

Master Plan Report

Seibenthaler Park
&
Bennett Property

CITY OF SUMNER WASHINGTON

ACKNOWLEDGMENTS

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WHY MASTER PLAN?

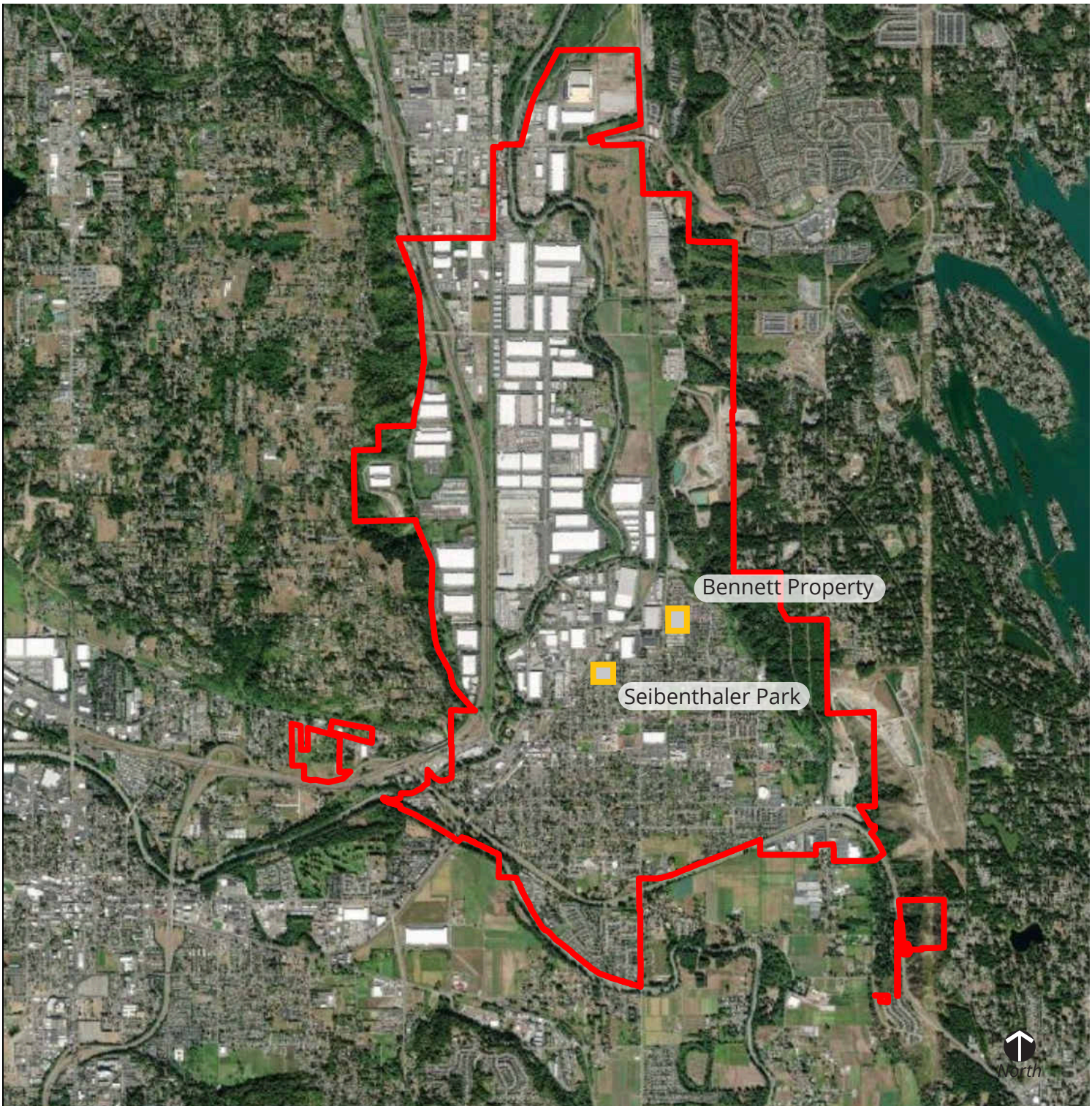


Master plans are about expressing a long-term vision. Features shown in a master plan include the type of activities you might want to experience. Activities could include passive uses like nature walks or having a picnic; active uses like playing basketball or playing in a spray park; or different types of community events. A master plan also includes the infrastructure and circulation needed to support those activities like walkways, parking, lighting, and restrooms. Ultimately, a master plan is intended to guide future implementation, with more detailed design and funding to follow at a later date.

It's critical that a master plan reflect the vision, character, and activities identified by the community. This report documents the master planning process for Seibenthaler Park and the Bennett Property, describing the existing conditions, the overall vision, and the proposed programming. Implementation and funding is also included to support future park development.

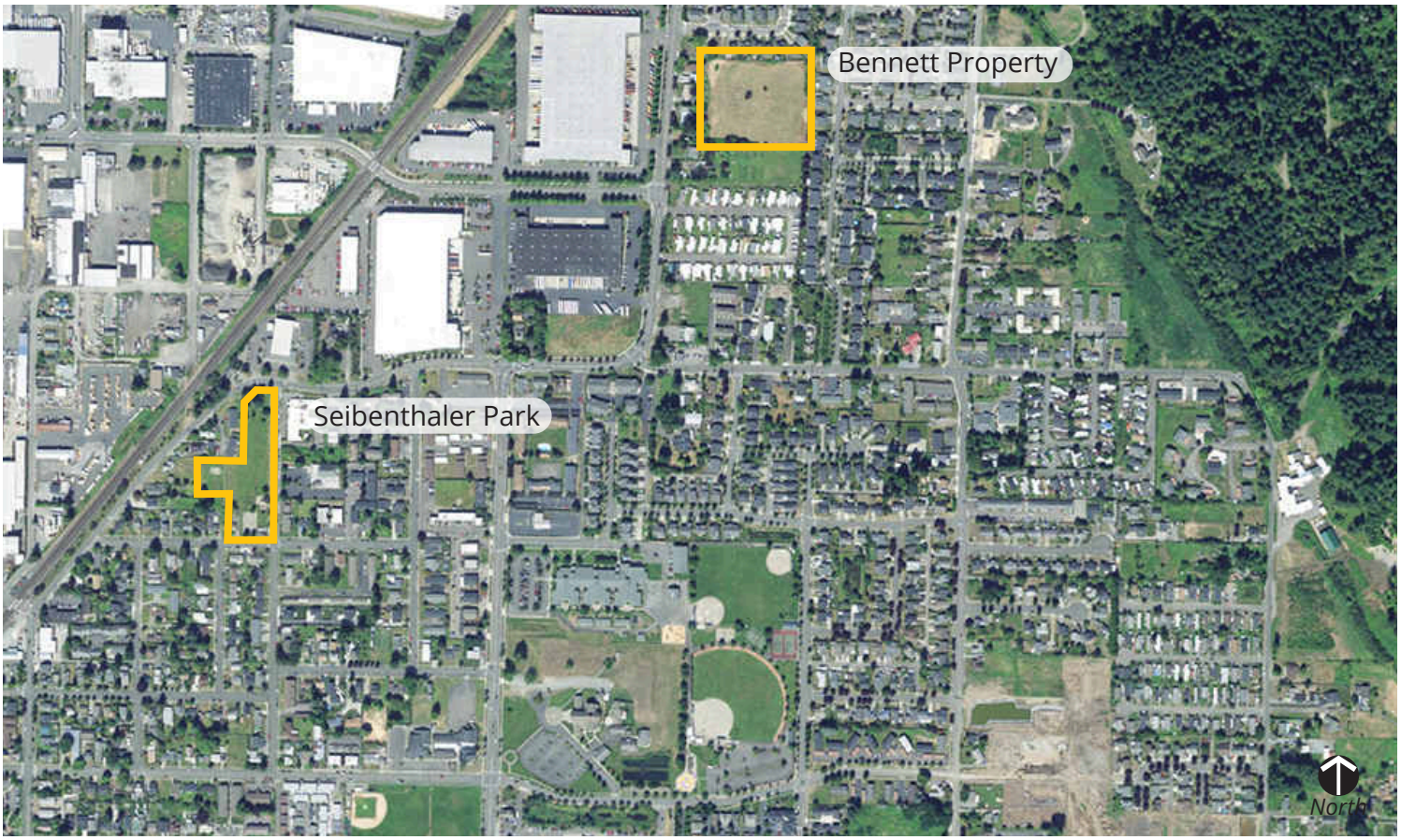
BACKGROUND AND CONTEXT





City limits

Park sites



Location

Seibenthaler Park and the Bennett Property are located north of Main Street in the heart of the City of Sumner and are part of an overall city park system that includes active and passive recreation, trails, open space, and a variety of recreation amenities.

Seibenthaler Park is 2.62 acres, located between 16th Street and Elm Street E with on-street parking directly adjacent to the park along Bonney Avenue. The surrounding context is largely residential properties, with more commercial and office uses to the north, and residential to the south, east and west including multi-family residential immediately to the west of the park boundary.

The Bennett Property is 3.96 acres, to 4.21 acres with acquisition, and is located off E Valley Highway just south of 46th Street Ct E. The site is currently undeveloped and surrounded by single family residential properties with access directly off of E Valley Highway. As a result, much of the site is hidden from the adjacent public roadways. To the north and west of the park beyond the residential neighborhood is mostly warehouses and industrial areas. The Salmon Creek and open space is just to the east of the park beyond the adjacent neighborhood.

History

There isn't a lot of public history around how Seibenthaler Park got its name other than from a prominent Boy Scout Leader in the City, the second site has been referred to as the Bennett Property after Chris H. Bennett, whose family owned the property prior to it becoming a park. Mr. Bennett was born in Georgia during the Jim Crow era. He entered the Air Force after graduating High School, and was eventually stationed in Everett, WA. After the military he enrolled in Everett Community College and went on to found The Seattle Medium Newspaper in 1970. As his success at the newspaper grew, Bennett expanded to include radio stations in Seattle, Tacoma, and Portland. The Bennett property was the location of a radio tower broadcoasting The Z Twins AM radio stations, KRIZ and KYIZ. Business partner Larry Williams said of Bennett, "His empire was built around issues and concerns of the Black community. Not only will he speak out on the issues and concerns of our communities, he worked hard to do something about them. He is more than just rhetorical; he is a doer"



Comprehensive Planning

In 2015 and 2018, the City underwent an overall comprehensive planning process, including the development of the Sumner Parks & Trails Plan. The plan looked at the existing inventory and recreation needs city-wide, and identified park improvements to meet those needs. The plan also included an extensive public outreach and engagement process. The master planning process for Seibenthaler Park and the Bennett Property used the Comprehensive Plan as a basis for design, and continued the public outreach process to understand the more specific community needs for these two parks.

EXISTING CONDITIONS



Seibenthaler Park



Seibenthaler Park



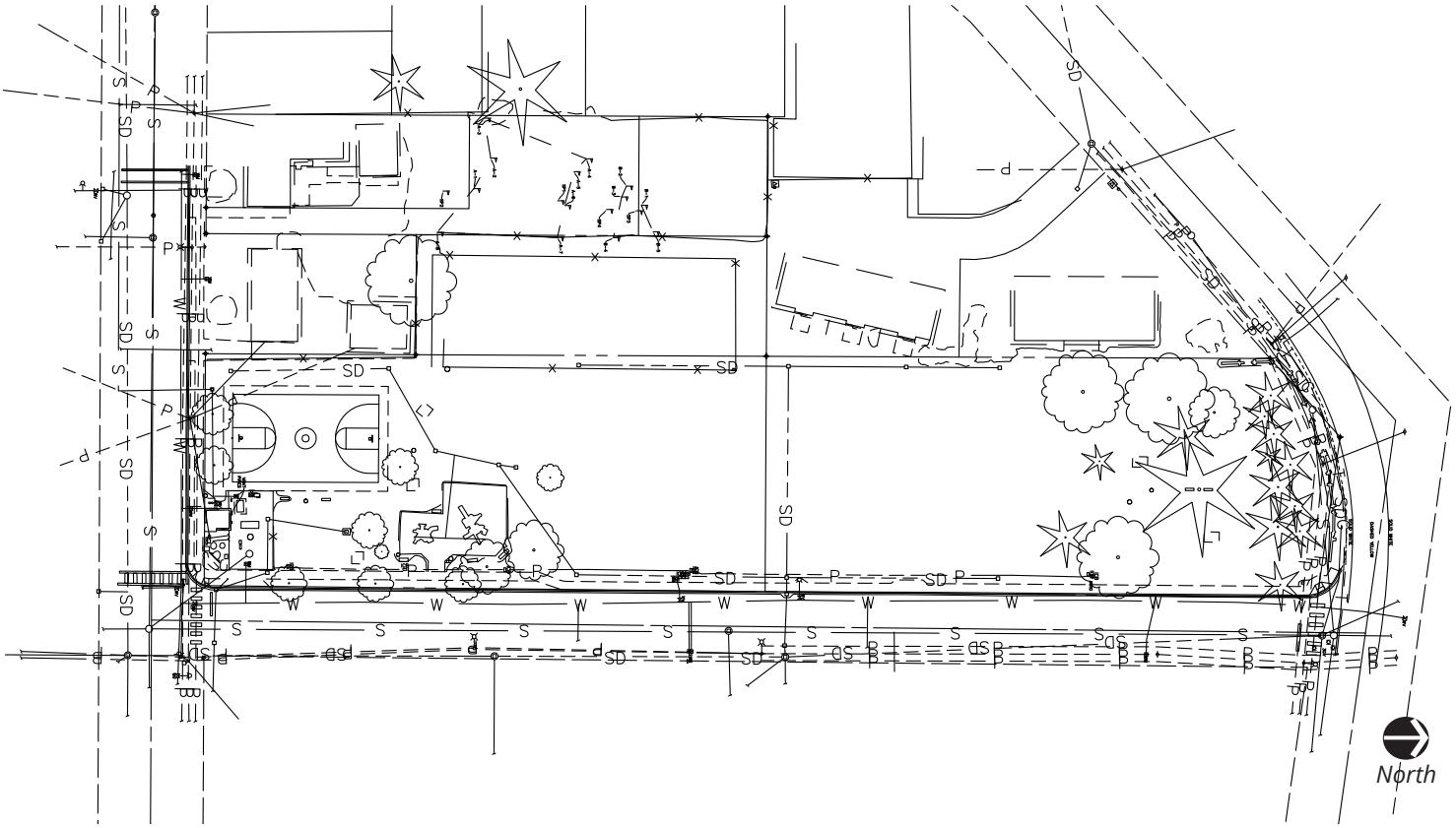
Seibenthaler Park is mostly open lawn, with an existing play area, basketball court, and picnic areas. There is currently no ADA parking for the park, but on-street parking is available along Bonney Avenue directly adjacent to the park and in the surrounding neighborhood. Sidewalks currently line the south and east edges of the park property. A temporary dog park was established along the west side of the park, enclosed by a chain-link fence, between the lawn and an existing wetland. The open lawn is large enough to support modified soccer practices for younger ages, but the poor drainage throughout the site makes programming the park difficult. The park is also used for volleyball and other recreation activities from nearby businesses. There are picnic tables by the play area and the wooded area north of the open lawn, but no picnic shelters.

There are a number of mature deciduous trees, mostly ornamental, throughout the open lawn areas. There are also several large conifer trees, native and non-native, in the northern portion of the park.





Seibenthaler Park





The park was recently expanded with the acquisition of two adjacent parcels to the west of the improved park area. The new parcels are dominated by two existing wetlands. The wetlands are both classified as Category III with an 80-foot standard vegetated buffer required. See Appendix C for additional information on the wetlands.

The park is difficult to maintain, mostly due to the poor soils and drainage considerations at the park. There is an existing storm drain along the north edge of the park, but the soils have little opportunity for infiltration. The current mostly flat topography doesn't provide enough natural drainage to support the intended use.

Bennett Property



Bennett Property



The Bennett Property is currently undeveloped pasture land throughout most of the site. There are a few trees and vegetated buffers adjacent to the south property line, and scattered vegetation along the other edges of the property. The site is surrounded by wood fences from adjacent residences.

There is a large deciduous tree located in the center of the property that currently dominates the views internal to the site. External views are framed by lowland hills in the foreground and Mount Rainier in the distance looking south from within the park. Many of the adjacent residences along the north boundary line of the park likely have views of Mount Rainier to the south as well.

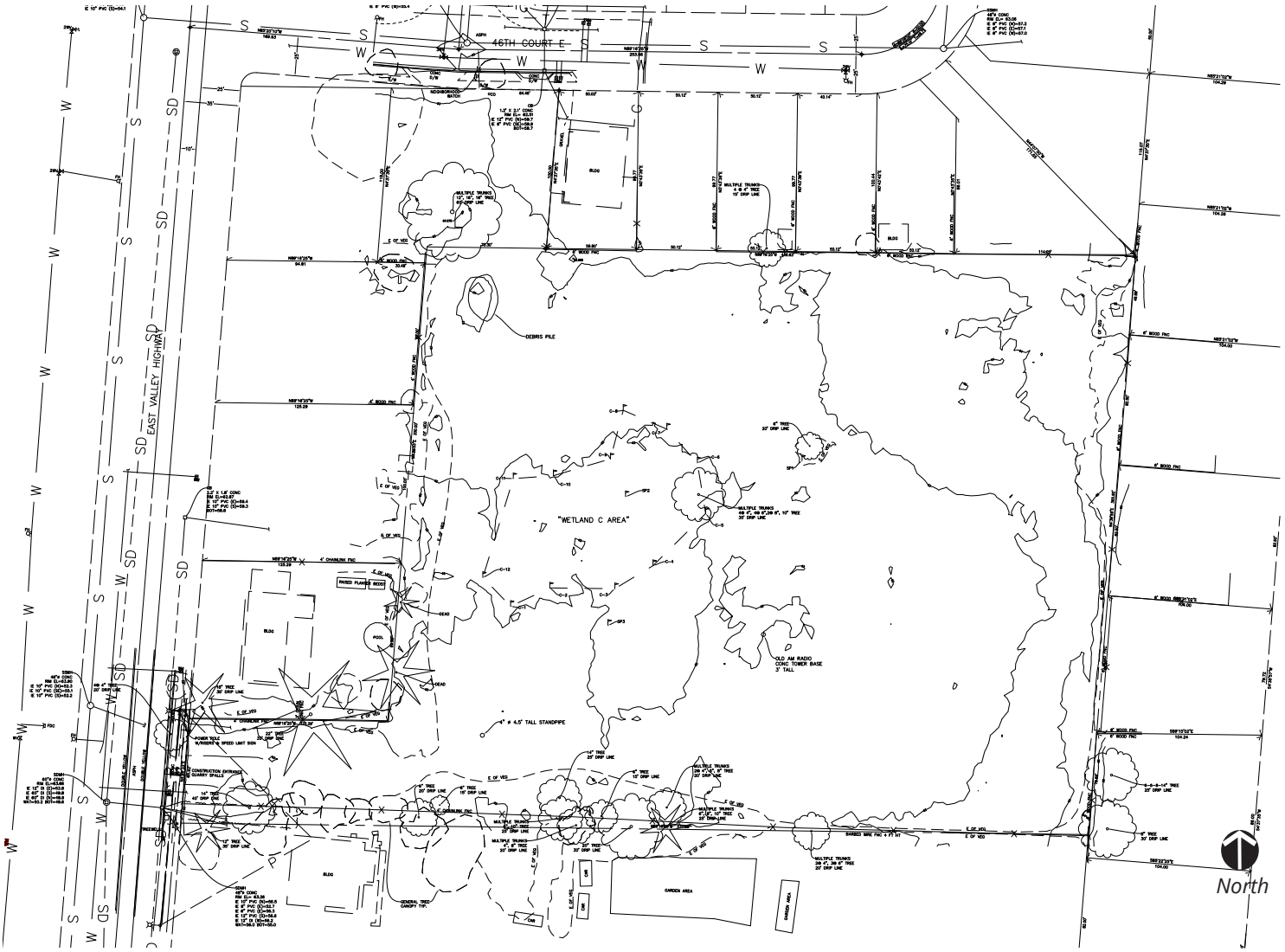
An existing wetland is located in the central part of the park, surrounded by what was once pasture land. It has been designated a Category IV wetland with a 50-foot standard buffer required.

An access easement to provide a pedestrian only connection to 154th Avenue Ct E was recently acquired by the City along the east side of the park. The city is also currently under negotiation to purchase additional property directly north of the park in order to provide better connectivity and sight-lines from the park to the neighborhood, as well as additional access for pedestrians, vehicles and emergency services.





Bennett Property





PUBLIC OUTREACH





Timeline of outreach activities:

1. Sumner Connect Page – Continuously throughout project
   951 aware visitors, 399 informed , 302 engaged

2. Pop-Up Survey – June to September
   253 responses

3. Pop-Up at Nights On Ryan – August 14th

4. Concept Alternatives Open House – Zoom meeting – 10/26/2021
   4 participants

5. Concept Alternatives On-Line Survey – November, 2021
   58 responses

6. Creekside HOA Meeting – Discussion of concepts

7. Sumner Rotary Meeting – Discussion of concepts

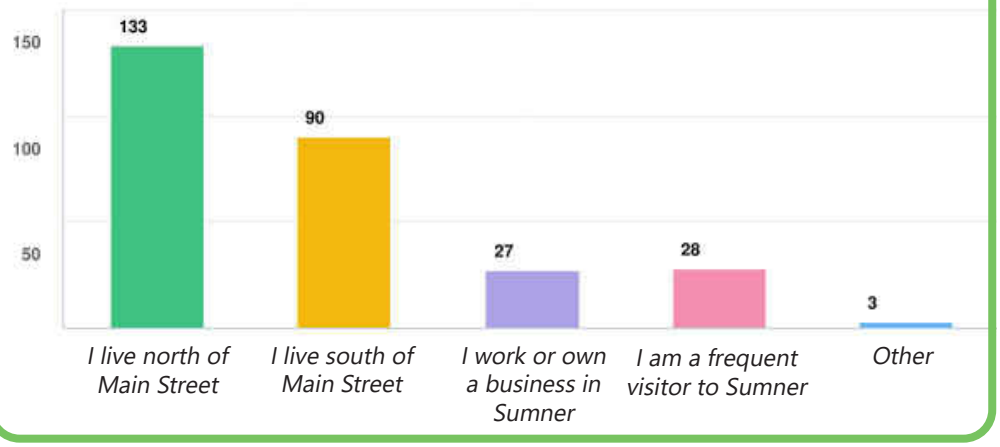
8. Preferred Concepts On-Line Survey – January
   204 Responses

9. Final Concepts & Cost Estimates – March



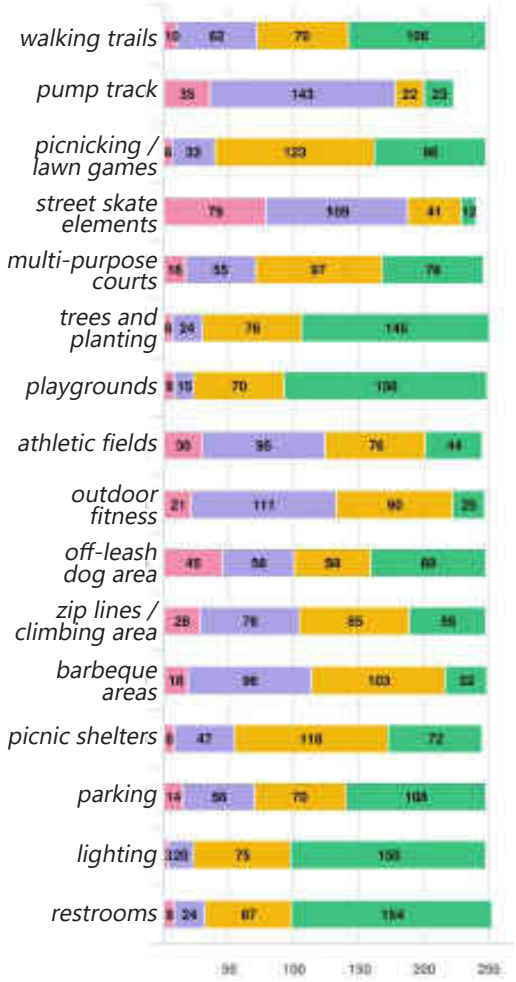
What activities would you like to do in the park?
¿Qué actividades les gustaría hacer en el parque?

How are you connected to the community?

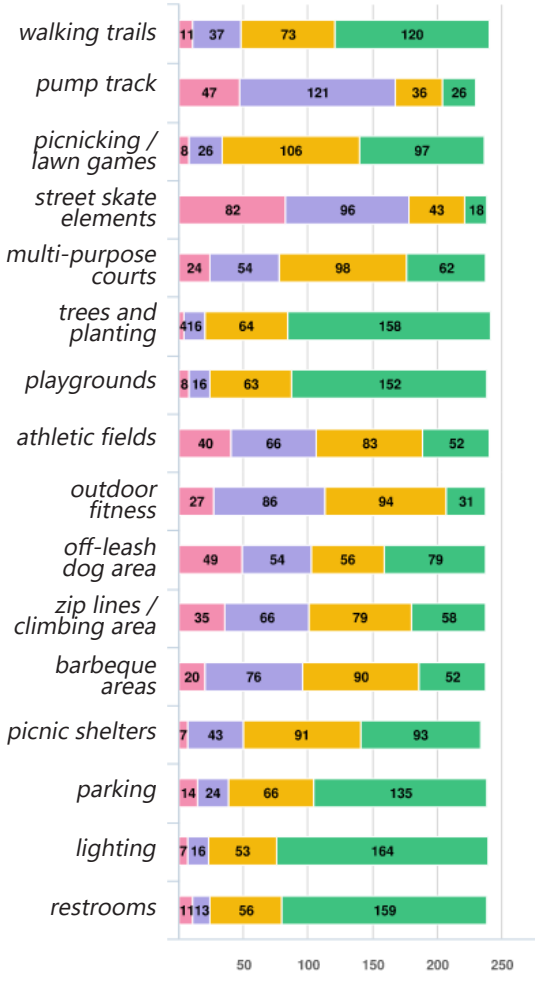


253 respondents

Importance of activities for Seibenthaler Park



Importance of activities for Bennett Property



very important please include

important

not really important

please do not include

90%

supported the master plan concepts

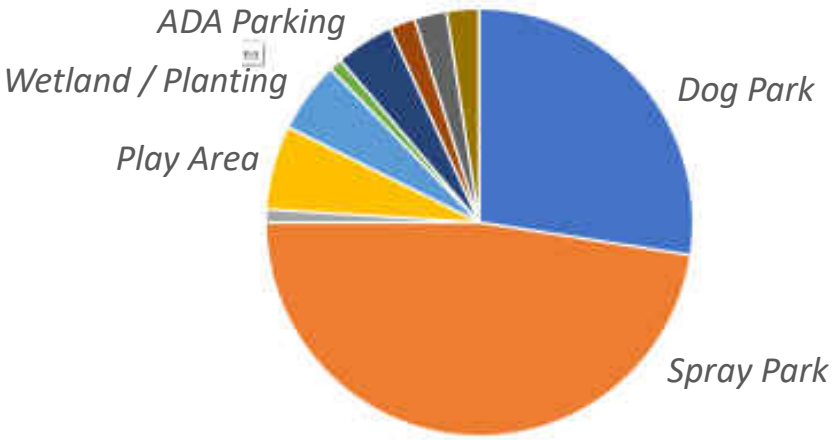
"[Concerned] you are inviting the homeless to set up camp."

"This looks so great! I love the open spaces"

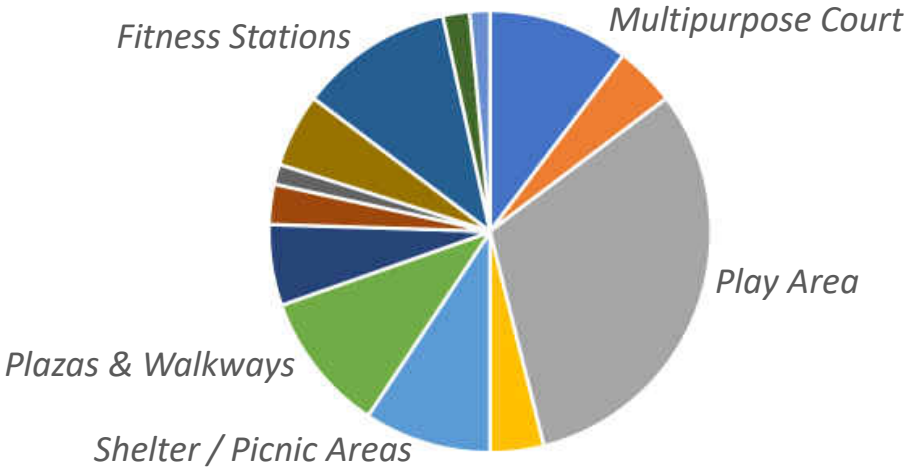
"Definitely keep the spray area! We are excited!"

What are you most excited about for each park?

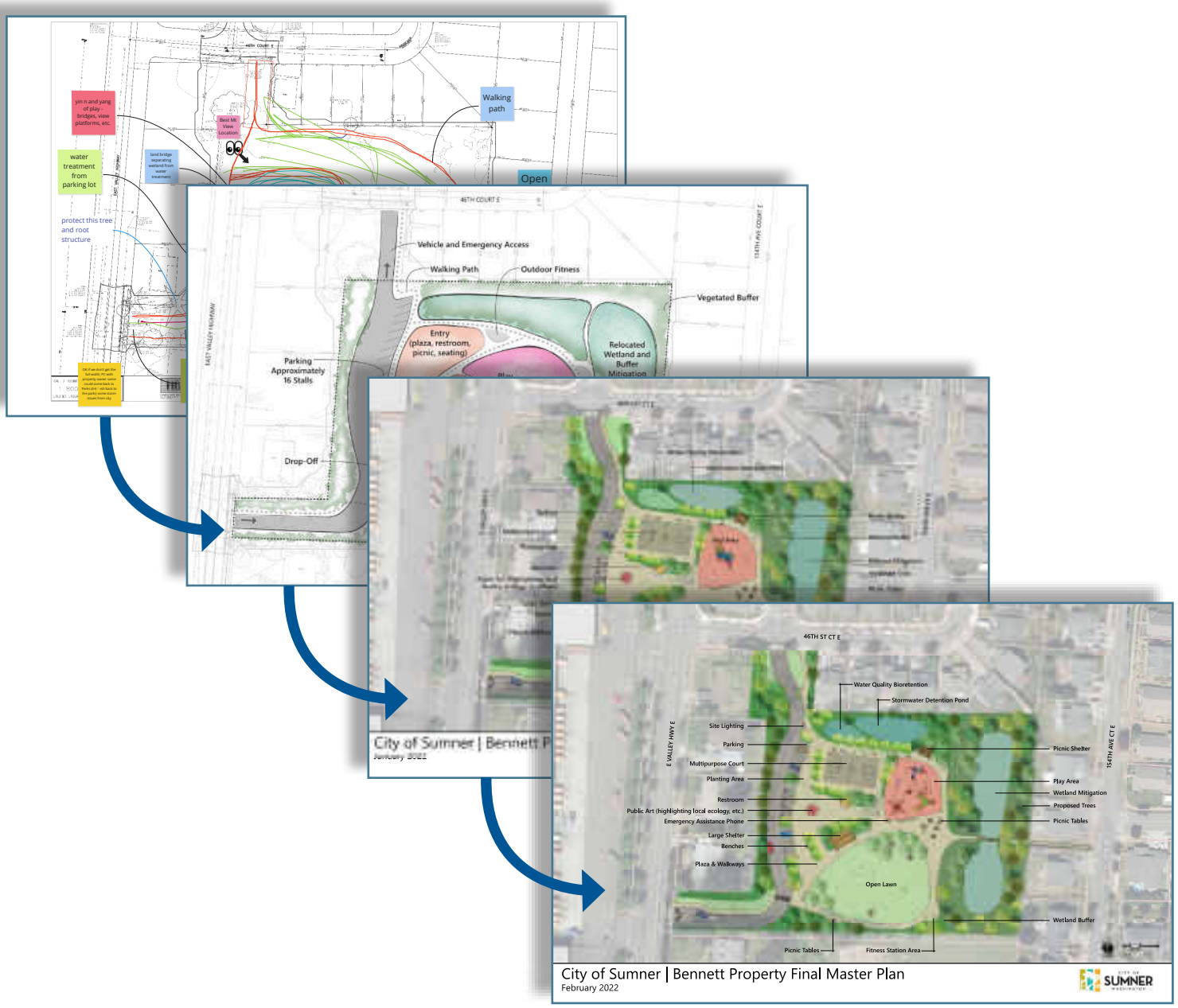
Seibenthaler Park – Top 5



Bennett Property – Top 5



FINAL MASTER PLAN





Seibenthaler Park

Overview

The overall vision for the final master plan of Seibenthaler Park was to create a park that provides a variety of activities, is flexible for all types of users and interests, and creates a space with its own unique character and amenities.

This was accomplished by keeping the existing uses, adding unique elements not found elsewhere in the city's park system, and upgrading all the facilities to meet current standards, improve drainage, and maximize accessibility for all ages and abilities.



Seibenthaler Park

The process began with an analysis of existing conditions and developing two concept alternatives that show a variety of recreational uses in different configurations on the site. The concept alternatives were presented to the public on-line and at a virtual open house.

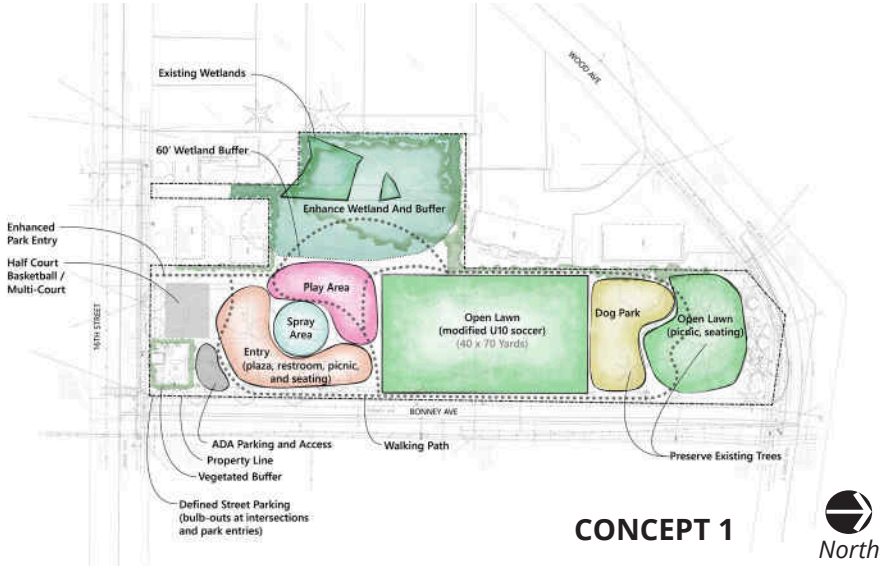
Concept 1 provided enough open lawn to still support modified soccer for younger ages, added a spray park, and created a central plaza and entry into the park. The dog park was relocated to the north end of the park.

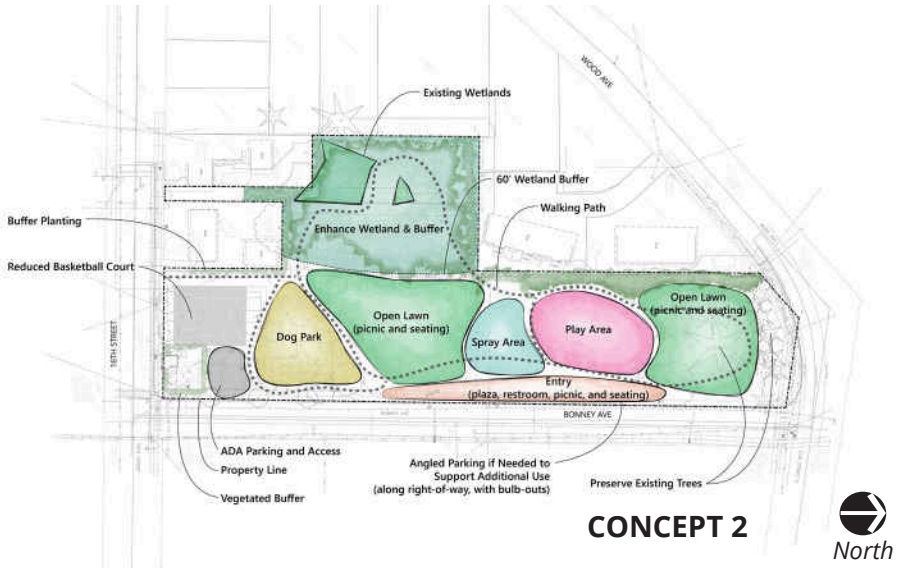
Concept 2 reduced the open lawn area to provide a larger play area spray park. The dog park is located to the south, and the entry is expanded along the entire street frontage for a more open, continuous entry experience.

