Bainbridge Island
Metro Park & Recreation District

SAKAI PARK CONCEPT PLAN REPORT

APPENDIX

DECEMBER 2017

Project Team Acknowledgments

Bainbridge Island
Metro Park & Recreation District

Park Board

Ken Dewitt
Jay Kinney
Kirk Robinson
Tom Swolgaard
Lee Cross

Park Staff

Terry Lande, Executive Director
Perry Barrett
Dan Hamlin
David Harry
Elizabeth Shepherd
Mark Benishek
Bryan Garoutte

Special thanks to Robert Linz for his facilitation of the community workshops to determine recommended Sakai Park uses

Cover Image: Sakai Park, looking North

GEOTECHNICAL REPORT
PROPOSED SAKAI PARK
1560 Madison Avenue Northeast
Bainbridge Island, Washington

PROJECT NO. 17-042
April 2017

Prepared for:

Jones & Jones

PanGEO INCORPORATED

Geotechnical & Earthquake Engineering Consultants

PanGEO
INCORPORATED
Geotechnical & Earthquake
Engineering Consultants

April 13, 2017
PanGEO Project No. 17-042

Mr. Duane Dietz
Jones & Jones
105 South Main Street, Suite 300
Seattle, Washington 98104

Subject: Geotechnical Report
Proposed Sakai Park
1560 Madison Avenue Northeast, Bainbridge Island, Washington

Dear Mr. Dietz:

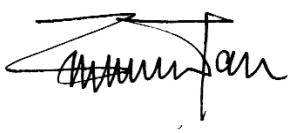
As requested, PanGEO, Inc. is pleased to present this geotechnical report to assist the project team with the design and construction of Sakai Park, 1560 Madison Avenue Northeast on Bainbridge Island, Washington. In preparing this report, we observed and logged the excavation of 17 test pits at the site, performed a reconnaissance of the site, and conducted our engineering analyses.

Support for proposed buildings can be provided using spread footings bearing on competent native soil underlying the site or on structural fill used to modify site grades.

The site is underlain by seasonally perched groundwater. Consideration will need to be provided for the collection and disposal of perched seepage during construction and on a permanent basis.

We appreciate the opportunity to be of service. Should you have any questions, please do not hesitate to call.

Sincerely,



Principal Geotechnical Engineer

3213 Eastlake Avenue Northeast, Suite B
Seattle, WA 98102
T. (206) 262-0370
F. (206) 262-0374

TABLE OF CONTENTS

Section Page

ATTACHMENTS:

GEOTECHNICAL REPORT
PROPOSED SAKAI PARK
1560 MADISON AVENUE NORTHEAST
BAINBRIDGE ISLAND, WASHINGTON

1.0 GENERAL

As requested, PanGEO, Inc. is pleased to present this report to assist the project team with the design and construction of the proposed Sakai Park, 1560 Madison Avenue Northeast, Bainbridge Island, Washington. This study was performed in general accordance with our mutually agreed scope of services outlined in our proposal dated January 11, 2017. Our scope of services included reviewing readily available geologic and geotechnical data, conducting a site reconnaissance, observing the excavation of 17 test pits, and evaluating the feasibility of developing the site as planned.

2.0 SITE AND PROJECT DESCRIPTION

The subject site is located at 1560 Madison Avenue Northeast on Bainbridge Island, Washington, approximately as shown on Figure 1, Vicinity Map.

The irregular-shaped site comprises 22.87 acres, of which about 8.7 acres is the study area being considered for use as a park. The site is bordered to the north by a wooded lot and the Sakai Apartments, to the east by State Route 305, to the west by Madison Avenue and Ordway Elementary School on the west side of Madison Avenue, and to the south by a church and a one story retail development. The layout of the site is shown on Figure 2, Site and Exploration Plan.

The site is situated on the west side of a broad, north-south trending valley. The west portion of the site consists of a bench that slopes down gently from west to east, ranging in elevation from 216 feet to 202 feet, with about 14 feet of elevation change across the width of the bench. In the central portion of the site is a north-south trending, east facing slope that descends from the west bench to the valley floor to the east. The slope is on the order of 25 to 30 feet high with slope gradients of 18 to 26 percent.

The east portion of the site consists of a relatively flat closed depression that contains a pond surrounded by delineated wetlands.

In the south portion of the site is an existing two story residence and a concrete bunker garage structure. The west portion of the site is vegetated with alder, Douglas fir, and Madrona trees with a sparse understory of sword fern and tall grass. The north-trending slope is primarily

vegetated with Douglas fir with an understory of sword fern and sallal. The east portion of the site is vegetated with Douglas fir and alder.

Plate 1: View from Madison Avenue on the west side of the site, looking to the east. The gravel drive in the center of the photo is provides access to the residence in the south portion of the site.

Plate 2: View from north to south of the general site conditions in the central portion of the site.

Plate 3: View of north-south trending slope in the central portion of the site.

We understand it is planned to develop the bench in the west portion of the site with a new park. The design elements and proposed layout of the park is not available at this time. However, it is our understanding that the community has generated a list of desired improvements and uses, which includes the following:

- Trails
- Picnic shelter(s)
- Multi-Use outdoor complex, with lighting
- Community Recreation Center
- Multi-use indoor complex
- Community pool
- Mountain Bike Park/Trails
- Tennis court(s)
- Playground
- Passive use(s)

We anticipate the planned improvements would include the construction of one or more one- or two-story structures. At the time of this proposal, the size and locations of the planned improvements had not been determined.

The conclusions and recommendations in this report are based on our understanding of the proposed development, which is in turn based on the project information provided. If the above project description is incorrect, or the project information changes, we should be consulted to

review the recommendations contained in this study and make modifications, if needed. In any case PanGEO should be retained to provide a review of the final design to confirm that our geotechnical recommendations have been correctly interpreted and adequately implemented in the construction documents.

3.0 SUBSURFACE CONDITIONS

3.1 SITE GEOLOGY AND SOILS

3.1.1 Geology

Regional geologic information for the project area was obtained by reviewing the *Geologic Map of Bainbridge Island, Washington* (Haugerud, 2005). A portion of the geologic map including the subject site is shown on Figure 3, *Site Geology*. Based on our review of the map, near-surface deposits in the vicinity of the site consist of Vashon till, Geologic Map Unit Qvt.

Vashon till is an unsorted (diamict) mixture of clay, silt, sand, gravel and cobbles that was directly deposited below a glacial ice sheet during the Vashon Stade of the Fraser Glaciation. The fines (silt and clay content) is typically 15 to 40 percent by weight.

Vashon till has been overridden by several thousand feet of glacial ice, it is typically dense to very dense. Post-glacial weathering of the till has resulted in a zone of weathered soil overlying unweathered till. The weathered profile is similar to the underlying soil but is typically looser.

3.1.2 Soils

We also reviewed the USDA Natural Resource Conservation Service (NRSC) Soil Survey (NRCS, 2017) for surficial soil information. The surface soil below the west upper bench is mapped as Kapowsin gravelly ashy loam, 0 to 6 percent slopes. Kapowsin soils are derived from volcanic ash mixed with glacial drift overlying glaciomarine sediments. This soil is moderately well drained.

The soils below the east facing slope in the central portion of the site is identified as Kitsap silt loam, 15 to 30 percent slopes. This soil is derived from glaciolacustrine soils and is moderately well drained.

A soil map for the site is included as Figure 4, *Soil Map*.

3.2 SUBSURFACE EXPLORATION

We observed and logged the excavation of 17 test pits at the site on March 14, 2017. The test pits were excavated using a Caterpillar E120B track-mounted excavator owned and operated by Skyler Construction and Excavation, LLC and subcontracted to PanGEO. The field exploration program was overseen by a geologist with our firm who logged and sampled the test pits. The test pits were excavated to a maximum depth of 10 feet below existing grade. Our approximate test pit locations were located in the field by measuring from the site boundaries and are shown on Figure 2, Site and Exploration Plan.

Summary test pit logs included in Appendix A provide detailed descriptions of the materials encountered, depths to soil contacts, and depths of seepage or caving, if present. The relative in-situ density of cohesionless soils, or the relative consistency of fine-grained soils, was estimated from the excavating action of the excavator, and the stability of the test pit sidewalls. Where soil contacts were gradual or undulating, the average depth of the contact was recorded on the log.

The soils were logged in general accordance with ASTM D-2487 S*tandard Practice for Classification of Soils for Engineering Purposes* and the system summarized on Figure A-1, Terms and Symbols for Boring and Test Pit Logs.

3.3 SOIL CONDITIONS

For a detailed description of the subsurface conditions encountered at each exploration location, please refer to the summary logs provided in Appendix A. The stratigraphic contacts indicated on the test pit logs represent the approximate depth to boundaries between soil units. Actual transitions between soil units may be more gradual or occur at different elevations. The descriptions of groundwater conditions and depths are likewise approximate. The following is a generalized description of the soils encountered in the test pits.

Topsoil: Approximately six to twelve inches of topsoil was encountered at our test pit locations. The topsoil consisted of silty sand with organics and was characterized by its dark brown color, loose consistency, and the presence of abundant roots and organic debris. This layer is not considered suitable for support of foundations, slab-on-grade floors, or pavements, and should be removed from the footprints of the proposed buildings, pavements, and any other load-bearing areas. In addition, it is not suitable for use as structural fill, nor should it be mixed with materials to be used as structural fill.

Fill: At the locations of Test Pits TP-6, TP-7, TP-16 and TP-17, we encountered a surficial layer of fill ranging from two feet thick at TP-16 to more than 8 feet thick at TP-7. The fill consisted of silty sand and was characterized by its loose consistency and the presence of organic debris (roots and branches). Test Pit TP-7 could not be extended through the fill due to excessive caving and groundwater seepage.

Vashon Till (Qvt): Underlying the topsoil and fill in Test Pits TP-6, TP-16, and TP-17, we encountered native soils consisting of silty sand with gravel which we classified as Vashon Till. The upper portion of the till deposit was weathered and medium dense. The till became less weathered with depth, becoming dense to very dense at two to three feet below grade or below the fill, where encountered.

Our subsurface descriptions are based on the conditions encountered at the time of our exploration. Soil conditions between our exploration locations may vary from those encountered. The nature and extent of variations between our exploratory locations may not become evident until construction. If variations do appear, PanGEO should be requested to reevaluate the recommendations in this report and to modify or verify them in writing prior to proceeding with earthwork and construction.

3.4 GROUNDWATER

Light to heavy perched groundwater seepage was encountered in all of our test pits at two to five feet below grade. The till underlying the site is characterized as having low permeability. Perched groundwater develops at the contact between the weathered and unweathered soil horizons or in lenses of more permeable soil within the till. Perched seepage is typically a seasonal condition, which develops when surface water infiltrating through the relatively permeable weathered soils and becomes perched on the underlying less permeable unweathered soils.

At the locations of Test Pits TP-2 and TP-9 and possibly TP-4, we encountered drain rock and clay drain tiles. The drain rock and clay tiles may be part of an old subsurface drainage system or drainfield. The drain rock was filled with water and heavy seepage was encountered at these locations.

It should be noted that groundwater conditions are not static. There will likely be fluctuations in the groundwater level and seepage rate depending on the season, amount of precipitation, surface

water runoff, and other factors. Groundwater levels and seepage rates are higher in the wetter winter months, typically October through May

4.0 INFILTRATION CONSIDERATIONS

As part of our study, we evaluated the conditions encountered in our test pits for soils that would be suitable for infiltration of stormwater. The native soils encountered in our test pits consisted of relatively fine grained glacially consolidated soils that graded to dense at about two feet below grade.

The permeability of the Vashon till underlying the site is typically very low. From our prior experience with similar soils, its infiltration rate is likely in the range of 0.001 to 0.002 inches/hour. Where weathered, the infiltration rate may be higher or lower based on the degree of weathering and the fines content.

Based on our experience with these soils and observed shallow groundwater conditions, it is our opinion that infiltration would not be suitable at this site.

5.0 GEOLOGICALLY HAZARDOUS AREAS CONSIDERATIONS

As part of our study, we conducted a review of potential geologic hazards within the subject site as defined in Bainbridge Island Municipal Code (BIMC) Section 16.20.150, Geologically Hazardous Areas. Section 16.20.150 of the BIMC identifies three different types of Geologic Hazards: Erosion Hazards, Landslide Hazards, and Seismic Hazards. The City's criteria for these hazard areas and our assessment of the hazard areas with respect to the planned improvements are provided in the following sections of this report.

