtotal	\$ 4,685,386.87
			Design Contingency (30%)	\$ 1,405,616.06
			Subtotal	\$ 6,091,002.94
			Construction Contingency (10%)	\$ 609,100.29
			Subtotal	\$ 6,700,103.23
			Sales Tax (8.7%)	\$ 582,908.98
	TOTAL NEARSHORE HABITAT OPINION OF PROBABLE CONSTRUCTION COST*			\$ 7,283,012.21

Opinion of Probable Construction Cost - Final Master Plan				
DEVELOPER COSTS				
17. Concession Buildings Developer Cost				
a. North Concessionaire Building Shell	1,500	SF	\$ 142.81	\$ 214,215.00
a. North Concessionaire Restroom	500	SF	\$ 250.00	\$ 125,000.00
Utilities (Water, Electrical, Sewer)	1	LS	\$ 60,000.00	\$ 60,000.00
b. Active Venting System for North Concession Building	1	LS	\$ 150,000.00	\$ 150,000.00
c. North Concessionaire Foundation	1,500	SF	\$ 22.30	\$ 33,450.00
d. Café/Coffee Shop/Concession Building Shell	3,000	SF	\$ 133.85	\$ 401,550.00
e. Active Venting System for Café/Coffee Shop/Concession Building	1	LS	\$ 250,000.00	\$ 250,000.00
f. Café/Coffee Shop/Concession Building Foundation	3,000	SF	\$ 22.30	\$ 66,900.00
Subtotal Concession Buildings Developer Cost				\$ 1,301,115.00
			Mobilization 5%	\$ 130,111.50
			Subtotal	\$ 1,431,226.50
			Design Contingency (30%)	\$ 429,367.95
			Subtotal	\$ 1,860,594.45
			Construction Contingency (10%)	\$ 186,059.45
			Subtotal	\$ 2,046,653.90
			Sales Tax (8.7%)	\$ 178,058.89
TOTAL CONCESSION BUILDINGS DEVELOPER OPINION OF PROBABLE CONSTRUCTION COST*				\$ 2,224,712.78
In providing opinions of probable construction cost, the Client (City of Bellingham) understands that the Consultant (Anchor QEA L.L.C.) has no control over the cost or availability of labor, equipment or materials, or over market condition or the Contractor's method of pricing, and the consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's opinion of probable construction cost.				
<u>The Master Plan does not include excavation or environmental cleanup costs. It is assumed that all excavation occurs during the Cornwall Landfill and RG Haley Site</u>				
*Not Included: Transit Stop Design and Installation, BNSF Railroad Relocation, Pedestrian Grade Separated Railroad Crossing; Design and Installation, Design/Engineering Fees, Project Management, Survey, Planning & Design Review, Construction Phase Project Management & Administration, Construction Inspection, Environmental Permitting, and Habitat Monitoring.				