The community generally liked both concepts, but preferred keeping the spray park and play area in the south end of the park near the multi-purpose court. They generally liked the dog park more separated from the other uses in the park to the north. They also liked the larger looped trail system.

The concept alternatives were also presented to the Sumner Park & Forestry Commission and the City Council with similar comments received. The Commission also expressed an interest in lighting for the park and additional shelters and picnic areas, which the Council supported.

A hybrid of these two concepts was developed and presented back to the public through the city's website with an on-line comment / survey format. The preferred plan was also presented back to the Park & Forestry Commission and the City Council. Feedback received was incorporated into the final park master plan.





Seibenthaler Park



Final Master Plan


ELM ST E
Proposed Trees
Shelter
Open Lawn
Dog Park
Picnic Tables
Existing Trees
es
Area
& Walkways
NORTH
SCALE

Spray Park

Adding a spray park to the Sumner Park system was a highly requested element for residents. Artificial turf would be provided to the west of the spray area as a clean lounging area to observe participants and dry off on.



Dog Park

A temporary pop-up dog run developed at the park was a success, with many residents requesting this be kept as a permanent feature. The dog park area would be relocated away from children's play and spray areas and given more permanent fencing and double gated entry. A more durable surfacing would replace the existing lawn, and a rain-garden located adjacent to the dog area specifically for dog park drainage.



Multi-use Court

An existing basketball court will be reduced to an approximate half court size in order to accomodate the restroom and expanded play and spray areas. The court will be resurfaced and retrofitted to accommodate a wider variety of court oriented games including basketball and pickleball.





Play Area

Renovating the park provides an opportunity to replace the existing play structure with a revitalized play area. A new playground would feature play equipment for a wider age range of children, soft impact surfacing throughout, and shade protection from shade sails. The play equipment would provide for ADA access, but with a wider focus on universal design and a greater range of play opportunities for passive and active play experience. The equipment should also provide opportunities and variety of play not found elsewhere in the city, making this a destination place to play.



Walking Paths

Providing walking paths was highly requested. New and improved features at the park will attract return visitors, and walking paths offer a low cost enhancement for additional age ranges over other, more active features.

The loop will take users through an improved wetland, near open lawns, children's play areas, a section of canopied walk under existing trees, and finally across a paved plaza. Path types include short sections of board walk, paving, and soft-scape such as crushed rock.



Wetland Overlook

Improvements to the existing wetland area will create different user experiences for those walking the park. While relatively short, the loop will take users through an improved wetland with a wooden boardwalk at an overlook to the new wetland restoration.

Bennett Property

Overview

The overwhelming character of the Bennett Property is its natural context and open space. Surrounded by a dense residential neighborhood, the park's open pastoral character sits at a stark contrast and provides a place of respite in an otherwise urbanizing environment. The overall vision for this park is to enhance the natural environment around the edges of the park to provide a strong buffer to the residential properties, while focusing the more improved recreational elements in the central part of the park. This end result will be a neighborhood park that will be easy to access from the adjacent neighborhoods and provide a new place to relax, play, and explore nature in Sumner.



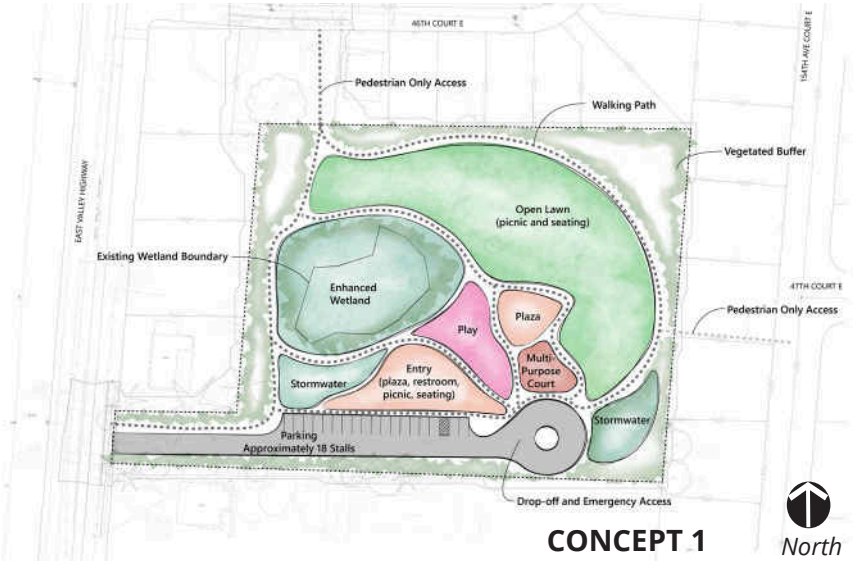
Bennett Property

With the existing wetland in the middle of the existing site and limited access to the park from the neighborhood, the three concept alternatives developed for the Bennett Property centered around the location of the wetland and extent of wetland mitigation, and the vehicular circulation through the site.

While the immediate neighborhood expressed some concerns with an access drive that connected through the park to 46th Street Ct E north of the park, the benefit of allowing park visitors an easy access in and out of the park would limit the number of people who would otherwise park within the neighborhood to access the park. In addition, emergency services for the city requires access to the park before any improvements can be made. The local fire and police services both expressed a preference for an access drive that continues to the north of the park.

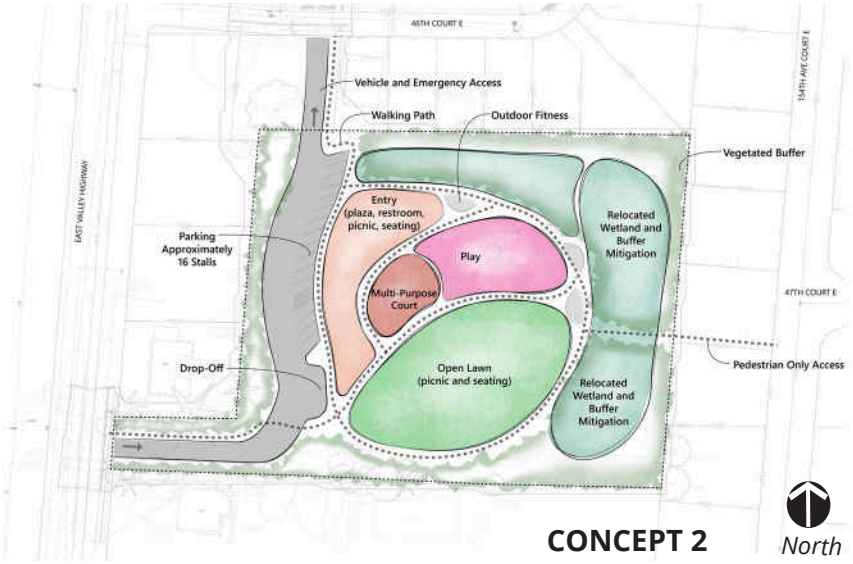
The community expressed a desire for a dog park and a spray park, but residents also indicated that these features at either Seibenthaler or Bennett Property would meet the need. Both features are provided in the final master plan for Seibenthaler Park so were not included at the Bennett Property.

The concept alternatives, preferred plan, and final master plan were presented back to the community, the Parks & Forestry Commission, and City Council with input incorporated prior to finalizing the plan.



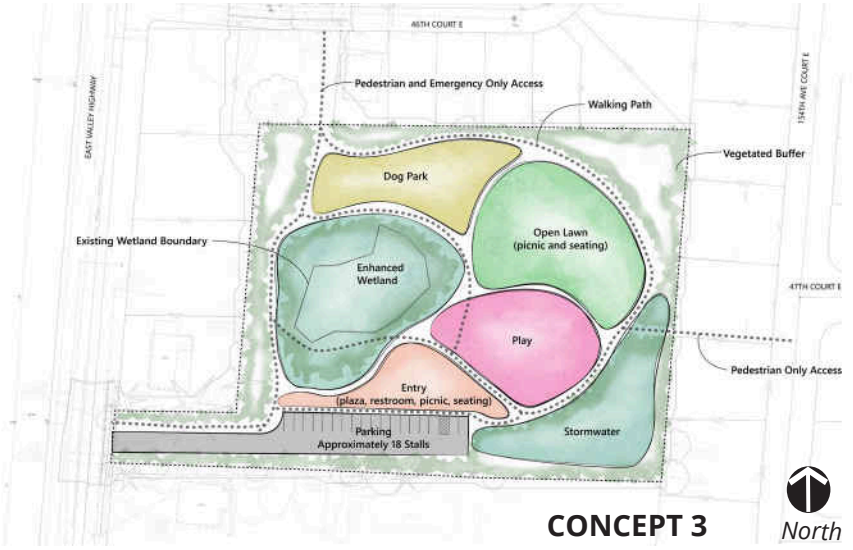
CONCEPT 1

North



CONCEPT 2

North



CONCEPT 3

North

Bennett Property



Final Master Plan


ality Bioretention
Stormwater Detention Pond
Picnic Shelter
Play Area
Wetland Mitigation
Proposed Trees
Picnic Tables
Lawn
Wetland Buffer
s Station Area
154TH AVE CT E
154TH AVE CT E
NORTH
SCALE

Multi-Use Court

The multi-use court at the Bennett Property will be sized to accommodate a full court basketball game, with striping and surfacing to allow for a variety of other sports as needed based on community demand and interests. This could include pickleball, four-square, and volleyball.



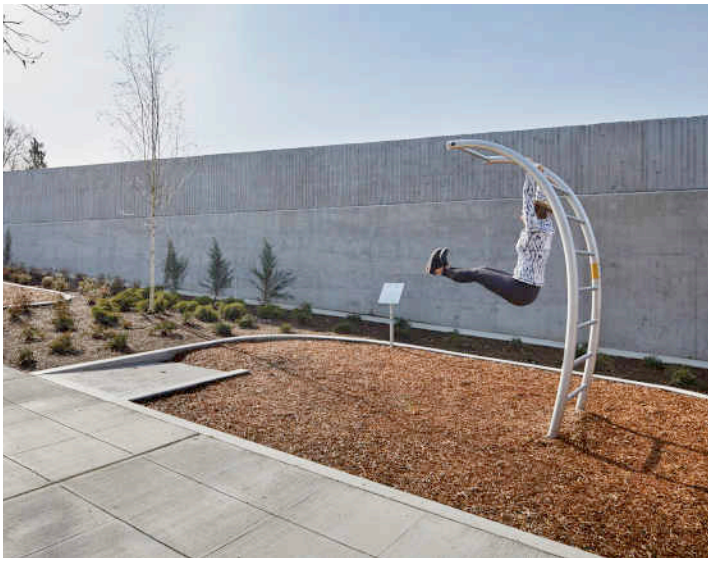
Picnic Shelters

Picnic shelters should be sized to accommodate larger groups with 2-4 picnic tables available for the smaller shelter by the play area, and 6-8 tables for the larger shelter by the open lawn. They should include lighting and bar-be-que facilities. Water and power could also be provided, especially at the larger shelter, which could be used to support a greater variety of programming for the community and/or city programs and events.



Outdoor Fitness

Outdoor fitness stations will be located along the walking path and support overall fitness and wellness opportunities in the park. They can be stationed at different locations through the park and include one or more types of fitness activity at each location. They should be selected to provide enough variety and flexibility for different skills and fitness interests.





Play Area

A new playground would feature play equipment for all ages and abilities, with a special focus on accessible play opportunities and design for universal access. Lighting would allow the playground to be used for extended times. Timber based play structures offer opportunities to incorporate a nature based approach to play elements, and become sculptural elements within the park. Active and passive play would be incorporated into the design.



Neighborhood Connection

The pedestrian connection to 154th Avenue Ct E will be a narrow paved path with fencing on both sides adjacent to the residences. The entrance on 154th Avenue Ct E should have accent planting, a sign, or other feature to highlight the park connection, and bike racks and seating should be provided close to this connection on the park side. View corridors through this area will remain open to provide a welcoming and visually accessible connection to the park.



Wetland Mitigation

The constructed wetland will be a significant feature of this park, providing a new ecosystem and habitat value that doesn't exist today. It will also help protect the privacy and buffer the adjacent residences from the more active portions of the park. The trail connection through the new wetland area should be designed to feel like a bridge with interpretive signage or other information about the constructed wetland.

PROJECT IMPLEMENTATION




American Elm
ENDOWED 2011
IN HONOR OF
NEIL CALVANESE
American Elm
ENDOWED 2012
TOM KEMPNER &
KITTY PATTERSON
Pin Oak
ENDOWED 2011
IN HONOR OF
PREDY

COST ESTIMATE

Rough order-of-magnitude (ROM) cost estimates were generated for Seibenthaler Park and the Bennett Property to evaluate potential costs associated with proposed improvements. However, this is a one-time snapshot of rough cost estimates based on 2022 development costs, and more detailed cost estimates would need to be developed for each individual phase of improvements during final design.

Below is a summary of the development costs for each park.

Seibenthaler Park

	CONSTRUCTION COSTS				SOFT COSTS			
	Construction Costs	Sales Tax (9.4%)	Mobilization (12%)	**Subtotal Construction Costs**	Design Fees (20%)	Admin/ Permitting Fees (5%)	Contingency (30%)	**TOTAL**
Demolition / Site Preparation	$121,843	$11,453	$15,996	**$149,292**	$29,858	$7,465	$44,788	**$231,403**
Earthwork	$74,975	$7,048	$9,843	**$91,865**	$18,373	$4,593	$27,560	**$142,391**
Site Utilities / Drainage	$246,115	$23,135	$32,310	**$301,560**	$60,312	$15,078	$90,468	**$467,418**
Paving	$896,958	$84,314	$117,753	**$1,099,025**	$219,805	$54,951	$329,708	**$1,703,489**
Site Improvements	$2,789,381	$262,202	$366,190	**$3,417,772**	$683,554	$170,889	$1,025,332	**$5,297,547**
Site Furnishings	$176,325	$16,575	$23,148	**$216,047**	$43,209	$10,802	$64,814	**$334,874**
Playground	$464,747	$43,686	$61,012	**$569,446**	$113,889	$28,472	$170,834	**$882,641**
Spray Park	$1,000,000	$94,000	$131,280	**$1,225,280**	$245,056	$61,264	$367,584	**$1,899,184**
Restroom	$350,000	$32,900	$45,948	**$428,848**	$85,770	$21,442	$128,654	**$664,714**
Shade Structures / Shelters	$587,800	$55,253	$77,166	**$720,220**	$144,044	$36,011	$216,066	**$1,116,340**
Dog Park	$140,558	$13,212	$18,453	**$172,223**	$34,445	$8,611	$51,667	**$266,946**
Multipropose Court	$21,800	$2,049	$2,862	**$26,711**	$5,342	$1,336	$8,013	**$41,402**
Lighting / PET	$49,000	$4,606	$6,433	**$60,039**	$12,008	$3,002	$18,012	**$93,060**
Planting / Irrigation	$703,782	$66,155	$92,392	**$862,330**	$172,466	$43,116	$258,699	**$1,336,611**
Estimated Total Cost	**$4,833,054**	**$454,307**	**$634,483**	**$5,921,845**	**$1,184,369**	**$296,092**	**$1,776,553**	**$9,178,859**

NOTE: All costs are based on 2022 estimated cost of construction. Escallation is not included.

Bennett Property

	CONSTRUCTION COSTS				SOFT COSTS			
	Construction Costs	Sales Tax (9.4%)	Mobilization (12%)	**Subtotal Construction Costs**	Design Fees (20%)	Admin/ Permitting Fees (5%)	Contingency (30%)	**TOTAL**
Demolition / Site Preparation	$99,328	$9,337	$13,040	**$121,704**	$24,341	$6,085	$36,511	**$188,641**
Earthwork	$85,273	$8,016	$11,195	**$104,483**	$20,897	$5,224	$31,345	**$161,949**
Site Utilities / Drainage	$491,661	$46,216	$64,545	**$602,423**	$120,485	$30,121	$180,727	**$933,755**
Paving	$981,672	$92,277	$128,874	**$1,202,823**	$240,565	$60,141	$360,847	**$1,864,376**
Site Improvements	$2,041,195	$191,872	$267,968	**$2,501,035**	$500,207	$125,052	$750,311	**$3,876,605**
Site Furnishings	$206,120	$19,375	$27,059	**$252,555**	$50,511	$12,628	$75,766	**$391,460**
Playground	$703,375	$66,117	$92,339	**$861,831**	$172,366	$43,092	$258,549	**$1,335,839**
Public Art	$350,000	$32,900	$45,948	**$428,848**	$85,770	$21,442	$128,654	**$664,714**
Restroom	$350,000	$32,900	$45,948	**$428,848**	$85,770	$21,442	$128,654	**$664,714**
Shade Structures / Shelters	$275,000	$25,850	$36,102	**$336,952**	$67,390	$16,848	$101,086	**$522,276**
Fitness Stations	$40,000	$3,760	$5,251	**$49,011**	$9,802	$2,451	$14,703	**$75,967**
Multipropose Court	$43,600	$4,098	$5,724	**$53,422**	$10,684	$2,671	$16,027	**$82,804**
Lighting / PET/ EV charging	$71,500	$6,721	$9,387	**$87,608**	$17,522	$4,380	$26,282	**$135,792**
Planting / Irrigation	$1,332,503	$125,255	$174,931	**$1,632,689**	$326,538	$81,634	$489,807	**$2,530,668**
Estimated Total Cost	**$5,031,631**	**$472,973**	**$660,553**	**$6,165,157**	**$1,233,031**	**$308,258**	**$1,849,547**	**$9,555,994**

NOTE: All costs are based on 2022 estimated cost of construction. Escallation is not included.

Seibenthaler Park permitting matrix

Potential Permit	Improvement	Permit Trigger
National Environmental Policy Act (NEPA)	Wetland enhancement	Federal Clean Water Act permit
State Environmental Policy Act (SEPA)	Site re-development	Non-exempt project action
Section 404 Clean Water Act Nationwide Permit	Wetland enhancement	Discharge of dredge or fill material into Water of the U.S.
Section 401 Clean Water Act Water Quality Certification	Wetland enhancement	Discharge of dredge or fill material into Water of the U.S.
Dept. of Ecology Administrative Order	Wetland enhancement	Impacts to wetland not within Federal jurisdiction
City of Sumner Critical Areas Ordinance	Site re-development including wetland enhancement and buffer modification	Wetland enhancement, modification of wetland buffer, work within mapped aquifer recharge area, high seismic hazard rating, and volcanic hazard zone

Bennett Property permitting matrix

Potential Permit	Improvement	Permit Trigger
National Environmental Policy Act (NEPA)	Wetland fill and compensatory mitigation	Federal Clean Water Act permit
State Environmental Policy Act (SEPA)	Site development	Non-exempt project action
Section 404 Clean Water Act Nationwide Permit	Wetland fill and compensatory mitigation	Discharge of dredge or fill material into Water of the U.S.
Section 401 Clean Water Act Water Quality Certification	Wetland fill and compensatory mitigation	Discharge of dredge or fill material into Water of the U.S.
Dept. of Ecology Administrative Order	Wetland enhancement	Impacts to wetland not within Federal jurisdiction
City of Sumner Critical Areas Ordinance	Site development including wetland and buffer modification	Wetland enhancement, modification of wetland buffer, work within mapped aquifer recharge area, high seismic hazard rating, and volcanic hazard zone



FUNDING OPPORTUNITIES



Grant Funding can come from a variety of sources, but grant funding for park improvements is most often through the State of Washington Recreation & Conservation Office (RCO). There are a variety of grant programs within RCO, and their grant managers can help determine the best option to match the needs of your park project. All of the local park grant programs (LWCF and WWRC) require a local match to be eligible for the grant program.



Partnerships can be a great resource for funding, and can contribute to a lasting relationship between organizations within the partnership. Partnerships can be used to help support construction or operations and maintenance of park improvements. Examples include the dog park or habitat improvements.



Volunteer support for a park this size can often be difficult to manage. However, when considering the number of potential volunteers, it should have a positive impact on the park, as well as help maintain a sense of ownership by the local community. Volunteers are generally used most to support maintenance in the form of vegetation management, clean-up, and other minor improvements.



State Appropriation, or a 'legislative ask', are funds applied to a project directly from the State legislature as part of the annual State budget process, generally through lobbying activities and community support.



Bonds can be a councilmanic bond, a limited capacity bond approved by City Council without a public vote, or general obligation bonds that are approved by public vote. General obligation bonds used for park improvements are limited to capital improvements. **Levies** are similar, but with the added benefit of being used to also fund maintenance as well as capital improvements and only requires a simple majority of the public vote.



Local Capital Improvement Program dollars can come from a variety of sources, generally through City funding resources. They can be any combination of taxes and fees assigned to support capital improvements, operations and maintenance of parks and recreation facilities.



Sponsorships can come in the form of single donations of goods, dollars, and services or annual donations. Recognition of sponsors and donors needs to be considered and can affect how successful this funding source is - from "buy a brick" programs to naming rights of individual park features. Playgrounds, the dog park, and picnic shelters are good examples where sponsorships have been used in other communities to help fund these improvements.

APPENDICES

Appendix A: Final Master Plans
Appendix B: Public Involvement Plan
Appendix C: Environmental Analysis
Appendix D: Community Outreach Surveys
Appendix E: Site Surveys
Appendix F: Cost Estimate

APPENDIX A

Final Master Plans



City of Sumner | Seibenthaler Park Final Maste

February 2022



er Plan

CITY OF SUMNER WASHINGTON



City of Sumner | Bennett Property Final Maste

February 2022



er Plan

CITY OF SUMNER WASHINGTON

APPENDIX B

Public Involvement Plan

Park Master Plans

Public Involvement Plan

Purpose and Background

This project includes two park master plans, an updated plan for the existing Seibenthaler Park and a master plan for a new park site known as the Bennett Property, currently undeveloped.

The purpose of the Park Master Plans is to develop a long-term vision and provide a concept to guide future improvements and development of the parks. Features shown in master plans illustrate how activities and improvements would be laid out over the landscape and their relationship to each other. For that reason, it's critical the park master plans reflect the programming and character traits the community thinks the park should include, but also understand and recognize that changes will occur over time and additional detailed design work will be needed before any construction could begin.

The Public Involvement Plan describes the goals and objectives, principles, strategies, and activities for engagement. The plan includes an outline of each proposed outreach event, the desired outcome, the tools used, materials needed, anticipated participants, and summary methods. It is intended as a living document, and as such, it will be updated throughout the process to include any adaptive strategies needed based on feedback received or results of early engagement activities.

The outreach process needs to be creative, flexible, and inclusive to all. It needs to be responsive to the latest safety and health parameters as outlined by the City in response to the current COVID pandemic, transitioning from a virtual environment to in-person activities as soon as possible. The process needs to represent and reflect the diverse communities, neighborhoods, stakeholders, and visitors being served.

Public Involvement Goals and Strategies

Effective community engagement takes careful planning and an acknowledgement that engagement with each and every participant is an opportunity to broaden our understanding of what makes a community.

- **Build on relationships with target population**
  - Continue to maintain and build relationships with the public, key stakeholders, and community leaders relevant to park development, maintenance, and improvement projects.
  - Directly engage groups that have historically not participated in the public process through a variety of methods, on-line and in-person if needed.

- Outreach should be targeted towards the adjacent neighborhoods, but also allow for city-wide engagement.
- Actively engage organizations, community leaders, and community groups in target populations.
- Consider current and future park users and program providers.

- **Create a welcoming atmosphere**
  - Make participation easy and convenient.
  - Time events to ensure participation from a variety of populations (day, evening, weekends, etc.).
  - Directly invite members of the target population to participate through emails, phone calls or other one-on-one methods.
  - Create an environment that promotes two-way conversation and allows a safe space to exchange ideas, including a variety of perspectives for any given topic.
  - Make outreach enjoyable.
  - Reflect comments received back to the community.
  - Adapt methods, strategies and materials used in the outreach process based on feedback received.
- **Increase accessibility**
  - Provide opportunities across a broad variety of platforms – digital and analog; verbal, graphic and written.
  - Consider potential barriers to participation and address those barriers to the maximum extent feasible.
  - Provide sufficient noticing ahead of outreach events to raise awareness and notice in as many and varied ways as possible to reach the widest audience.
- **Develop alternative methods for engagement**
  - Provide a variety of resources and materials to appeal to all ages and abilities.
  - Reach out to where the target population already is or places / platforms they currently use; not always requiring that population to come to you.
  - Offer multiple ways for participants to provide feedback.

Stakeholders & Audiences

There are many user groups, organizations, individuals and communities that are stakeholders in this process. The City will work to inform and engage each of these stakeholders in the Park Master Plans process. The different stakeholders and audiences that may be affected by or interested in this process are organized by category below, along with the specific outreach method proposed for each category. The list of stakeholders is expected to change over the course of the project and will be updated as needed.

Category	Outreach Method
UNDER REPRESENTED POPULATIONS: *(includes formal or informal community groups, ethnicities or other population types) – City will review census, signage in Spanish may be needed. People with disabilities, dog owners, younger tots (2-5)*	• Public meetings and surveys • Emails, notices, and project information distribution • Potential one-on-one outreach
NEIGHBORS: *(includes businesses, property owners, schools, and residents)*	• Public meetings and surveys • Emails, notices, and project information distribution • Flyers and on-site posting • Social media
PARK STAKEHOLDERS: *(includes City-wide and park-specific user groups, organizations that could run events in the park, and recreation or program providers)*	• Public meetings and surveys • Emails, notices, and project information distribution • Presentations to select groups (by City)
CITY DEPARTMENTS / PROGRAMS:	• Emails, notices, and project information distribution • Topic-specific discussions or meetings as needed • Presentations to boards / commissions

Public Involvement Strategies & Activities

The following table illustrates the strategies and activities for building awareness on an ongoing basis to share the project and gather feedback from the community. It also addressed the methods and tools used to advertise outreach events. The goal of these strategies is to make it easy and convenient for people to get the information they need to learn about the project, to participate in the outreach activities, and to see how their input influences the project outcomes. Awareness and advertising tools

anticipated for this process include:

Tool	Description	Responsibility
City / Project Website	Update City website and Sumner Connects with a link to the project website, highlight outreach events and dates, update the website to include project materials and summaries of outreach events as they are available.	COS
City Newsletter	Advertise upcoming outreach events, provide summary of project status.	COS
Community newsletters	Send outreach notices and other materials to community or organization newsletter(s) – as many as possible.	COS
Public notices / flyers	Post public notices and flyers at the park, businesses, organizations and other places within the community to advertise outreach events. Create a larger notice banner or board to post at each park highlighting the project with info to the project website.	COS
Email	Send notices to project email contact list and wider parks general email list. Direct emails to stakeholders and organizations to encourage partners to help spread the word and redistribute notices to their members/contacts.	COS
Social Media	Twitter Account Instagram Account Facebook Pages	COS
Media outlets	Provide public notices and flyers to media outlets – community specific and City-wide	COS

Schedule of Outreach and Involvement Activities

Providing a forum to support a community conversation about the Park Master Plans is critical to the success of this project. Just as important is ensuring that the conversation goes both ways – that people receive important information about the park and the ideas proposed; and that people are able

to convey their ideas and opinions for the parks.

The outreach activities proposed include methods and tools to convey information to the general public, ways for the public to provide comments on ideas presented, and opportunities for an open dialog, giving participants a platform for their voice to be heard.

Project Phase	Timing	Engagement Activities
1. ***Background and Analysis***	*July-Aug*	**City Visioning Workshop:** Provide an overview of the background information and other research, initial impressions of the site, and the draft public involvement plan. Identify opportunities and constraints for the master plan and/or the planning process, including initial programming opportunities for the site. **User Group/Provider Questionnaire:** A survey for current and potential parks users and stakeholders will be created and distributed to understand types of uses, current participants, potential growth, and other relevant planning needs. **Boards/Commission Presentation:** Presentation for review and discussion. (COS) **Sumner City Council:** Presentation for review and discussion. (COS) **Media and Notices** (COS)
2. ***Vision and Programming***	*Aug - Sept*	**Pop-Up Event #1:** Ryan Avenue Event. Provide exhibits and post card survey to gauge early programming interests for both parks. (COS) **On-Line Survey #1:** mirror the post card pop-up questions to gain larger city-wide input on initial programming ideas for the parks. (COS / HBB) **Public Meeting #1:** Introduce the project purpose, share initial impressions of the park, identify opportunities and constraints and listen to community ideas for park improvements. (COS / HBB) **Boards/Commission Presentation:** Presentation for review and discussion. (COS) **Sumner City Council:** Presentation for review and discussion. (COS) **Media and Notices** (COS)

3. Schematic Design	*Aug-Oct*	**Public Meeting #2:** Receive feedback on initial concepts for programming and activation of the parks, as well as any additional ideas for park improvements. Site plan concepts and photo examples will be used as the primary means for conveying programming and activation concepts. (COS / HBB) **On-Line Survey #2:** Test the initial concepts with a wider audience; receive feedback on concept alternatives; determine preferences or priorities for potential park improvements. (COS / HBB) **Pop-Up Event #2:** Event could be stand-alone or in tandem with other community events. An intercept survey could be prepared and conducted to match questions in the on-line survey. (COS) **Board/Commission Presentation:** Presentation for review and discussion. (COS / HBB) **Sumner City Council:** Presentation for review and discussion. (COS / HBB) **Media and Notices** (COS)
4. Implementation and Adoption	*Nov-Mar*	**Public Meeting #3:** Present preferred master plan concept for programming and activation of the parks. Project priorities and projected next steps will also be presented. Concept plans and other materials will be updated to reflect comments received in prior outreach events. (COS / HBB) **On-Line Survey #3:** Receive additional comments on the preferred master plan concepts and any priorities or next steps. (COS / HBB) **Pop-Up Event #3:** Event could be stand-alone or in tandem with other community events. An intercept survey could be prepared and conducted to match questions in the on-line survey. (COS) **Boards/Commissioners:** Presentation for review and discussion. (COS / HBB) **Sumner City Council:** Presentation for review and discussion. (COS / HBB) **Media and Notices** (COS)

Public meetings (on-line and/or in-person)

Audience: Open to the general public. Advertised to residents, visitors, and stakeholder groups / organizations. Flyers posted at the park, on the City's website, emailed to list of park users and interest groups. Emails and direct contact with underrepresented populations.

Method/Tools: In-person if possible, virital through City's Zoom if needed

On-line survey following the meeting to obtain feedback from a wider audience. Post video, materials and summary of the event to COS and/or project website. Make all comments and questions available as part of the meeting summary.

Special accommodations during meetings, including translation services, will be provided by COS as needed.

Surveys (on-line)

Audience: Same as Public Meetings above but additional focus to larger City-wide participation and participation from individuals or groups who are traditionally marginalized or underserved and need to have their voices heard. Direct outreach to organizations and groups representing marginalized or underserved populations.

Methods/Tools – Online survey platform with the following features:

- Graphics integrated with questions where needed
- Demographic questions to better analyze the responses and gauge responses from target communities

Post analysis of survey responses, including all survey data and demographics of survey participants, to COS and/or project website.

COVID / Safety Response

All outreach events open to the public will be held through a virtual platform on-line until restrictions on social gatherings are lifted and it is safe to gather again.

Pop-up events will be developed to ensure 6-foot distance at all times and wearing facial coverings. Extra masks will be on-hand for any members of the public who do not already have one. Additional safety protocols will be developed case by case basis.

On-site walks with stakeholders will include all recommended safety precautions and be limited to a group size per the requirements from the city at the time of the event.

APPENDIX C

Environmental Analysis

Wetland Delineation Report: Seibenthaler Park and Bennett Property Sites

Sumner Parks Master Plans
City of Sumner, Washington

for
Hough Beck & Baird, Inc.

April 18, 2022

GeoEngineers

Wetland Delineation Report:
Seibenthaler Park and Bennett Property Sites

Sumner Parks Master Plans
City of Sumner, Washington

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April 18, 2022

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Wetland Delineation Report:
Seibenthaler Park and Bennett Property Sites

Sumner Parks Master Plans
City of Sumner, Washington

File No. 0588-016-00

April 18, 2022

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1.0 INTRODUCTION

GeoEngineers, Inc. (GeoEngineers) was contracted by Hough Beck & Baird, Inc. (HBB) to perform wetland delineation services for the City of Sumner (City) Park Master Plans related to the expansion of Seibenthaler Park and the creation of a new park, referred to as the Bennett Property, both in Pierce County, Washington (Figure 1, Vicinity Map). The City intends to develop an overall master plan for each park location. The master planning process will generally include a review and analysis of the existing site, public engagement to gather input and feedback on proposed master plan concepts, cost estimates of the preferred and final master plans, and associated phasing and funding strategies. This report is intended to provide baseline wetland and critical areas assessment data for each park site in accordance with Sumner Municipal Code (SMC) Title 16, Division III – Natural Resource Lands and Critical Areas, with particular focus on Chapter 16.46 – Wetlands Protection and Chapter 16.56 – Wildlife Habitat Area (City of Sumner 2021).

1.1. Project Locations and Site Descriptions

1.1.1. Seibenthaler Park

Seibenthaler Park is located at 1602 Bonney Avenue in Sumner, Washington (see Figure 1). It is within Section 42, Township 20 north, Range 04 east in Water Resource Inventory Area (WRIA) 10 – Puyallup/White. The area of assessment includes the current Seibenthaler Park as well as two undeveloped parcels adjacent to the park to the west (Tax Parcel No.'s 3090000023 and 3090000022) onto which the park will be expanded as part of the Master Plan. This assessment primarily focused on the two undeveloped parcels as there are no critical areas within the existing developed portion of the park.

Seibenthaler Park contains open space, a fenced dog park, park facilities- and two adjoining undeveloped parcels. The open space and dog park consist of mowed turf grass, with a cluster of Douglas fir (*Pseudotsuga menziesii*) trees on the northern perimeter. The two adjoining undeveloped parcels consist of invasive and native shrub and herbaceous vegetation as well as the remnants of a former structure foundation. The site is bordered by Bonney Avenue to the east, 16th Street to the south, Elm Street to the north and single-family residences to the west. Site Photographs are included in Appendix A-1, Site Photographs - Seibenthaler Park.

1.1.2. Bennett Property

The Bennett Property is located at 4811 East Valley Highway in Sumner Washington (Figure 1). It is within Section 41, Township 20 north, Range 05 east in WRIA 10 – Puyallup/White. The area of assessment consisted of the entirety of Tax Parcel No. 0520192006.

The Bennett Property consists primarily of an open field of grasses that appears to have been maintained by regular but infrequent mowing. Two small patches of shrubs and small trees were present in the northern central area of the parcel, surrounded completely by field grass. The perimeter of the property consists of Himalayan blackberry (*Rubus armeniacus*), Douglas fir and various non-native shrubs typical of landscaped areas. The site is bordered by single-family residences on all sides, with a small-scale agriculture field also bordering a portion of the southern property line. Representative site photographs are included in Appendix A-2, Site Photographs – Bennett Property.

2.0 DATA REVIEW

Environmental maps of the project site were collected and reviewed as part of a paper inventory. Our search for published background data included review of the following sources. Data and maps compiled during this review are included in Appendix B-1, Seibenthaler Park Data Review Results and Appendix B-2, Bennett Property Data Review Results.

- City of Sumner, Washington Web Map (City of Sumner 2021);
- United States Department of Agriculture – National Resource Conservation Service (USDA-NRCS) State Soil Data Access (SDA) Hydric Soils List (USDA-NRCS 2021a);
- USDA - NRCS Web Soil Survey (USDA-NRCS 2021b);
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Wetlands Mapper (USFWS 2021);
- Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) interactive mapping (WDFW 2021);
- Washington State Department of Natural Resources (DNR) Forest Practices Application Review System (FPARS) (DNR 2021a); and
- Washington State Department of Natural Resources (DNR) National Heritage Program (WNHP), Washington Wetlands of High Conservation Value (DNR 2021b).

2.1. Seibenthaler Park

The following review data are applicable to SMC 16.46 – Wetlands Protection:

- The USFWS NWI online mapper depicts no wetland or stream habitat within the Seibenthaler Park assessment area.
- The USDA-NRCS Web Soil Survey shows two soil types within the project site: Sultan silt loam and Briscot loam. Sultan silt loam and Briscot loam are both listed as hydric soils on the NRCS Hydric Soils List.
- The City of Sumner, Washington Web Map shows no wetlands or streams within Seibenthaler Park. The online mapper also shows the assessment area to be outside the jurisdiction of the Shoreline Master Program for the City of Sumner.
- The Washington DNR Natural Heritage Program shows no known wetlands of high conservation value within the area of assessment.