5.1 Erosion Hazards

Erosion hazards are defined in the BIMC Section 16.20.30 (13) as:

> *"…a landform or soil type subject to being worn away by the action of water, wind, freeze-thaw, or ice, and which are:*
>
> *a. Rated in the Soil Survey of Kitsap County Area, Washington, USDA (1980), as having severe hazard of water erosion, including:*
>
> *i. Indianola-Kitsap Complex, 45 to 70 percent slope;*
>
> *ii. Kitsap Silt Loam, 15 to 30 percent slope, 30 to 45 percent slope;*

iii. Ragnar Fine Sandy Loam, 15 to 30 percent slope; and
iv. Schneider very gravelly loam, 45 to 70 percent slope;

b. Classified in the Department of Ecology Coast Zone Atlas as:
i. Class 3, Class U (unstable) includes severe erosion hazards and rapid surface runoff areas;
ii. Class 4, Class UOS (unstable old slides) includes areas having severe limitations due to slope; and
iii. Class 5, Class URS (unstable recent slides); and

c. Identified by the USGS Surface Geology Map of Bainbridge Island (Haugerud, 2001) as rilled slopes/scarps.

Based on our review of the soil mapping for the study area (NRCS, 2017), the site underlain by Kapowsin gravelly ashy loam, 0 to 6 percent slopes and Kitsap silty loam, 15 to 30 percent slopes. These soils do not have a severe hazard of water erosion.

The site is not in proximity to the coast and is not mapped in the Washington Department of Ecology Coastal Zone Atlas.

Our review of the *Preliminary Geologic Map of Bainbridge Island, Washington* (Haugerud, 2005) the site does not contain rilled slopes/scarps.

Based our field exploration, site reconnaissance, and review, the site does not meet the BIMC criteria for an erosion hazard area.

Recommendations for controlling erosion are presented in Section 7.7 of this report.

5.2 Landslide Hazard Areas

Landslide hazard areas are defined in BIMC Section 16.20.30 (33) as the following:

"... areas which are potentially subject to risk of mass movement due to a combination of factors, including historic failures, geologic, topographic, and hydrologic features. Some of these areas are identified in the Department of Ecology Coastal Zone Atlas and USGS Surface Geology Map of Bainbridge Island (Haugerud, 2001). The presence of these factors shall be determined through assessment, by the least intrusive means, by the city engineer or at the city engineer's request by a third party geoengineer or geotechnical expert prior to issuance of any permit. Landslide hazard areas include the following:

a. *Areas characterized by slopes greater than 15 percent having springs or groundwater seepage and having impermeable soils (typically silt and clay) overlain or frequently interbedded with permeable granular soils (predominantly sand and gravel);*
b. *Any area potentially unstable due to rapid stream incision or stream bank erosion;*
c. *Any area located on an alluvial fan, debris flow deposit, or in a debris flowpath, presently or potentially subject to impacts or inundation by debris flows or deposition of stream-transported sediments;*
d. *Any area with a slope of 40 percent or greater and with a vertical relief of 10 or more feet except areas composed of competent consolidated rock;*
e. *Any area designated or mapped as class U, UOS, or URS by the Department of Ecology Coastal Zone Atlas and/or mapped as a landslide or scarp on the USGS Surface Geology Map of Bainbridge Island (Haugerud, 2001).*

In the central portion of the site is a 25- to 30-foot high, north-south trending, east facing slope that descends from the bench in the west portion of the site to the pond and delineated wetland in the valley floor to the east. The slope has gradients of 18 to 26 percent and is steepest in the north portion of the site.

In order to evaluate the landslide hazard at the subject site, we reviewed the *Geologic Map of Bainbridge Island, Washington* (Haugerud, 2005) and historical slope stability information in our library and files. We also reviewed the landslide inventory mapping for the site area compiled by the Washington Department of Natural Resources (DNR, 2017). Based on our review, no landslides are identified at the site or in the surrounding area.

Based on our review, the site is not mapped as containing Quaternary age slumps, earthflows, mudflows or landslides.

We also conducted a reconnaissance of the site and site slopes. The purpose of our reconnaissance was to review the condition of the site slopes and identify indications of historical slope instability, which included:

- Bowl-shaped topography
- Irregular or hummocky topography
- Tension cracks, scarps, or other indicators of ground movement
- Leaning or pistol-butted trees
- Distressed vegetation

- Vegetation of markedly different ages or types, for example a swath of young alders and blackberries in an otherwise mature forest
- "Fresh" looking soil deposited at the base of steep slopes
- Disturbed or destroyed anthropogenic features, such as fence lines that have been displaced
- Ponding water/sag ponds

Based on the conditions observed during our reconnaissance, we did not observe indications of historical slope instability. We also did not encounter fractured or disturbed soils in our test pits that would be consistent with landslide deposits.

The native soils underlying the site consist of Vashon till, a soil unit that has relatively high strength and commonly underlies steep slopes in the Puget Lowland. We did not encounter indications of planes of weakness or preferential failure surfaces.

During our field exploration, we observed there is an ephemeral area of seepage in the central portion of the site. Based on the prevalence of shallow perched groundwater seepage encountered in our test pits, in our opinion, the seepage is emergent perched groundwater and is not seepage related to permeable sand deposits overlying impermeable silt or clay deposits.

The site is not located adjacent to a watercourse or water body that could result in erosion or undercutting of the slope. The slope is not part of an alluvial fan or part of a debris flow, or in a debris flow path.

Based on the topographic survey, the site does not contain slopes steeper than 40 percent that are more than 10 feet high.

Based on the subsurface conditions encountered and the observed site conditions, in our opinion, the site slopes between 15 and 40 percent in gradient do not meet the BIMC definition of a Landslide Hazard Area. As such, it is our opinion that a setback and buffer from the top of the site slopes between 15 and 40 percent in gradient is not required.

5.3 Seismic Hazard Areas

Seismic hazard areas are defined in the BIMC Section 16.20.30 (44) as the following:

> *"… areas subject to severe risk of damage as a result of seismic induced ground shaking, or surface faulting… The following areas are considered seismic hazard areas:*
>
> *a. Seismic Landslide Hazard Areas. Slopes which are stable in nonearthquake periods, but fail and slide during ground shaking;*
> *b. Liquefaction Hazard Areas. Areas of cohesionless, loose or soft, saturated soils of low density in association with a shallow groundwater table that are subject to settlement and/or liquefaction from ground shaking; or*
> *c. Fault Hazard Areas. Areas of known surface rupture or significant surface deformation as a result of an active fault movement, including 50 feet on either side.*

Liquefaction is a process that can occur when soils lose shear strength for short periods of time during a seismic event. Ground shaking of sufficient strength and duration results in the loss of grain-to-grain contact and an increase in pore water pressure, causing the soil to behave as a fluid. Soils with a potential for liquefaction are typically cohesionless, predominately silt and sand sized, must be loose, and be below the groundwater table. The site is predominantly underlain by medium dense to very dense silty sand with gravel without a defined groundwater table. Based on these conditions, in our opinion the liquefaction potential of the site is negligible and design considerations related to soil liquefaction are not necessary for this project.

The closest Class A seismic source to the project site is the Seattle Fault Zone, which is located about two miles south of the site. The Seattle Fault Zone consists of an east-west trending region associated with a south dipping thrust or reverse fault. Based on review of the USGS Quaternary Fault Database (Fault No. 570), this fault has been active within the last 15,000 years (Johnson, 2004). Based on the distance between the site and the Seattle Fault, in our opinion, the potential for ground rupture at the subject site during a future earthquake associated with this fault is low.

There is a potential lineament identified using aeromagnetic geophysical survey methods that may extend be located about 5,000 feet south of the site (Blakely, 2005). This lineament has not been further investigated or verified in the field and it is not known if this feature indicates movement across Quaternary or Holocene sediments. In our opinion the risk of ground rupture at the site due to this fault is also low, due to the distance of the fault from the site.

Seismic design parameters are provided in Section 6.1 of this study.

6.0 GEOTECHNICAL RECOMMENDATIONS

6.1 SEISMIC DESIGN PARAMETERS

The 2012/2015 International Building Code (IBC) seismic design section provides a basis for seismic design of structures. Table 2 below provides seismic design parameters for the site that are in conformance with the 2012/2015 IBC, which specifies a design earthquake having a 2% probability of occurrence in 50 years (return interval of 2,475 years), and the 2008 USGS seismic hazard maps.

Table 2 – Seismic Design Parameters

Site Class	Spectral Acceleration at 0.2 sec. [g] S_S	Spectral Acceleration at 1.0 sec. [g] S_1	Site Coefficients		Design Spectral Response Parameters		Control Periods [sec.]	
			F_a	F_v	S_{DS}	S_{D1}	T_O	T_S
C	1.408	0.554	1.000	1.300	0.939	0.480	0.102	0.511

The spectral response accelerations were obtained from the USGS Earthquake Hazards Program Interpolated Probabilistic Ground Motion website (2008 data) for the project latitude and longitude.

6.2 BUILDING FOUNDATIONS

Based on the subsurface conditions encountered at the site and our understanding of the planned improvements, it is our opinion the proposed park buildings may be supported on spread footing foundations. The footings should bear on medium dense to very dense, undisturbed native soil underlying the site (Vashon till and weathered till), or on properly compacted structural fill placed on undisturbed native soil.

Please note that existing fill was encountered in our test pits TP-6, TP-7, TP-16 and TP-17 (see Figure 2 for locations). As such, footing over-excavation will be required to reach competent bearing soils. To minimize foundation construction costs, if feasible, the proposed park buildings should be located away from the area of these four test pits.

For frost protection considerations, exterior foundation elements should be placed at a minimum depth of 18 inches below final exterior grade. Interior spread foundations should be placed at a minimum depth of 12 inches below the top of concrete slabs.

For preliminary planning purposes, we recommend that a maximum allowable soil bearing pressure of 4,000 pounds per square foot (psf) be used for sizing foundation elements. The recommended allowable bearing pressure is for dead plus live loads. For allowable stress design, the recommended bearing pressure may be increased by one-third for transient loading, such as wind or seismic forces.

Footings designed and constructed in accordance with the above recommendations should experience total settlement of less than one inch and differential settlement of less than ½ inch. Most of the anticipated settlement should occur during construction as dead loads are applied.

6.2.1 Lateral Resistance

Lateral loads on the structures may be resisted by passive earth pressure developed against the embedded portion of the foundation system and by frictional resistance between the bottom of the foundation and the supporting subgrade soils. For footings bearing on the medium dense sand and gravel soils or on compacted structural fill, a frictional coefficient of 0.35 may be used to evaluate sliding resistance developed between the concrete and the compacted subgrade soil. Passive soil resistance may be calculated using an equivalent fluid weight of 350 pcf, assuming foundations are backfilled with structural fill. The above values include a factor of safety of 1.5. Unless covered by pavements or slabs, the passive resistance in the upper 12 inches of soil should be neglected.

6.2.2 Footing Subgrade Preparation

All footing excavations should be in a dense and unyielding condition prior to setting forms and placing rebar. Loose soil encountered at the foundation subgrade elevations should be compacted in-place to the requirements of structural fill. Any loose or soft soils that cannot be compacted should be overexcavated and replaced with structural fill.

The test pits excavated for this study were backfilled after the soils were logged. The backfill was tamped with the backhoe bucket and the ground surface smoothed out. The backfill was not compacted to the requirements of structural fill. During grading, the earthwork contractor should locate the test pits, remove the loose backfill and replace it with structural fill.

We encountered a surficial layer of fill at the locations of Test Pits TP-6, TP-7, TP-16 and TP-17. The fill contained organic debris including branches and roots. The fill is not suitable for support of structural loads and is not suitable for use as structural fill. The fill should be overexcavated from structural areas and exported from site or wasted in non-structural areas. Overexcavations should be backfilled with structural fill.

The adequacy of the footing subgrade soils should be verified by a representative of PanGEO prior to placing forms or rebar. In the event that the exposed soils are significantly different than those described in this report, additional subsurface exploration may be needed.