The following review data are applicable to SMC 16.56 – Wildlife Habitat Areas:

- The Washington DNR Natural Heritage Program shows no rare plant species within the area of assessment.
- The WDFW PHS report shows no priority habitats within a 300-foot boundary of the Seibenthaler Park assessment area.
- FPARS shows no streams mapped within the area.

An additional limited review of background data was conducted to address the remaining items listed under Division III – Natural Resource Lands and Critical Areas in SMC Title 16. These items largely fall outside the scope of this report but may need to be considered during the master planning process.

- The City of Sumner, Washington Web Map shows the Seibenthaler Park assessment area contains no mineral resources lands, erosion hazard areas or landslide hazard areas.
- The assessment area is within a mapped aquifer recharge area with high seismic hazard ratings.
- Seibenthaler Park is also within a volcanic hazard zone, time travel zone C.

2.2. Bennett Property

The following review data are applicable to SMC 16.46 – Wetlands Protection:

- The USFWS NWI online mapper depicts no wetland or stream habitat within the Bennett Property assessment area.
- The USDA-NRCS Web Soil Survey shows two soil types within the project site: Sultan silt loam and Briscot loam. Sultan silt loam and Briscot loam are both listed as hydric soils on the NRCS Hydric Soils List.
- The City of Sumner, Washington Web Map shows one wetland within the Bennett property boundary, and no streams. The online mapper also shows the assessment area to be outside the jurisdiction of the Shoreline Master Program for the City of Sumner.
- The WDFW PHS report shows no wetlands within the Bennett Property but maps a small freshwater forested/shrub wetland approximately 300 feet to the east. The site would be well outside the buffer associated with this potential off-site wetland area.
- The Washington DNR Natural Heritage Program shows no known wetlands of high conservation value within the area of assessment.

The following review data are applicable to SMC 16.56 – Wildlife Habitat Areas:

- The Washington DNR Natural Heritage Program shows no rare plant species within the area of assessment.
- The WDFW PHS report does not show any other priority habitats, other than the wetland described above, within a 300-foot boundary of the Bennett Property.
- FPARS shows no streams mapped within the area.

An additional limited review of background data was conducted to address the remaining items listed under Division III – Natural Resource Lands and Critical Areas in SMC Title 16. These items largely fall outside the scope of this report but may need to be considered during the master planning process.

- The City of Sumner, Washington Web Map shows the area of assessment contains no mineral resources lands, erosion hazard areas or landslide hazard areas.
- The assessment area is within a mapped aquifer recharge area with high seismic hazard ratings.
- The Bennett Property is also within a volcanic hazard zone, time travel zone C.

3.0 WETLAND DELINEATION

3.1. Field Assessment Methods

Two GeoEngineers' biologists conducted a field assessment on July 26, 2021, at each of the two sites. An "assessment area" was identified based on property ownership and was defined by tax parcel lines, which are shown on Figure 2.1, Seibenthaler Park Wetland Delineation and Figure 2.2, Bennett Property Wetland Delineation. GeoEngineers characterized and delineated wetland features within each assessment area. A photographic record was collected during the field visit to document existing site conditions and is included in Appendices A-1 and A-2.

The delineation of aquatic critical areas (wetlands and streams) was conducted in accordance with guidelines presented in SMC 16.46 – Wetlands Protection and SMC 16.56 – Wildlife Habitat Areas. The wetland delineation was conducted in accordance with SMC 16.45.070, the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (USACE 2010). The ordinary high water mark (OHWM) of potential streams was evaluated by examining breaks in the topography, drift lines and signs of water marks, according to USACE protocol as referenced from Regulatory Guidance Letter (No. 05-05), Ordinary High-Water Mark Identification, December 7, 2005, (Riley 2005) and according to the Washington State Department of Ecology (Ecology) 2016 guidance (Anderson et al. 2016). The Washington Administrative Code (WAC) was also referenced for the definition of OHWM (WAC 173-22-030 § 11).

Each delineated wetland was rated as a separate unit using the 2014 Washington State Wetland Rating System for Western Washington (Hruby 2014) as specified in SMC 16.46.070 – Wetland rating, and buffer widths were identified based on SMC 16.46.150 – Buffer requirements. Rating forms for each wetland are provided in Appendix C, Wetland Rating Forms. GeoEngineers placed survey flags in the field marking wetland jurisdictional boundaries, which were subsequently surveyed by others.

3.2. Field Assessment Results

GeoEngineers documented occurrences of wetlands within the assessment area of each park site during the field reconnaissance. No streams were identified at the sites. The results are illustrated in Figures 2.1 and 2.2 and summarized below and in Tables 1 through 3.

3.2.1. Seibenthaler Park

GeoEngineers identified two wetlands (Wetlands A and B) within the Seibenthaler Park assessment area. To make wetland identifications, a total of four formal data sample plots were established within the assessment area, as shown on Figure 2-1. Sample plot data forms for the Seibenthaler Park site are presented in Appendix D-1, Seibenthaler Park Sample Plot Data Forms.

Wetland A is an approximate 0.07-acre depressional wetland containing emergent and scrub-shrub vegetation classes. Wetland A received a Category III rating with three habitat points on the Ecology rating form, requiring an 80-foot standard buffer according to the SMC. Dominate vegetation within Wetland A consists of reed canarygrass (*Phalaris arundinacea*), horsetail (*Equisetum arvense*), sitka willow (*Salix sitchensis*) and cottonwood (*Populus balsamifera*) saplings. Additional details are presented in Table 1, below.

Wetland B is an 0.008-acre depressional emergent wetland. Wetland B received a Category III rating with three habitat points on the Ecology rating form, requiring an 80-foot standard buffer according to the SMC. Dominant vegetation within the wetland consists of horsetail, reed canarygrass and Himalayan blackberry. Additional information is present in Table 2, below.

TABLE 1. WETLAND A

General Information		
Location	Within the southern undeveloped parcel adjoining Seibenthaler Park	
WRIA	10 – Puyallup-White	
Local Jurisdiction	City of Sumner	
Rating	III[1]	
Buffer Width	80 feet[2]	
Size	Approximately 0.07 acre	
Cowardin Class	Palustrine Scrub-Shrub and Emergent	
HGM Class	Depressional	
Description Summary		
Vegetation	**Herbaceous:** Reed canarygrass (*Phalaris arundinacea*), horsetail (*Equisetum arvense*), Himalayan blackberry (*Rubus armeniacus*), common rush (*Juncus effusus*), creeping buttercup (*Ranunculus repens*), morning glory (*Convolvulus repens*) **Scrub- shrub:** Sitka willow (*Salix sitchensis*), cottonwood (*Populus balsamifera*)	
Soils	Meets criteria for hydric soil indicator Depleted Matrix (F3)	
Hydrology	**Indicators:** Facultative (FAC)-Neutral test (D5) and Geomorphic Position (D2). **Source:** Direct precipitation and groundwater.	
Western Washington Wetland Rating Functions Summary (Appendix D-1 - 16 points total)		
Water Quality	**7 points:** The wetland has no outlet. More than 95 percent of the wetland area is dominated by persistent un-grazed vegetation. The area around the wetland generates pollutants and is in a basin with 303(d) listed waters and a water quality plan.	
Hydrologic	**6 points:** Wetland has no outlet and ponding less than ½-foot-deep. The area of the basin is 10 to 100 times the size of the unit. The wetland is in an area with excessive runoff and intensive human land uses with flooding problems in a basin further down gradient.	
Habitat	**3 points:** The wetland contains two vegetation communities (scrub-shrub and emergent) with a single hydroperiod. The wetland has low habitat interspersion and no special habitat features. The wetland is in a 1 kilometer (km) area dominated by high intensity land uses.	
Buffer Condition	The buffer is in a residential area with single-family homes and a park with mowed grasses.	

Notes:
1. Wetland rating in accordance with Washington State Wetlands Rating System for Western Washington (Hruby 2014).
2. Based on the table in the SMC 16.46.150 along with a habitat score from the 2014 Ecology wetland rating form (Hruby 2014). Buffers can be reduced if minimization measures are applied (SMC 16.46.150 Section A, Table 2). The final buffer width is subject to approval by the jurisdictional authority.

TABLE 2. WETLAND B

General Information		
Location	Within the northern undeveloped parcel adjoining Seibenthaler Park	
WRIA	10 – Puyallup-White	
Local Jurisdiction	City of Sumner	
Rating	III[1]	
Buffer Width	80 feet[2]	
Size	Approximately 0.008 acre	
Cowardin Class	Palustrine Emergent	
HGM Class	Depressional	

Description Summary	
Vegetation	**Herbaceous:** Horsetail (*Equisetum arvense*), Reed canarygrass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*), morning glory (*Convolvulus repens*), Canada thistle (*Cirsium arvense*)
Soils	Meets criteria for hydric soil indicator Depleted Matrix (F3)
Hydrology	**Indicators:** FAC-Neutral Test (D5), and Geomorphic Position (D2). **Source:** Direct precipitation and groundwater.

Western Washington Wetland Rating Functions Summary (Appendix D-1 - 16 points total)	
Water Quality	**7 points:** The wetland has no outlet. More than 95 percent of the wetland area is dominated by persistent un-grazed vegetation. The area around the wetland generates pollutants and is in a basin with 303(d) listed waters and a water quality plan.
Hydrologic	**6 points:** Wetland has no outlet and ponding less than ½-foot-deep. The area of the basin is 10 to 100 times the size of the unit. The wetland is in an area with excessive runoff and intensive human land uses with flooding problems in a basin further down gradient.
Habitat	**3 points:** The wetland consists of one vegetation community (emergent) with a single hydroperiod (saturated only). The wetland has no habitat interspersion and no special habitat features. The wetland is in a 1 km area dominated by high intensity land uses.
Buffer Condition	The buffer is in a residential area with single-family homes and a park with mowed grasses.

Notes:
1. Wetland rating in accordance with Washington State Wetlands Rating System for Western Washington (Hruby 2014).
2. Based on the table in the SMC 16.46.150 along with a habitat score from the 2014 Ecology wetland rating form (Hruby 2014). Buffers can be reduced if minimization measures are applied (SMC 16.46.150 Section A, Table 2). The final buffer width is subject to approval by the jurisdictional authority.

3.2.2. Bennett Property

GeoEngineers identified one wetland unit (Wetland C) within the Bennett Property assessment area. To make wetland identifications, a total of three formal data sample plots were established within the assessment area, as shown on Figure 2-2. Sample plot data forms are presented in Appendix D-2, Bennett Property Sample Plot Data Forms.

TABLE 3. WETLAND C

General Information		
Location	Western portion of Bennett Property parcel	
WRIA	10 – Puyallup-White	
Local Jurisdiction	City of Sumner	
Rating	IV[1]	
Buffer Width	50 feet[2]	
Size	Approximately 0.23 acre	
Cowardin Class	Palustrine Emergent	
HGM Class	Depressional	
Description Summary		
Vegetation	**Herbaceous:** Mowed grasses, reed canarygrass (*Phalaris arundinacea*), meadow foxtail (*Alopecurus pratensis*), velvet grass (*Holcus lanatus*)	
Soils	Meets criteria for hydric soil indicator Depleted Matrix (F3)	
Hydrology	**Indicators:** Saturation Visible on Aerial Imagery (C9) and Geomorphic Position (D2) **Source:** Direct precipitation and groundwater.	
Western Washington Wetland Rating Functions Summary (Appendix D-2 - 15 points total)		
Water Quality	**6 points:** The wetland has no outlet. The area around the wetland generates pollutants and is in a basin with 303(d) listed waters and a water quality plan.	
Hydrologic	**6 points:** Wetland has no outlet and ponding less than ½-foot-deep. The area of the basin is 10 to 100 times the size of the unit. The wetland is in an area with excessive runoff and intensive human land uses with flooding problems in a basin further down gradient.	
Habitat	**3 points:** The wetland consists of one vegetation community (emergent) with a single hydroperiod (saturated only). The wetland has no habitat interspersion and moderate plant species richness. Less than 25 percent of the wetland unit is covered with invasive plant species. The wetland is in a 1 km area dominated by high intensity land uses.	
Buffer Condition	The buffer consists of single-family homes, and a field of irregularly mowed grasses.	

Notes:
1. Wetland rating in accordance with Washington State Wetlands Rating System for Western Washington (Hruby 2014).
2. Based on the table in the SMC 16.46.150 along with a habitat score from the 2014 Ecology wetland rating form (Hruby 2014). Buffers can be reduced if minimization measures are applied (SMC 16.46.150 Section A, Table 2). The final buffer width is subject to approval by the jurisdictional authority.

Wetland C is an approximately 0.23-acre depressional emergent wetland. Wetland C received a Category IV rating with three habitat points on the Ecology rating form, requiring a 50-foot standard buffer according to the SMC. Dominate vegetation within Wetland C consists of native and invasive grasses. Most of this herbaceous vegetation was not identified to species level due to lack of flowers and other distinguishing characteristics during the season in which our fieldwork was completed. Reed canarygrass, meadow foxtail (*Alopecurus pratensis*), and velvet grass (*Holcus lanatus*) were positively identified within the wetland boundary. The delineation of Wetland C predominately relied on the identification of hydric soil conditions due to lack of identifiable vegetation. Additional information is presented in Table 3, above.

4.0 SUMMARY

GeoEngineers conducted a critical areas assessment for the City of Sumner Park Master Planning process at Seibenthaler Park and a new park site known as the Bennett Property. This report is intended to provide baseline critical areas (wetlands, streams and wildlife habitat area) data in support of the master planning process. Two Category III wetlands (Wetlands A and B at the Seibenthaler Park site) and one Category IV wetland (Wetland C on the Bennett Property) were identified and delineated during the field investigation. No stream habitat or other wildlife habitats as defined in SMC 16.56 were identified within either assessment area.

Wetlands A and B are anticipated to require an 80-foot standard buffer and Wetland C is anticipated to require a 50-foot standard buffer. All wetland buffer widths are subject to final approval by the jurisdictional authority. Buffer widths may also be reduced upon the successful implementation of all minimization measures listed in SMC 16.46.150 Section A, Table 2. Category III (80-foot) buffers can be reduced to 60 feet and Category IV (50-foot) buffers can be reduced to 40 feet in accordance with these provisions.

GeoEngineers did not conduct a Jurisdictional Determination for the wetlands identified in this report. A permit from the USACE under Section 404 of the Clean Water Act may be required if wetland habitat is determined by USACE to be jurisdictional and is filled or otherwise disturbed as a result of the project. It also may not be feasible for this project to avoid wetland buffers. To meet the mitigation sequencing standard of avoid, minimize then mitigate, development should occur as far as possible from wetland boundaries to minimize wetland impacts. During development of project plans, wetland and wetland buffer impacts should be assessed and mitigation sequencing (i.e., avoidance, minimization and mitigation) should be applied. Project designs and a wetland mitigation plan and/or habitat management plan may be needed in support of permit submittals.

5.0 LIMITATIONS

GeoEngineers has prepared this Wetland Delineation Report in general accordance with the scope and limitations of our proposal. Within the limitations of scope, schedule and budget, our services have been executed in accordance with the generally accepted practices for wetland delineation in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for the exclusive use of the City of Sumner, Hough Beck & Baird, Inc., authorized agents and regulatory agencies following the described methods and information available at the time of the work. No other party may rely on the product of our services unless we agree in advance to

such reliance in writing. The information contained herein should not be applied for any purpose or project except the one originally contemplated.

The applicant is advised to contact all appropriate regulatory agencies (local, state and federal) prior to design or construction of any development to obtain necessary permits and approvals.

6.0 REFERENCES

Anderson, Paul, S. Meyer, P. Olson and E. Stockdale. 2016. Determining the Ordinary High Water mark for Shoreline Management Act Compliance in Washington State. Washington State Department of Ecology Publication No. 16-06-029. Available at: https://fortress.wa.gov/ecy/publications/documents/1606029.pdf.

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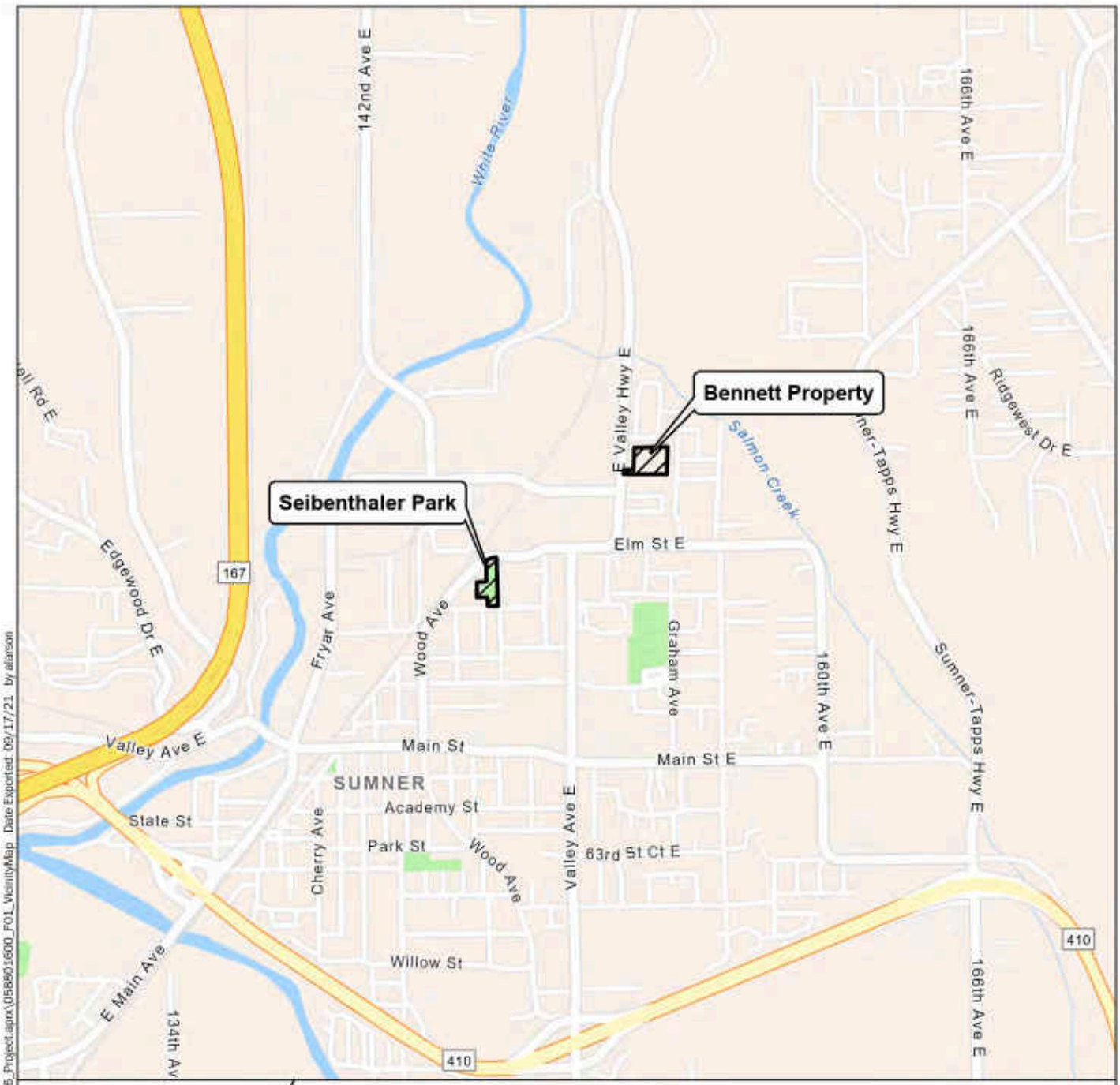
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FIGURES

GeoEngineers





N
W E
S

2,000 0 2,000

Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI

Projection: NAD 1983 UTM Zone 10N

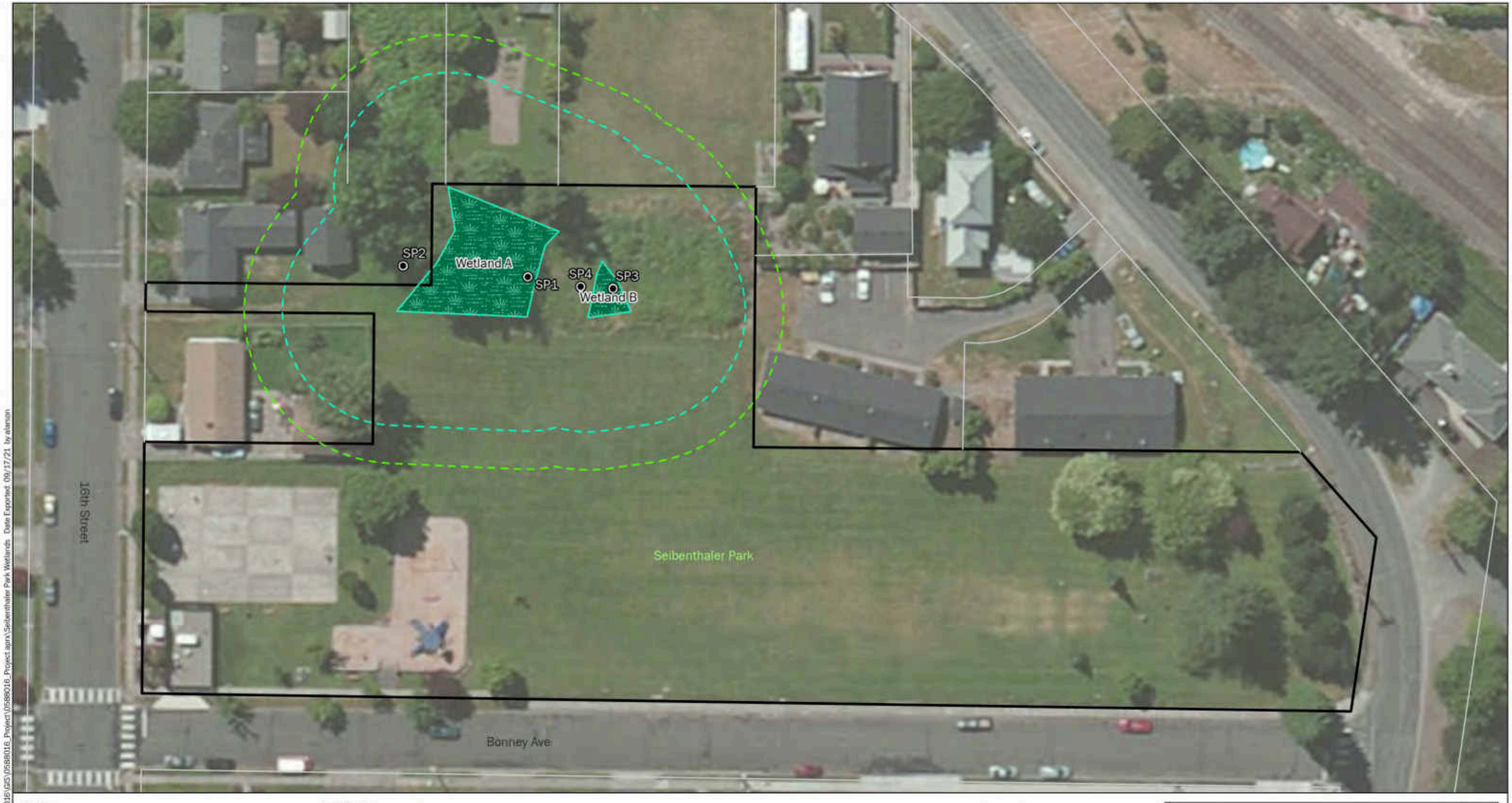
Vicinity Map

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure 1

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\\geoengineers.com\WA\Projects\O\05880216\GIS\05880216_Project\05880216_Project.aprx\Seibenthaler Park Wetlands Date Exported: 09/17/21 by alarson

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Legend
- Sample Plot Location
- Delineated Wetland
- Reduced Wetland Buffer
- Standard Wetland Buffer
- Site Boundary

W S N E

50 0 50
Feet

Seibenthaler Park Wetland Delineation

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure 2.1



Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Legend
- Sample Plot Location
- Delineated Wetland
- Reduced Wetland Buffer
- Standard Wetland Buffer
- Bennett Property Boundary

N W E S

60 0 60
Feet

Bennett Property Wetland Delineation

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure 2.2

\\geoengineers.com\WA\Projects\01\05880016\GIS\05880016_Project\05880016_Project.aprx\F02-2_BennettPropertyWetland Date Exported: 09/15/21 by alarson

APPENDICES

GeoEngineers

APPENDIX A-1
Site Photographs – Seibenthaler Park



Photograph 1. Seibenthaler Park (left) and the adjacent undeveloped parcels (right).



Photograph 2. Typical vegetation within and surrounding Wetland B; Seibenthaler Park in the background.



Photograph 3. Typical vegetation in the southern undeveloped parcel, looking south toward Seibenthaler Wetland A.



Photograph 4. Typical upland vegetation within the undeveloped parcels.

Site Photographs – Seibenthaler Park

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure A-1.1

00588-016-00 Date Exported: 08/23/2021

APPENDIX A-2
Site Photographs – Bennett Property



Photograph 1. Bennett property looking northeast from the property entrance from Valley Highway East.



Photograph 2. Bennett property looking west across the site showing recently mowed grasses.



Photograph 3. Typical vegetation conditions of the eastern property boundary with mowed grasses in the foreground and landscaped trees in the background.



Photograph 4. Typical vegetation conditions of Wetland C and the surrounding buffer.

Site Photographs – Bennett Property

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure A-2.1

00588-016-00 Date Exported: 08/23/2021

APPENDIX B-1
Seibenthaler Park Data Review Results

U.S. Fish and Wildlife Service
National Wetlands Inventory

Seibenthaler Park



September 1, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Priority Habitats and Species on the Web



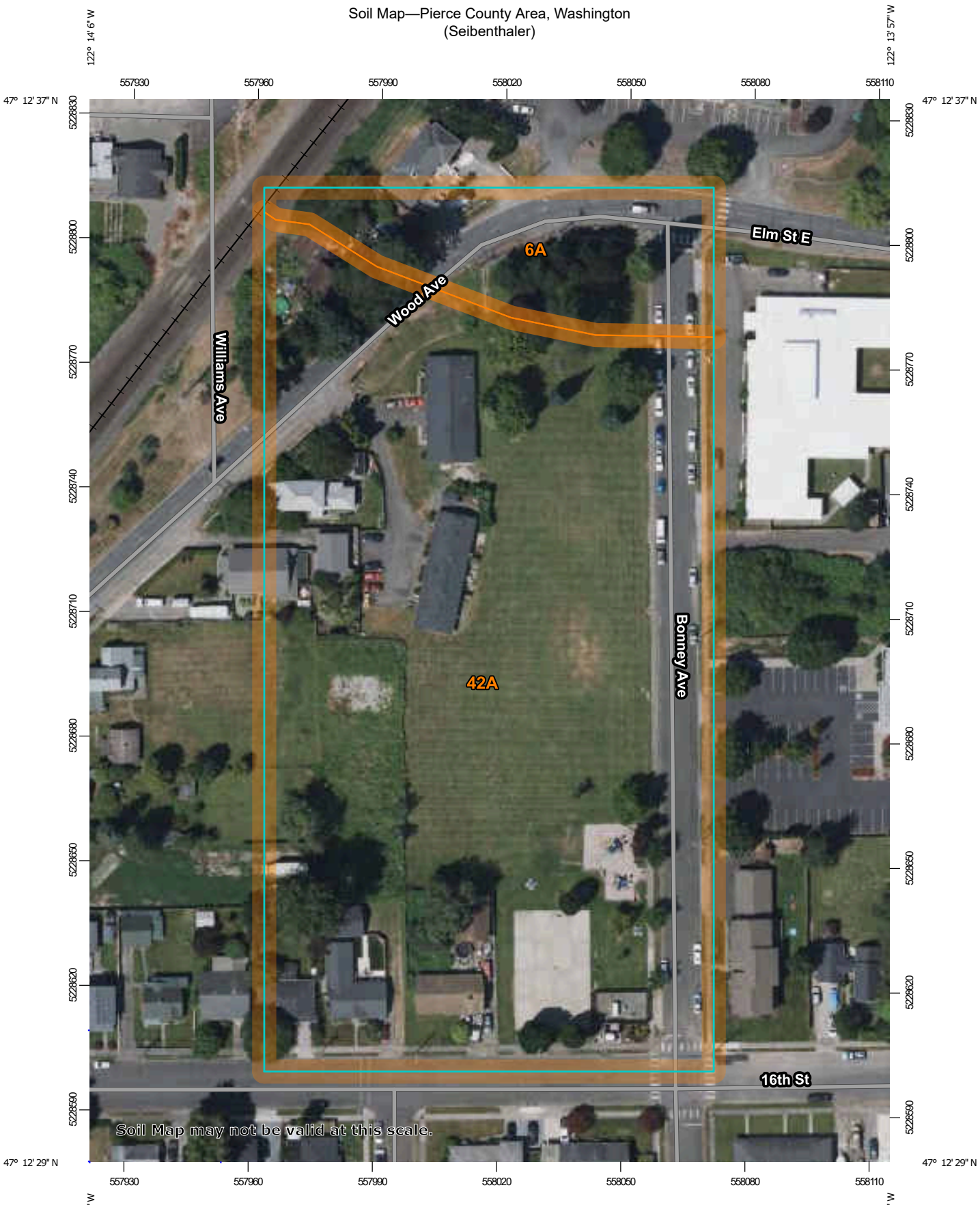
Buffer radius: 300 Feet

Report Date: 09/02/2021

The Priority Habitats and Species (PHS) datasets do not contain information for your project area. This does not mean that species and habitats do not occur in your project area. PHS data, points, lines and polygons are mapped only when occurrences of these species or habitats have been observed in the field. Unfortunately, we have not been able to comprehensively survey all sections in the state and therefore, it is important to note that priority species and habitats may occur in areas not currently known to the Department.

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necesssary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

Soil Map—Pierce County Area, Washington
(Seibenthaler)



Map Scale: 1:1,250 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 16, 2020—Aug 5, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6A	Briscot loam	0.7	12.2%
42A	Sultan silt loam	5.0	87.8%
Totals for Area of Interest		**5.7**	**100.0%**

Pierce County Area, Washington

6A—Briscot loam

Map Unit Setting

National map unit symbol: 2hrc
Elevation: 20 to 250 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 210 days
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Briscot and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Briscot

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 11 inches: loam
H2 - 11 to 38 inches: stratified fine sand to silt loam
H3 - 38 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

Pierce County Area, Washington

42A—Sultan silt loam

Map Unit Setting

National map unit symbol: 2hqx
Elevation: 0 to 200 feet
Mean annual precipitation: 35 to 55 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 150 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sultan and similar soils: 85 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sultan

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 14 inches: ashy silt loam
H2 - 14 to 23 inches: silt loam
H3 - 23 to 60 inches: stratified sand to silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: OccasionalNone
Frequency of ponding: None
Available water capacity: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

Minor Components

Briscot

Percent of map unit: 6 percent

Landform: Depressions
Hydric soil rating: Yes

Puget
Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

APPENDIX B-2
Bennett Property Data Review Results

U.S. Fish and Wildlife Service

National Wetlands Inventory

Bennett Property



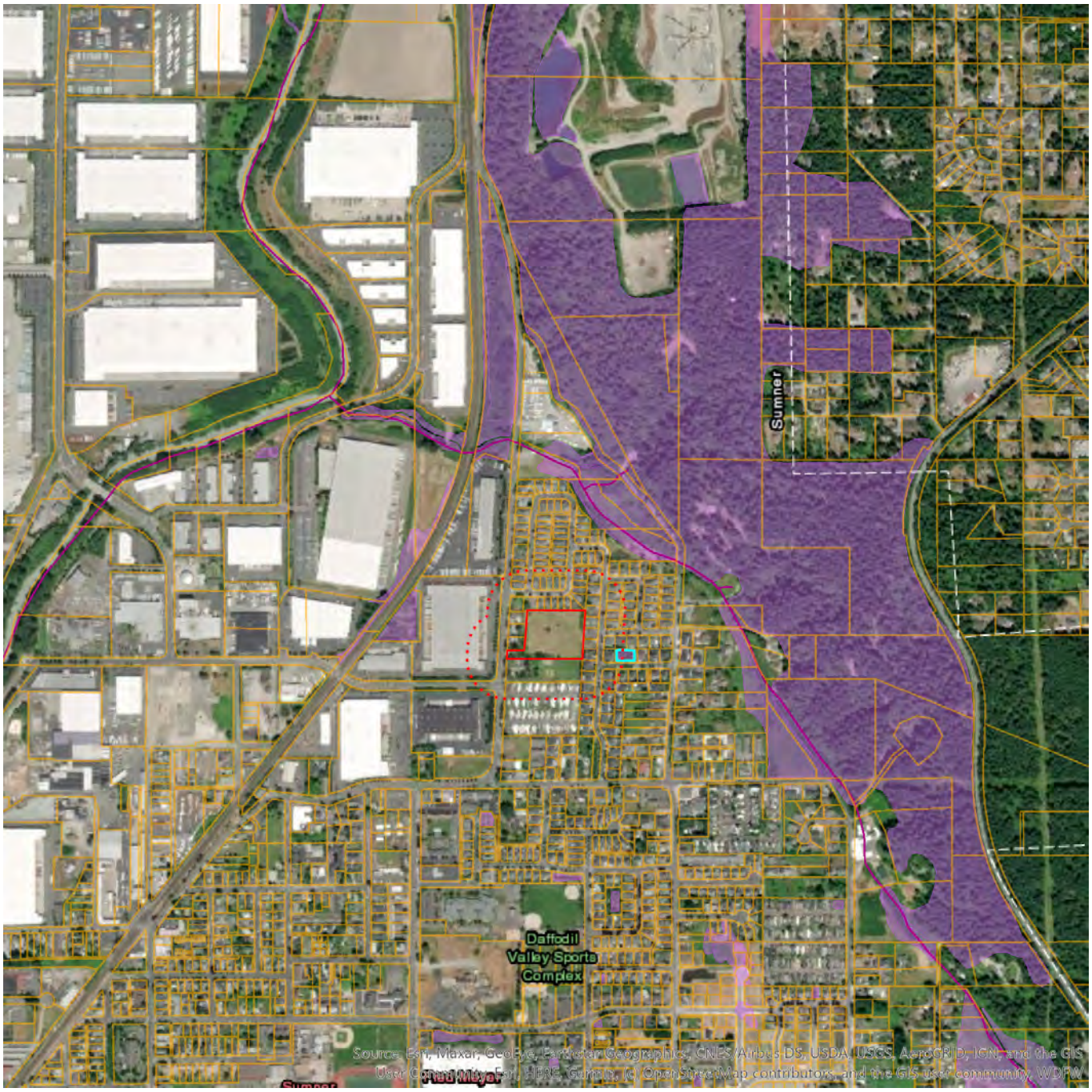
September 1, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Priority Habitats and Species on the Web



Buffer radius: 300 Feet

Report Date: 09/02/2021, Parcel ID: 0520192006

PHS Species/Habitats Overview:

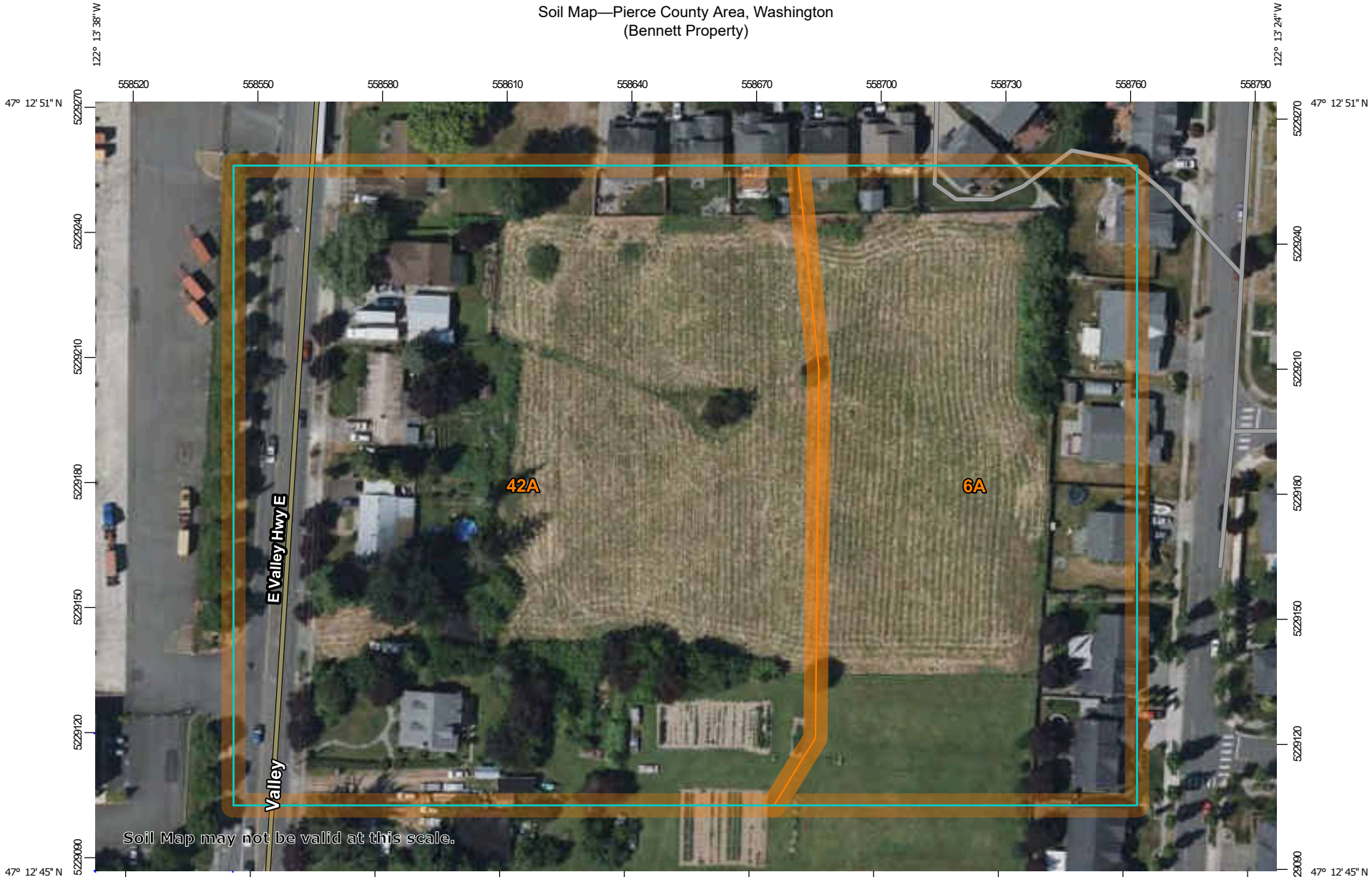
Occurence Name	Federal Status	State Status	Generalized Location
Freshwater Forested/Shrub Wetland	N/A	N/A	No

PHS Species/Habitats Details:

Freshwater Forested/Shrub Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PSS1Fx
Source Dataset	NWIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necesssary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

Soil Map—Pierce County Area, Washington
(Bennett Property)



Map Scale: 1:1,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
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- Special Line Features

Water Features
- Streams and Canals

Transportation
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- Interstate Highways
- US Routes
- Major Roads
- Local Roads

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- Aerial Photography

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The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 16, 2020—Aug 5, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6A	Briscot loam	3.0	36.0%
42A	Sultan silt loam	5.3	64.0%
Totals for Area of Interest		**8.3**	**100.0%**

Pierce County Area, Washington

6A—Briscot loam

Map Unit Setting

National map unit symbol: 2hrc
Elevation: 20 to 250 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 210 days
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Briscot and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Briscot

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 11 inches: loam
H2 - 11 to 38 inches: stratified fine sand to silt loam
H3 - 38 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

Pierce County Area, Washington

42A—Sultan silt loam

Map Unit Setting

National map unit symbol: 2hqx
Elevation: 0 to 200 feet
Mean annual precipitation: 35 to 55 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 150 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sultan and similar soils: 85 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sultan

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 14 inches: ashy silt loam
H2 - 14 to 23 inches: silt loam
H3 - 23 to 60 inches: stratified sand to silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: OccasionalNone
Frequency of ponding: None
Available water capacity: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

Minor Components

Briscot

Percent of map unit: 6 percent

Landform: Depressions
Hydric soil rating: Yes

Puget
Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

Sumner Wetlands Map - Bennett



6/29/2021, 5:45:10 PM

Wetlands_Sumner

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.08 km

Maxar, Microsoft

City of Sumner Public Works Department | Pierce County Planning and Services cartography lab created the coverage. Cort Daniel of Pierce County GIS created the Urban Growth Boundaries shapefile. | Maxar, Microsoft |

APPENDIX C
Wetland Rating Forms

Wetland name or number A

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: 7/26/2021

Rated by D. Conlin, C. Stoker Trained by Ecology? ☑ Yes ☐ No Date of training 12 2014

HGM Class used for rating Depressional & Flats Wetland has multiple HGM classes? ☑ Yes ☐ No

NOTE: Form is not complete with out the figures requested (*figures can be combined*).
Source of base aerial photo/map ESRI world imagery

OVERALL WETLAND CATEGORY III (based on functions ☑ or special characteristics ☐)

1. Category of wetland based on FUNCTIONS

_____ **Category I** - Total score = 23 - 27
_____ **Category II** - Total score = 20 - 22
X **Category III** - Total score = 16 - 19
_____ **Category IV** - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List appropriate rating (H, M, L)			
Site Potential	M	M	L	
Landscape Potential	M	M	L	
Value	H	M	L	**Total**
Score Based on Ratings	7	6	3	**16**

Score for each function based on three ratings (*order of ratings is not important*)

9 = H, H, H
8 = H, H, M
7 = H, H, L
7 = H, M, M
6 = H, M, L
6 = M, M, M
5 = H, L, L
5 = M, M, L
4 = M, L, L
3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	**X**

Wetland name or number ___A___

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	A-1
Hydroperiods	D 1.4, H 1.2	A-1
Location of outlet (*can be added to map of hydroperiods*)	D 1.1, D 4.1	A-1
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	D 2.2, D 5.2	A-1
Map of the contributing basin	D 4.3, D 5.3	A-2
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	A-3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	A-4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	A-5

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (*can be added to another figure*)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to another figure*)	S 4.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated.
If hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1 - 7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

☑ NO - go to 2 ☐ **YES** - the wetland class is **Tidal Fringe** - go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

☐ **NO - Saltwater Tidal Fringe (Estuarine)** ☐ **YES - Freshwater Tidal Fringe**
*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

☑ NO - go to 3 ☐ **YES** - The wetland class is **Flats**
*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
- ☐ At least 30% of the open water area is deeper than 6.6 ft (2 m).

☑ NO - go to 4 ☐ **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The wetland is on a slope (*slope can be very gradual*),
- ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
- ☐ The water leaves the wetland **without being impounded.**

☑ NO - go to 5 ☐ **YES** - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☐ The overbank flooding occurs at least once every 2 years.

☑ NO - go to 6 ☐ **YES** - The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding.

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

☐ NO - go to 7 ☑ **YES** - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

☐ NO - go to 8 ☑ **YES** - The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have ***more than 2 HGM classes*** *within a wetland boundary, classify the wetland as Depressional for the rating.*

NOTES and FIELD OBSERVATIONS:

Wetland name or number A

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ☐ Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1		3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (*use NRCS definitions*).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0		5
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0		0
Total for D 1	Add the points in the boxes above	**8**

Rating of Site Potential If score is: ☐ **12 - 16 = H** ☑ **6 - 11 = M** ☐ **0 - 5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?		
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1 - D 2.3? Source	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	**1**

Rating of Landscape Potential If score is: ☐ **3 or 4 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	**3**

Rating of Value If score is: ☑ **2 - 4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Wetland name or number ___A___

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.* Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 ☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 ☐ The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	0
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.* ☐ The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 ☐ Entire wetland is in the Flats class points = 5	3
Total for D 4 — Add the points in the boxes above	**7**

Rating of Site Potential If score is: ☐ **12 - 16 = H** ☑ **6 - 11 = M** ☐ **0 - 5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic function of the site?	
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
Total for D 5 — Add the points in the boxes above	**2**

Rating of Landscape Potential If score is: ☐ **3 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.* The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 ☑ • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 ☐ Flooding from groundwater is an issue in the sub-basin. points = 1 ☐ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 ☐ There are no problems with flooding downstream of the wetland. points = 0	1
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for D 6 — Add the points in the boxes above	**1**

Rating of Value If score is: ☐ **2 - 4 = H** ☑ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Wetland name or number A

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- ☐ Aquatic bed
- ☑ Emergent
- ☑ Scrub-shrub (areas where shrubs have > 30% cover)
- ☐ Forested (areas where trees have > 30% cover)

4 structures or more: points = 4
3 structures: points = 2
2 structures: points - 1
1 structure: points = 0

If the unit has a Forested class, check if:

- ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

1

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- ☐ Permanently flooded or inundated
- ☐ Seasonally flooded or inundated
- ☐ Occasionally flooded or inundated
- ☑ Saturated only

4 or more types present: points = 3
3 types present: points = 2
2 types present: points = 1
1 types present: points = 0

- ☐ Permanently flowing stream or river in, or adjacent to, the wetland
- ☐ Seasonally flowing stream in, or adjacent to, the wetland
- ☐ **Lake Fringe wetland** **2 points**
- ☐ **Freshwater tidal wetland** **2 points**

0

H 1.3. Richness of plant species

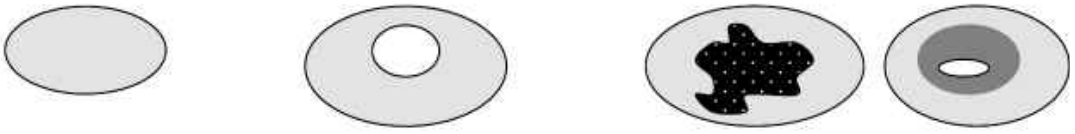
Count the number of plant species in the wetland that cover at least 10 ft^2.
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted:
- > 19 species — points = 2
- 5 - 19 species — points = 1
- < 5 species — points = 0

1

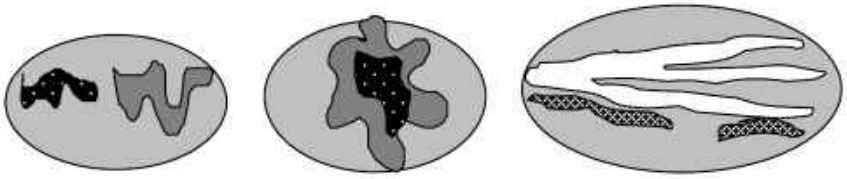
H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points **Low** = 1 point **Moderate** = 2 points

All three diagrams in this row are **HIGH** = 3 points



1

Wetland name or number A

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☐ Standing snags (dbh > 4 in) within the wetland ☐ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (*cut shrubs or trees that have not yet weathered where wood is exposed*) ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (*structures for egg-laying by amphibians*) ☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	0
Total for H 1 Add the points in the boxes above	**3**

Rating of Site Potential If Score is: ☐ **15 - 18 = H** ☐ **7 - 14 = M** ☑ **0 - 6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* 0 % undisturbed habitat + (0.27 % moderate & low intensity land uses / 2) = 0.135% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20 - 33% of 1 km Polygon points = 2 10 - 19% of 1 km Polygon points = 1 < 10 % of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* 5.17 % undisturbed habitat + (2.38 % moderate & low intensity land uses / 2) = 6.36% Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	0
H 2.3 Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	**-2**

Rating of Landscape Potential If Score is: ☐ **4 - 6 = H** ☐ **1 - 3 = M** ☑ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated*. Site meets ANY of the following criteria: points = 2 ☐ It has 3 or more priority habitats within 100 m (see next page) ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1 Site does not meet any of the criteria above points = 0	0

Rating of Value If Score is: ☐ **2 = H** ☐ **1 = M** ☑ **0 = L** *Record the rating on the first page*

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.
http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here:
http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE**: This question is independent of the land use between the wetland unit and the priority habitat.*

- ☐ **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- ☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- ☐ **Herbaceous Balds**: Variable size patches of grass and forbs on shallow soils over bedrock.
- ☐ **Old-growth/Mature forests**: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- ☐ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).
- ☐ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- ☐ **Westside Prairies**: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).
- ☐ **Instream**: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- ☐ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page*).
- ☐ **Caves**: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- ☐ **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- ☐ **Talus**: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ☐ **Snags and Logs**: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number ___A___

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands? ☐ The dominant water regime is tidal, ☐ Vegetated, and ☐ With a salinity greater than 0.5 ppt ☐ Yes - Go to **SC 1.1** ☑ No = **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? ☐ Yes = **Category I** ☐ No - Go to **SC 1.2**	
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina* , see page 25) ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. ☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. ☐ Yes = **Category I** ☐ No = **Category II**	
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ☐ Yes - Go to **SC 2.2** ☑ No - Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes = **Category I** ☑ No = **Not WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ☐ Yes - **Contact WNHP/WDNR and to SC 2.4** ☐ No = **Not WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ☐ Yes = **Category I** ☐ No = **Not WHCV**	
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions*** . SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? ☐ Yes - Go to **SC 3.3** ☑ No - Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ☐ Yes - Go to **SC 3.3** ☑ No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? ☐ Yes = **Is a Category I bog** ☐ No - Go to **SC 3.4** **NOTE**: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? ☐ Yes = **Is a Category I bog** ☐ No = **Is not a bog**	

SC 4.0. Forested Wetlands

Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.***

☐ **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.

☐ **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).

☐ Yes = **Category I** ☑ No = **Not a forested wetland for this section**

SC 5.0. Wetlands in Coastal Lagoons

Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

☐ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks

☐ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (*needs to be measured near the bottom*)

☐ Yes - Go to **SC 5.1** ☑ No = **Not a wetland in a coastal lagoon**

SC 5.1. Does the wetland meet all of the following three conditions?

☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).

☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.

☐ The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2)

☐ Yes = **Category I** ☐ No = **Category II**

SC 6.0. Interdunal Wetlands

Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.***

In practical terms that means the following geographic areas:

☐ Long Beach Peninsula: Lands west of SR 103

☐ Grayland-Westport: Lands west of SR 105

☐ Ocean Shores-Copalis: Lands west of SR 115 and SR 109

☐ Yes - Go to **SC 6.1** ☑ No = **Not an interdunal wetland for rating**

SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?

☐ Yes = **Category I** ☐ No - Go to **SC 6.2**

SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?

☐ Yes = **Category II** ☐ No - Go to **SC 6.3**

SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?

☐ Yes = **Category III** ☐ No = **Category IV**

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form



Emergent, Saturated only

150-foot Boundary

N
W E
S

Not to Scale

Cowardin Plant Classes, Hydroperiods, Outlet, and 150-foot Buffer (Wetland A)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

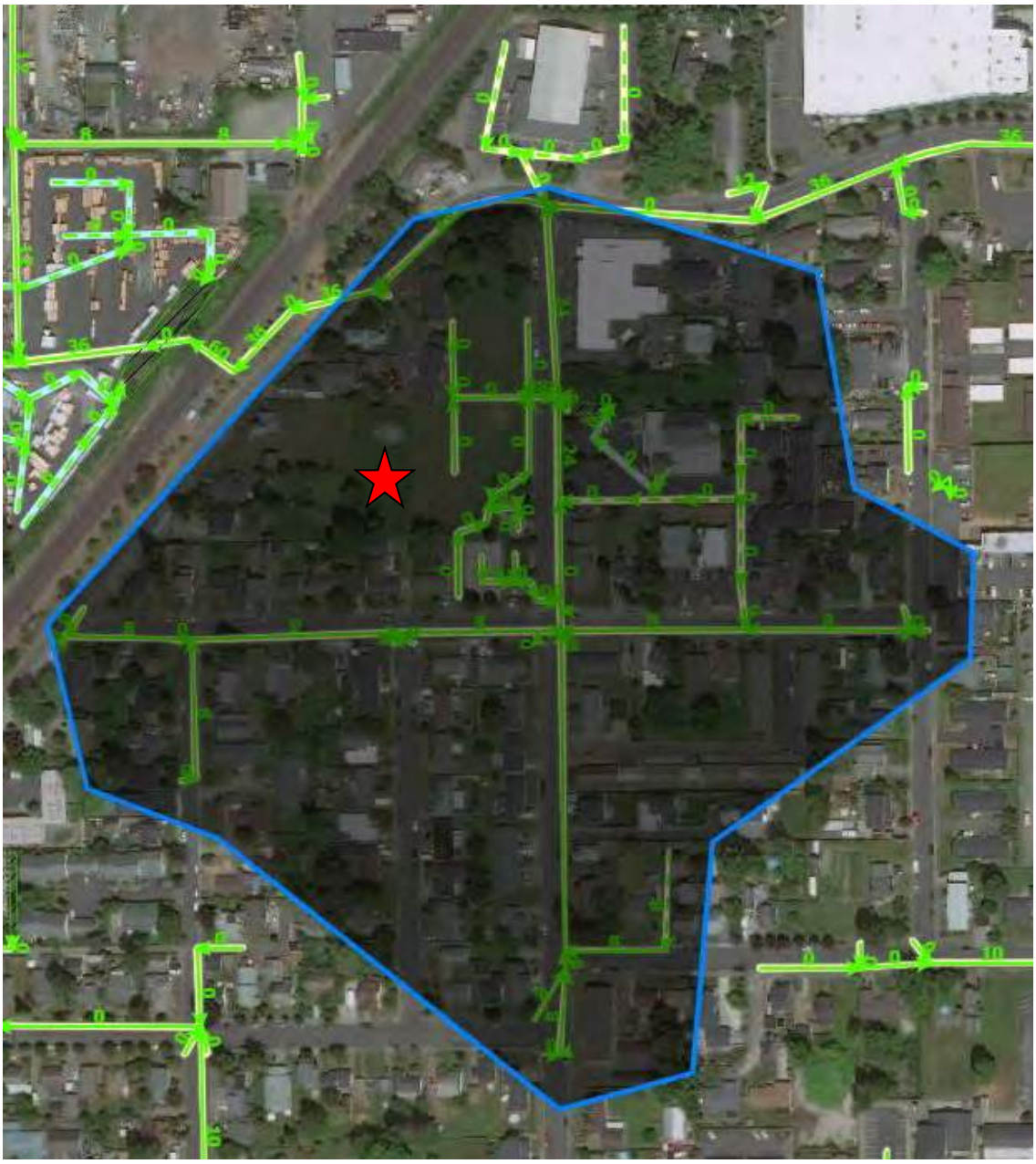
Figure A-1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15



Data From: https://city-of-sumner.maps.arcgis.com/apps/webappviewer/index.html?id=4095c816e4274270a846ae03cf8cf45a

Wetland A

Not to Scale

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

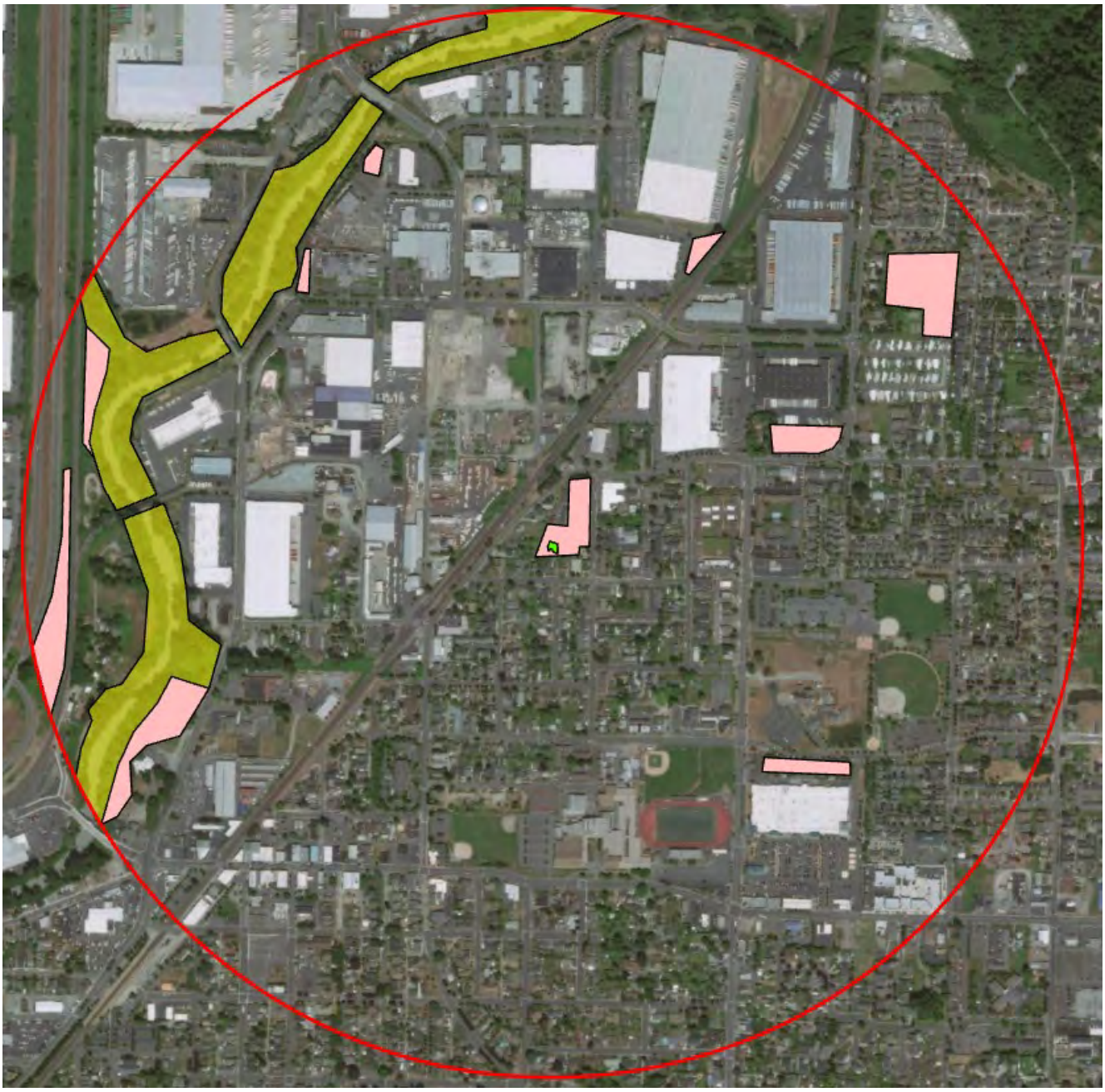
Contributing Basin (Wetland A)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure A-2

XXXX-XXX-XX Date Exported: 04/09/15



Low to Moderate Intensity

Relatively Undisturbed

High Intensity

Wetland A

Not to Scale

1-KM Habitat (Wetland A)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

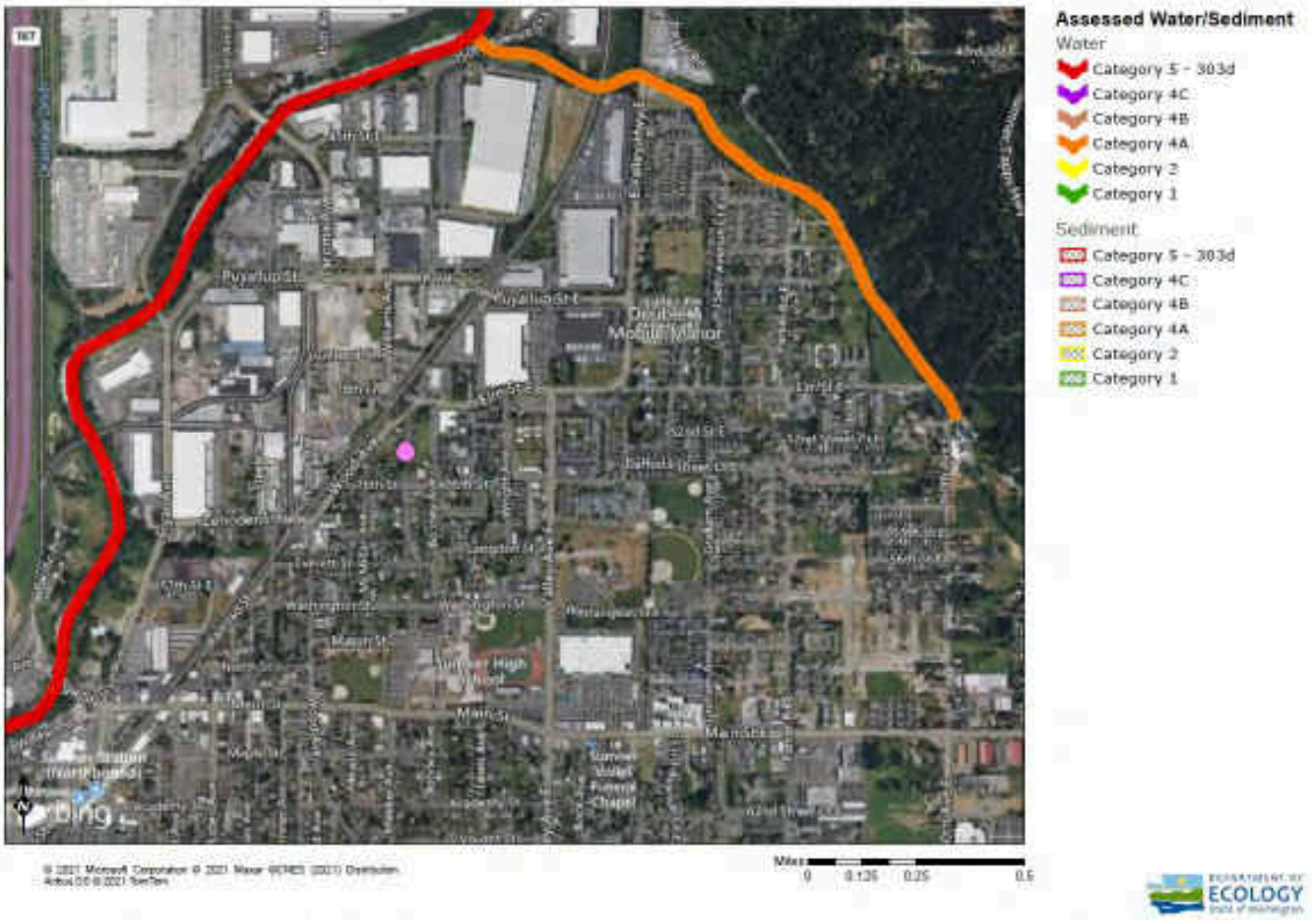
Figure A-3

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

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Data From: https://apps.ecology.wa.gov/waterqualityatlas/wqa/map

Not to Scale

303(d) Screen Shot (Wetland A)

Sumner Parks Master Plan
Sumner, Washington

Figure A-4

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXXX-XXX-XX Date Exported: 04/09/15



Data From: https://waecy.maps.arcgis.com/home/webmap/viewer.html?layers=016d27df46004d138cdda32259787400

Not to Scale

TMDLs Screen Shot
(Wetland A)

Sumner Parks Master Plan
Sumner, Washington

Figure A-5

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15

Wetland name or number B

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland B Date of site visit: 7/26/2021

Rated by D. Conlin, C. Stoker Trained by Ecology? ☑ Yes ☐ No Date of training 12 2014

HGM Class used for rating Depressional & Flats Wetland has multiple HGM classes? ☑ Yes ☐ No

NOTE: Form is not complete with out the figures requested (*figures can be combined*).
Source of base aerial photo/map ESRI world imagery

OVERALL WETLAND CATEGORY III (based on functions ☑ or special characteristics ☐)

1. Category of wetland based on FUNCTIONS

_____ **Category I** - Total score = 23 - 27
_____ **Category II** - Total score = 20 - 22
X **Category III** - Total score = 16 - 19
_____ **Category IV** - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List appropriate rating (H, M, L)			
Site Potential	M	M	L	
Landscape Potential	M	M	L	
Value	H	M	L	**Total**
Score Based on Ratings	7	6	3	**16**

Score for each function based on three ratings (*order of ratings is not important*)

9 = H, H, H
8 = H, H, M
7 = H, H, L
7 = H, M, M
6 = H, M, L
6 = M, M, M
5 = H, L, L
5 = M, M, L
4 = M, L, L
3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	**X**

Wetland name or number B

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	B-1
Hydroperiods	D 1.4, H 1.2	B-1
Location of outlet (*can be added to map of hydroperiods*)	D 1.1, D 4.1	B-1
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	D 2.2, D 5.2	B-1
Map of the contributing basin	D 4.3, D 5.3	B-2
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	B-3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	B-4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	B-5

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (*can be added to another figure*)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to another figure*)	S 4.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated.
If hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1 - 7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

☑ NO - go to 2 ☐ **YES** - the wetland class is **Tidal Fringe** - go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

☐ **NO - Saltwater Tidal Fringe (Estuarine)** ☐ **YES - Freshwater Tidal Fringe**
*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

☑ NO - go to 3 ☐ **YES** - The wetland class is **Flats**
*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
- ☐ At least 30% of the open water area is deeper than 6.6 ft (2 m).

☑ NO - go to 4 ☐ **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The wetland is on a slope (*slope can be very gradual*),
- ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
- ☐ The water leaves the wetland **without being impounded.**

☑ NO - go to 5 ☐ **YES** - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☐ The overbank flooding occurs at least once every 2 years.

☑ NO - go to 6 ☐ **YES** - The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding.

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

☑ NO - go to 7 ☐ **YES** - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

☐ NO - go to 8 ☑ **YES** - The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have ***more than 2 HGM classes*** *within a wetland boundary, classify the wetland as Depressional for the rating.*

NOTES and FIELD OBSERVATIONS:

Wetland name or number B

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ☐ Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1		3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (*use NRCS definitions*).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0		5
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0		0
Total for D 1	Add the points in the boxes above	**8**

Rating of Site Potential If score is: ☐ **12 - 16 = H** ☑ **6 - 11 = M** ☐ **0 - 5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?		
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1 - D 2.3? Source	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	**1**

Rating of Landscape Potential If score is: ☐ **3 or 4 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	**3**

Rating of Value If score is: ☑ **2 - 4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Wetland name or number B

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. Characteristics of surface water outflows from the wetland:		4
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*		0
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
☐ The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*		3
☐ The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
☐ Entire wetland is in the Flats class	points = 5	
Total for D 4	Add the points in the boxes above	**7**

Rating of Site Potential If score is: ☐ **12 - 16 = H** ☑ **6 - 11 = M** ☐ **0 - 5 = L** *Record the rating on the first page*

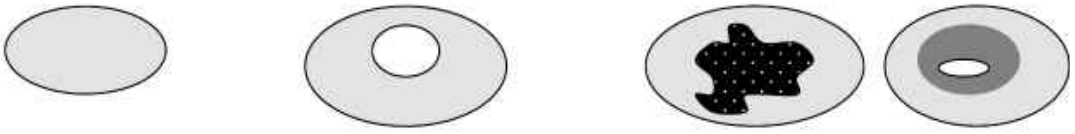
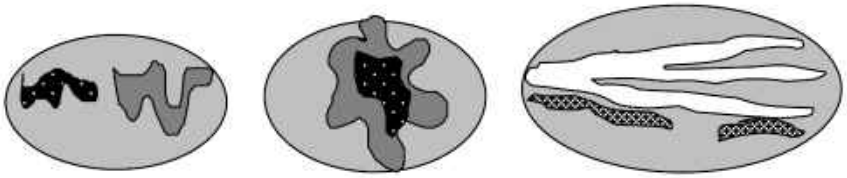
D 5.0. Does the landscape have the potential to support hydrologic function of the site?		
D 5.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	**2**

Rating of Landscape Potential If score is: ☐ **3 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?		
D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*		1
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
☑ • Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
☐ Flooding from groundwater is an issue in the sub-basin.	points = 1	
☐ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why	points = 0	
☐ There are no problems with flooding downstream of the wetland.	points = 0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for D 6	Add the points in the boxes above	**1**

Rating of Value If score is: ☐ **2 - 4 = H** ☑ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Wetland name or number B

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.* ☐ Aquatic bed — 4 structures or more: points = 4 ☑ Emergent — 3 structures: points = 2 ☐ Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points - 1 ☐ Forested (areas where trees have > 30% cover) — 1 structure: points = 0 *If the unit has a Forested class, check if*: ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*). ☐ Permanently flooded or inundated — 4 or more types present: points = 3 ☐ Seasonally flooded or inundated — 3 types present: points = 2 ☐ Occasionally flooded or inundated — 2 types present: points = 1 ☑ Saturated only — 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland ☐ **Lake Fringe wetland** — **2 points** ☐ **Freshwater tidal wetland** — **2 points**	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. *Different patches of the same species can be combined to meet the size threshold and you do not have to name the species.* ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*** If you counted: > 19 species — points = 2 5 - 19 species — points = 1 < 5 species — points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*  **None** = 0 points — **Low** = 1 point — **Moderate** = 2 points All three diagrams in this row are **HIGH** = 3 points 	0

Wetland name or number B

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☐ Standing snags (dbh > 4 in) within the wetland ☐ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (*cut shrubs or trees that have not yet weathered where wood is exposed*) ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (*structures for egg-laying by amphibians*) ☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	0
Total for H 1 Add the points in the boxes above	**1**

Rating of Site Potential If Score is: ☐ **15 - 18 = H** ☐ **7 - 14 = M** ☑ **0 - 6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* 0 % undisturbed habitat + (0.27 % moderate & low intensity land uses / 2) = 0.135% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20 - 33% of 1 km Polygon points = 2 10 - 19% of 1 km Polygon points = 1 < 10 % of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* 5.17 % undisturbed habitat + (2.38 % moderate & low intensity land uses / 2) = 6.36% Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	0
H 2.3 Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	**-2**

Rating of Landscape Potential If Score is: ☐ **4 - 6 = H** ☐ **1 - 3 = M** ☑ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated*. Site meets ANY of the following criteria: points = 2 ☐ It has 3 or more priority habitats within 100 m (see next page) ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1 Site does not meet any of the criteria above points = 0	0

Rating of Value If Score is: ☐ **2 = H** ☐ **1 = M** ☑ **0 = L** *Record the rating on the first page*

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.
http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here:
http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE**: This question is independent of the land use between the wetland unit and the priority habitat.*

- ☐ **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- ☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- ☐ **Herbaceous Balds**: Variable size patches of grass and forbs on shallow soils over bedrock.
- ☐ **Old-growth/Mature forests**: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- ☐ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).
- ☐ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- ☐ **Westside Prairies**: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).
- ☐ **Instream**: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- ☐ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page*).
- ☐ **Caves**: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- ☐ **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- ☐ **Talus**: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ☐ **Snags and Logs**: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number B

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands? ☐ The dominant water regime is tidal, ☐ Vegetated, and ☐ With a salinity greater than 0.5 ppt ☐ Yes - Go to **SC 1.1** ☑ No = **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? ☐ Yes = **Category I** ☐ No - Go to **SC 1.2**	
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. ☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. ☐ Yes = **Category I** ☐ No = **Category II**	
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ☐ Yes - Go to **SC 2.2** ☑ No - Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes = **Category I** ☑ No = **Not WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ☐ Yes - **Contact WNHP/WDNR and to SC 2.4** ☐ No = **Not WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ☐ Yes = **Category I** ☐ No = **Not WHCV**	
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions***. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? ☐ Yes - Go to **SC 3.3** ☑ No - Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ☐ Yes - Go to **SC 3.3** ☑ No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? ☐ Yes = **Is a Category I bog** ☐ No - Go to **SC 3.4** **NOTE**: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? ☐ Yes = **Is a Category I bog** ☐ No = **Is not a bog**	

SC 4.0. Forested Wetlands

Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.***

☐ **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.

☐ **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).

☐ Yes = **Category I** ☑ No = **Not a forested wetland for this section**

SC 5.0. Wetlands in Coastal Lagoons

Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

☐ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks

☐ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (*needs to be measured near the bottom*)

☐ Yes - Go to **SC 5.1** ☑ No = **Not a wetland in a coastal lagoon**

SC 5.1. Does the wetland meet all of the following three conditions?

☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).

☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.

☐ The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2)

☐ Yes = **Category I** ☐ No = **Category II**

SC 6.0. Interdunal Wetlands

Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.***

In practical terms that means the following geographic areas:

☐ Long Beach Peninsula: Lands west of SR 103

☐ Grayland-Westport: Lands west of SR 105

☐ Ocean Shores-Copalis: Lands west of SR 115 and SR 109

☐ Yes - Go to **SC 6.1** ☑ No = **Not an interdunal wetland for rating**

SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?

☐ Yes = **Category I** ☐ No - Go to **SC 6.2**

SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?