6.3 FLOORS SLABS

Floor slabs for the proposed buildings may be constructed using conventional concrete slab-on-grade floor construction. The floor slabs should be supported on competent native soil or structural fill. Any over-excavations, if needed, should be backfilled with structural fill.

Interior concrete slab-on-grade floors should be underlain by a capillary break consisting of at least of 4 inches of pea gravel or compacted ¾-inch, clean crushed rock (less than 3 percent fines). The capillary break material should meet the gradational requirements provided in Table 2, below.

Table 2 – Capillary Break Gradation

Sieve Size	Percent Passing
¾-inch	100
No. 4	0 – 10
No. 100	0 – 5
No. 200	0 – 3

The capillary break should be placed on the subgrade that has been compacted to a dense and unyielding condition.

Construction joints should be incorporated into the floor slab to control cracking.

Waterproofing and damp proofing measures are the responsibility of the owner.

6.4 SUBSURFACE DRAINAGE

Light to heavy perched groundwater seepage was encountered in all of our test pits at about two feet below grade. The perched seepage is a seasonal condition, but will need to be considered during design of the planned improvements.

In areas where cuts are planned that may intercept the seepage, a subsurface interceptor drain may need to be constructed. The interceptor drain should consist of a gravel filled trench containing a perforated drainpipe. The interceptor drain should be at least two feet wide and extend at least two feet below the depth of seepage.

In order to prevent fines from migrating into and potentially clogging the drain, the trench should be lined with a filter fabric. For this application, the fabric should consist of Mirafi 140N or approved equivalent. A six-inch diameter perforated pipe should be placed in the bottom of the trench with the trench and pipe sloped to drain. The gravel backfill may consist of pea gravel or washed rock.

The locations of subsurface drainage measures may need to be further evaluated during construction.

An underslab drainage system should be considered below concrete slab-on-grade floors, in addition to perimeter footing drains. The subslab drainage system should consist of one foot deep (measured from the bottom of the slab) gravel-filled trenches spaced no more than about 25 feet apart. A 4-inch perforated PVC (Schedule 35 minimum) pipe should be placed at the bottom of the trench. The collected water may be tied to the footing drain system for discharge.

6.5 PERMANENT CUT AND FILL SLOPES

Based on the anticipated soil that will be exposed in the planned excavation, we recommend permanent cut and fill slopes be constructed no steeper than 2H:1V (Horizontal:Vertical).

Cut slopes should be observed by PanGEO during excavation to verify that conditions are as anticipated. Supplementary recommendations can then be developed, if needed, to improve stability, including flattening of slopes or installation of surface or subsurface drains. Permanently exposed slopes should be seeded with an appropriate species of vegetation to reduce erosion and improve stability of the surficial layer of soil.

In our experience, 2H:1V slopes may experience erosion or sloughing during the first winter season. Aggressive erosion control measures, such as covering the slopes with plastic sheeting, may be needed to prevent excessive erosion of slopes until the permanent vegetation is established.

7.0 EARTHWORK CONSIDERATIONS

We anticipate earthwork operations will consist of mass grading the site to provide level building areas and uniform grades for access drives and parking areas. We anticipate grading operations will be balanced, with the soils generated in cuts used on-site as structural fill.

7.1 STRIPPING AND PROOFROLLING

Building, pavement and areas to receive structural fill should be stripped and cleared of surface vegetation, organic matter, and other deleterious material. Based on the thickness of the topsoil horizon encountered at our test pit locations, we anticipate a stripping depth of six to twelve inches across most of the site. The actual stripping depth should be based on field observations at the time of construction.

We encountered gravel filled trenches containing clay drain tiles at the location of Test Pit TP-2 and TP-9 and possibly TP-4. We interpret this to be an old drainfield or subsurface interceptor drain related to the farm that formerly operated at the site. The drain and any existing utility pipes should be located and removed so it does not provide a conduit for water and cause soil saturation and stability issues.

Root balls from vines, brush, and trees should be grubbed to remove roots greater than about one-inch in diameter. The depth of grubbing to remove root balls could extend to 1½ to 2 feet below the existing ground surface. Depending on the grubbing methods used, disturbance and loosening of the subgrade could occur during grubbing. Soil disturbed during the grubbing process should be compacted in-place to the requirements of structural fill.

In no case should the stripped or grubbed materials be used as structural fill or mixed with material to be used as structural fill. The stripped materials may be "wasted" on site in non-structural landscaping areas or they should be exported.

Following the stripping operation and excavations necessary to achieve construction subgrade elevations, the ground surface where structural fill, foundations, slabs, or pavements are to be placed should be observed by a representative of PanGEO. Proofrolling may be necessary to identify soft or unstable areas. Proofrolling should be performed under the observation of a representative of PanGEO. Soil in loose or soft areas, if re-compacted and still yielding, should be overexcavated and replaced with structural fill to a depth that will provide a stable base beneath the general structural fill. The optional use of a geotextile fabric placed directly on the overexcavated surface may also help to bridge unstable areas.

7.2 STRUCTURAL FILL AND COMPACTION

Structural fill, should be free of organic and inorganic debris, be near the optimum moisture content and be capable of being compacted to the recommendations provided below. If the site soils cannot be compacted, then an imported structural fill may be needed. Fill for use during wet weather should consist of a well graded soil free of organic material with less than 5 percent fines (silt and clay sized particles passing the U.S. No. 200 sieve).

Structural fill should be moisture conditioned to near their optimum moisture content, placed in loose, horizontal lifts less than 8 inches in thickness, and compacted to at least 95 percent maximum density, determined using ASTM D-1557 (Modified Proctor). The contractor should include costs for moisture conditioning the native soils by adding water as needed to achieve moisture conditions that will facilitate proper compact as a bearing subgrade or utility trench backfill.

The procedure to achieve proper density of a compacted fill depends on the size and type of compaction equipment, the number of passes, thickness of the lifts being compacted, and certain soil properties. If the excavation to be backfilled is constricted and limits the use of heavy equipment, smaller equipment can be used, but the lift thickness will need to be reduced to achieve the required relative compaction.

Generally, loosely compacted soils are a result of poor construction technique or improper moisture content. Soils with high fines contents are particularly susceptible to becoming too wet and coarse-grained materials easily become too dry, for proper compaction. Silty or clayey soils with a moisture content too high for adequate compaction should be aerated during dry weather, moisture conditioned by mixing with drier materials, or other methods.

7.3 UNDERGROUND UTILITIES

7.3.1 Trench Excavation

The proposed development will include the installation of underground utilities and services. We anticipate the new utility lines will be less than 10 feet deep and trench excavations will be accomplished using conventional excavation equipment.

7.3.2 Pipe Support and Bedding

Based on our field explorations, we anticipate silty sand with gravel with cobbles will be encountered in utility trench excavations. Utility installation should be conducted in accordance

with the 2016 WSDOT Standard Specifications or other applicable specifications for placement and compaction of pipe bedding and backfill. In general, pipe bedding should be placed in loose lifts not exceeding 6 inches in thickness, and compacted to a firm and unyielding condition. Bedding materials and thicknesses provided should be suitable for the utility system and materials installed, and in accordance with any applicable manufacturers' recommendations. Pipe bedding materials should be placed on relatively undisturbed native soil. Soft soils, if present, should be removed up to 12 inches from the bottom of the trench and be replaced with pipe bedding material.

7.3.3 Trench Backfill

Utility trench backfill is a concern in preventing settlement along utility alignments, particularly in pavement areas. It is important that each section of utility line be adequately supported in the bedding material. The material should be hand tamped to provide support around the pipe haunches.

The on-site soils may be used as trench backfill, provided cobbles and boulders larger than 6 inches in diameter are screened and removed prior to backfill.

Trench backfill in structural areas should be placed in 8- to 12-inch, loose lifts and compacted using mechanical equipment to at least 95 percent maximum dry density, per ASTM D-1557 (Modified Proctor). Heavy compaction equipment should not operate directly over utilities until a minimum of 2 feet of backfill has been placed.

7.4 TEMPORARY EXCAVATIONS

Temporary excavations should be constructed in accordance with Part N of the WAC (Washington Administrative Code) 296-155. The contractor is responsible for maintaining safe excavation slopes and/or shoring.

Based on the soil conditions encountered in the test pits, it is our opinion that temporary excavations may be cut at a maximum 1H:1V inclination in the upper medium dense soils and ½H:1V in the underlying dense to very dense soils.

Temporary excavations should be evaluated in the field during construction based on actual observed soil conditions. If seepage is encountered, excavation slope inclinations may need to be reduced. During wet weather, the cut slopes may need to be flattened to reduce potential erosion or should be covered with plastic sheeting.

7.5 PAVEMENT SECTION

We anticipate traffic for the planned improvements will consist of light passenger vehicles and occasional service and delivery trucks. As such, it is our opinion that a minimum pavement section consisting of 2 inches of hot mixed asphalt (HMA) over 6 inches of crushed surfacing base course (CSBC) will be adequate.

In areas that will be subjected to heavy truck traffic, such as delivery and service trucks a heavier pavement section comprised of 3 inches of HMA over 6 inches of CSBC can be used.

The adequacy of the site pavements is related in part to the condition of the underlying subgrade. The uppermost 12 inches of subgrade, the granular subbase, and the aggregate base should be compacted to at least 95 percent of the maximum dry density, as determined by ASTM D 1557, Modified Proctor. Due to the loose, moisture sensitive nature of the near surface soils at the site, localized removal and recompaction of the subgrade may be required in order to be able to compact the uppermost 12 inches to 95 percent of the maximum dry density.

Subgrade drainage is an important factor that will enhance the pavement performance. Subgrade surfaces below the pavement structural sections should be sloped to direct runoff to suitable collection points and to prevent ponding. Concrete curbs separating pavement from landscape areas should extend at least 6 inches below subgrade surfaces to reduce the potential for the migration of moisture from the landscaped areas through the aggregate base-course layers.

7.6 WET WEATHER CONSTRUCTION

The soils underlying the site are moisture sensitive. These soils will become disturbed and soft when exposed to inclement weather conditions and construction traffic. To avoid disturbance, construction traffic should refrain from travelling on prepared native subgrade soils during wet weather.

General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. The following procedures are best management practices recommended for use in wet weather construction:

- Earthwork should be performed in small areas to minimize subgrade exposure to wet weather. Excavation or the removal of unsuitable soil should be followed promptly by the placement and compaction of clean structural fill. The size and type of construction equipment used may have to be limited to prevent soil disturbance.

- During wet weather, the allowable fines content of the structural fill should be reduced to no more than 5 percent by weight based on the portion passing the 0.75-inch sieve. The fines should be non-plastic.
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water.
- Geotextile silt fences should be installed at strategic locations around the site to control erosion and the movement of soil.
- Excavation slopes and soils stockpiled on site should be covered with plastic sheeting.

7.7 EROSION CONSIDERATIONS

Surface runoff can be controlled during construction by careful grading practices. Typically, this includes the construction of shallow, upgrade perimeter ditches or low earthen berms in conjunction with silt fences to collect runoff and prevent water from entering excavations or to prevent runoff from the construction area leaving the immediate work site. Temporary erosion control may require the use of hay bales on the downhill side of the project to prevent water from leaving the site and potential storm water detention to trap sand and silt before the water is discharged to a suitable outlet. All collected water should be directed under control to a positive and permanent discharge system.

Permanent control of surface water should be incorporated in the final grading design. Adequate surface gradients and drainage systems should be incorporated into the design such that surface runoff is collected and directed away from the structures and to a suitable outlet. Potential issues associated with erosion may also be reduced by establishing vegetation within disturbed areas immediately following grading operations.

8.0 ADDITIONAL SERVICES

To confirm that our recommendations are properly incorporated into the design and construction of the proposed development, PanGEO should be retained to conduct a review of the final project plans and specifications, and to monitor the construction of geotechnical elements. PanGEO can provide you a cost estimate for construction monitoring services at a later date.

9.0 CLOSURE

We have prepared this report for Jones & Jones, Bainbridge Island Metropolitan Parks and Recreation District and the project design team. Recommendations contained in this report are based on a site reconnaissance, a subsurface exploration program, review of pertinent subsurface information, and our understanding of the project. The study was performed using a mutually agreed-upon scope of services.