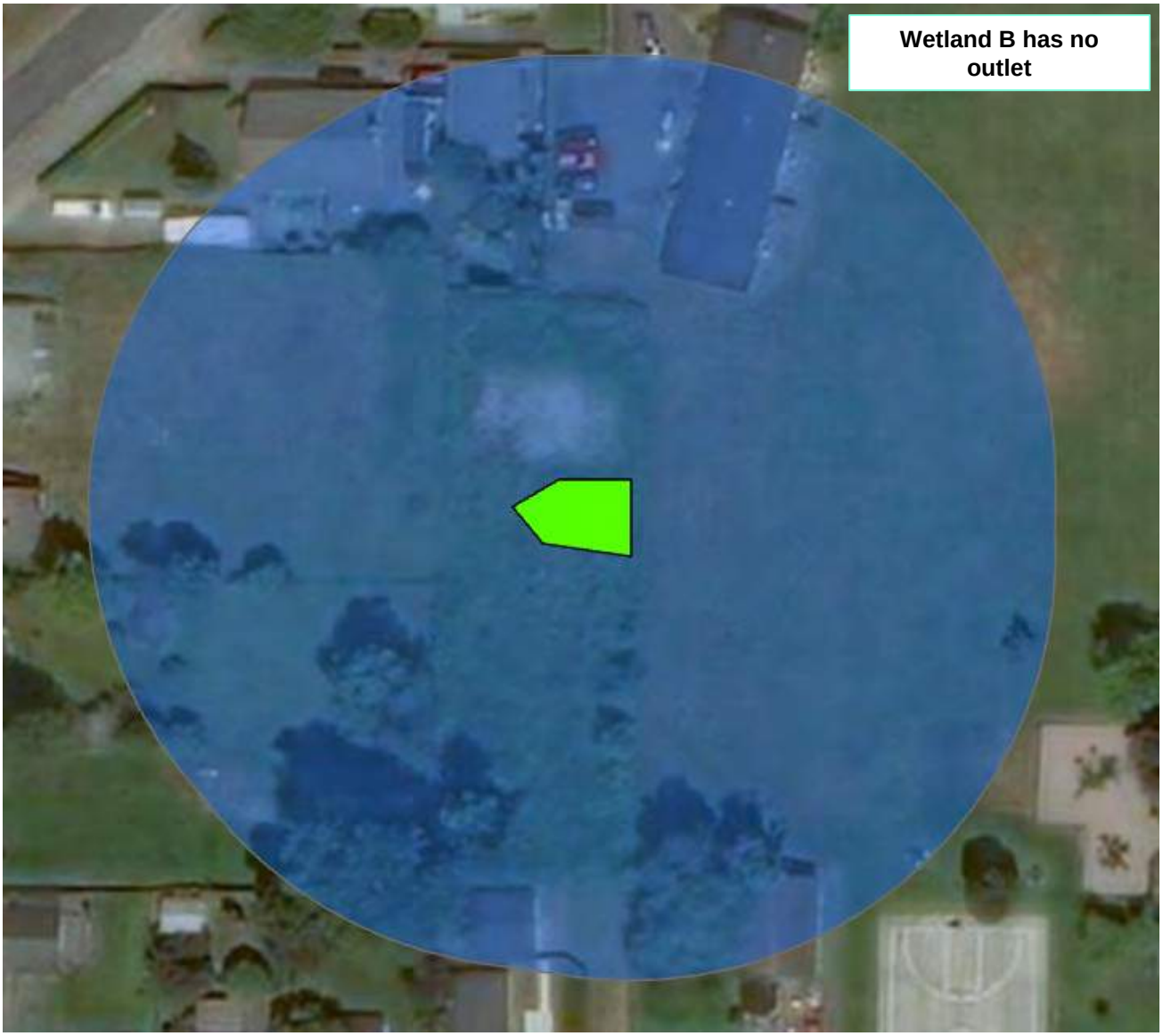
☐ Yes = **Category II** ☐ No - Go to **SC 6.3**

SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?

☐ Yes = **Category III** ☐ No = **Category IV**

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form



Emergent, Saturated only

150-foot Boundary

N
W E
S

Not to Scale

Cowardin Plant Classes, Hydroperiods, Outlet, and 150-foot Buffer (Wetland B)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

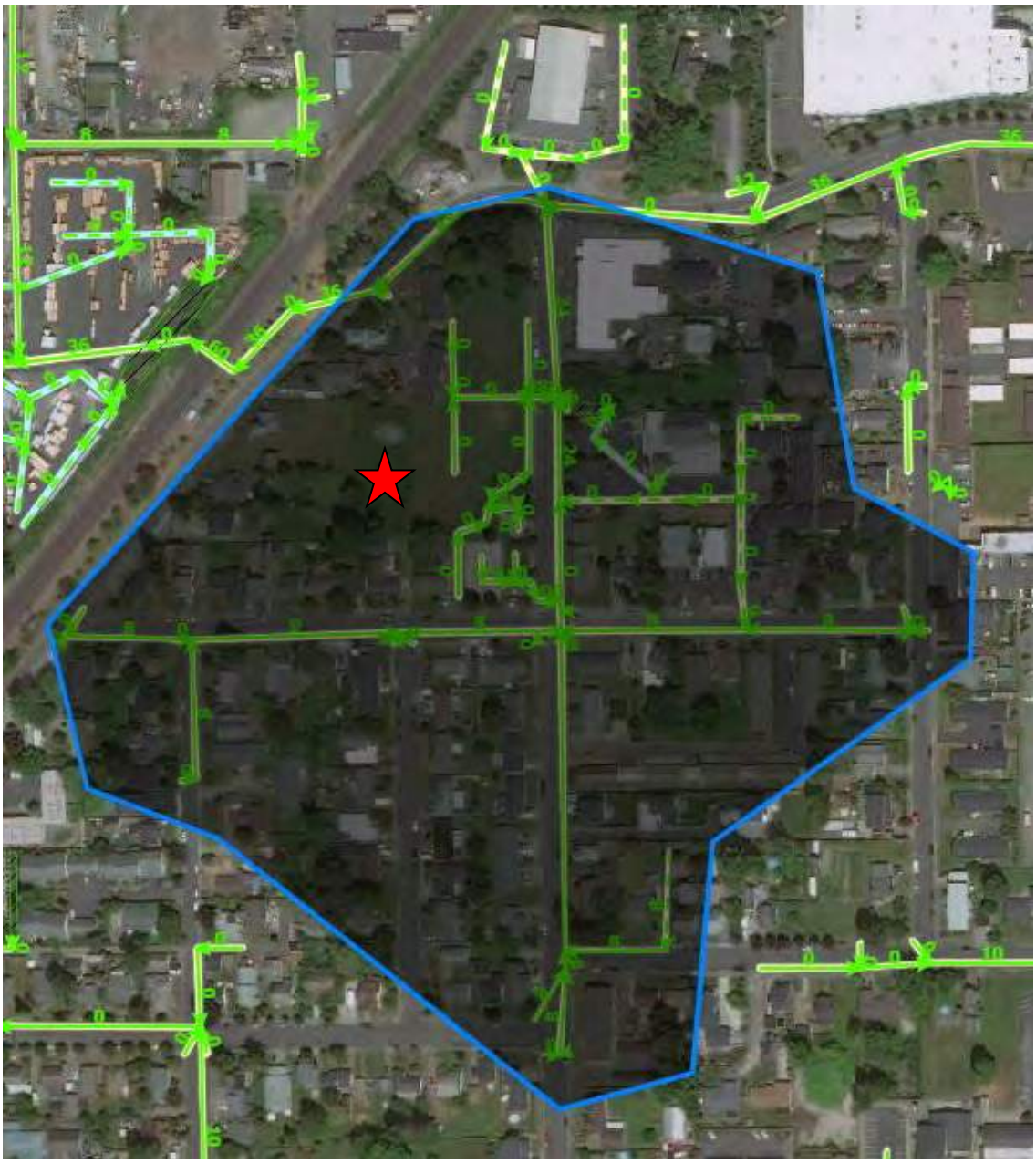
Figure B-1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15



Data From: City of Sumner, WA Web Map (arcgis.com)

Wetland B

Not to Scale

Notes:

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Data Source:

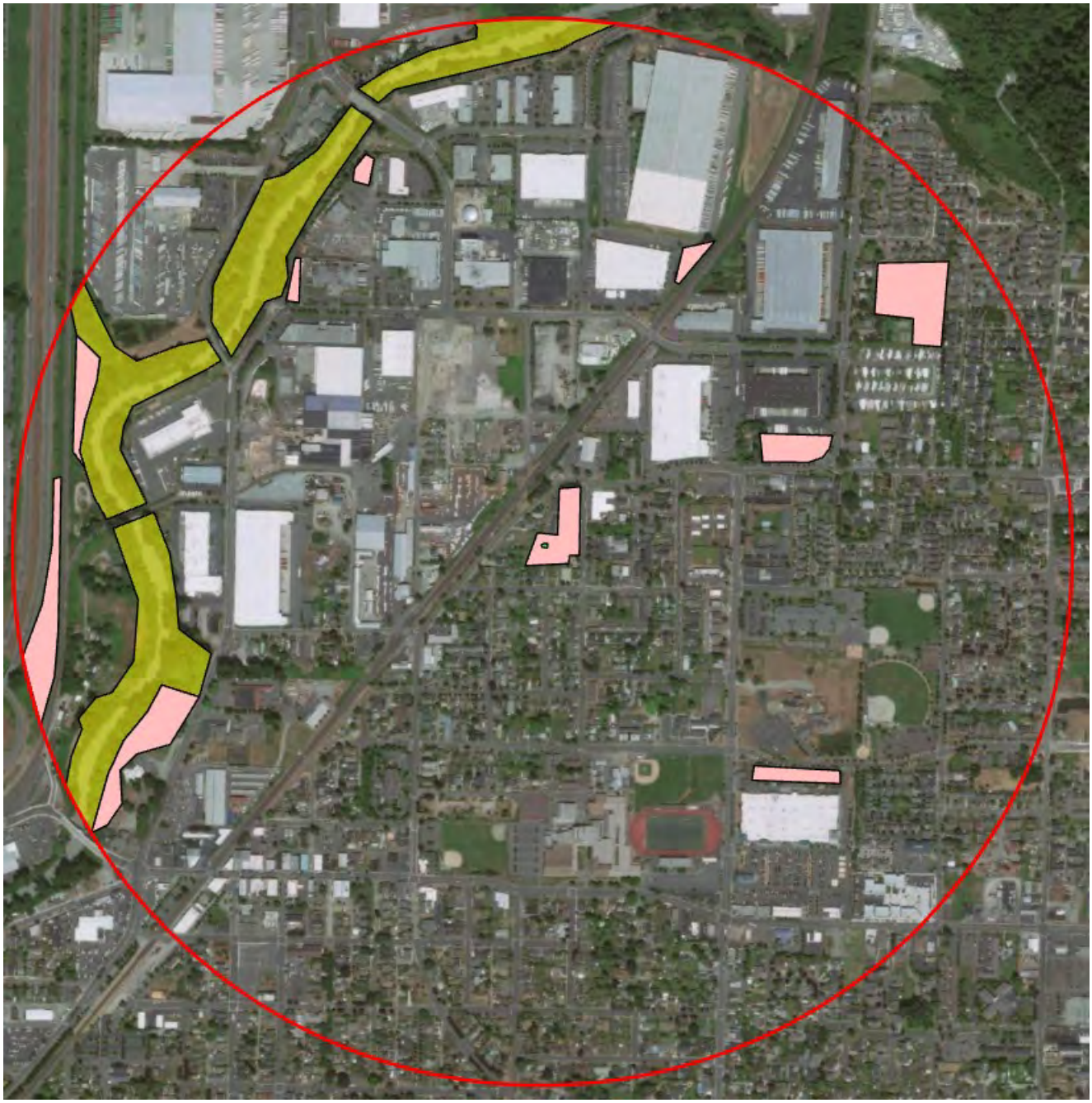
Contributing Basin (Wetland B)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure B-2

XXXX-XXX-XX Date Exported: 04/09/15



Low to Moderate Intensity

Relatively Undisturbed

High Intensity

Wetland B

Not to Scale

1-KM Habitat (Wetland B)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

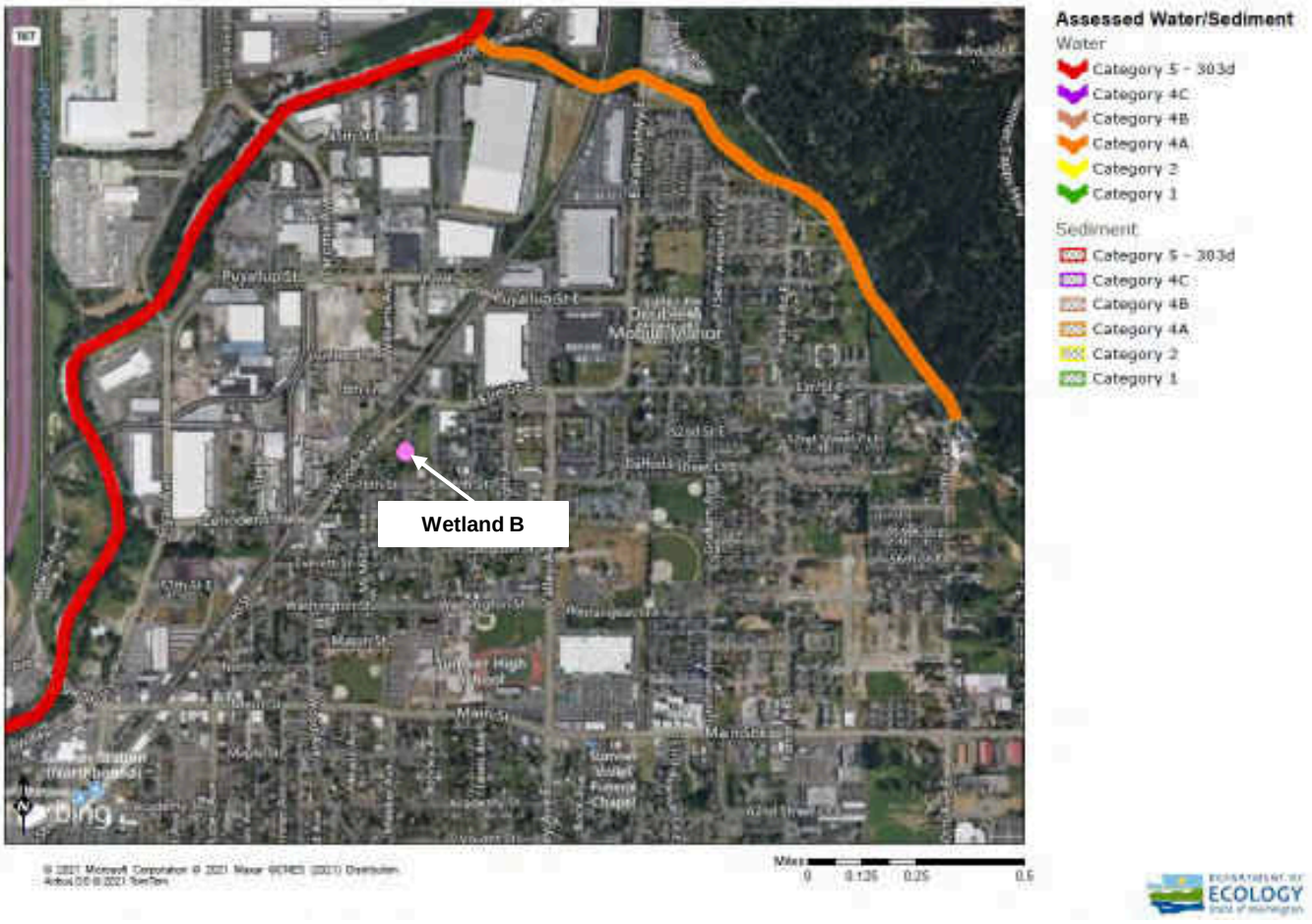
Figure B-3

Notes:

1. The locations of all features shown are approximate.
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Data From: https://apps.ecology.wa.gov/waterqualityatlas/wqa/map

Not to Scale

303(d) Screen Shot (Wetland B)

Sumner Parks Master Plan
Sumner, Washington

Figure B-4

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXXX-XXX-XX Date Exported: 04/09/15



Data From: https://waecy.maps.arcgis.com/home/webmap/viewer.html?layers=016d27df46004d138cdda32259787400

Not to Scale

TMDLs Screen Shot (Wetland B)

Sumner Parks Master Plan
Sumner, Washington

Figure B-5

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15

Wetland name or number C

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland C Date of site visit: 7/26/2021

Rated by D. Conlin, C. Stoker Trained by Ecology? ☑ Yes ☐ No Date of training 12 2014

HGM Class used for rating Depressional & Flats Wetland has multiple HGM classes? ☑ Yes ☐ No

NOTE: Form is not complete with out the figures requested (*figures can be combined*).
Source of base aerial photo/map ESRI ArcGIS

OVERALL WETLAND CATEGORY IV (based on functions ☑ or special characteristics ☐)

1. Category of wetland based on FUNCTIONS

_____ **Category I** - Total score = 23 - 27
_____ **Category II** - Total score = 20 - 22
_____ **Category III** - Total score = 16 - 19
X **Category IV** - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List appropriate rating (H, M, L)			
Site Potential	L	M	L	
Landscape Potential	M	M	L	
Value	H	M	L	**Total**
Score Based on Ratings	6	6	3	**15**

Score for each function based on three ratings (*order of ratings is not important*)

9 = H, H, H
8 = H, H, M
7 = H, H, L
7 = H, M, M
6 = H, M, L
6 = M, M, M
5 = H, L, L
5 = M, M, L
4 = M, L, L
3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	**X**

Wetland name or number C

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	C-1
Hydroperiods	D 1.4, H 1.2	C-1
Location of outlet (*can be added to map of hydroperiods*)	D 1.1, D 4.1	C-1
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	D 2.2, D 5.2	C-1
Map of the contributing basin	D 4.3, D 5.3	C-2
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	C-3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	C-4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	C-5

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (*can be added to another figure*)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to another figure*)	S 4.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated.
If hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1 - 7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

☑ NO - go to 2 ☐ **YES** - the wetland class is **Tidal Fringe** - go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

☐ **NO - Saltwater Tidal Fringe (Estuarine)** ☐ **YES - Freshwater Tidal Fringe**
*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

☑ NO - go to 3 ☐ **YES** - The wetland class is **Flats**
*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
- ☐ At least 30% of the open water area is deeper than 6.6 ft (2 m).

☑ NO - go to 4 ☐ **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The wetland is on a slope (*slope can be very gradual*),
- ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
- ☐ The water leaves the wetland **without being impounded.**

☑ NO - go to 5 ☐ **YES** - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☐ The overbank flooding occurs at least once every 2 years.

☑ NO - go to 6 ☐ **YES** - The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding.

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

☑ NO - go to 7 ☐ **YES** - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

☐ NO - go to 8 ☑ **YES** - The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have ***more than 2 HGM classes*** *within a wetland boundary, classify the wetland as Depressional for the rating.*

NOTES and FIELD OBSERVATIONS:

Wetland name or number C

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ☐ Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1		3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (*use NRCS definitions*).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0		0
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0		0
Total for D 1	Add the points in the boxes above	**3**

Rating of Site Potential If score is: ☐ **12 - 16 = H** ☐ **6 - 11 = M** ☑ **0 - 5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?		
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1 - D 2.3? Source	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	**1**

Rating of Landscape Potential If score is: ☐ **3 or 4 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	**3**

Rating of Value If score is: ☑ **2 - 4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Wetland name or number C

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.* Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 ☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 ☐ The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	0
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.* ☐ The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 ☐ Entire wetland is in the Flats class points = 5	3
Total for D 4 Add the points in the boxes above	**7**

Rating of Site Potential If score is: ☐ **12 - 16 = H** ☑ **6 - 11 = M** ☐ **0 - 5 = L** *Record the rating on the first page*

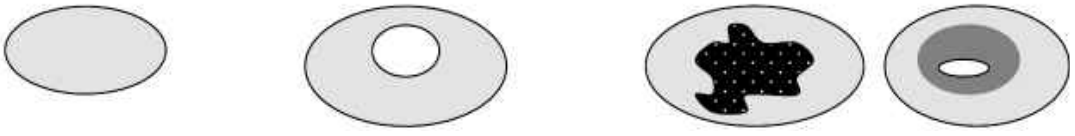
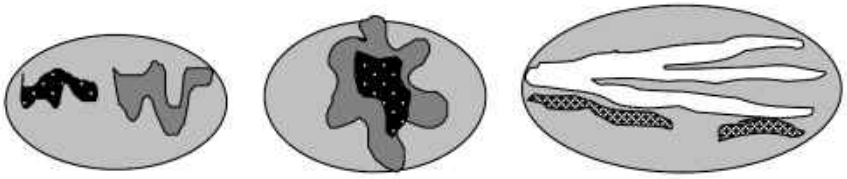
D 5.0. Does the landscape have the potential to support hydrologic function of the site?	
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
Total for D 5 Add the points in the boxes above	**2**

Rating of Landscape Potential If score is: ☐ **3 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.* The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 ☑ • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 ☐ Flooding from groundwater is an issue in the sub-basin. points = 1 ☐ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 ☐ There are no problems with flooding downstream of the wetland. points = 0	1
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for D 6 Add the points in the boxes above	**1**

Rating of Value If score is: ☐ **2 - 4 = H** ☑ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Wetland name or number C

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.* ☐ Aquatic bed — 4 structures or more: points = 4 ☑ Emergent — 3 structures: points = 2 ☐ Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points - 1 ☐ Forested (areas where trees have > 30% cover) — 1 structure: points = 0 *If the unit has a Forested class, check if*: ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*). ☐ Permanently flooded or inundated — 4 or more types present: points = 3 ☐ Seasonally flooded or inundated — 3 types present: points = 2 ☐ Occasionally flooded or inundated — 2 types present: points = 1 ☑ Saturated only — 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland ☐ **Lake Fringe wetland** — **2 points** ☐ **Freshwater tidal wetland** — **2 points**	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. *Different patches of the same species can be combined to meet the size threshold and you do not have to name the species.* ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*** If you counted: > 19 species — points = 2 5 - 19 species — points = 1 < 5 species — points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*  **None** = 0 points — **Low** = 1 point — **Moderate** = 2 points All three diagrams in this row are **HIGH** = 3 points 	0

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☐ Standing snags (dbh > 4 in) within the wetland ☐ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (*cut shrubs or trees that have not yet weathered where wood is exposed*) ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (*structures for egg-laying by amphibians*) ☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	1
Total for H 1 — Add the points in the boxes above	**2**

Rating of Site Potential If Score is: ☐ **15 - 18 = H** ☐ **7 - 14 = M** ☑ **0 - 6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* 0 % undisturbed habitat + (1.86 % moderate & low intensity land uses / 2) = 0.93% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon — points = 3 20 - 33% of 1 km Polygon — points = 2 10 - 19% of 1 km Polygon — points = 1 < 10 % of 1 km Polygon — points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* 19.52 % undisturbed habitat + (10.56 % moderate & low intensity land uses / 2) = 24.8% Undisturbed habitat > 50% of Polygon — points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches — points = 2 Undisturbed habitat 10 - 50% and > 3 patches — points = 1 Undisturbed habitat < 10% of 1 km Polygon — points = 0	1
H 2.3 Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use — points = (-2) ≤ 50% of 1km Polygon is high intensity — points = 0	-2
Total for H 2 — Add the points in the boxes above	**-1**

Rating of Landscape Potential If Score is: ☐ **4 - 6 = H** ☐ **1 - 3 = M** ☑ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated*. Site meets ANY of the following criteria: — points = 2 ☐ It has 3 or more priority habitats within 100 m (see next page) ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) with in 100m — points = 1 Site does not meet any of the criteria above — points = 0	0

Rating of Value If Score is: ☐ **2 = H** ☐ **1 = M** ☑ **0 = L** *Record the rating on the first page*

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.
http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here:
http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE**: This question is independent of the land use between the wetland unit and the priority habitat.*

- ☐ **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- ☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- ☐ **Herbaceous Balds**: Variable size patches of grass and forbs on shallow soils over bedrock.
- ☐ **Old-growth/Mature forests**: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- ☐ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).
- ☐ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- ☐ **Westside Prairies**: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).
- ☐ **Instream**: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- ☐ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page*).
- ☐ **Caves**: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- ☐ **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- ☐ **Talus**: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ☐ **Snags and Logs**: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number C

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands? ☐ The dominant water regime is tidal, ☐ Vegetated, and ☐ With a salinity greater than 0.5 ppt ☐ Yes - Go to **SC 1.1** ☑ No = **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? ☐ Yes = **Category I** ☐ No - Go to **SC 1.2**	
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. ☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. ☐ Yes = **Category I** ☐ No = **Category II**	
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ☐ Yes - Go to **SC 2.2** ☑ No - Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes = **Category I** ☐ No = **Not WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ☐ Yes - **Contact WNHP/WDNR and to SC 2.4** ☐ No = **Not WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ☐ Yes = **Category I** ☐ No = **Not WHCV**	
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions***. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? ☐ Yes - Go to **SC 3.3** ☑ No - Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ☐ Yes - Go to **SC 3.3** ☑ No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? ☐ Yes = **Is a Category I bog** ☐ No - Go to **SC 3.4** **NOTE**: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? ☐ Yes = **Is a Category I bog** ☐ No = **Is not a bog**	

Wetland name or number C

SC 4.0. Forested Wetlands

Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.***

☐ **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.

☐ **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).

☐ Yes = **Category I** ☑ No = **Not a forested wetland for this section**

SC 5.0. Wetlands in Coastal Lagoons

Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

☐ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks

☐ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (*needs to be measured near the bottom*)

☐ Yes - Go to **SC 5.1** ☑ No = **Not a wetland in a coastal lagoon**

SC 5.1. Does the wetland meet all of the following three conditions?

☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).

☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.

☐ The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2)

☐ Yes = **Category I** ☐ No = **Category II**

SC 6.0. Interdunal Wetlands

Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.***

In practical terms that means the following geographic areas:

☐ Long Beach Peninsula: Lands west of SR 103

☐ Grayland-Westport: Lands west of SR 105

☐ Ocean Shores-Copalis: Lands west of SR 115 and SR 109

☐ Yes - Go to **SC 6.1** ☑ No = **Not an interdunal wetland for rating**

SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?

☐ Yes = **Category I** ☐ No - Go to **SC 6.2**

SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?

☐ Yes = **Category II** ☐ No - Go to **SC 6.3**

SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?

☐ Yes = **Category III** ☐ No = **Category IV**

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form



Emergent, Saturated only

150-foot Boundary

N
W E
S

Not to Scale

Cowardin Plant Classes, Hydroperiods, Outlet, and 150-foot Boundary (Wetland C)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

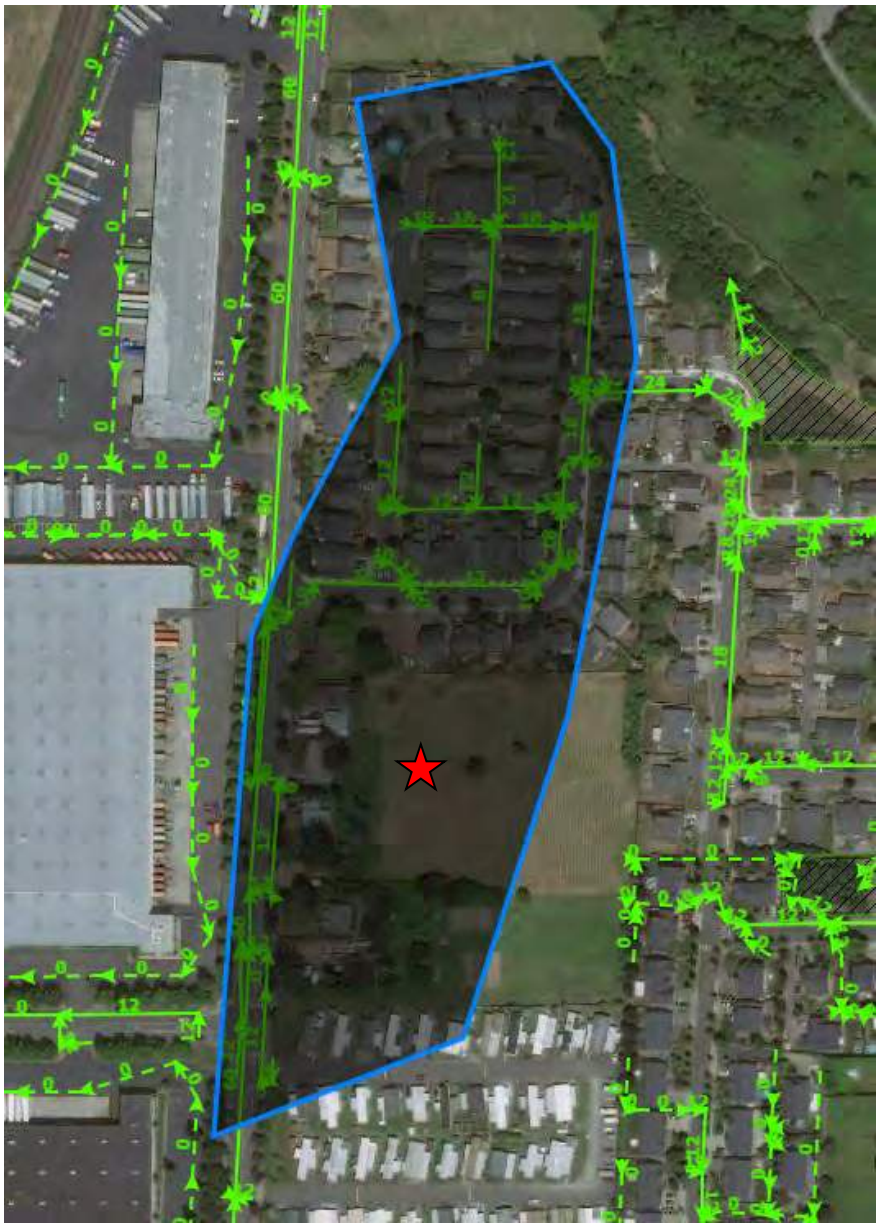
Figure C-1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15



Data From: https://city-of-sumner.maps.arcgis.com/apps/webappviewer/index.html?id=4095c816e4274270a846ae03cf8cf45a

Wetland C

Not to Scale

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

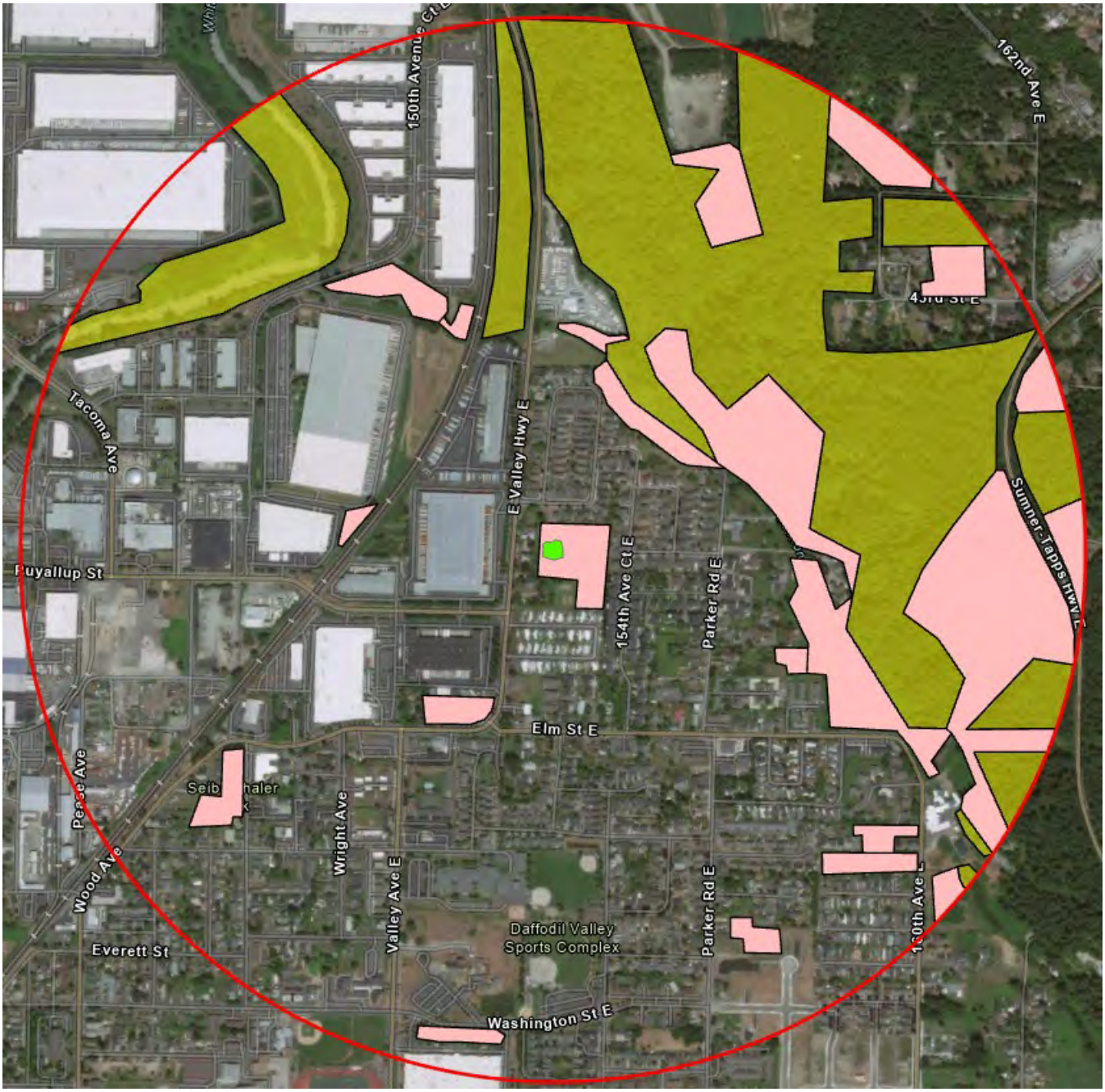
Contributing Basin (Wetland C)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure C-2

XXXX-XXX-XX Date Exported: 04/09/15



Low to Moderate Intensity

Relatively Undisturbed

High Intensity

Wetland C

Not to Scale

Notes:

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Data Source:

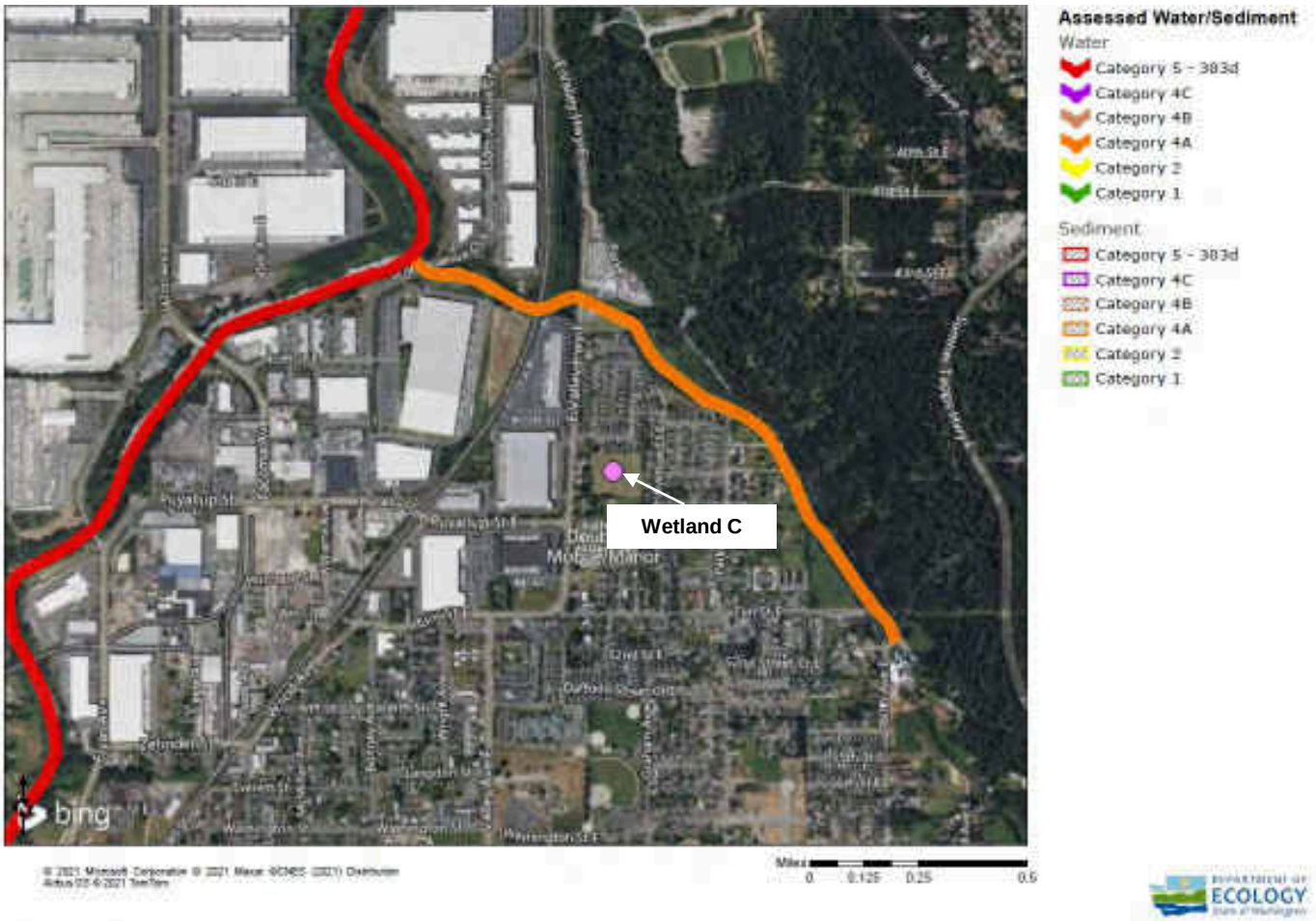
1-KM Habitat
(Wetland C)