Variations in soil conditions may exist between the locations of the explorations and the actual conditions underlying the site. The nature and extent of soil variations may not be evident until construction occurs. If any soil conditions are encountered at the site that are different from those described in this report, we should be notified immediately to review the applicability of our recommendations. Additionally, we should also be notified to review the applicability of our recommendations if there are any changes in the project scope.

The scope of our work does not include services related to construction safety precautions. Our recommendations are not intended to direct the contractors' methods, techniques, sequences or procedures, except as specifically described in our report for consideration in design. Additionally, the scope of our services specifically excludes the assessment of environmental characteristics, particularly those involving hazardous substances. We are not mold consultants nor are our recommendations to be interpreted as being preventative of mold development. A mold specialist should be consulted for all mold-related issues.

This report has been prepared for planning and design purposes for specific application to the proposed project in accordance with the generally accepted standards of local practice at the time this report was written. No warranty, express or implied, is made.

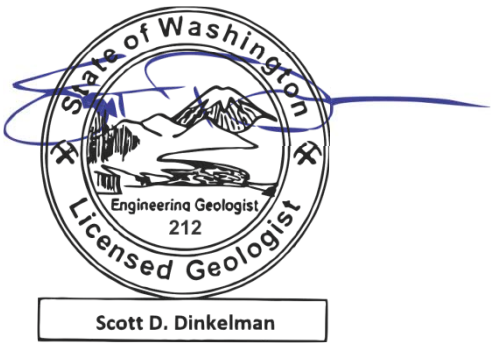
This report may be used only by the client and for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both off and on-site), or other factors including advances in our understanding of applied science, may change over time and could materially affect our findings. Therefore, this report should not be relied upon after 24 months from its issuance. PanGEO should be notified if the project is delayed by more than 24 months from the date of this report so that we may review the applicability of our conclusions considering the time lapse.

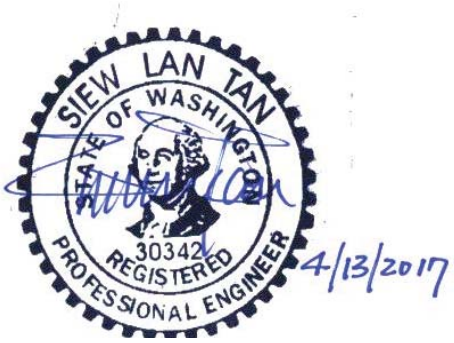
It is the client's responsibility to see that all parties to this project, including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the contractor's

option and risk. Any party other than the client who wishes to use this report shall notify PanGEO of such intended use and for permission to copy this report. Based on the intended use of the report, PanGEO may require that additional work be performed and that an updated report be reissued. Noncompliance with any of these requirements will release PanGEO from any liability resulting from the use this report.

Sincerely,

PanGEO, Inc.





Scott D. Dinkelman, LEG, LHG
Senior Engineering Geologist

Siew L Tan, P.E.
Principal Geotechnical Engineer

10.0 REFERENCES

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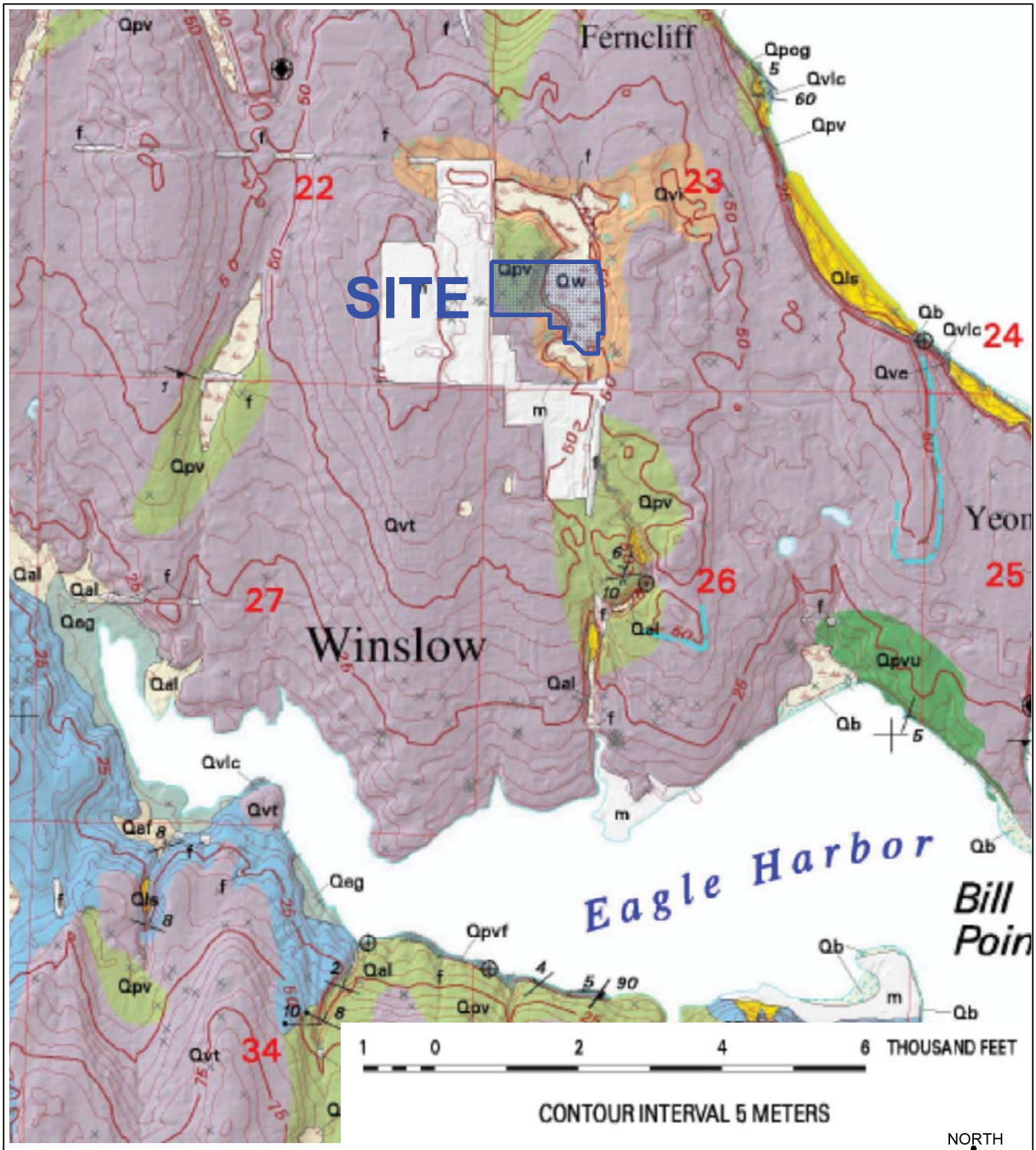

GEOLOGIC UNITS:

Qvt Vashon till

NOTES

1. Derived from the Geologic Map of Bainbridge Island, Washington (Haugerud, 2005)
2. Detailed descriptions of the geologic units can be found in the text of the report.
3. Only the relavent geologic units are listed.

PanGEO INCORPORATED

Proposed Sakai Park
1560 E Madison Ave
Bainbridge Island, WA

GEOLOGIC MAP

Project No. **17-042**

Figure No. **3**

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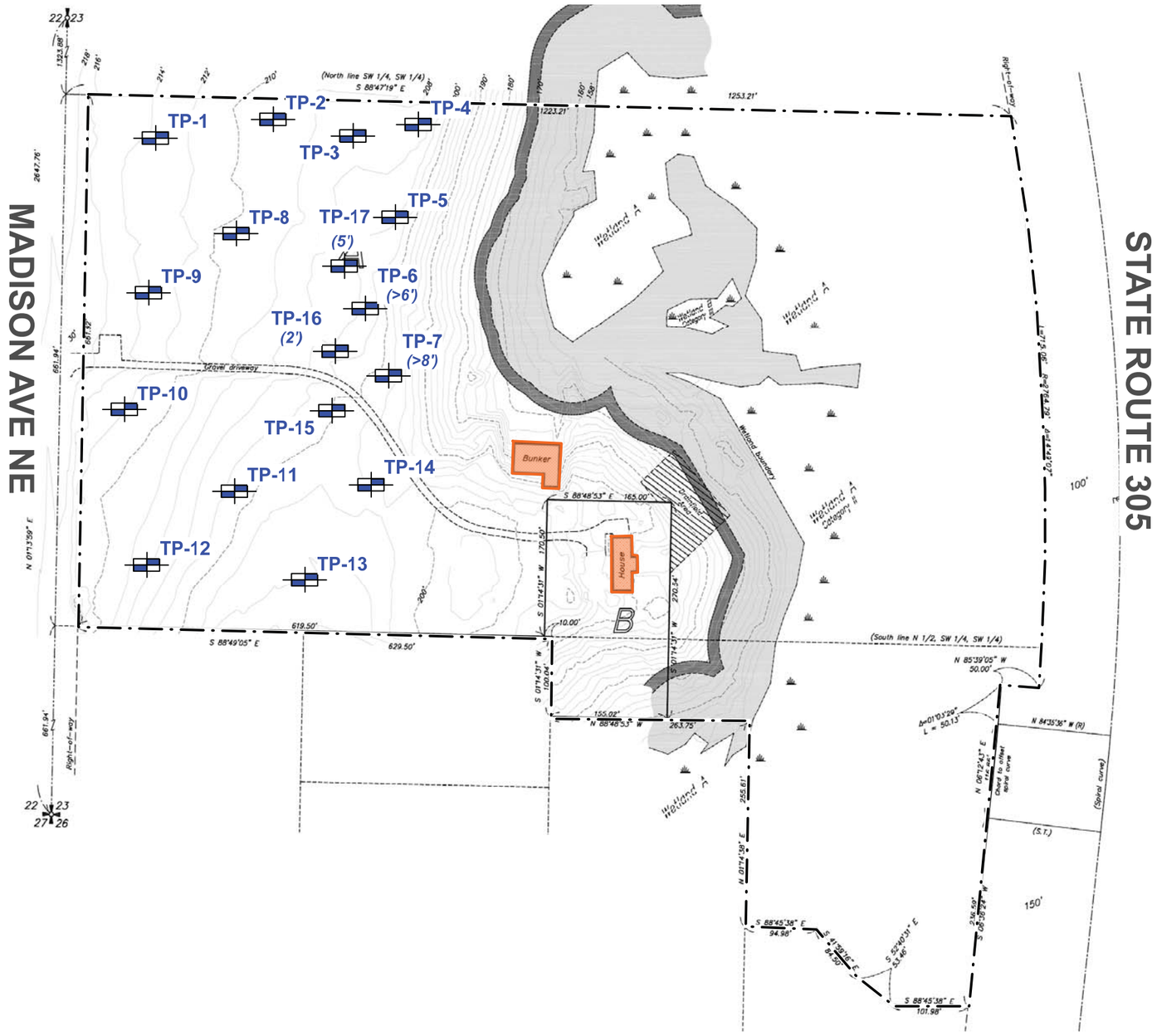


LEGEND:

- Subject Site
- Existing Structures
- Approximate Test Pit Location, PanGEO, Inc., March 2017
  (Fill Thickness in Feet)

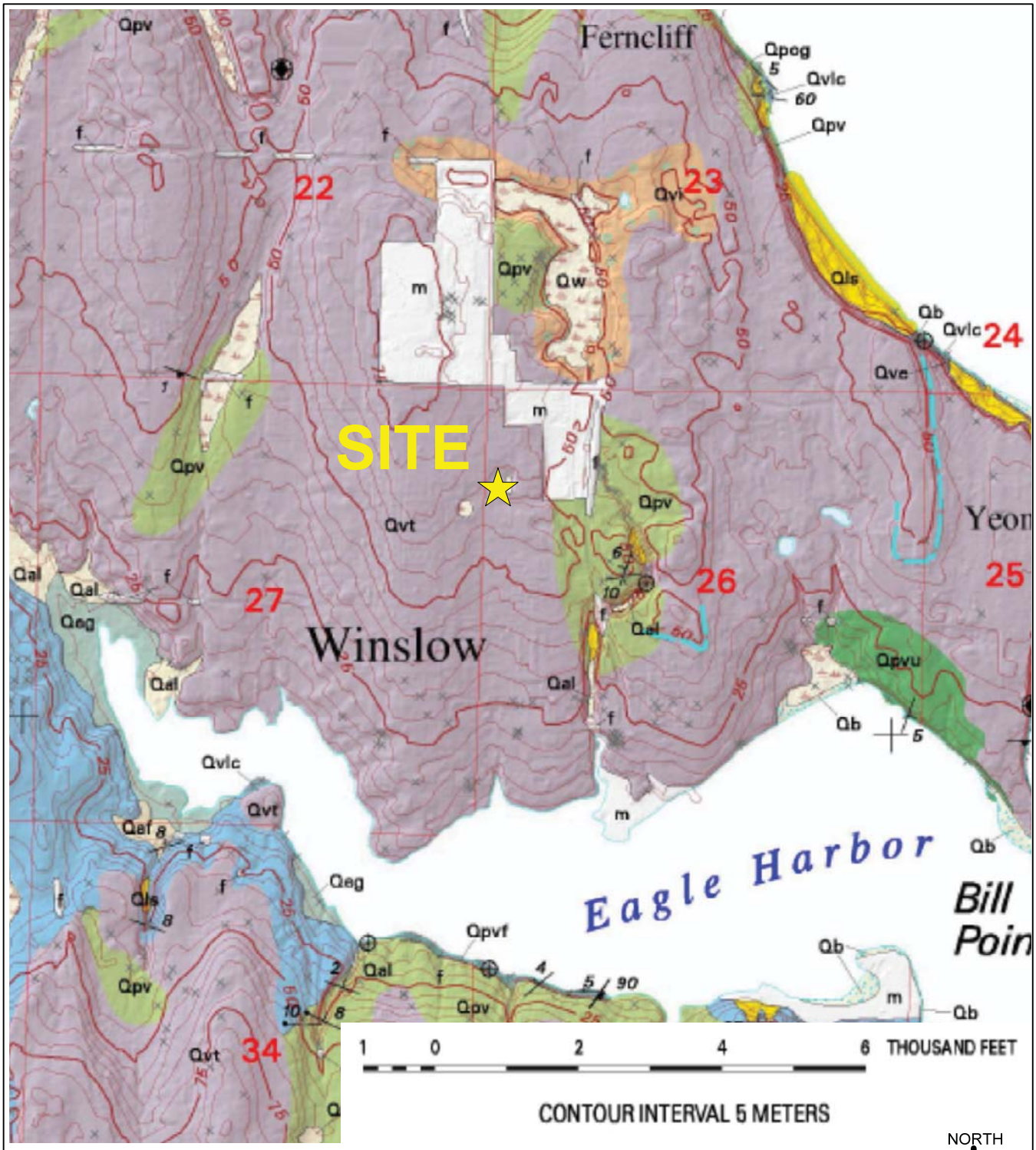
Graphic Scale (feet)

0 50 100 150

NORTH

PanGEO INCORPORATED	**Proposed Sakai Park** **1560 Madison Avenue NE** **Bainbridge Island, WA**	**SITE AND EXPLORATION PLAN** Project No. **17-042** Figure No. **2**

13-011_Fig 2 Site & Exploration Plan.grf 4/7/17 JCR



GEOLOGIC UNITS:

Qvt Vashon till

NOTES

1. Derived from the Geologic Map of Bainbridge Island, Washington (Haugerud, 2005)
2. Detailed descriptions of the geologic units can be found in the text of the report.
3. Only the relavent geologic units are listed.

PanGEO INCORPORATED

Proposed Sakai Park
1560 Madison Avenue NE
Bainbridge Island, WA

GEOLOGIC MAP

Project No. **17-042**

Figure No. **3**

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SOIL UNITS:

22 - Kapowsin gravelly ashy loam, 0 to 5 percent slopes
30 - Kitsap silt loam, 15 to 30 percent slopes
50 - Shalcar Muck
64 - Water

NOTES

1. Source of Map: Natural Resources Conservation Service Web Soil Survey
2. Detailed descriptions of the soil units can be found in the text of the report.
3. Only the relavent soil units are listed.

NORTH

Not-to-Scale

PanGEO INCORPORATED

Proposed Sakai Park
1560 Madison Ave NE
Bainbridge Island, WA

SOIL MAP

Project No. **17-042**

Figure No. **4**

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APPENDIX A

TEST PIT LOGS

RELATIVE DENSITY / CONSISTENCY

SAND / GRAVEL			SILT / CLAY		
Density	SPT N-values	Approx. Relative Density (%)	Consistency	SPT N-values	Approx. Undrained Shear Strength (psf)
Very Loose	<4	<15	Very Soft	<2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Med. Dense	10 to 30	35 - 65	Med. Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	>50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	>30	>4000

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		GROUP DESCRIPTIONS	
Gravel 50% or more of the coarse fraction retained on the #4 sieve. Use dual symbols (eg. GP-GM) for 5% to 12% fines.	GRAVEL (<5% fines)	GW	Well-graded GRAVEL
		GP	Poorly-graded GRAVEL
	GRAVEL (>12% fines)	GM	Silty GRAVEL
		GC	Clayey GRAVEL
Sand 50% or more of the coarse fraction passing the #4 sieve. Use dual symbols (eg. SP-SM) for 5% to 12% fines.	SAND (<5% fines)	SW	Well-graded SAND
		SP	Poorly-graded SAND
	SAND (>12% fines)	SM	Silty SAND
		SC	Clayey SAND
Silt and Clay 50%or more passing #200 sieve	Liquid Limit < 50	ML	SILT
		CL	Lean CLAY
		OL	Organic SILT or CLAY
	Liquid Limit > 50	MH	Elastic SILT
		CH	Fat CLAY
		OH	Organic SILT or CLAY
Highly Organic Soils		PT	PEAT

Notes: 1. Soil exploration logs contain material descriptions based on visual observation and field tests using a system modified from the Uniform Soil Classification System (USCS). Where necessary laboratory tests have been conducted (as noted in the "Other Tests" column), unit descriptions may include a classification. Please refer to the discussions in the report text for a more complete description of the subsurface conditions.

2. The graphic symbols given above are not inclusive of all symbols that may appear on the borehole logs. Other symbols may be used where field observations indicated mixed soil constituents or dual constituent materials.

DESCRIPTIONS OF SOIL STRUCTURES

Layered: Units of material distinguished by color and/or composition from material units above and below

Laminated: Layers of soil typically 0.05 to 1mm thick, max. 1 cm

Lens: Layer of soil that pinches out laterally

Interlayered: Alternating layers of differing soil material

Pocket: Erratic, discontinuous deposit of limited extent

Homogeneous: Soil with uniform color and composition throughout

Fissured: Breaks along defined planes

Slickensided: Fracture planes that are polished or glossy

Blocky: Angular soil lumps that resist breakdown

Disrupted: Soil that is broken and mixed

Scattered: Less than one per foot

Numerous: More than one per foot

BCN: Angle between bedding plane and a plane normal to core axis

COMPONENT DEFINITIONS

COMPONENT	SIZE / SIEVE RANGE	COMPONENT	SIZE / SIEVE RANGE
Boulder:	> 12 inches	Sand	
Cobbles:	3 to 12 inches	Coarse Sand:	#4 to #10 sieve (4.5 to 2.0 mm)
Gravel		Medium Sand:	#10 to #40 sieve (2.0 to 0.42 mm)
Coarse Gravel:	3 to 3/4 inches	Fine Sand:	#40 to #200 sieve (0.42 to 0.074 mm)
Fine Gravel:	3/4 inches to #4 sieve	Silt	0.074 to 0.002 mm
		Clay	<0.002 mm

TEST SYMBOLS

for In Situ and Laboratory Tests listed in "Other Tests" column.

ATT	Atterberg Limit Test
Comp	Compaction Tests
Con	Consolidation
DD	Dry Density
DS	Direct Shear
%F	Fines Content
GS	Grain Size
Perm	Permeability
PP	Pocket Penetrometer
R	R-value
SG	Specific Gravity
TV	Torvane
TXC	Triaxial Compression
UCC	Unconfined Compression

SYMBOLS

Sample/In Situ test types and intervals

- 2-inch OD Split Spoon, SPT (140-lb. hammer, 30" drop)
- 3.25-inch OD Spilt Spoon (300-lb hammer, 30" drop)
- Non-standard penetration test (see boring log for details)
- Thin wall (Shelby) tube
- Grab
- Rock core
- Vane Shear

MONITORING WELL

- Groundwater Level at time of drilling (ATD)
- Static Groundwater Level
- Cement / Concrete Seal
- Bentonite grout / seal
- Silica sand backfill
- Slotted tip
- Slough
- Bottom of Boring

MOISTURE CONTENT

Dry	Dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water

PanGEO INCORPORATED
Phone: 206.262.0370

Terms and Symbols for Boring and Test Pit Logs

Figure A-1

Test Pit No. TP-1

Approximate ground surface elevation: 214 feet

Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till)
2 – 10	Dense, gray, silty SAND with gravel and cobbles (SM); moist to wet; diamict texture with sandy interbeds (Vashon Till) -Silty layers at 7’

Plate 1 at right shows TP-1 at approximately 10 feet in depth

TP-1 was terminated approximately 10 feet below ground surface.

Heavy groundwater seepage was observed from approximately 2 to 3 feet.

Figure A-2

Test Pit No. TP-2 Approximate ground surface elevation: 210 feet	
Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - 4" diameter clay drain pipe was exposed at south end of test pit, with heavy seepage
2 – 8	Dense, gray, silty SAND with gravel and cobbles (SM); moist to wet; diamict texture with sandy interbeds (Vashon Till) - Iron oxide staining at 5', wet sand layers - Cobbles increasing below 6'

Plate 2 below shows test pit at approximately 4 feet in depth

TP-2 was terminated approximately
8 feet below ground surface.

Heavy groundwater seepage was observed from approximately 2 to 3 feet.

Test Pit No. TP-3

Approximate ground surface elevation: 208 feet

Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2½	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - heavy seepage at 2’
2½ – 6	Dense, gray, silty SAND with gravel and cobbles (SM); moist to wet; diamict texture with sandy interbeds (Vashon Till)

Plate 3 shows test pit at approximately 6 feet in depth

TP-3 was terminated approximately 6 feet below ground surface.

Heavy groundwater seepage was observed from approximately 2 to 3 feet.

Figure A-4

Test Pit No. TP-4 Approximate ground surface elevation: 206 feet	
Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - Possible gravel drain rock encountered at 2 feet, seepage
2 – 6	Dense, gray, silty SAND with gravel and cobbles (SM); moist to wet; diamict texture with sandy interbeds (Vashon Till) -wet sandy layers from 4 to 6 feet

Plate 4 shows test pit at approximately 6 feet in depth

TP-4 was terminated approximately
6 feet below ground surface.

Groundwater seepage was observed from approximately 2 to 3 feet.

Test Pit No. TP-5 Approximate ground surface elevation: 206 feet	
Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2 – 6½	Dense, gray, silty SAND with gravel and cobbles (SM); moist to wet; diamict texture with sandy interbeds (Vashon Till) -wet sandy layers at 2 ½ feet

Plate 5 shows test pit at approximately 6 feet in depth

TP-5 was terminated approximately 6½ feet below ground surface.

Groundwater seepage was observed from approximately 2 to 3 feet.

Figure A-6

Test Pit No. TP-6

Approximate ground surface elevation: 204 feet

Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 6	Medium dense to very loose, gray, gravelly, silty, fine to medium SAND (SM); moist to water bearing; (Fill) - seepage at 2 feet

Plate 6 shows test pit at approximately 6 feet in depth

TP-6 was terminated approximately
6 feet below ground surface after hole caved in completely.

Groundwater seepage was observed below approximately 3 feet.

Test Pit No. TP-7

Approximate ground surface elevation: 198 feet

Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 8	Medium dense to very loose, gray, gravelly, silty, fine to medium SAND (SM); asphalt debris in upper 4 feet, moist to water bearing; (Fill) - seepage at 2 feet

Plate 7 shows test pit at approximately 8 feet in depth

TP-7 was terminated approximately 8 feet below ground surface with heavy caving conditions below 6 feet.

Groundwater seepage was observed below approximately 2 feet.

Figure A-8

Test Pit No. TP-8 Approximate ground surface elevation: 210 feet	
Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2½	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2½ – 5	Dense, gray, silty SAND with gravel and cobbles (SM); moist; diamict texture with sandy interbeds (Vashon Till)

Plate 8 shows test pit at approximately 5 feet in depth

TP-8 was terminated approximately 5 feet below ground surface.