Sumner Parks Master Plan
Sumner, Washington

GeoEngineers

Figure C-3

XXXX-XXX-XX Date Exported: 04/09/15



Data From: https://apps.ecology.wa.gov/waterqualityatlas/wqa/map

Not to Scale

303(d) Screen Shot (Wetland C)

Sumner Parks Master Plan
Sumner, Washington

Figure C-4

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15



Data From: https://waecy.maps.arcgis.com/home/webmap/viewer.html?layers=016d27df46004d138cdda32259787400

Not to Scale

TMDLs Screen Shot (Wetland C)

Sumner Parks Master Plan
Sumner, Washington

Figure C-5

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:

XXXX-XXX-XX Date Exported: 04/09/15

APPENDIX D-1
Seibenthaler Park Sample Plot Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Seibenthaler Park | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP1

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S42, T20N, R04E

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): concave | Slope (%):

Subregion (LRR): A | Lat: 47.208938 | Long: -122.234211 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? (●) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	(●) Yes ( ) No
Hydric Soil Present?	(●) Yes	( ) No		
Wetland Hydrology Present?	(●) Yes	( ) No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20')	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
1. *Populus balsamifera*	15	Y	100.0	FAC
2.				
3.				
4.				
	15	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')				
1. *Salix sitchensis*	5	Y	100.0	FACW
2.				
3.				
4.				
5.				
	5	= Total Cover		
Herb Stratum (Plot size: 15')				
1. *Phalaris arundinacea*	90	Y	55.6	FACW
2. *Equisetum arvense*	45	Y	27.8	FAC
3. *Rubus armeniacus*	10	N	6.2	FAC
4. *Juncus effusus*	5	N	3.1	FACW
5. *Ranunculus repens*	5	N	3.1	FAC
6. *Convolvulus arvensis*	5	N	3.1	UPL
7. *Holcus lanatus*	2	N	1.2	FAC
8.				
9.				
10.				
11.				
	162	= Total Cover		
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
		= Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	77	x 3 =	231
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	182 (A)		456 (B)

Prevalence Index = B/A = 2.505

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [x] 2 - Dominance Test is >50%
- [x] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:

SOIL

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/2	100					silt loam	
5-13	10YR 5/2	75	7.5YR 4/6	25	C	M	silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ◉ Yes ○ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches):

Water Table Present? ○ Yes ◉ No Depth (inches):

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches):

Wetland Hydrology Present? ◉ Yes ○ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Seibenthaler Park | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP2

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S42, T20N, R04E

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): concave | Slope (%):

Subregion (LRR): A | Lat: 47.208806 | Long: -122.234256 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? (●) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	( ) Yes (●) No
Hydric Soil Present?	( ) Yes	(●) No		
Wetland Hydrology Present?	( ) Yes	(●) No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20')	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
1.				
2.				
3.				
4.				
	= Total Cover			
Sapling/Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
	= Total Cover			
Herb Stratum (Plot size: 15')				
1. *Equisetum arvense*	35	Y	34.3	FAC
2. *Rubus armeniacus*	30	Y	29.4	FAC
3. *Phalaris arundinacea*	30	Y	29.4	FACW
4. *Convolvulus arvensis*	5	N	4.9	UPL
5. *Lotus corniculatus*	2	N	2.0	FAC
6.				
7.				
8.				
9.				
10.				
11.				
	102 = Total Cover			
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
	= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	67	x 3 =	201
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	102 (A)		286 (B)

Prevalence Index = B/A = 2.804

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [x] 2 - Dominance Test is >50%
- [x] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR	3/2	99	5YR	4/6	<1	C	M	Silt loam	
5-13	7.5YR	4/4	50							
	7.5YR	5/4	50							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? ○ Yes ◉ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches): _____

Water Table Present? ○ Yes ◉ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches): _____

Wetland Hydrology Present? ○ Yes ◉ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Seibenthaler Park | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP3

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S42, T20N, R04E

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): concave | Slope (%):

Subregion (LRR): A | Lat: 47.209009 | Long: -122.234253 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? (●) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	(●) Yes ( ) No
Hydric Soil Present?	(●) Yes	( ) No		
Wetland Hydrology Present?	(●) Yes	( ) No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20')	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
1.				
2.				
3.				
4.				
	= Total Cover			
Sapling/Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
	= Total Cover			
Herb Stratum (Plot size: 15')				
1. *Equisetum arvense*	35	**Y**	34.3	FAC
2. *Phalaris arundinacea*	25	**Y**	24.5	FACW
3. *Rubus armeniacus*	25	**Y**	24.5	FAC
4. *Convolvulus arvensis*	10	N	9.8	UPL
5. *Cirsium arvense*	5	N	4.9	FAC
6. *Rumex crispus*	2	N	2.0	FAC
7.				
8.				
9.				
10.				
11.				
	102 = Total Cover			
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
	= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	67	x 3 =	201
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	102 (A)		301 (B)

Prevalence Index = B/A = 2.951

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [✓] 2 - Dominance Test is >50%
- [✓] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/3	100					Silt loam	
5-13	10YR 5/2	95	10YR 4/4	5	C	M	Silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ◉ Yes ○ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches):

Water Table Present? ○ Yes ◉ No Depth (inches):

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches):

Wetland Hydrology Present? ◉ Yes ○ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Seibenthaler Park | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP4

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S42, T20N, R04E

Landform (hillslope, terrace, etc.): mound | Local relief (concave, convex, none): convex | Slope (%):

Subregion (LRR): A | Lat: 47.208978 | Long: -122.234190 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? (●) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	( ) Yes (●) No
Hydric Soil Present?	( ) Yes	(●) No		
Wetland Hydrology Present?	( ) Yes	(●) No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10')	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
1.				
2.				
3.				
4.				
	= Total Cover			
Sapling/Shrub Stratum (Plot size: 10')				
1.				
2.				
3.				
4.				
5.				
	= Total Cover			
Herb Stratum (Plot size: 10')				
1. *Equisetum arvense*	60	Y	48.0	FAC
2. *Rubus armeniacus*	55	Y	44.0	FAC
3. *Hypericum perforatum*	5	N	4.0	FACU
4. *Convolvulus arvensis*	5	N	4.0	UPL
5.				
6.				
7.				
8.				
9.				
10.				
11.				
	125 = Total Cover			
Woody Vine Stratum (Plot size: 10')				
1.				
2.				
	= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	115	x 3 =	345
FACU species	5	x 4 =	20
UPL species	5	x 5 =	25
Column Totals:	125 (A)		390 (B)

Prevalence Index = B/A = 3.120

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [✓] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:

SOIL

Sampling Point: SP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 3/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ○ Yes ◉ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches):

Water Table Present? ○ Yes ◉ No Depth (inches):

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches):

Wetland Hydrology Present? ○ Yes ◉ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX D-2
Bennett Property Sample Plot Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bennett Property | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP1

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S41, T20N, R05E

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): concave | Slope (%):

Subregion (LRR): A | Lat: 47.213749 | Long: -122.225087 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [✓], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? ( ) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	( ) Yes (●) No
Hydric Soil Present?	( ) Yes	(●) No		
Wetland Hydrology Present?	( ) Yes	(●) No		

Remarks:
Field that had been mowed within the past month.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
Tree Stratum (Plot size: 20')				
1. *Prunus cerasifera*	25	Y	100.0	FACU
2.				
3.				
4.				
	25	= Total Cover		
Sapling/Shrub Stratum (Plot size: 20')				
1. *Cornus alba*	20	Y	100.0	FACW
2.				
3.				
4.				
5.				
	20	= Total Cover		
Herb Stratum (Plot size: 20')				
1. *Mixed native grasses*	75	Y	75.0	FAC
2. *Rubus armeniacus*	25	Y	25.0	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
	100	= Total Cover		
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
		= Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	100	x 3 =	300
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	145 (A)		440 (B)

Prevalence Index = B/A = 3.034

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [✓] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:
Mixed native grasses were not identified to species level due to recent vegetation disturbance causing no identifiable characteristics.

SOIL

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	4/3	100							
6-16	10YR	3/3	70	10YR	5/8	<1	C	PL&M		
	10YR	4/1	30							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? ○ Yes ◉ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches): _____

Water Table Present? ○ Yes ◉ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches): _____

Wetland Hydrology Present? ○ Yes ◉ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bennett Property | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP2

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S41. T20N, R05E

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): concave | Slope (%):

Subregion (LRR): A | Lat: 47.213700 | Long: -122.225547 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [✓], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? ( ) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	(●) Yes ( ) No
Hydric Soil Present?	(●) Yes	( ) No		
Wetland Hydrology Present?	(●) Yes	( ) No		

Remarks:
Field that had been mowed within the past month.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20')	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
1.				
2.				
3.				
4.				
	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20')				
1.				
2.				
3.				
4.				
5.				
	= Total Cover			
Herb Stratum (Plot size: 20')				
1. *Mixed grasses*	65	Y	65.0	FAC
2. *Phalaris arundinacea*	25	Y	25.0	FAC
3. *Alopecurus pratensis*	5	N	5.0	FAC
4. *Holcus lanatus*	5	N	5.0	FAC
5.				
6.				
7.				
8.				
9.				
10.				
11.				
	100 = Total Cover			
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
	= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [✓] 2 - Dominance Test is >50%
- [✓] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:
Mixed grasses were not identified to species level due to recent vegetation disturbance causing no identifiable characteristics.

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/3	100					Silt loam	
3-16	10YR 4/2	90	10YR 4/4	10	C	PL&M	Silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ◉ Yes ○ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches):

Water Table Present? ○ Yes ◉ No Depth (inches):

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches):

Wetland Hydrology Present? ◉ Yes ○ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation visible on Pierce County ortho photos from years: 2014, 2016, and 2017

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bennett Property | City/County: City of Sumner | Sampling Date: 7/26/2021

Applicant/Owner: Sumner Parks | State: WA | Sampling Point: SP3

Investigator(s): D. Conlin, C. Stoker | Section, Township, Range: S41. T20N, R05E

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): concave | Slope (%):

Subregion (LRR): A | Lat: 47.213418 | Long: -122.225634 | Datum: NAD83HARN

Soil Map Unit Name: Sultan silt loam, 0 to 2 percent slope | NWI Classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation [✓], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? ( ) Yes ( ) No

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?**	( ) Yes (●) No
Hydric Soil Present?	( ) Yes	(●) No		
Wetland Hydrology Present?	( ) Yes	(●) No		

Remarks:
Field that had been mowed within the past month.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20')	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
1.				
2.				
3.				
4.				
	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20')				
1.				
2.				
3.				
4.				
5.				
	= Total Cover			
Herb Stratum (Plot size: 20')				
1. *Mixed grasses*	65	**Y**	65.0	FAC
2. *Rubus armeniacus*	15	N	15.0	FAC
3. *Carex spp*	15	N	15.0	FAC
4. *Holcus lanatus*	5	N	5.0	FAC
5.				
6.				
7.				
8.				
9.				
10.				
11.				
	100 = Total Cover			
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
	= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [✓] 2 - Dominance Test is >50%
- [✓] 3 - Prevalence Index is ≤3.0[1]
- [ ] 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:
Mixed grasses were not identified to species level due to recent vegetation disturbance causing no identifiable characteristics.

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-7	2.5Y	4/3	90							
	2.5Y	4/4	10							
7-12	2.5Y	4/3	74	2.5Y	5/2	25	D	M		
				10YR	4/6	<1	C	M		
12-16	2.5Y	5/2	80	10YR	4/6	20	C	PL&M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
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- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (except MLRA 1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? ○ Yes ◉ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
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- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
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- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches): _____

Water Table Present? ○ Yes ◉ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches): _____

Wetland Hydrology Present? ○ Yes ◉ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

GeoEngineers

APPENDIX D

Community Outreach Events

Seibenthaler Park & Bennett Property - Parks Master Plans Kickoff Survey

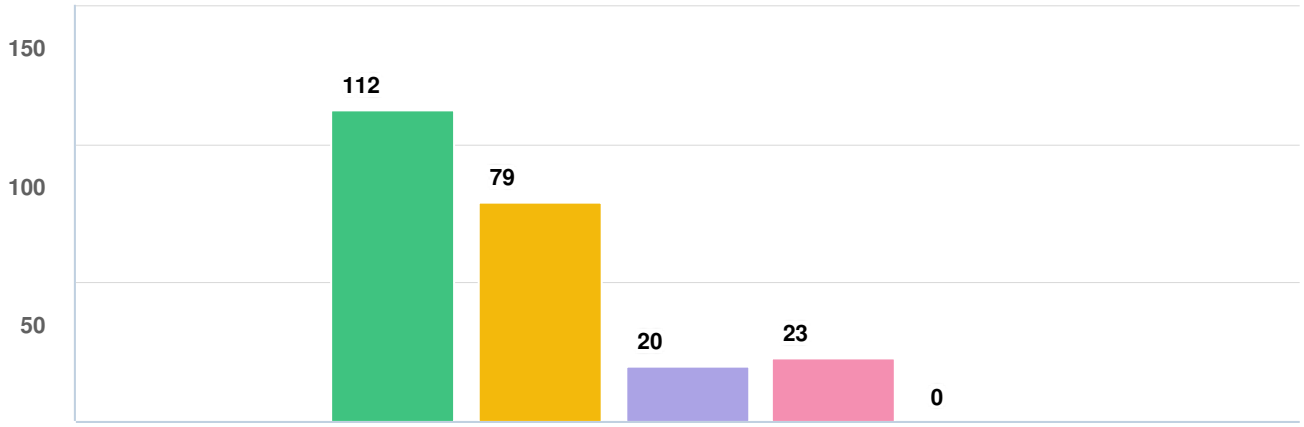
SURVEY RESPONSE REPORT
14 June 2019 - 07 September 2021

PROJECT NAME:
Sumner Parks and Trails: the Future

BANG THE TABLE engagementHQ

SURVEY QUESTIONS

Q1 Your community and experience - How are you connected to the community?

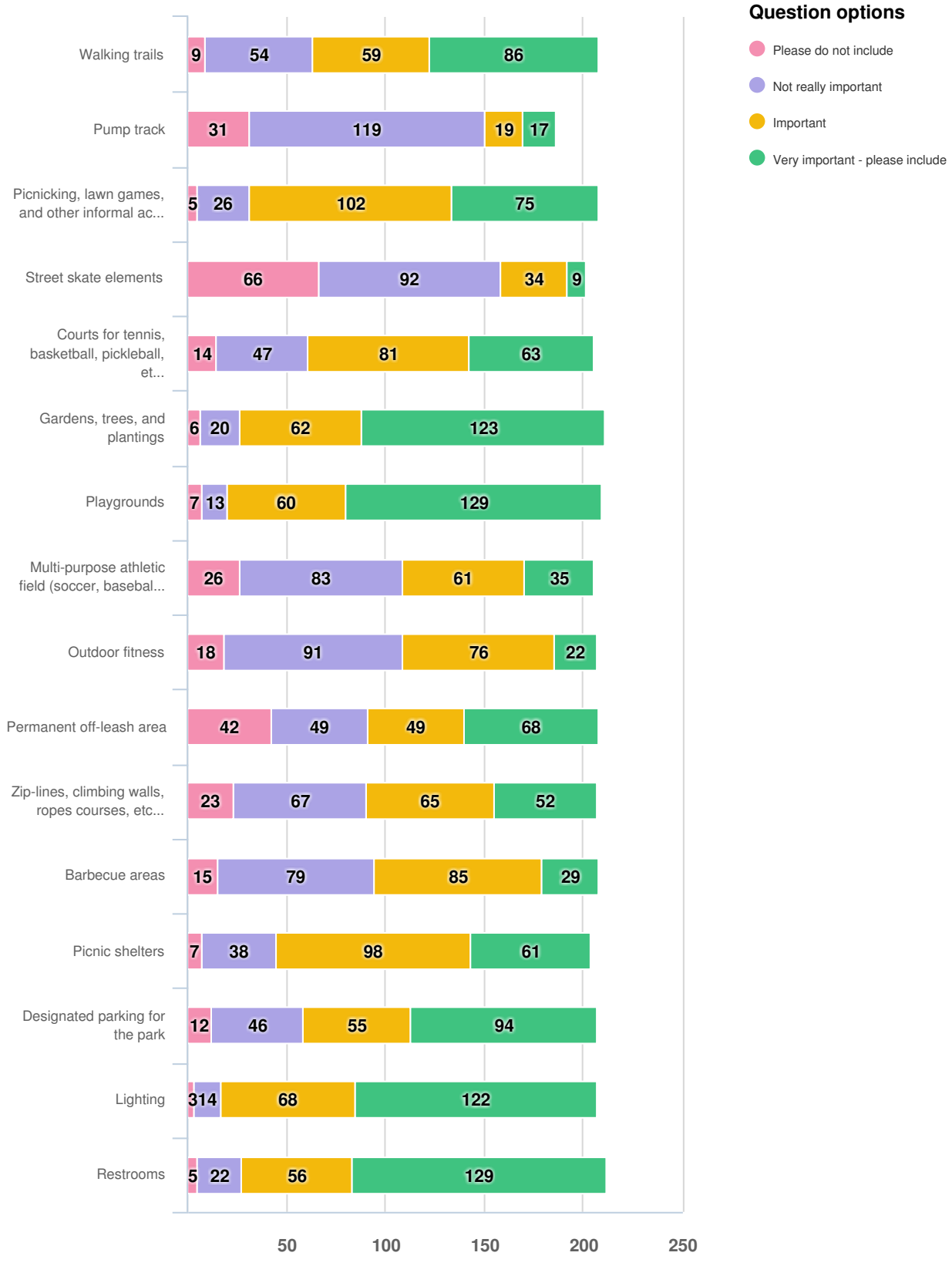


Question options

I live north of Main Street
I live south of Main Street
I work or own a business in Sumner
I am a frequent visitor to Sumner
Other (please specify)

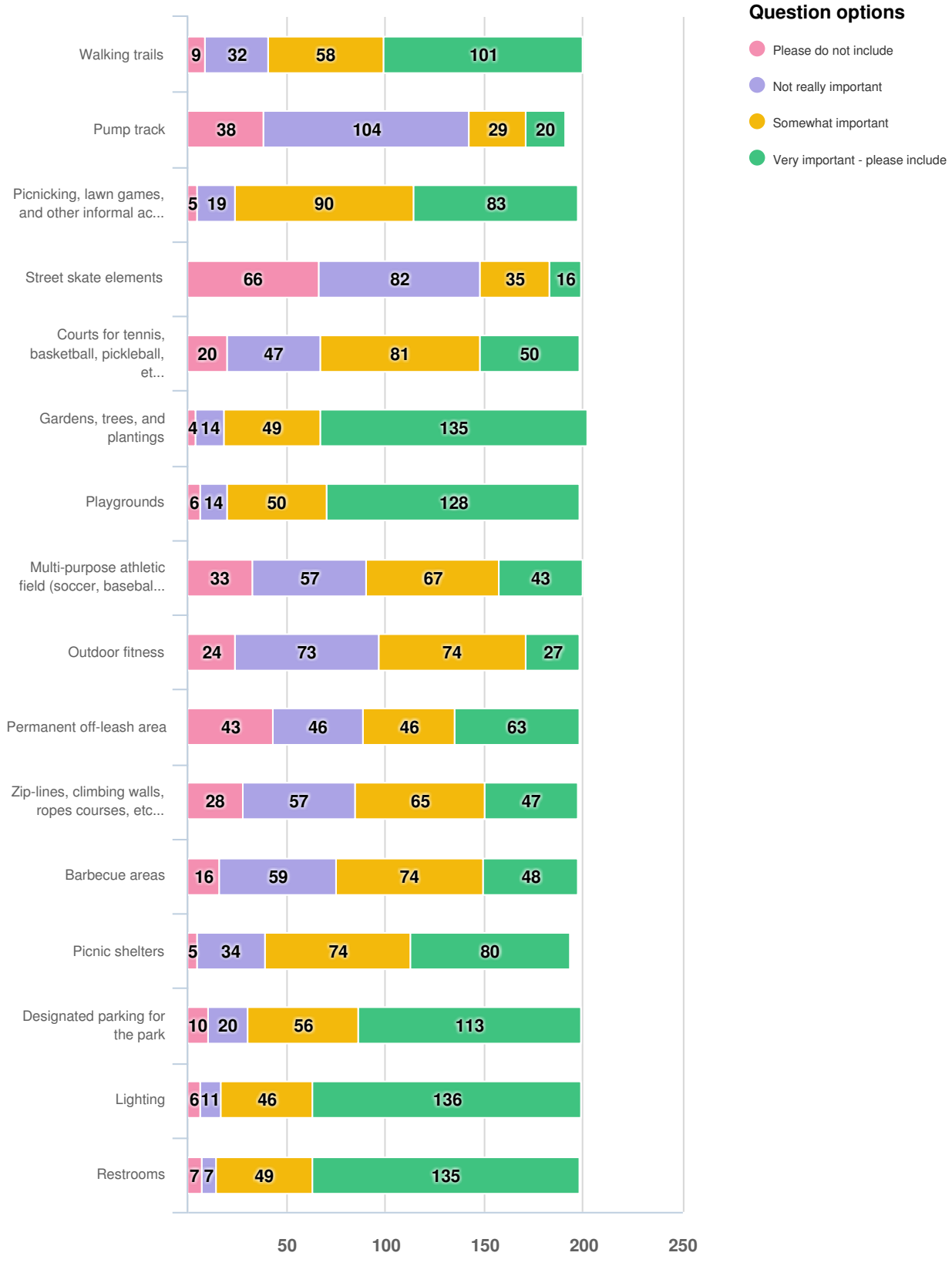
Mandatory Question (215 response(s))
Question type: Checkbox Question

Q2 How important is it to provide the following types of activities or improvements in the master plan for Seibenthaler Park?



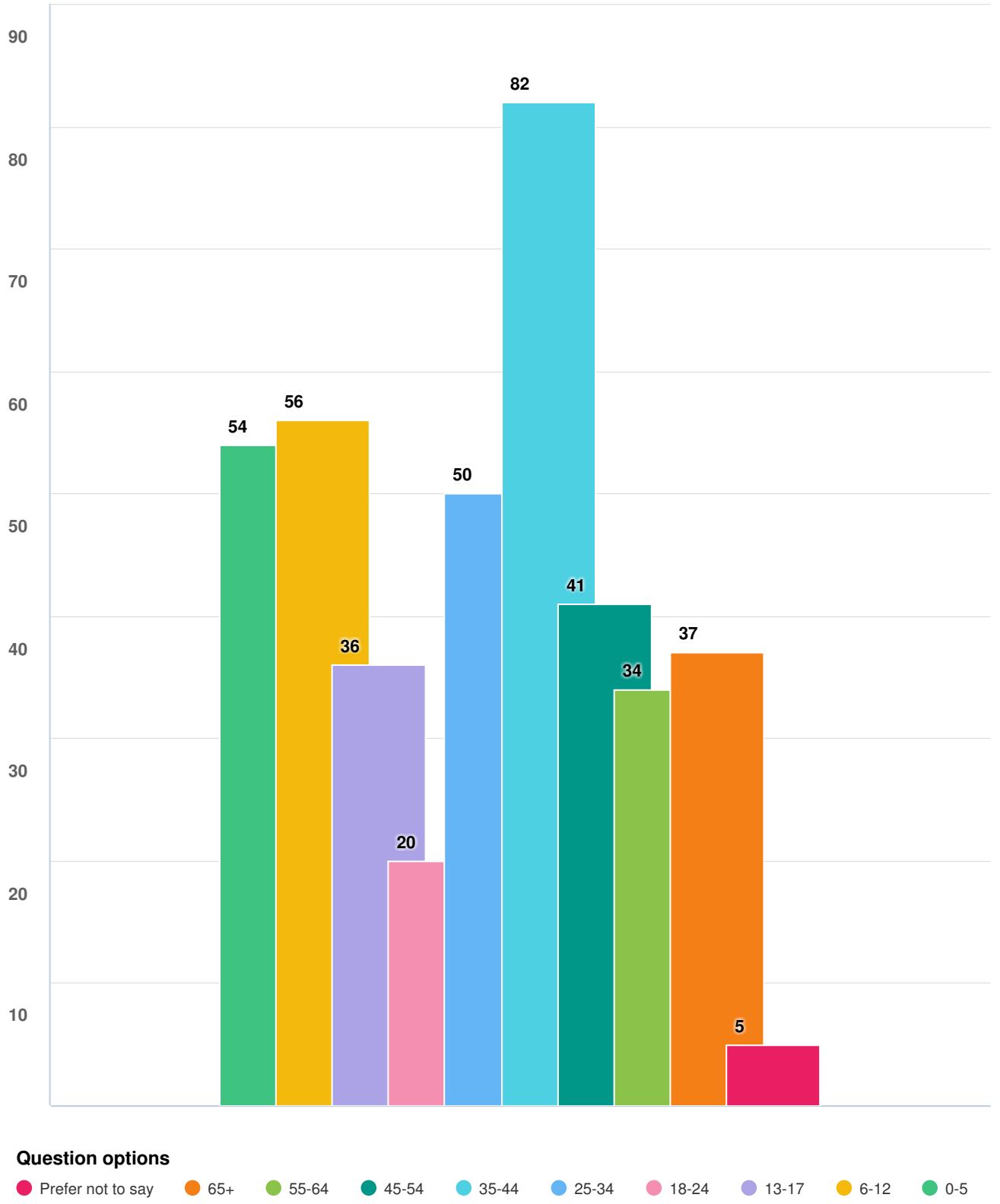
Optional question (213 response(s), 2 skipped)
Question type: Likert Question

Q4 How important is it to provide the following types of activities or improvements in the master plan for the Bennett Propert...



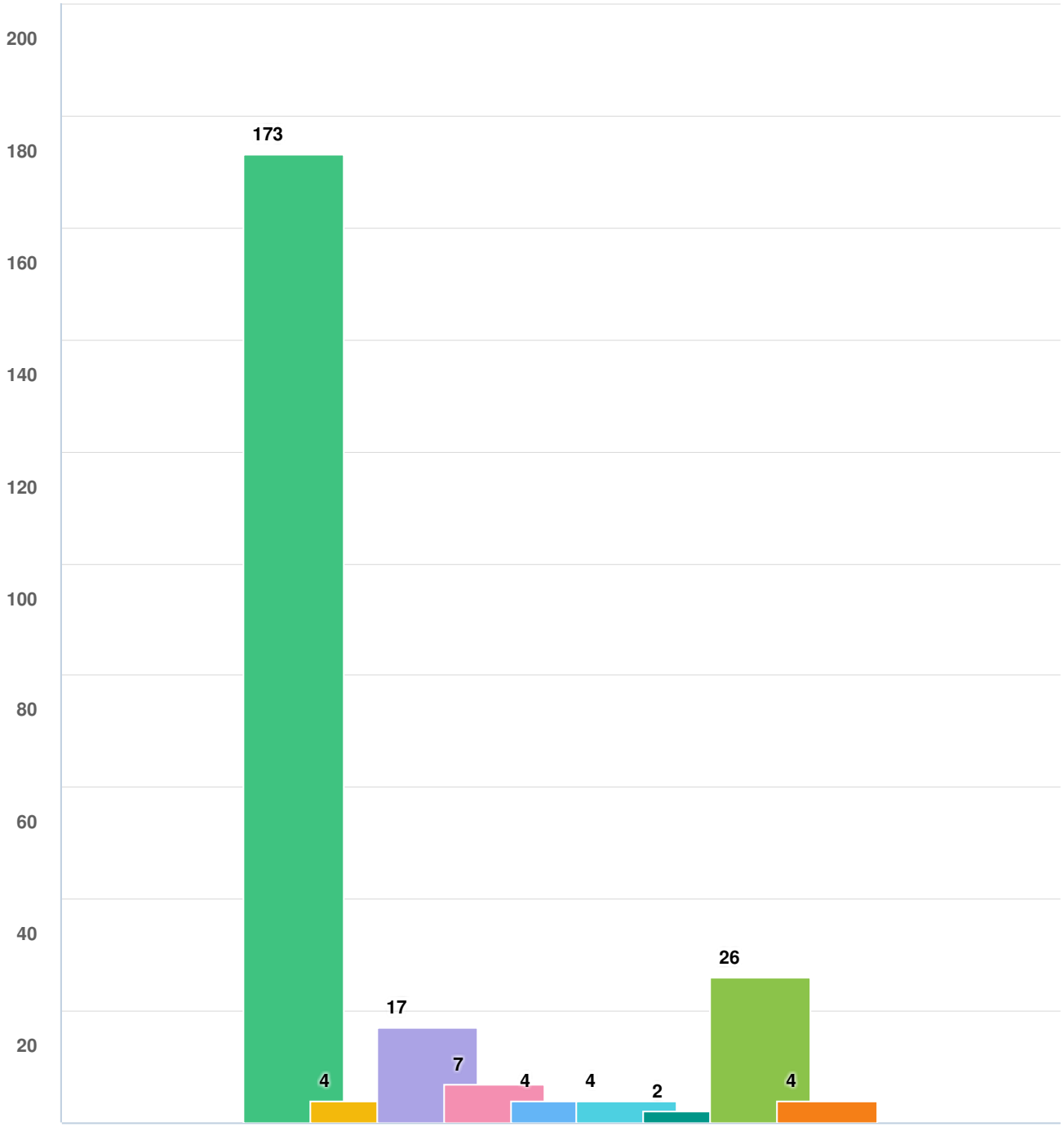
Optional question (204 response(s), 11 skipped)
Question type: Likert Question

Q6 How old are you and the other members of your household? (select all that apply)



Mandatory Question (215 response(s))
Question type: Checkbox Question

Q7 How would you best describe your ethnicity and the ethnicity of those in your household? (select all that apply)



Mandatory Question (215 response(s))
Question type: Checkbox Question

Open House - Concepts Survey

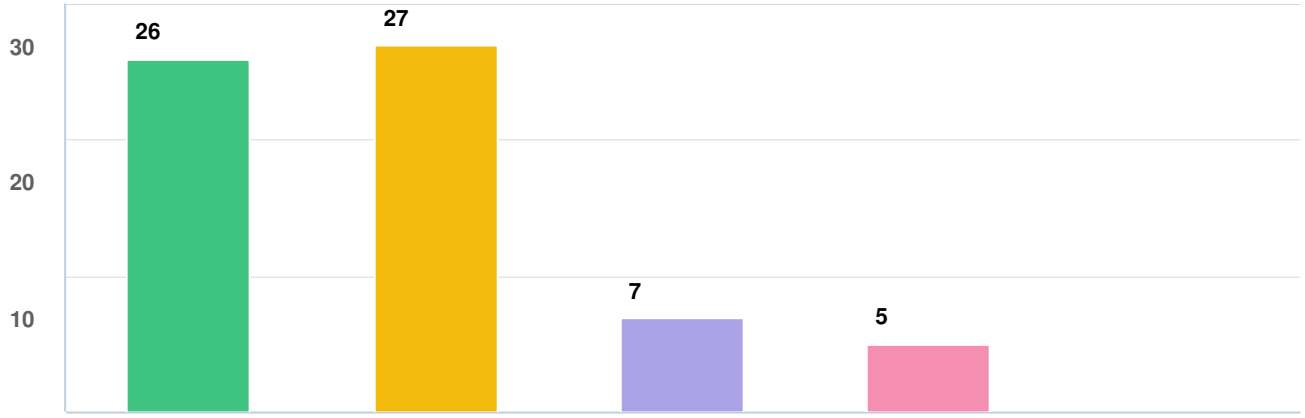
SURVEY RESPONSE REPORT
14 June 2019 - 30 November 2021

PROJECT NAME:
Sumner Parks and Trails: the Future

BANG THE TABLE engagementHQ

SURVEY QUESTIONS

Q1 How are you connected to the community?