Groundwater seepage was observed at approximately 2 feet.

Test Pit No. TP-9

Approximate ground surface elevation: 214 feet

Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - 4" diameter clay drain pipe and drain rock was exposed in side of test pit, with heavy seepage
2 – 6½	Dense, gray, silty SAND with gravel and cobbles (SM); moist; diamict texture with sandy interbeds (Vashon Till)

Plate 9 shows test pit at approximately 6 feet in depth

TP-9 was terminated approximately
6 feet below ground surface.

Groundwater seepage was observed at approximately 2 feet.

Test Pit No. TP-10

Approximate ground surface elevation: 212 feet

Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2 – 5½	Dense, gray, silty SAND with gravel and cobbles (SM); moist; diamict texture with sandy interbeds (Vashon Till)

Plate 10 shows test pit at approximately 5 feet in depth

TP-10 was terminated approximately
5½ feet below ground surface.

Groundwater seepage was observed at approximately 2 feet.

Test Pit No. TP-11

Approximate ground surface elevation: 200 feet

Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2 – 5½	Dense, gray, silty SAND with gravel and cobbles (SM); moist; diamict texture with sandy interbeds (Vashon Till)

Plate 11 shows test pit at approximately 5 feet in depth

TP-11 was terminated approximately 5½ feet below ground surface.

Groundwater seepage was observed at approximately 2 feet.

Test Pit No. TP-12 Approximate ground surface elevation: 206 feet	
Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2 – 7	Dense, gray, silty SAND with gravel and cobbles (SM); moist; diamict texture with sandy interbeds (Vashon Till) -Wet sandy lenses below 5 feet

Plate 12 shows test pit at approximately 3 feet in depth

TP-12 was terminated approximately
5 feet below ground surface.

Groundwater seepage was observed at approximately 2 feet and light seeps at 5 feet.

Figure A-13

Test Pit No. TP-13

Approximate ground surface elevation: 204 feet

Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2 – 7	Very dense, gray, gravelly, silty SAND with cobbles (SM); moist; diamict texture with sandy interbeds (Vashon Till)

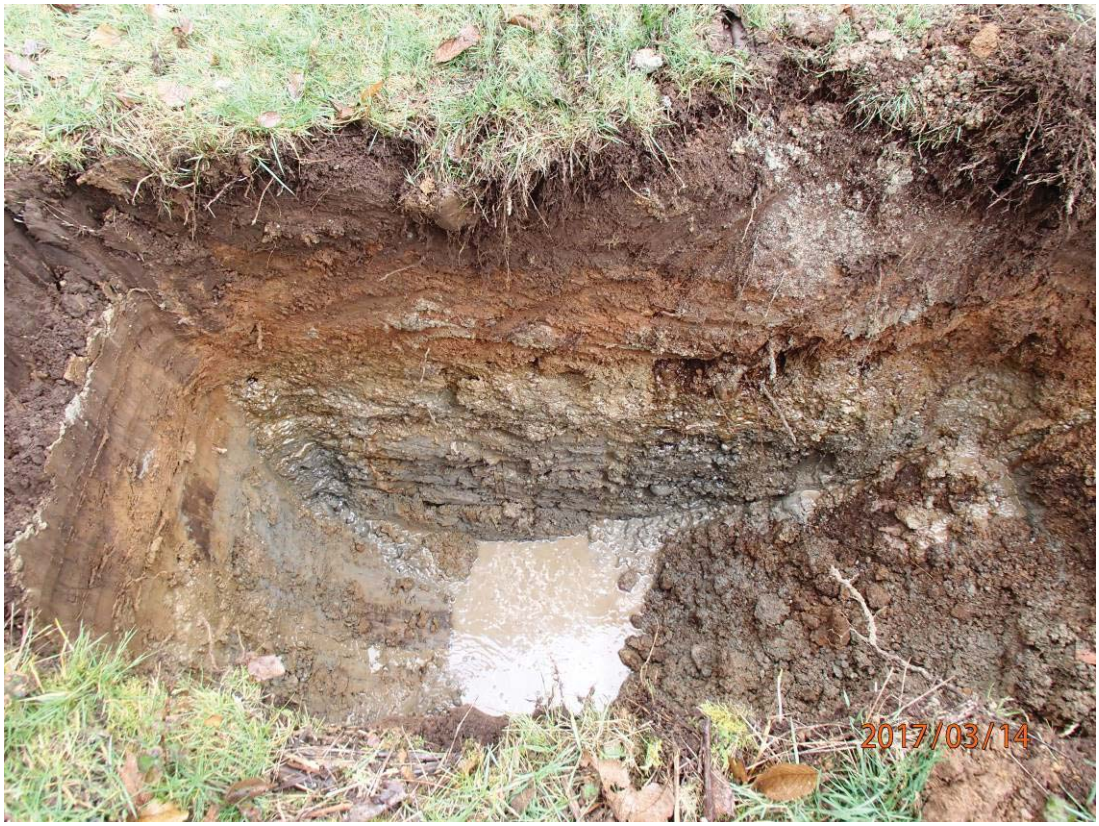
Plate 13 shows test pit at approximately 3½ feet in depth

TP-13 was terminated approximately
3½ feet below ground surface.

Groundwater seepage was observed at approximately 2 feet.

Test Pit No. TP-14 Approximate ground surface elevation: 198 feet	
Depth (ft)	Material Description
0 – 1	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
1 – 2½	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2½ – 6½	Very dense, gray, gravelly, silty SAND with cobbles (SM); moist to wet; diamict texture with wet sandy interbeds (Vashon Till)

Plate 14 shows test pit at approximately 6½ feet in depth



TP-14 was terminated approximately
6½ feet below ground surface.

Groundwater seepage was observed at approximately 2 to 3 feet.

Test Pit No. TP-15

Approximate ground surface elevation: 200 feet

Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 2½	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till) - seepage at 2 feet
2½ – 5	Dense to very dense, gray, gravelly, silty SAND with cobbles (SM); moist to wet; diamict texture with wet sandy interbeds (Vashon Till)

Plate 15 shows test pit at approximately 5 feet in depth

TP-15 was terminated approximately
5 feet below ground surface.

Groundwater seepage was observed at approximately 2 to 3 feet.

Test Pit No. TP-16

Approximate ground surface elevation: 202 feet

Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 2	Loose, gray, gravelly, silty, fine to medium SAND (SM); moist; (Fill) -Light seepage at 2 feet
2 – 3	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till)
3 – 3 ½	Very dense, gray, gravelly, silty SAND with cobbles (SM); moist; diamict texture (Vashon Till)

Plate 16 shows test pit at approximately 3½ feet in depth

TP-16 was terminated approximately
3½ feet below ground surface.

Light groundwater seepage was observed at approximately 2 feet.

Test Pit No. TP-17 Approximate ground surface elevation: 204 feet	
Depth (ft)	Material Description
0 – ½	Grass and sod over loose, dark brown, silty SAND with trace gravel (SM); wet, with roots and organics (Topsoil)
½ – 5	Loose, gray, gravelly, silty, fine to medium SAND (SM); moist to water bearing; (Fill) -Heavy seepage at 2 feet
5 – 7	Medium dense, reddish-brown, silty, fine to medium SAND (SM); moist to water bearing; with roots and iron oxide staining (weathered Vashon Till)
7 – 8	Very dense, gray, gravelly, silty SAND with cobbles (SM); moist; diamict texture (Vashon Till)

Plate 17 shows test pit at approximately 8 feet in depth

TP-17 was terminated approximately
8 feet below ground surface.

Heavy groundwater seepage was observed at approximately 2 feet.

Date of Test Pit excavations: March 14, 2017
Test Pits Logged by: Nels Reese

Figure A-18

Critical Areas Report
for the
Sakai Property
Bainbridge Island, Washington

Prepared for:

City of Bainbridge Island
280 Madison Ave. North
Bainbridge Island, WA 98110
(206) 842-7633

Prepared by:

Ecological Land Services, Inc.
1157 3rd Avenue, Suite 220A
Longview, Washington 98632
(360) 578-1371
Project Number 2248.02

January 9, 2017

TABLE OF CONTENTS

TABLES

FIGURES & PHOTOPLATES

APPENDIX A

APPENDIX B

SIGNATURE PAGE

The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.

Joanne Bartlett, PWS
Senior Biologist

Katie Boa
Biologist

INTRODUCTION

Ecological Land Services, Inc. (ELS) was contracted by Bainbridge Island Metro Parks and Recreation District to conduct a wetland boundary delineation and delineation report for the property located on NE High School Road, parcel number 232502-3-090-2003. The site is located within a portion of Section 23, Township 25 North, Range 2 East of the Willamette Meridian, in Bainbridge Island, Washington (Figure 1). This report summarizes findings of the wetland delineation according to the *City of Bainbridge Island Municipal Code (BIMC), Chapter 16.20.160* (2007) for delineation methodology, wetland categorization, and required buffer widths.

METHODOLOGY

The wetland delineation followed the Routine Determination Method according to the U.S. Army Corps of Engineers, *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region, Version 2.0* (U.S. Army Engineer Research and Development Center 2010).

The Routine Determination Method examines three parameters—vegetation, soils, and hydrology—to determine if wetlands exist in a given area. Hydrology is critical in determining what is wetland, but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for long enough duration to support a wetland plant community. By definition, wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (USACE), as "Waters of the State" by the Washington Department of Ecology (Ecology), and locally by Bainbridge Island.

To verify the wetland boundaries on the property, ELS biologists collected data on vegetation, hydrology, and soils. The delineation site visit was conducted on December 8, 2016 during which, two wetlands were delineated on the property. The wetland boundaries were delineated using consecutively numbered fluorescent flagging labeled "WETLAND BOUNDARY." Wetland boundaries were determined through breaks in topography, changes in vegetation, and presence of surface hydrology. Vegetation, hydrology, and soil data was collected at fifteen test plots to verify the wetland boundaries (Appendix A). The wetland boundaries were mapped using a Magellan handheld Global Positioning System (GPS) unit to show the extent of the wetlands on the site map (Figure 2).

SITE DESCRIPTION

This 23-acre property is situated between Madison Avenue and State Highway 305, just east of the Bainbridge Island School District offices. The property was historically farmed but because it has been uninhabited for several years, portions of former pasture are filling in with young forest

(Photoplates 1, 10, and 11). The historic home is located about midway along the south half of the property and is surrounded by a small conifer forest (Photoplate 1). A single lane driveway begins at Madison Avenue and extends across the west half to the historic home (Photoplate 1). The topography is level to gradually sloping across the west half and slopes moderately down to the east about midway across the property. The east half is relatively level and is composed of a mixed deciduous and coniferous forest with areas of historic pasture (Photoplates 2, 3, 6, 7, 8, and 9). Most of the east half is composed of wetland that includes a large pond locally referred to as the Sakai Pond that was historically excavated to supply a source of water to the farm (Photoplate 4).

Wetland A is a large, forested complex with areas of permanent and seasonal ponding, situated on the east half of the property, and extends offsite to the New Brooklyn Road to the north and High School Road to the south (Figure 1). Wetland B is a narrow, forested system with a seasonally flooded hydroperiod, occurring just west of Wetland A, separated by upland, but almost entirely surrounded by Wetland A. There was high cover of invasive Himalayan blackberry and English ivy in the understory of the forest throughout the property (Photoplate 2, 3, 4, 7, 8, 9, and 10). Wetland A was only delineated along its western boundary through the property and Wetland B was delineated in entirety. Both wetlands are depressional systems.

VEGETATION

Wetland Vegetation

The wetlands onsite were composed of forested and emergent communities. The forested community was dominated by red alder (*Alnus rubra*, FAC). The shrub community was dominated by salmonberry (*Rubus spectabilis*, FAC), hardhack (*Spiraea douglasii*, FACW), and Himalayan blackberry (*Rubus armeniacus*, FAC) with lower cover of salal (*Gaultheria shallon*, FACU). Sword fern (*Polystichum munitum,* FACU), trailing blackberry (*Rubus ursinus*, FACU), common horsetail (*Equisetum arvense*, FAC), and creeping buttercup (*Ranunculus repens*, FAC) dominated the herbaceous layer with low cover of water parsley (*Oenanthe sarmentosa,* OBL) and American brooklime (*Veronica americana,* OBL).

Upland Vegetation

Most of the upland on this property is composed of historic pasture on which young deciduous forested areas are developing. There are remnant areas of coniferous and deciduous forest bordering the wetland and around the uninhabited home. The young forested areas have minimal shrub or herbaceous understories while the more mature forested areas have three canopy layers. The vegetation in the upland was dominated by red alder, Douglas fir (*Pseudotsuga menziesii,* FACU), Himalayan blackberry, salmonberry (*Rubus spectabilis,* FAC), and holly (*Ilex aquifolium,* FACU). The herbaceous layer was dominated by sword fern, bentgrass (*Agrostis capillaris*, FAC) and English ivy (*Hedera helix,* FACU).

The dominant vegetation found onsite is recorded on the attached wetland determination data forms (Appendix A). The indicator status, following the common and scientific names, indicates how likely a species is to be found in wetlands. Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) – Almost always occur in wetlands.
- **FACW** (facultative wetland) – Usually occur in wetlands, but may occur in non-wetlands.
- **FAC** (facultative) – Occur in wetlands and non-wetlands.
- **FACU** (facultative upland) – Usually occur in non-wetlands, but may occur in wetlands.
- **UPL** (obligate upland) – Almost never occur in wetlands.
- **NI** (no indicator) – Status not yet determined.

SOILS

As referenced on the U.S.D.A. Natural Resources Conservation Service (NRCS 2015) website, Harstine gravelly ashy sandy loam, 15 to 30 percent slopes (16), Kapowsin gravelly ashy loam, 0 to percent slopes (22), Kitsap silt loam, 15 to 30 percent slopes (30), Shalcar muck (50), and open water (64) are mapped in the study area (Figure 4). Harstine, Kapowsin and Kitsap soils are not classified as hydric (NRCS 2014) and do not have inclusions of hydric soil map units. Shalcar soil is classified as hydric. Areas mapped as hydric soils do not necessarily mean that an area is or is not a wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland. The areas mapped as Shalcar muck and water closely match the extent of Wetland A.

Wetland Soils
The evaluated wetland soils were composed of gravelly sandy loam to silty clay loam with black to gray (10YR 2/1 to 10Y 4/2) soil matrix colors. Redoximorphic features, which occurred as concentrations in the matrix, were present that have a bright red color (10YR 4/6 to 10YR 5/8) covering between 5 and 30 percent of the soil matrix. Sulfidic odor was emitted from several of the soil holes indicating anaerobic conditions. The soil profiles meet the criteria for hydric soil indicators A4, A11, and S5 because of the presence of hydrogen sulfide odor, depleted matrix chromas below dark layers, and presence of redoximorphic features.

Upland Soils
The evaluated upland soil consisted of gravelly silt loam to silt loam with light brown to greyish-brown (10YR 3/2 to 2.5Y 4/1) soil matrix colors. Many of the upland soil profiles appear to meet the criteria for hydric soils because depleted matrix chromas were recorded. However, the soil profiles lack redoximorphic concentrations indicating that they are not saturated or flooded with water during the growing season. Therefore, the soil profiles meet none of the hydric soil indicators.

HYDROLOGY

Wetland A has a large, open water ponded area near the central portion of the wetland. Shallow water table depths were recorded in the test plots conducted near the wetland boundary, many of which contained water to the surface of the soil holes. The water table of the test plot in Wetland B was a depth of 2 inches from the surface. The sources of hydrology to the onsite wetlands include a seasonally perched water table, direct precipitation, and runoff from the surrounding upland areas. Surface water leaves the wetland through a series of culverts and ditches that follow State Highway 305 to Winslow, eventually draining into Eagle Harbor. Some upland test plots had water

in the test hole, but lacked other evidence of wetland hydrology (redoximorphic features, oxidized rhizospheres, evidence of surface water) and therefore did not meet wetland criteria. The presence of hydrology in the upland test plots can be attributed to the heavy rain events that occurred prior to the field delineation.

NATIONAL WETLAND INVENTORY

The National Wetlands Inventory (NWI) maps wetland across the east half of the property that lays in the approximate area of Wetland A (Figure 5). The mapping indicates three individual vegetation communities including palustrine, scrub/shrub, seasonally flooded; palustrine, emergent, persistent, semi permanently flooded; and palustrine, unconsolidated bottom, permanently flooded, excavated. It also maps of the stream that flows southerly through Wetland A and the portion extending south beneath High School Road. The findings of the ELS delineation partially agree with the NWI mapping because Wetland A does occur within the mapped area, but the wetland is more extensive than the map shows. Additionally, the map does not indicate the presence of Wetland B where it was found onsite.

BAINBRIDGE ISLAND CRITICAL AREAS

The Bainbridge Island Critical Areas map (BI 2015) maps Wetland A in the approximate location it was identified onsite (Figure 6). The Bainbridge Island Critical Areas map (BI 2015) also shows a Type F stream running north to south through the site, meeting with a smaller stream, also mapped as a Type F, at the south end of the property before flowing offsite. The ELS biologists agree with the mapping because the wetland and both streams were identified during the field delineation in the indicated locations (Figure 2).

CONCLUSIONS

WETLAND CATEGORIZATION

The wetlands are all situated in depressions having various vegetation and hydroperiods. The wetlands were rated according to *Washington State Wetlands Rating System for Western Washington-2014 Update* (Rating System) (Hruby 2014). Onsite wetlands received ratings based on functions (Appendix B). The ratings are summarized in Table 1.

Table 1. Summary of Wetland Ratings

Wetland	HGM Class	Vegetation Class	Hydroperiods	Total	Category
A	Depressional	Forested w/ 3 layers Emergent	Permanently & Seasonally flooded	20	II
B		Forested w/ 3 layers	Seasonally flooded	19	III

STREAM TYPING

The City of Bainbridge Island Critical Areas map indicates the onsite channel is a Type F water. ELS biologists agree with the typing because this reach of stream has a general grade less than 16

percent and is greater than 2 feet wide. ELS biologists concur with the water types indicated for both streams where they occur within Wetland A.

CRITICAL AREA REGULATIONS

The *BIMC Chapter 16.20.160* specifies two separate buffer widths. The first is the water quality buffer, which is based on wetland category and the intensity of the proposed land use. The second buffer is a habitat buffer that is added to the water quality buffer when the wetland receives moderate to high scores for habitat functions on the rating form. The *BIMC* has not been revised to meet the 2014 rating system scores so does not reflect the new point totals for determining the buffer widths based on habitat scores. However, Ecology has developed guidance for converting 2004 wetland rating system habitat scores to the 2014 wetland rating system habitat scores. Wetland A is a Category II wetland that received a moderate score for habitat function and Wetland B is a Category III wetland that received a low score for habitat function. Type F waters require 100 foot water quality and 50 foot habitat buffers.

Table 2: Summary of Critical Areas and Buffers

Critical Area	Category/Type	Habitat Score	Land Use Impact	Water Quality Buffer (feet)	Habitat Buffer (feet)	Final Buffer Width (feet)
Wetland A	II Depressional Forested Emergent	5 (moderate)	Low	50	25	75
			Moderate	75	35	110
			High	100	50	150
Wetland B	III Depressional Forested	4 (low)	Low	40	0	40
			Moderate	60	0	60
			High	80	0	80
Stream	Type F	-	-	100	50	150

**Buffers per BIMC 16.20.160 Wetlands.*

Buffer reductions are permitted for the habitat buffers by the *BIMC Section 16.20.050* through the buffer averaging process wherein the buffer is reduced in one location and increased in another by the same square footage to create a buffer that averages the required buffer width. The *BIMC* also permits reductions of the habitat buffers for wetlands if it can be documented that the reduction will provide a buffer that provides adequate protection for the wetland. A habitat management plan and buffer mitigation is required as part of this reduction process. Buffer reductions for water quality buffers are permitted only through the formal variance or Reasonable Use Exception process.

LIMITATIONS

The conclusions listed above are based on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our conclusions; however, this should be considered a preliminary jurisdictional determination and should be used at your own risk until it has been reviewed and approved in writing by the appropriate regulatory agencies.

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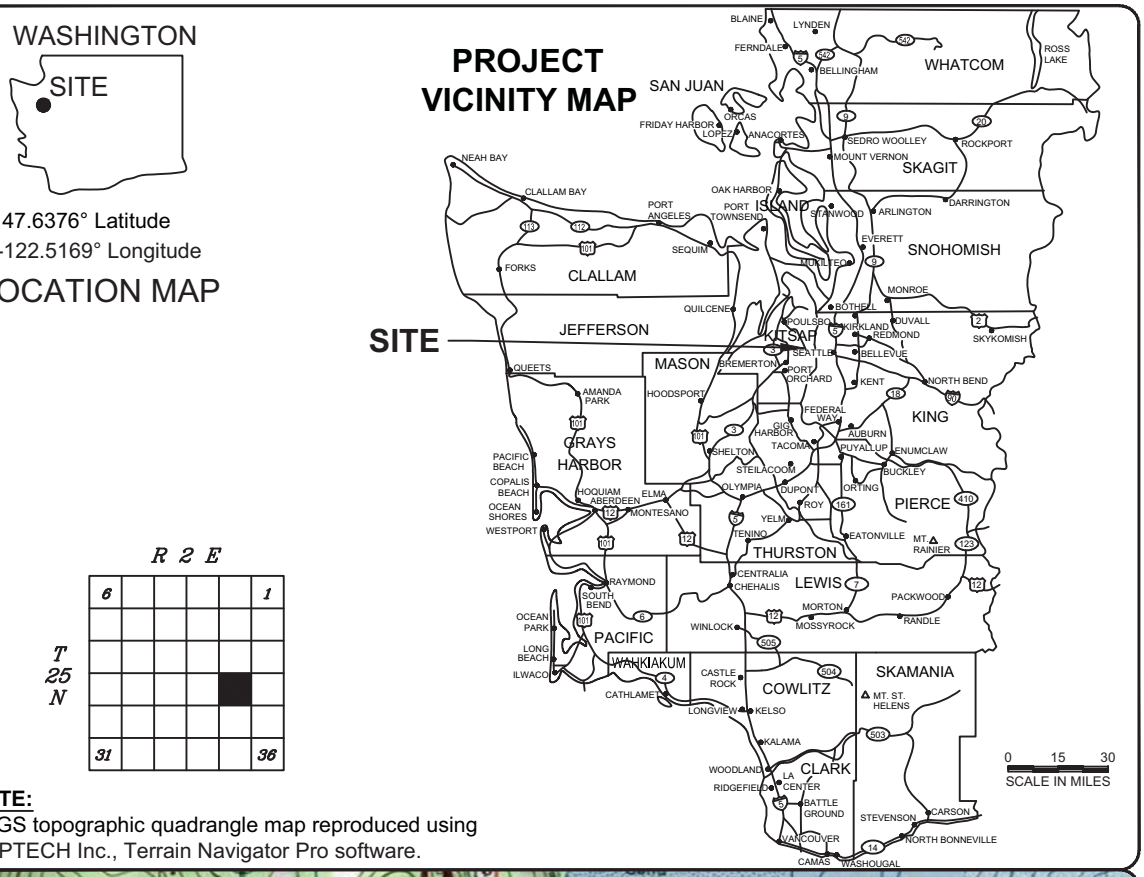
FIGURES AND PHOTOPLATES



NOTE:
USGS topographic quadrangle map reproduced using MAPTECH Inc., Terrain Navigator Pro software.