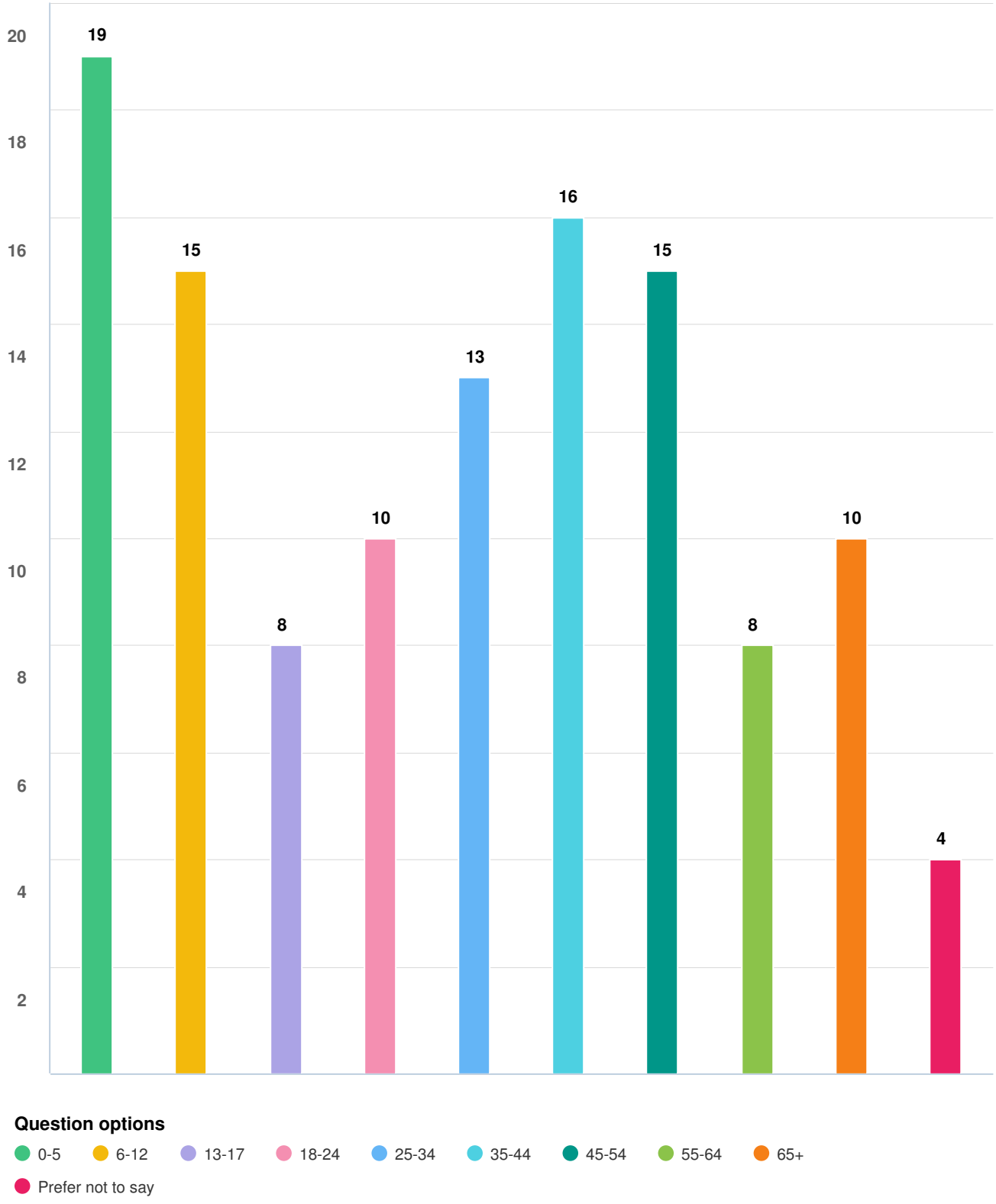


Question options

I live north of Main Street. I live south of Main Street. I work or own a business in Sumner
I visit Sumner frequently Other (please specify)

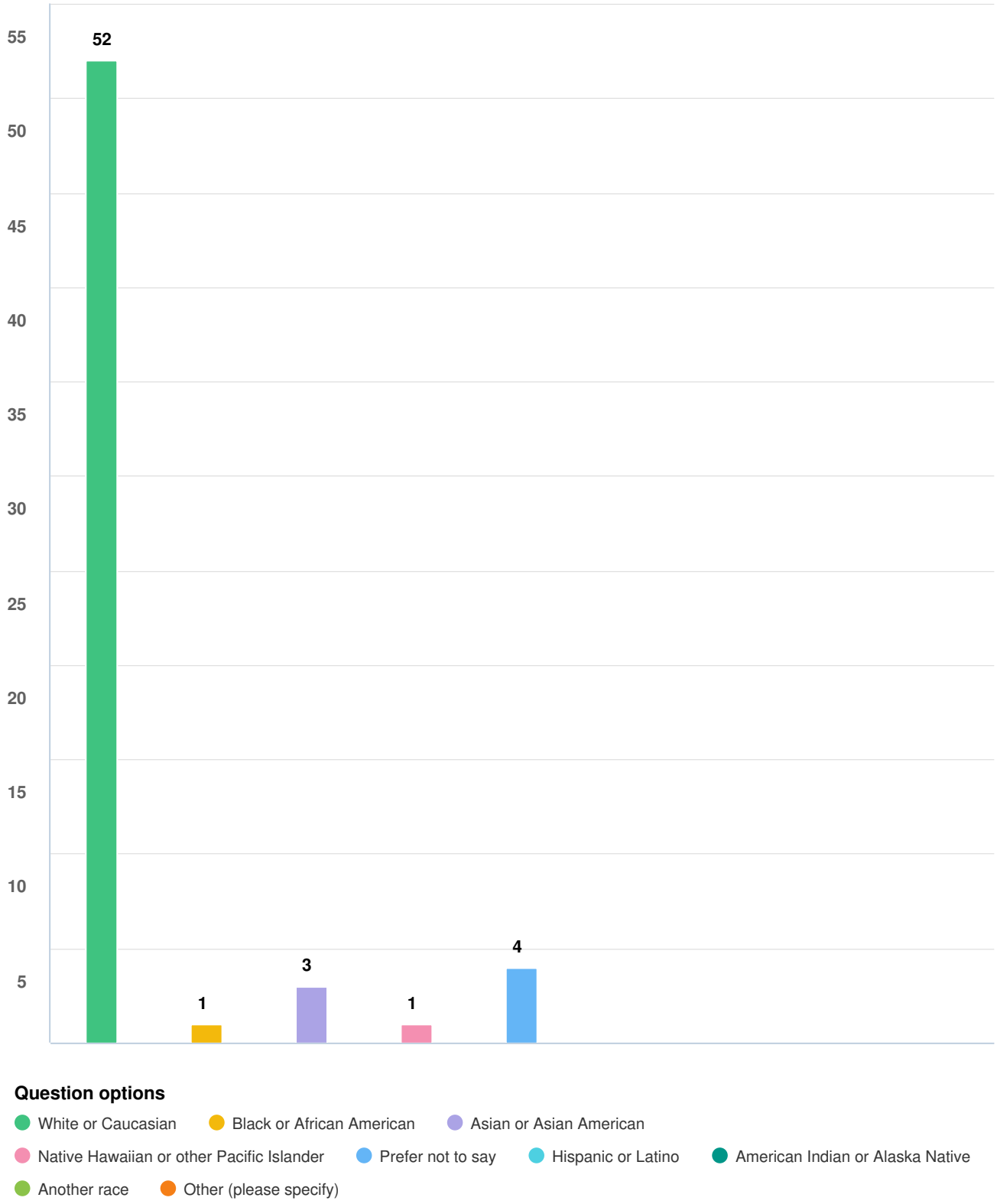
Mandatory Question (59 response(s))
Question type: Checkbox Question

Q12 How old are you and the other members of your household? (select all that apply)



Mandatory Question (59 response(s))
Question type: Checkbox Question

Q13 How would you best describe your ethnicity and the ethnicity of those in your household? (select all that apply)



Mandatory Question (59 response(s))
Question type: Checkbox Question

EXISTING CONDITIONS



BENNETT PROPERTY

Sumner Parks Master Plans
August 14, 2021

What activities would you like to do in the park?

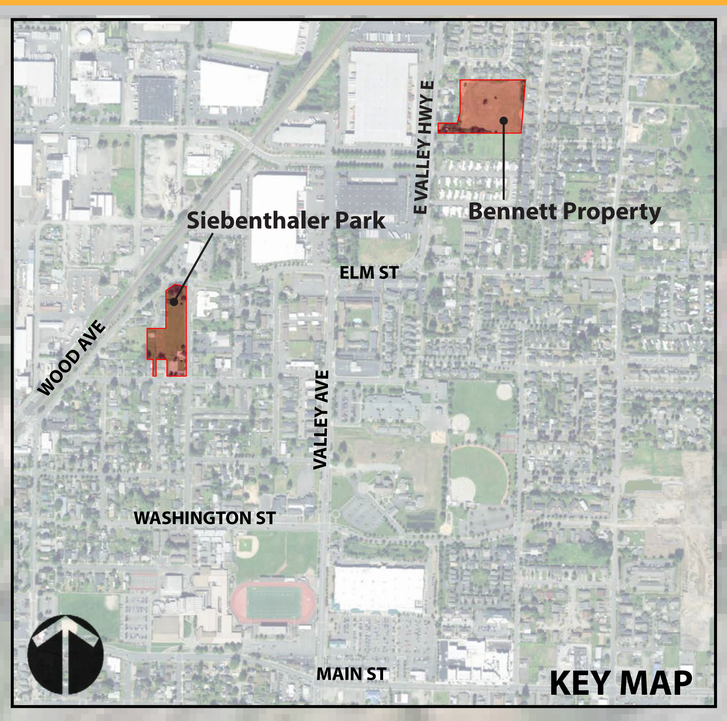
¿Qué actividades les gustaría hacer en el parque?



The Bennett Property was purchased from Chris Bennett, founder of KRIZ and KYIZ AM radio stations. This site was previously home to the radio station and tower that broadcast regionally.

KRIZ 1420AM KYIZ 1620AM

2018 CONCEPT PLAN



ELM ST E

WOOD AVE

picnic table

park shelter

renovated lawn

fence for screening

max U8
soccer field

loop path

BONNEY AVE

new park property

park tree

potential wetland boundary

bench

expanded play area

park shelter

max U8
soccer field

existing street parking

tree/plantings to buffer play area

relocated play area

relocated portable restroom

uncovered multi-game court
- basketball
- tennis
- badminton
- pickleball

existing pump house

16TH ST

existing street parking

LAWRENCE AVE

0' 10' 20' 40' 60'
SCALE : 1:20

SEIBENTHALER PARK

Sumner Parks Master Plans

August 14, 2021

HBB LANDSCAPE ARCHITECTURE

SUMNER TRAILS & PARKS: THE FUTURE

CITY OF SUMNER WASHINGTON

EXISTING CONDITIONS



SEIBENTHALER PARK

Sumner Parks Master Plans

August 14, 2021

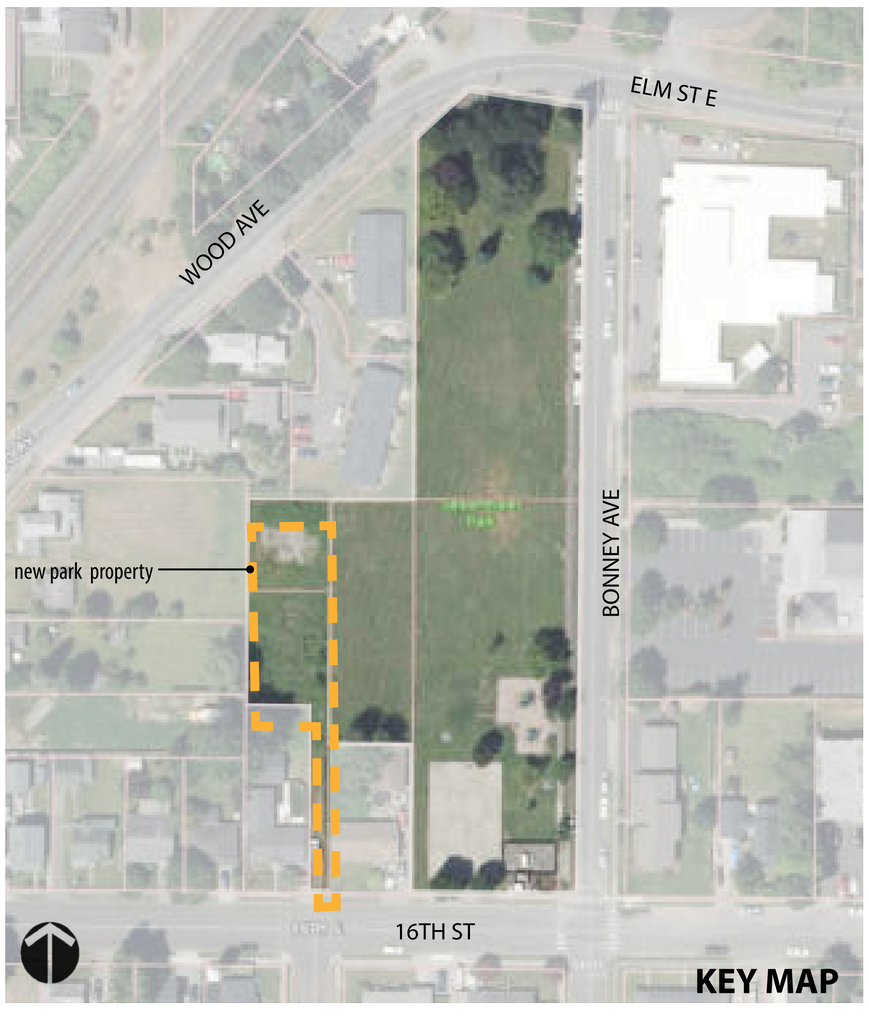
HBB LANDSCAPE ARCHITECTURE

SUMNER TRAILS & PARKS: THE FUTURE

CITY OF SUMNER WASHINGTON

What activities would you like to do in the park?

¿Qué actividades les gustaría hacer en el parque?



SEIBENTHALER PARK

Sumner Parks Master Plans

August 14, 2021

Seibenthaler Park and Bennett Property Master Planning

Welcome!



OPEN HOUSE #1

October 26, 2021

CITY OF SUMNER | PARKS & COMMUNITY DEVELOPMENT

INTRODUCTIONS



Derek Barry
Community Services Manager
City of Sumner



Juliet Vong
HBB Landscape Architecture
Consultant



Michael Walton
HBB Landscape Architecture
Consultant

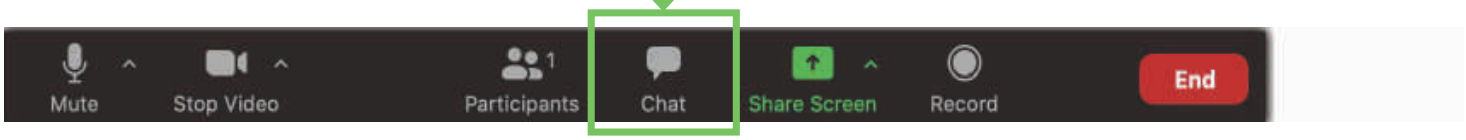
ZOOM MEETING FORMAT

1. Our panelists will be guiding the discussion.
2. We are here to have fun and participate in a safe manner!
3. Please keep yourself muted with the video off during the presentation, until the room moderator begins the Q/A portion of the meeting.
4. At any time, please use the chat feature to type your question and we will address them during the Q/A portion of the meeting.
5. Please participate and share your ideas even if they're different from others. Differing ideas are great!
6. We're going to make sure everyone gets a chance to share, so we may ask you to wait a bit as we give others a chance.
7. If you're just not comfortable sharing here, you can also share your ideas in other ways. We'll put in the chat links to the project page where you can comment online and an email address you can also use.



ZOOM MEETING INSTRUCTIONS:

Click this button to type a question or a comment for the presenters to address during the presentation or Q&A portion of the meeting.



WHAT IS A MASTER PLAN?

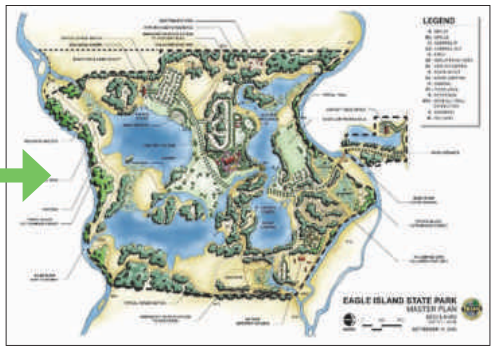
Master plans are about expressing **a long-term vision** for your parks. Features shown in a master plan include the type of **activities** you might want to experience, like playgrounds and picnic areas, or the **programming** and **events** that you might want to occur in the park.

A master plan also includes the infrastructure and circulation needed to support those activities like walkways, parking, lighting, and restrooms. Ultimately, a master plan is intended to guide future implementation, with more detailed design and funding to follow at a later date.

It's critical that the master plan **reflect the vision, character, and values** important to you and your community.



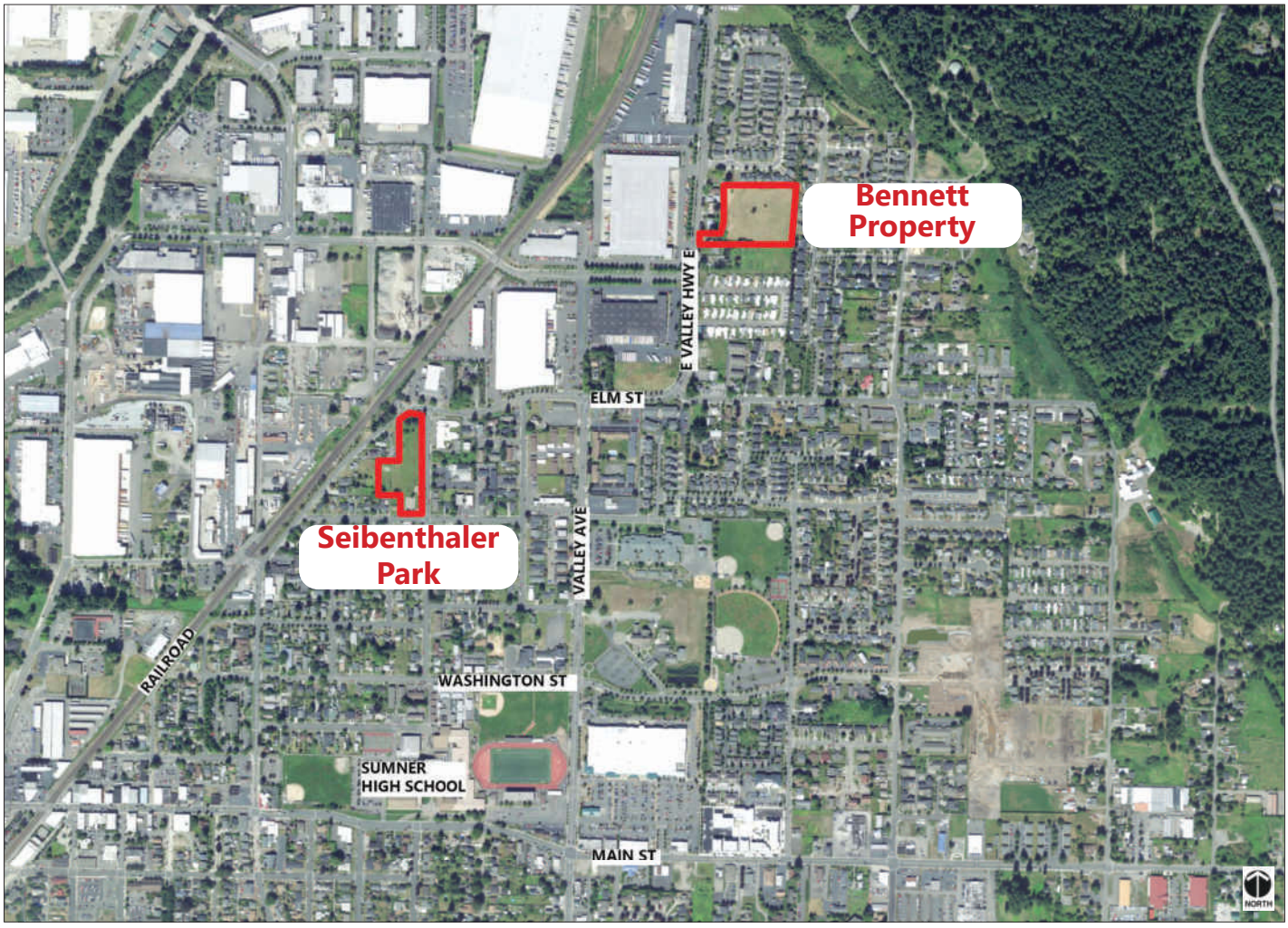




PROJECT TIMELINE

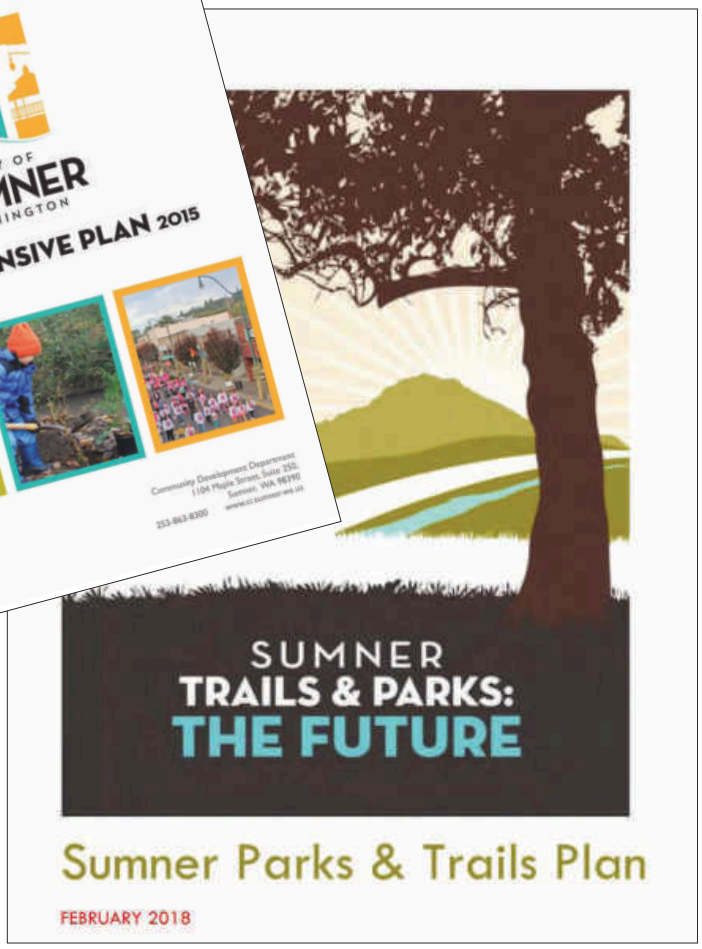


CONTEXT MAP


Bennett Property
Seibenthaler Park
E VALLEY HWY E
ELM ST
VALLEY AVE
RAILROAD
WASHINGTON ST
SUMNER HIGH SCHOOL
MAIN ST
NORTH

COMPREHENSIVE PLAN BACKGROUND







SEIBENTHALER PARK - EXISTING SITE CONDITIONS















BENNETT PROPERTY - EXISTING SITE CONDITIONS















BENNETT PROPERTY SITE HISTORY

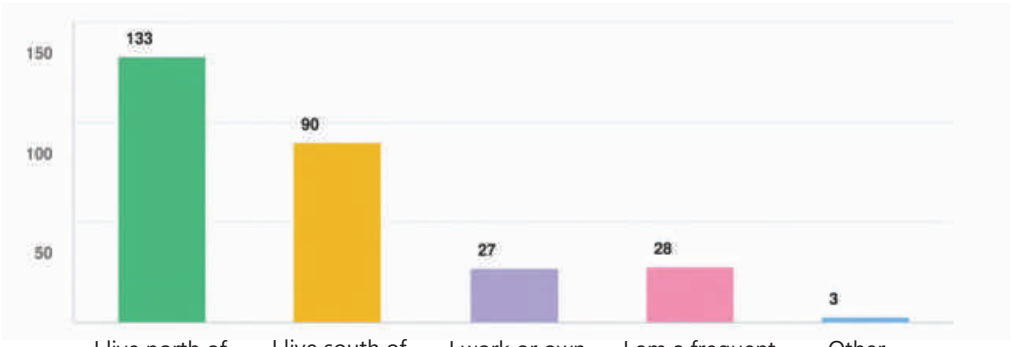
- Originally a farm, the property later housed a radio station and 3 associated radio towers.
- Kris Bennett Broadcasting purchased the property in 1987.
- After purchase, the Bennett Property became the location of a radio tower broadcasting The Z Twins AM radio stations, KRIZ and KYIZ.
- Kris Bennett is the founder and owner of the Seattle Medium newspaper, founded in 1970.
- As the newspaper became more successful he formed Kris Bennett Broadcasting, eventually owning radio stations in Seattle, Tacoma, and Portland, Oregon.
- Business partner Larry Williams said "His empire was built around issues and concerns of the Black community. Not only will he speak out on the issues and concerns of our communities, he worked hard to do something about them. He is more than just rhetorical; he is a doer"





POP-UP SURVEY RESPONSES - GENERAL

How are you connected to the community?



256 *respondents*

Feedback we heard:

"PICKLEBALL!! Also a splash pad somewhere in Sumner would be AMAZING!"

"Swings!! :)"

"It would be nice to have a non-paved running/walking trail with mile markers going around the park."

"Bike racks. It's nice to be able to bike and lock your bikes at parks."

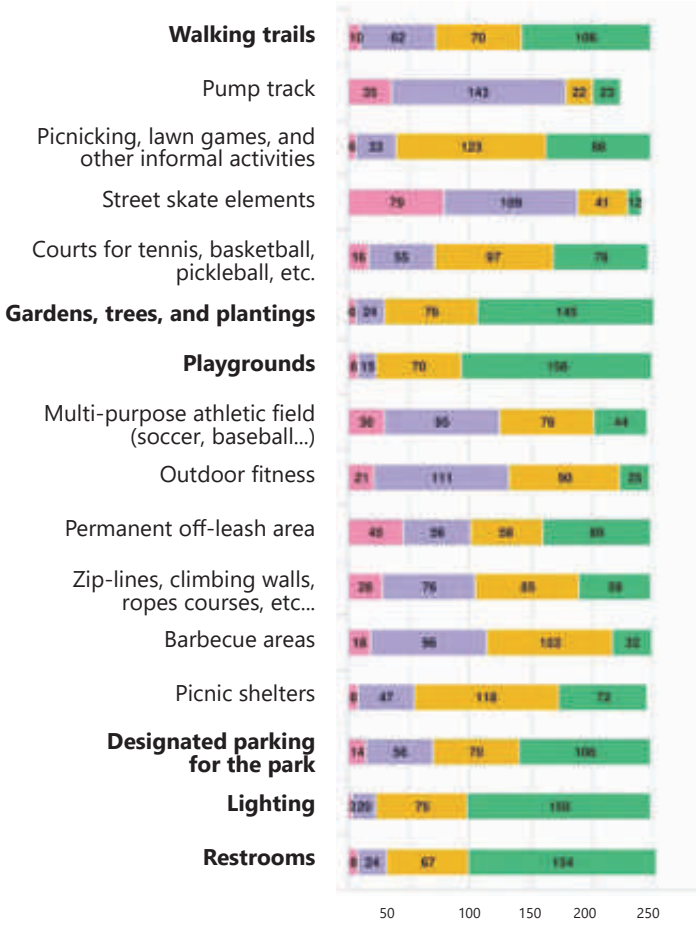
"Lots of trees and shaded areas!!!"

"Dog poop station and a designated trash can would be great!"

"Inclusive for handicapped children please"

POP-UP SURVEY RESPONSES - SEIBENTHALER PARK

How important is it to provide the following types of activities or improvements in the master plan for Seibenthaler Park?



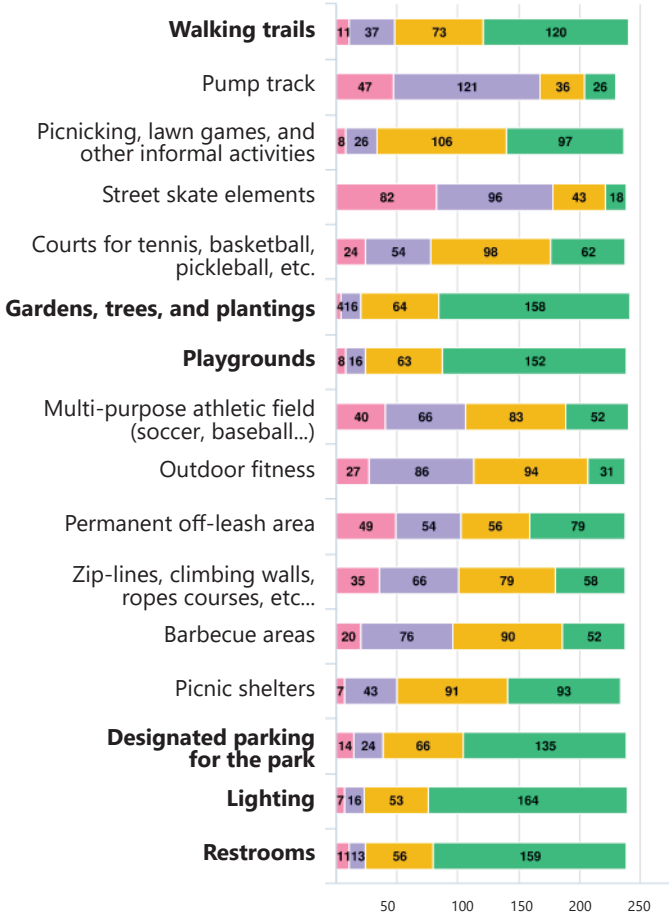
- Very important - please include
- Important
- Not really important
- Please do not include





POP-UP SURVEY RESPONSES - BENNETT PROPERTY

How important is it to provide the following types of activities or improvements in the master plan for the Bennett Property?



- Very important - please include
- Important
- Not really important
- Please do not include





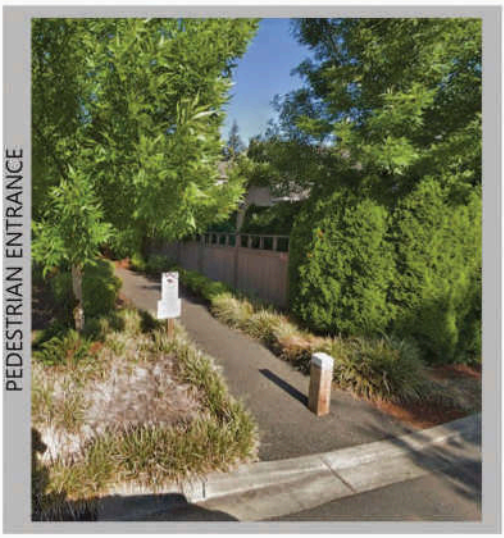
EXAMPLES OF PARK ACTIVITIES

WETLANDS



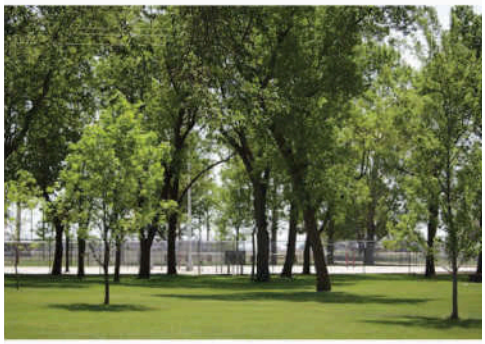


PEDESTRIAN ENTRANCE



PLANTING





DOG PARK





EXAMPLES OF PARK ACTIVITIES

PLAYGROUNDS







SHELTERS





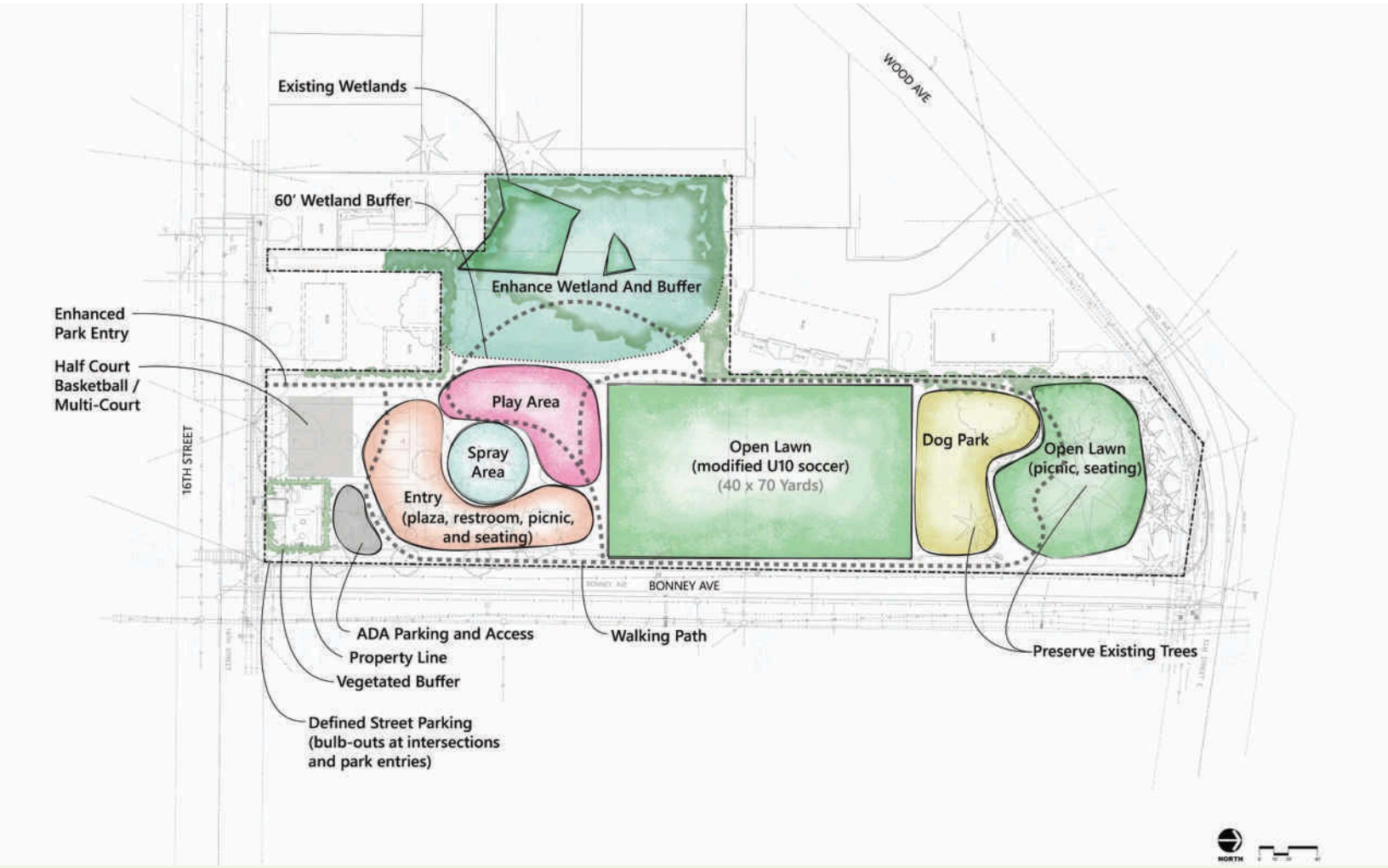


SPRAY PARKS

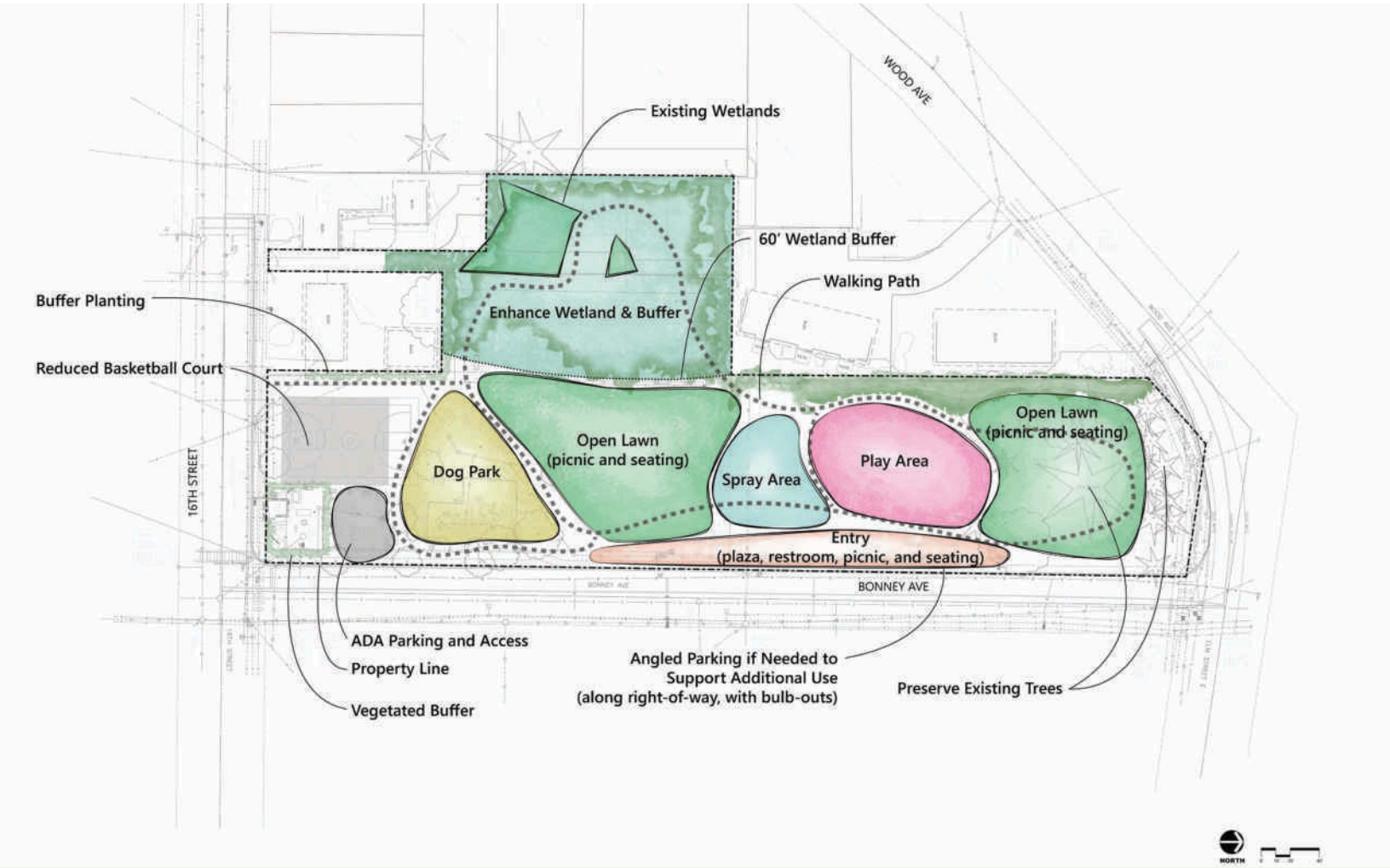




SEIBENTHALER PARK - CONCEPT 1



SEIBENTHALER PARK - CONCEPT 2



BENNETT PROPERTY - CONCEPT 1



BENNETT PROPERTY - CONCEPT 2



BENNETT PROPERTY - CONCEPT 3



WE WANT TO HEAR MORE FROM YOU . . .

Go online to the project website and **take our survey**....tell us what you think about the concepts shown for each park!

1. *What do you like about each concept?*
2. *Is there anything you don't like or would change? Is there anything missing?*
3. *If you had to pick one preferred concept for each park, which concept would you choose and why?*
4. *Is there anything else you would like us to know as we develop a preferred concept for each park?*



WE WANT TO HEAR FROM YOU!

Q&A

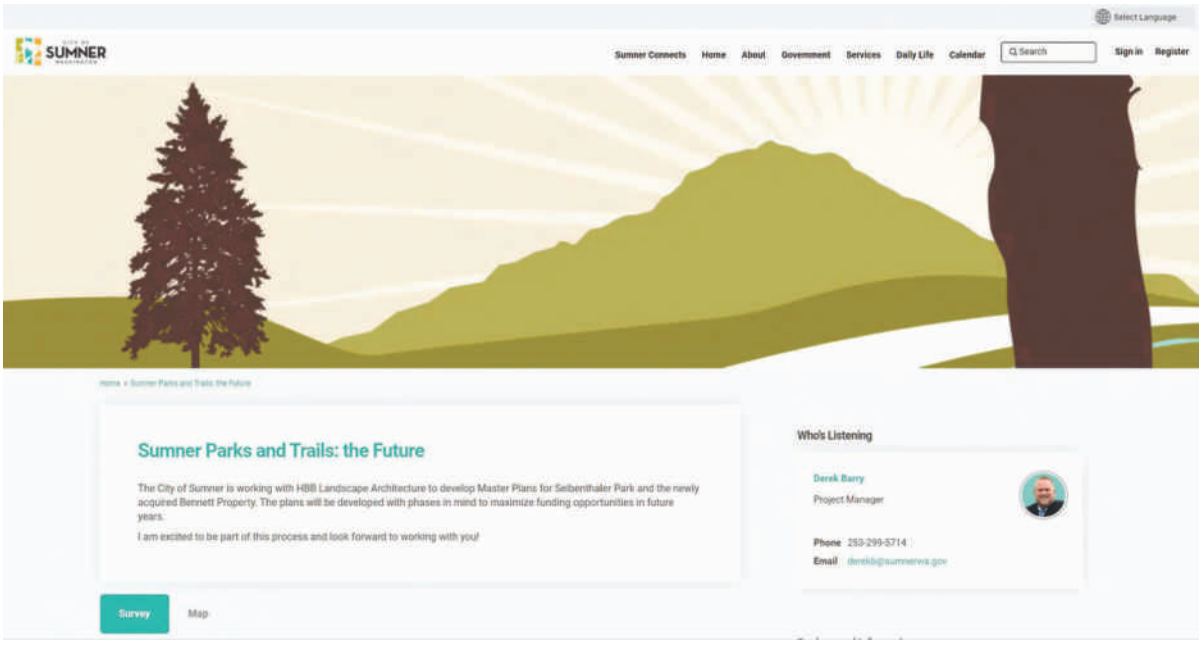
HOW YOU CAN STAY INVOLVED

- To stay up to date and learn more, visit the project website:

  https://connects.sumnerwa.gov/sumner-trails-and-parks-the-future

- A survey link is provided on the project website to provide feedback and help inform the process

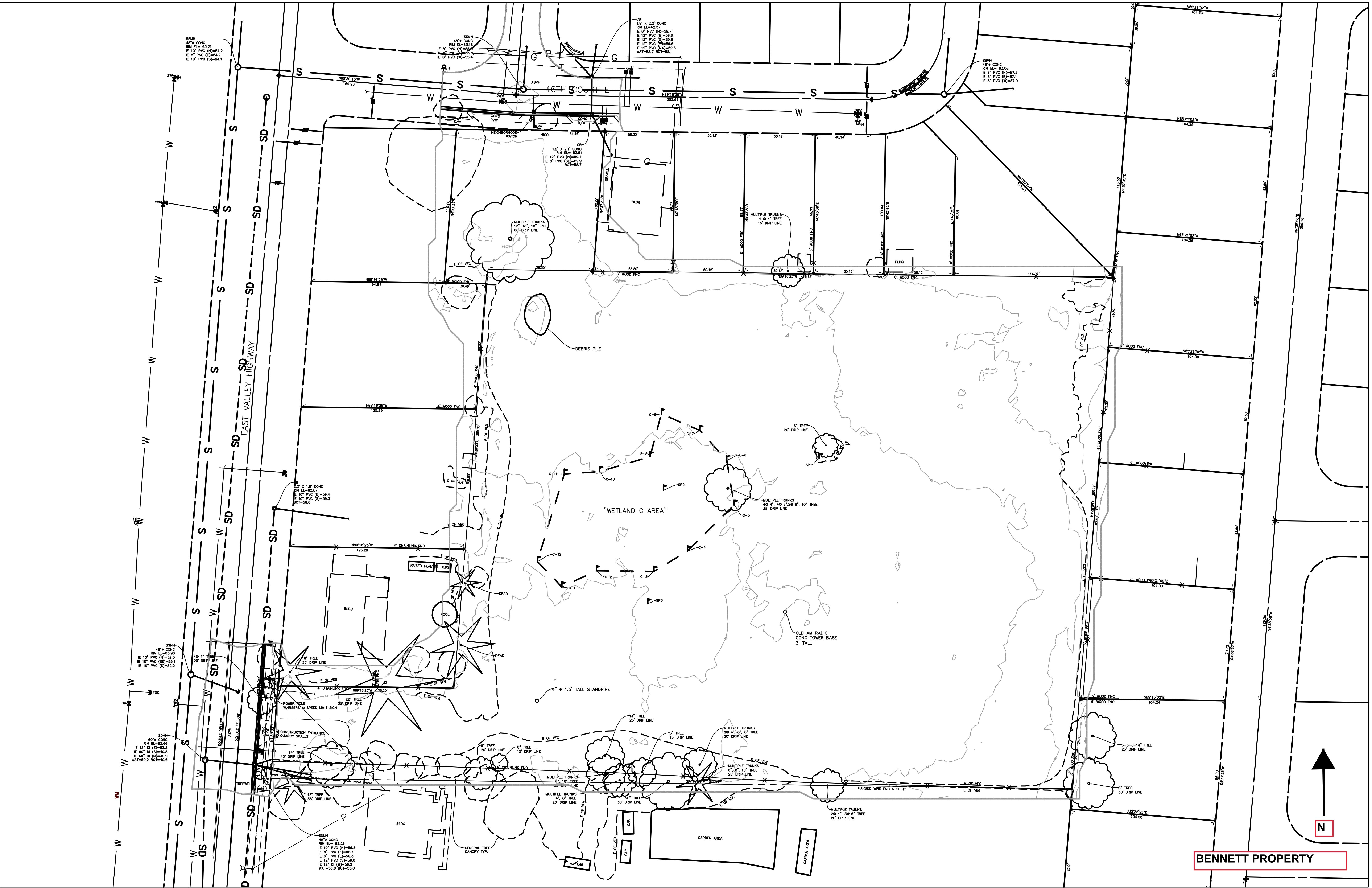
PROJECT WEBSITE:




THANK YOU!

APPENDIX E

Site Surveys


EAST VALLEY HIGHWAY
46TH COURT E
"WETLAND C AREA"
DEBRIS PILE
OLD AM RADIO CONC TOWER BASE 3' TALL
4" ø 4.5' TALL STANDPIPE
GARDEN AREA
BLDG
POOL
RAISED PLANTER BEDS
BARBED WIRE FNC 4 FT HT
CONSTRUCTION ENTRANCE QUARRY SPALLS
GENERAL TREE CANOPY TYP.
N
BENNETT PROPERTY

SEIBENTHALER PARK

ELM STREET E

16TH STREET

WOOD AVE

BONNEY AVE

SOLID WHITE

DASHED YELLOW

SSMH
3.0' X 4.0' CONC
RIM EL=65.89
IE 8" DI (E)=58.7
IE 8" DI (S)=58.6
IE 8" DI (W)=58.7
IE 6" PVC (NW)=59.3

SDMH
48" CONC
RIM EL= 65.68
IE 36" CMP (E)=57.9
IE 24" CMP (S)=57.7
IE 36" CMP (W)=57.4
WAT=57.8 BOT=57.7

SSMH
3.0' X 4.0' CONC
RIM EL=66.59
IE 8" DI (E)=60.0
IE 8" DI (SW)=60.1

SSMH
3.0' X 4.0' CONC
RIM EL=67.25
IE 8" DI (NE)=60.2
IE 8" DI (SW)=60.3

SDMH
RIM EL=62.36

SDMH
RIM EL=66.50

SDMH
RIM EL=64.45

NEIGHBORHOOD WATCH

LOG BARRICADE

PEDESTAL

TRANSFORMER

PED CROSSING AHEAD

3GV

WV

FIRE PIT

BENCH

TABLE

GRASS

BRUSH

BLDG

PATIO

6' WOOD FENCE

4' CONSTRUCTION FENCE

5' WIRE MESH FENCE

DOG AREA

4' CHAINLINK FENCE

CONC WALL

PLAY AREA

PLAY-RULES

SWING

GARBAGE CAN (TYP)

NO DRUGS

PUMP STATION

VENT PIPES

PARK SIGN

STREET SIGN

WATER FOUNTAIN

PORTA POTTY

DOUBLE SWING GATE

CURB DRAIN

H-FRAME ELECTRICAL EQUIPMENT FOR PUMP STATION

SITE TBM 302

N

TL NO. 0420245010

TL NO. 0420245009

TL NO. 0420245011

TL NO. 3090000040

TL NO. 9670000172

TL NO. 9670000130

TL NO. 9670000140

TL NO. 9670000192

TL NO. 3090000023

TL NO. 3090000021

TL NO. 3090000011

PARCEL C: TL NO. 3090000070

PARCEL A: TL NO. 3090000012

PARCEL B: TL NO. 3090000060

ROS AFN 200802255001 (LEROY)

LOT 3 CITY OF SUMNER SHORT PLAT NO. PLN-200600033

LOT 2 CITY OF SUMNER SHORT PLAT NO. PLN-200600033

LOT 1 CITY OF SUMNER SHORT PLAT NO. PLN-200600033

SP PLN-2006-00033
AFN 200904225002
TL NO. 3090000022

15' UTILITY & ACCESS EASEMENT

PSE EASEMENT FOR THE PURPOSES OF TRANSMISSION, DISTRIBUTION & SALE OF GAS & ELECTRICITY

"WETLAND A AREA"

"WETLAND B AREA"

B-1 B-2 B-3 B-4 B-5

A-1 A-2 A-3 A-4 A-5 A-6 A-7 A-8

SP1 SP2 SP3 SP4

304 305 306 307 308 309 310 311 312 313

332.30' S48°35'14"W

170.00' N00°31'54"E

53.25' N89°26'36"W

149.91' N00°31'51"E

68.48' N89°27'36"W

120.00' S00°31'51"E

15.00' N89°27'36"W

136.65' N89°26'44"W

634.88' N00°51'26"E

120.00' N00°30'27"E

634.35' N00°30'27"E

122.63' N81°43'16"W

132.23' N89°27'36"W

59.96' N46°35'14"W

92.48' N81°43'16"W

CB
2.1' X 1.8' CONC
RIM EL=62.73
IE 8" PVC (S)=60.9
WAT=59.4 BOT=59.0

CB
2.1' X 1.8' CONC
RIM EL=62.43
IE 8" PVC (N)=60.7
IE 8" PVC (S)=60.7
BOT=60.3

CB
2.1' X 1.8' CONC
RIM EL= 62.14
IE 8" PVC (N)=60.3
IE 8" PVC (E)=60.3
IE 8" PVC (S)=60.3
WAT=60.0 BOT=58.5

CB
2.1' X 1.8' CONC
RIM EL= 62.55
IE 8" PVC (N)=60.9
IE 8" PVC (S)=59.2

CB
2.1' X 1.8' CONC
RIM EL=62.07
IE 8" PVC (N)=59.8
IE 8" CONC (E)=59.8
IE 8" PVC (S)=59.8
IE 8" PVC (W)=59.8
BOT=58.3

CB
2.1' X 1.8' CONC
RIM EL= 61.82
IE 8" CONC (E)=59.8
IE 8" CONC (W)=59.7
WAT=59.4 BOT=57.9

CB
2.1' X 1.8' CONC
RIM EL=61.76
IE 8" CONC (E)=59.6
IE 8" CONC (W)=59.6
WAT=59.1 BOT=57.9

CB
1.8' X 2.1' CONC
RIM EL=62.41
IE 8" PVC (N)=60.4
IE 8" PVC (SW)=60.3
BOT=58.6

CB
1.8' X 2.1' CONC
RIM EL=62.70
IE 6" CPP (S)=61.1
WAT=61.1 BOT=60.4

CB
1.8' X 2.1' CONC
RIM EL=62.28
IE 6" CPP (N)=61.0
IE 8" PVC (NE)=60.6
IE 6" CPP (S)=60.9
WAT=60.7 BOT=58.9

CB
2.1' X 1.8' CONC
RIM EL= 63.04
IE 6" PVC (NE)=61.2
IE 6" PVC (S)=61.0
WAT=61.2 BOT=60.4

CB
1.8' X 2.1' CONC
RIM EL=62.68
IE 6" CPP (N)=60.8
IE 6" PVC (SW)=60.8
WAT=60.8 BOT=60.1

CB
2.1' X 1.8' CONC
RIM EL=63.26
IE 8" DI (S)=60.7
IE 8" PVC (W)=60.6
WAT=60.5 BOT=58.5

CB
2.1' X 1.8' CONC
RIM EL= 63.23
IE 6" PVC (N)=61.5
WAT=61.5 BOT=60.8

CB
2.1' X 1.6' CONC
RIM EL=62.25
IE 8" DI (N)=59.4
IE 8" CONC (E)=59.3
WAT=59.9 BOT=58.3

CB
2.1' X 1.6' CONC
RIM EL= 62.36
IE 8" CONC (E)=60.5
IE 8" CONC (W)=60.5
WAT=60.1 BOT=58.9

30" TREE
20' DRIPLINE

8" TREE
15' DRIPLINE

10" TREE
25' DRIPLINE

10" TREE
15' DRIPLINE

10" TREE
10' DRIPLINE

14" TREE
20' DRIPLINE

18" TREE
15' DRIPLINE

8" TREE
20' DRIPLINE

8" TREE
25' DRIPLINE

MULTIPLE TRUNKS
2@ 6" 1@ 10"
30' DRIPLINE

6" TREE
10' DRIP LINE

48" TREE
40' DRIP LINE

12" TREE
30' DRIP LINE

20" TREE
30' DRIP LINE

10" TREE
10' DRIP LINE

18" TREE
25' DRIP LINE

5" TREE
4' DRIP LINE

10" TREE
30' DRIP LINE

MULTIPLE TRUNKS
4", 8", 10"
20' DRIP LINE

12" TREE
15' DRIP LINE

MULTIPLE TRUNKS
30" & 26"
45' DRIP LINE

MULTIPLE TRUNKS
3@ 4", 1@ 6", 2@ 8"
15' DRIP LINE

4" TREE
5' DRIP LINE

6" TREE
15' DRIP LINE

8" TREE
15' DRIP LINE

MULTIPLE TRUNKS
2@ 4", 1@ 6", 2@ 8", 2@ 10"
20' DRIP LINE

16" TREE
20' DRIP LINE

20" TREE
30' DRIP LINE

18" TREE
15' DRIP LINE

APPENDIX F

Cost Estimate

Estimate of
Probable Cost of Construction

HBB Landscape Architecture

Date: March 3, 2022

Project Name: Sumner Parks/ Seibenthaler Park Master Plan
Project Number: 2021-19
Project Phase: Master Planning
Prepared By: Michael Walton/ Jack O'Hea
Checked By: Juliet Vong

Park Improvement total: $8,510,629.87

Park Improvements

Item	Description	Qty	Unit	Unit Cost	Item Total	
1.00	**Demolition/Site Preparation**					**$100,867.50**
1.01	Tree Protection Fence	840	LF	$4.50	$3,780.00	
1.02	Construction Access (quarry spall)	200	CY	$50.00	$10,000.00	
1.03	Site Clearing and Grubbing (4" depth)	2.0	AC	$12,000.00	$24,000.00	
1.04	Clear Brush and Sapling	0.30	AC	$10,500.00	$3,150.00	
1.05	Existing Tree Removal (6"-12" DBH)	11	EA	$600.00	$6,600.00	
1.06	Existing Tree Removal (24"-36" DBH)	2.00	EA	$750.00	$1,500.00	
1.07	Construction Fence (6' chainlink)	2,025	LF	$14.00	$28,350.00	
1.08	Silt Fence	2,325	LF	$5.50	$12,787.50	
1.09	TESC (temporary erosion & sediment control)	2.20	AC	$4,000.00	$8,800.00	
1.10	Inlet Protection	19	EA	$100.00	$1,900.00	
2.00	**Earthwork**					**$73,850.00**
2.01	Balance Cut/Fill on Site (6" average depth, entire area)	3,450	CY	$7.00	$24,150.00	
2.02	Import Fill (non-structural fill)	1,000	CY	$20.00	$20,000.00	
2.03	Rough Grading (entire area)	2.2	AC	$9,000.00	$19,800.00	
2.04	Finish Grading (entire area)	2.2	AC	$4,500.00	$9,900.00	
3.00	**Site Utilities / Drainage**					**$210,715.00**
3.01	Relocate or Demo Existing Utilities OR demo	1	LS	$40,000.00	$40,000.00	
3.02	Water Meter & Service (1-1/2" irrigation and 1" domestic water)	1	LS	$52,870.00	$52,870.00	
3.03	Electrical Service	1	LS	$15,000.00	$15,000.00	
3.04	Area Drain	5	EA	$1,000.00	$5,000.00	
3.05	Drainage Pipe					
	Subsurface drainage systems - 4" lateral pipe	2,000	LF	$10.00	$20,000.00	
	Subsurface drainage systems - 8" collector pipe	650	LF	$12.00	$7,800.00	
	PVC - 6" Diameter	275	LF	$30.00	$8,250.00	
	PVC - 8" Diameter	735	LF	$35.00	$25,725.00	
3.06	Catch Basin (Type 1)	8	EA	$1,500.00	$12,000.00	
3.07	Catch Basin (Type 2)	4	EA	$2,500.00	$10,000.00	
3.08	PVC 6" Sanitary	210	LF	$40.00	$8,400.00	
3.09	Santariy Cleanouts	3	EA	$1,890.00	$5,670.00	
4.00	**Paving**					**$602,608.40**
4.01	Concrete Paving (broom finish w/ tool joint)	14,561	SF	$8.00	$116,488.00	
4.02	Concrete Paving (enhanced paving with unique texture & scoring)	7,843	SF	$20.00	$156,860.00	
4.03	Concrete ADA Ramp	2	EA	$3,400.00	$6,800.00	
4.04	Crushed Stone Surfacing (3" depth, 4" depth base)	27,318	SF	$10.00	$273,180.00	
4.05	Mow Strip (between dog park and lawn)	1,643	LF	$30.00	$49,280.40	
5.00	**Site Improvements**					**$2,789,380.65**
5.01	Trash/Recycle Receptacle	12	EA	$1,500.00	$18,000.00	
5.02	Bench (8' length)	10	EA	$2,500.00	$25,000.00	
5.03	Picnic Table w/ Seating & concrete pad	10	EA	$5,000.00	$50,000.00	
5.04	Bike Rack	3	EA	$2,200.00	$6,600.00	
5.05	Lighting (site)	9	EA	$2,500.00	$22,500.00	
	Lighting (building)	1	LS	$5,000.00	$5,000.00	
	Lighting (pedestrian)	7	EA	$2,500.00	$17,500.00	
5.06	Playground (play structures, for multiple age ranges)	1	LS	$350,000.00	$350,000.00	
5.07	Shade Sail Structures	4	EA	$120,000.00	$480,000.00	
5.08	Fencing (premanufactured steel or ornamental iron)	65	LF	$120.00	$7,800.00	
5.09	Sports Court (concrete paving)	2,100	SF	$8.00	$16,800.00	
5.10	Basketball Court (pole, hoop, striping)	1	EA	$5,000.00	$5,000.00	
5.11	Play Area Surfacing (at playground, poured in place rubberized)	4,590	SF	$25.00	$114,747.25	
5.12	Signage-Kiosk	1	EA	$10,000.00	$10,000.00	

5.13 Pedestrian Emergency Phone	1	LS	$4,000.00	$4,000.00	
5.14 Drinking Fountain, ADA accessible @ spray park	1	EA	$16,000.00	$16,000.00	
5.15 Drinking Fountain: Dog drinking fountain w/ anti-freeze valves	1	EA	$17,000.00	$17,000.00	
5.16 Picnic Shelter (standard)	1	EA	$100,000.00	$100,000.00	
5.17 Spray Park (including equipment)	1	LS	$1,000,000.00	$1,000,000.00	
5.18 Permanent Restroom Building	1	LS	$350,000.00	$350,000.00	
5.19 Dog Park Surfacing (mulch or pea-gravel at a 12" depth)	8,215	SF	$10.00	$82,145.10	
5.20 Fencing (6' height cedar)	678	LF	$60.00	$40,653.60	
5.21 Fencing (4' height black vinyl)	395	LF	$45.00	$17,759.70	
5.22 Pedestrian Bridge in wetland buffer, including area for lookout	1	LS	$15,000.00	$15,000.00	
5.23 Green Screen/Trellis to screen utility yard	45	LF	$175.00	$7,875.00	
5.23 New park sign	1	LS	$10,000.00	$10,000.00	
6.00 Planting					**$703,781.89**
6.01 Trees	87	EA	$450.00	$39,150.00	
6.02 Ornamental Planting (1 gal plants @ 18" OC spacing)	2,692	SF	$10.00	$26,920.00	
6.03 Stormwater Planting	3,900	SF	$7.00	$27,302.03	
6.04 Shrubs & Groundcover (non-wetland Buffer Planting)	9,578	SF	$7.00	$67,048.03	
6.05 Shrubs & Groundcover (wetland buffer planting)	15,207	SF	$7.00	$106,448.93	
6.06 Enhance Existing Wetland (planting soil, mulch & planting)	3,537	SF	$4.00	$14,148.00	
6.07 Planting Soil (18" depth buffers, 24" depth planters, 12" Lawn area)	2,297	CY	$60.00	$137,820.00	
6.08 Bioretention/Raingarden Soil (24" depth in raingardens)	129	CY	$65.00	$8,385.00	
6.09 Seeding, Fertilizing, & Mulching	17,389	SF	$1.25	$21,735.65	
6.10 Artificial turf (west of spray park)	3,461	SF	$25.00	$86,525.00	
6.11 Wood Chip Mulch (4" depth)	203	CY	$45.00	$9,135.00	
6.12 Silva Cells	1	LS	$5,000.00	$5,000.00	
6.13 Root Barrier (18" Depth)	958	LF	$15.00	$14,370.00	
6.14 Silva Cells (to support trees in entry planter)	1	LS	$5,000.00	$5,000.00	
6.15 Plant Establishment (10% of plant cost)	1	LS		$28,101.70	
7.00 Irrigation					
7.01 Automatic Spray Irrigation	6640	SF	$3.50	$23,240.00	
7.02 Spray Rotor Head Irrigation, lawn areas	17,389	SF	$2.50	$43,471.30	
7.03 Temporary Irrigation for Establishment (buffer areas)	24,785	SF	$1.25	$30,981.25	
7.04 Irrigation Point of Connection (allowance for renovations)	1	LS	$3,500.00	$3,500.00	
7.05 Irrigation Controller	1	LS	$5,500.00	$5,500.00	

	Subtotal (1)	*$4,481,203.44*	*$4,481,203.44*
Sales Tax (9.4%)		$421,233.12	
	Construction Total	*$4,902,436.56*	
Mobilization (12%)		$588,292.39	
Design (20%)		$1,098,145.79	
Admin/Permitting Fees (5%)		$274,536.45	
Contingency (30%)		$1,647,218.68	
	Total Project Cost	**$8,510,629.87**	

NOTE: All costs are based on 2022 estimated cost of construction. Escallation is not included.

Estimate of
Probable Cost of Construction

HBB Landscape Architecture

Date: March 3, 2022

Project Name: Sumner Parks/ Seibenthaler Park Master Plan
Project Number: 2021-19
Project Phase: Master Planning
Prepared By: Michael Walton/ Jack O'Hea
Checked By: Juliet Vong

ROW Improvement total: $668,229.51

ROW Improvements

Item	Description	Qty	Unit	Unit Cost	Item Total	
1.00	**Demolition/Site Preparation**					**$20,975.86**
1.01	Tree Protection Fence	328	LF	$4.50	$1,477.22	
1.02	Construction Fence (6' chainlink)	1,284	LF	$14.00	$17,976.14	
1.03	Inlet Protection	1	EA	$100.00	$100.00	
1.04	TESC	0.06	AC	$4,000.00	$240.00	
1.05	Silt fence	215.00	LF	$5.50	$1,182.50	
2.00	**Earthwork**					**$1,125.00**
2.01	Balance Cut/Fill on Site (6" average depth, entire area)	45	CY	$7.00	$315.00	
2.02	Rough Grading (entire area)	0.06	AC	$9,000.00	$540.00	
2.03	Finish Grading (entire area)	0.06	AC	$4,500.00	$270.00	
3.00	**Site Utilities / Drainage**					**$35,400.00**
3.01	Relocate Existing Utilities - OR DEMO	1	LS	$8,000.00	$8,000.00	
3.02	Electrical Service	1	LS	$5,000.00	$5,000.00	
3.03	Area Drain	2	EA	$1,000.00	$2,000.00	
3.04	Drainage Pipe					
	PVC - 8" Diameter	630	LF	$30.00	$18,900.00	
3.05	Catch Basin (Type 1)	1	EA	$1,500.00	$1,500.00	
4.00	**Paving**					**$294,350.00**
4.01	Concrete Paving	9,750	SF	$8.00	$78,000.00	
4.02	4" Asphalt Paving, with 6" base	11,000	SF	$8.00	$88,000.00	
4.03	Concrete Curb (6")	550	LF	$40.00	$22,000.00	
4.04	Wheelstop (precast concrete)	2	EA	$250.00	$500.00	
4.05	Pavement Striping	1	LS	$7,500.00	$7,500.00	
4.06	Crushed Stone Surfacing (3" depth, 4" depth base)	9,750	SF	$10.00	$97,500.00	
5.00	**Site Improvements**					
5.01	Signage					
	Signage-Handicap Parking	3	EA	$150.00	$450.00	
	Signage-Pedestrian Crossing	1	EA	$400.00	$400.00	

	Subtotal (1)	*$351,850.86*	*$351,850.86*
Sales Tax (9.4%)		$33,073.98	
	Construction Total	*$384,924.84*	
Mobilization (12%)		$46,190.98	
Design (20%)		$86,223.16	
Admin/Permitting Fees (5%)		$21,555.79	
Contingency (30%)		$129,334.74	
	Total Project Cost	**$668,229.51**	

NOTE: All costs are based on 2022 estimated cost of construction. Escallation is not included.

Estimate of
Probable Cost of Construction

HBB Landscape Architecture

Date: March 3, 2022

Project Name: Sumner Parks/ Bennett Property Master Plan
Project Number: 2021-19
Project Phase: Master Planning
Prepared By: Michael Walton/ Jack O'Hea
Checked By: Juliet Vong

Park Improvements Total: $9,555,993.56

Park Improvements

Item	Description	Qty	Unit	Unit Cost	Item Total	
1.00	**Demolition/Site Preparation**					**$99,328**
1.01	Tree Protection Fence	65	LF	$4.50	$292.50	
1.02	Site Clearing and Grubbing (6" depth)	4.2	AC	$12,000.00	$50,160.00	
1.03	Construction Access (quarry spall)	2	EA	$2,500.00	$5,000.00	
1.04	Existing Tree Removal (6"-12" DBH)	6	EA	$600.00	$3,600.00	
1.05	Construction Fence (6' chainlink)	790	LF	$14.00	$11,060.00	
1.06	Silt Fence	2,530	LF	$5.50	$13,915.00	
1.07	TESC (temporary erosion & sediment control)	3.75	AC	$4,000.00	$15,000.00	
1.08	Inlet Protection	3	EA	$100.00	$300.00	
2.00	**Earthwork**					**$85,273**
2.01	Balance Cut/Fill on Site (12" average depth)	3,295	CY	$7.00	$23,065.00	
2.02	Rough Grading (entire area)	4.608	AC	$9,000.00	$41,472.00	
2.03	Finish Grading (entire area)	4.608	AC	$4,500.00	$20,736.00	
3.00	**Site Utilities / Drainage**					**$491,661**
3.01	Relocate Existing Utilities	1.00	LS	$20,000.00	$20,000.00	
3.02	Water Meter & Service (1" Water meter for Domestic)	1.00	LS	$17,535.95	$17,535.95	
3.03	Water Meter & Service (1-1/2" Water meter for irrigation)	1.00	LS	$35,335.25	$35,335.25	
3.04	Water Main 8" loop	700.00	LF	$150.00	$105,000.00	
3.05	Fire Hydrants	2.00	EA	$6,000.00	$12,000.00	
3.06	Tee, 12" x 8" and thrust block, FLG	2	EA	$2,400.00	$4,800.00	
3.07	Tee, 8" x 6" and thrust block, FLG	2	EA	$2,000.00	$4,000.00	
3.08	8" DI Bend, 45 deg and thrust block, MJ	4	EA	$900.00	$3,600.00	
3.09	8" DI Bend, 22.5 deg and thrust block, MJ	2	EA	$900.00	$1,800.00	
3.10	Electrical Service	1.00	LS	$60,000.00	$60,000.00	
3.11	Area Drain	7.00	EA	$1,000.00	$7,000.00	
3.12	Drainage Pipe					
	Subsurface drainage systems - 4" lateral pipe	2,000.00	LF	$10.00	$20,000.00	
	Subsurface drainage systems - 8" collector pipe	500.00	LF	$12.00	$6,000.00	
	PVC - 6" Diameter	750.00	LF	$30.00	$22,500.00	
	PVC - 12" Diameter	400.00	LF	$40.00	$16,000.00	
	Underground Detention System	1.00	LS	$60,000.00	$60,000.00	
3.13	Catch Basin (Type 1)	6.00	EA	$1,500.00	$9,000.00	
3.14	Catch Basin (Type 2)	2.00	EA	$2,500.00	$5,000.00	
3.15	Outlet Control Structure	3.00	EA	$5,500.00	$16,500.00	
3.16	PVC 8" Sanitary	450.00	LF	$55.00	$24,750.00	
3.17	PVC 6" Sanitary	425.00	LF	$40.00	$17,000.00	
3.18	Santarity Manholes	3.00	EA	$2,500.00	$7,500.00	
3.19	Connect to Existing SS MH	1.00	EA	$5,000.00	$5,000.00	
3.20	Sanitary Cleanouts	6.00	EA	$1,890.00	$11,340.00	
4.00	**Paving**					**$981,672**
4.01	Concrete Paving (broom finish w/ tool joint)	26,524	SF	$8.00	$212,192.00	
4.02	Concrete Paving (enhanced paving with unique texture & scoring)	11,945	SF	$20.00	$238,900.00	
4.03	Concrete ADA Ramp	2	EA	$3,400.00	$6,800.00	
4.04	Concrete Curb (6")	2,167	LF	$40.00	$86,680.00	
4.05	Play Area Curb (18")	339	LF	$50.00	$16,950.00	
4.06	Crushed Stone Surfacing (3" depth, 4" depth base)	24,000	SF	$10.00	$240,000.00	
4.07	Pavement Striping, parking lot	1	LS	$7,500.00	$7,500.00	
4.08	Asphalt paving	20,000	sf	$8.00	$160,000.00	
4.09	Traffic Signs	4.00	EA	$1,500.00	$6,000.00	
4.10	Wheelstop (precast concrete)	18.00	EA	$250.00	$4,500.00	
4.11	Crosswalk Striping	1.00		$750.00	$750.00	
4.12	Traffic Arrows	4.00	EA	$50.00	$200.00	
4.13	Detectable Warnings	6.00	EA	$200.00	$1,200.00	

5.00	**Site Improvements**					**$2,041,195**
5.01	Trash/Recycle Receptacle	16	EA	$1,500.00	$24,000.00	
5.02	Bench (8' length)	12	EA	$2,500.00	$30,000.00	
5.03	Picnic Table w/ Seating	17	EA	$5,000.00	$85,000.00	
5.04	Picnic Shelter (16'x20')	1	EA	$75,000.00	$75,000.00	
5.05	Picnic Shelter (40'x25')	1	EA	$200,000.00	$200,000.00	
5.06	Drinking Fountain (ADA compliant)	1	EA	$16,000.00	$16,000.00	
5.07	Fitness Stations	2	EA	$20,000.00	$40,000.00	
5.08	Bike Rack	1	EA	$2,200.00	$2,200.00	
5.09	Public Art (entry)	1	EA	$350,000.00	$350,000.00	
5.10	Basketball Court (pole, hoop, striping)	2	EA	$5,000.00	$10,000.00	
5.11	Permenant Restroom Building	1	LS	$350,000.00	$350,000.00	
5.12	Sports Court (concrete paving)	4,200	SF	$8.00	$33,600.00	
6.12	Playground (play structures, for multiple age ranges)	1	LS	$500,000.00	$500,000.00	
6.13	Fencing (6' height cedar)	237	LF	$60.00	$14,220.00	
6.14	Pedestrian Bridge/ Boardwalk (across wetland)	160	SF	$60.00	$9,600.00	
6.15	Play Area Surfacing (at playground, poured in place rubberized)	8,135	SF	$25.00	$203,375.00	
6.16	Removable Bollards (to block off 46th St Ct)	5	EA	$1,700.00	$8,500.00	
6.17	Signage					
	Signage-Wayfinding	2	EA	$3,000.00	$6,000.00	
	Signage-ADA Stalls	4	EA	$150.00	$600.00	
	Signage-Stop Sign	2	EA	$600.00	$1,200.00	
	Signage-Pedestrian Crossing	1	EA	$400.00	$400.00	
	Signage-Kiosk	1	EA	$10,000.00	$10,000.00	
6.18	Lighting					
	Lighting (building)	1	LS	$12,500.00	$12,500.00	
	Lighting (pedestrian)	16	EA	$2,500.00	$40,000.00	
6.19	EV Parking	2	EA	$7,500.00	$15,000.00	
6.20	Pedestrian Emergency Phone	1	EA	$4,000.00	$4,000.00	
6.00	**Planting**					**$1,332,503**
6.01	Tree (deciduous, 2" cal./ Conifer 6'-8' Height)	144	EA	$450.00	$64,800.00	
6.02	Shrubs & Groundcover (Wetland buffer planting)	33,480	SF	$7.00	$234,362.80	
6.03	Shrubs & Groundcover (Non-wetland buffer planting)	28,028	SF	$7.00	$196,194.39	
6.04	Shrubs & Groundcover (Ornamental planting)	6,087	SF	$10.00	$60,870.00	
6.05	Planting Soil	5,619	CY	$60.00	$337,140.00	
6.06	Bioretention/Raingarden Soil	127	CY	$65.00	$8,255.00	
6.07	Bark or Wood Chip Mulch	640	CY	$45.00	$28,800.00	
6.08	Seeding, Fertilizing, & Mulching	45,020	SF	$1.25	$56,274.79	
6.09	Root Barrier (18" Depth)	1,486	LF	$15.00	$22,285.35	
6.10	Constructed Wetland Creation (soil amendments, mulch, planting)	15,487	SF	$5.00	$77,435.00	
6.11	Boulders (allowance for use in wetland and buffer)	1	LS	$5,000.00	$5,000.00	
6.12	Plant Establishment (10% of plant cost)	1	LS		$55,622.72	
7.00	**Irrigation**					
7.01	Automatic Spray Irrigation	5,695	SF	$3.50	$19,932.50	
7.02	Temporary Irrigation for Establishment (buffer plantings)	61,508	SF	$1.25	$76,885.00	
7.03	Spray Rotor Head Irrigation (Lawn areas)	27,738	SF	$2.50	$69,345.00	
7.04	Schedule 40 PVC Sleeve (4"-6")	550	LF	$6.00	$3,300.00	
7.05	Quick Coupler Valve & Box	10	EA	$500.00	$5,000.00	
7.06	Irrigation Point of Connection	1	LS	$5,500.00	$5,500.00	
7.07	Irrigation Controller	1.0	LS	$5,500.00	$ 5,500	

	Subtotal (1)	*$5,031,631.25*	*$5,031,631*
Sales Tax (9.4%)		$472,973.34	
	Construction Total	*$5,504,604.58*	
Mobilization (12%)		$660,552.55	
Design (20%)		$1,233,031.43	
Admin/Permitting Fees (5%)		$308,257.86	
Contingency (30%)		$1,849,547.14	
	Total Project Cost	**$9,555,993.56**	

NOTE: All costs are based on 2022 estimated cost of construction. Escallation is not included.