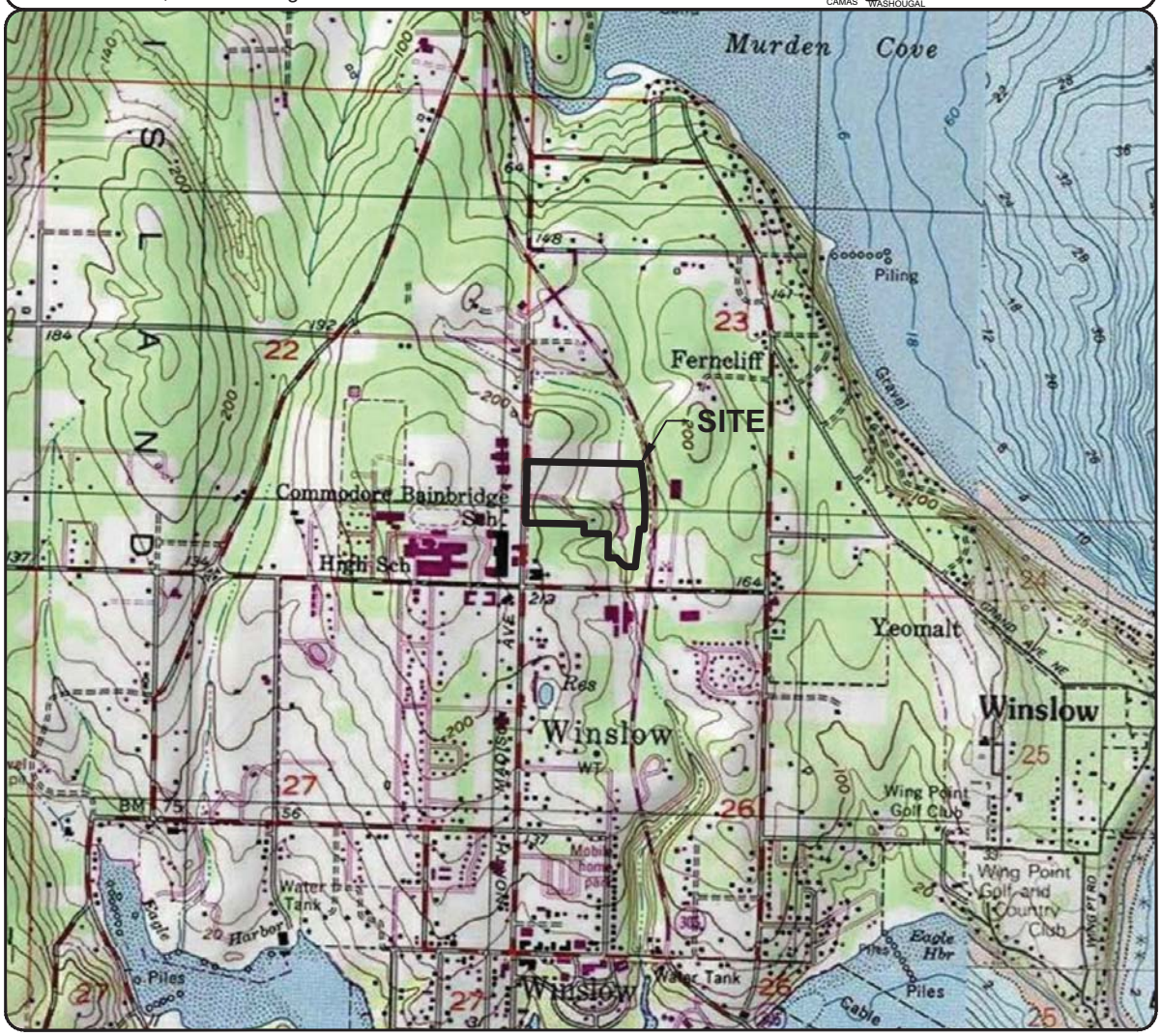


Figure 1
VICINITY MAP
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

DATE: 1/9/17
DWN: JLL
REQ. BY:
PRJ. MGR: JB
CHK:
PROJECT NO: 2248.02

1157 3rd Ave., Suite 220A
Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305
www.eco-land.com
Ecological Land Services

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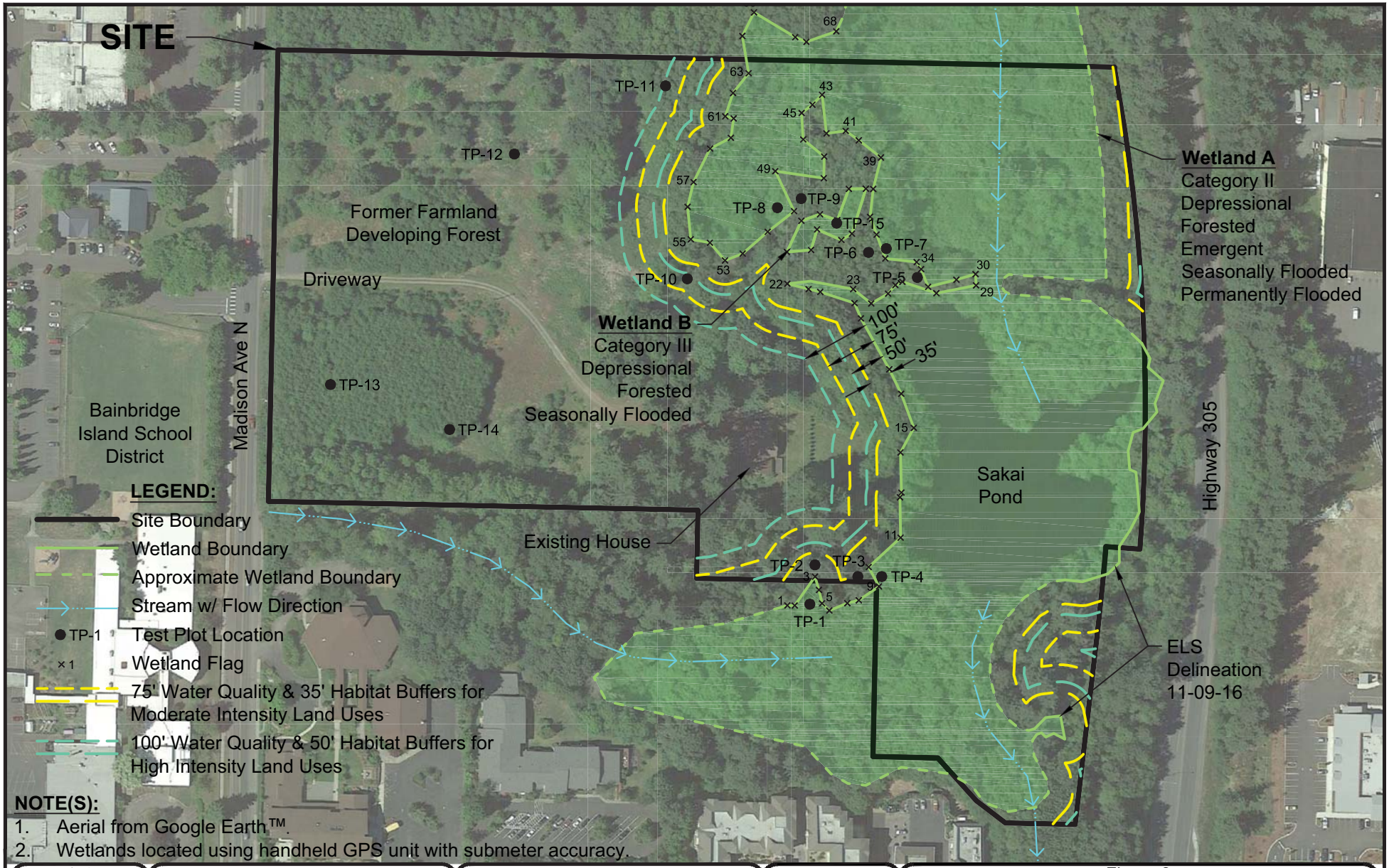

NOTE(S):

1. Aerial from Google Earth™.
2. Wetlands located using handheld GPS unit with submeter accuracy.

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0 200 400
SCALE IN FEET

Ecological Land Services
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PROJECT NO: 2248.02

Figure 2
SITE MAP
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

LEGEND:

16	Harstine gravelly ashy sandy loam, 15 to 30 percent slopes. Not hydric.
22	Kapowsin gravelly ashy loam, 0 to 6 percent slopes. Not hydric.
30	Kitsap silt loam, 15 to 30 percent slopes. Not hydric.
50	Shalcar muck. **Hydric**.
64	Water. **Hydric**.

NOTE(S):

1. Map provided on-line by NRCS at web address: *http://websoilsurvey.nrcs.usda.gov/app/*

Figure 3
SOIL SURVEY MAP
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

DATE: 1/9/17
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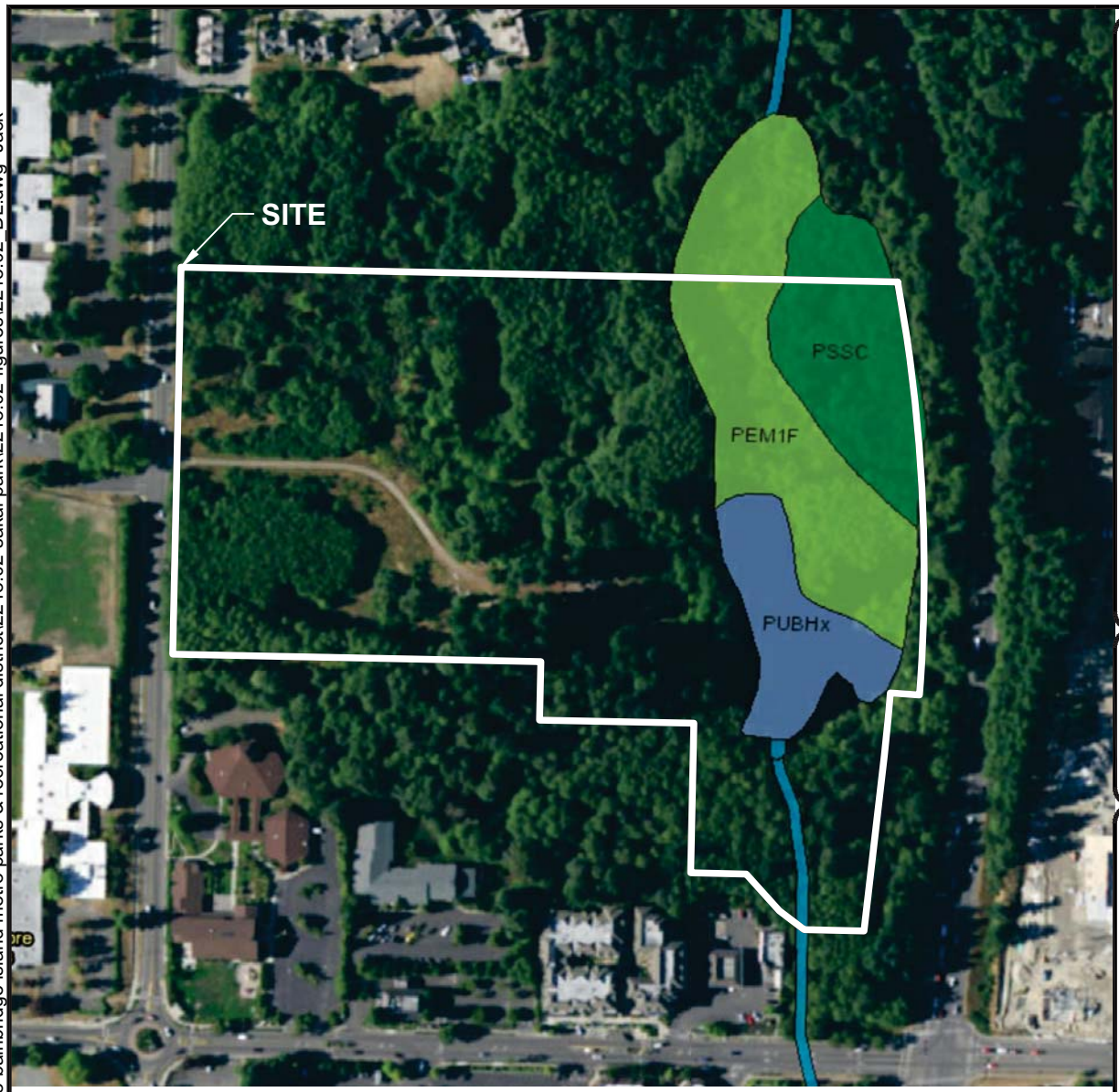

Figure 4
NATIONAL WETLANDS INVENTORY MAP
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

DATE: 1/9/17
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SCALE IN FEET
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300
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LEGEND:

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

PSSC	Palustrine, scrub-shrub, seasonally flooded.
PEM1F	Palustrine, emergent, persistent, semipermanently flooded.
PUBHx	Palustrine, unconsolidated bottom, permanently flooded, excavated.

NOTE(S):

1. Map provided on-line by US Fish & Wildlife Service at web address: *http://www.fws.gov/wetlands/data/index.html*

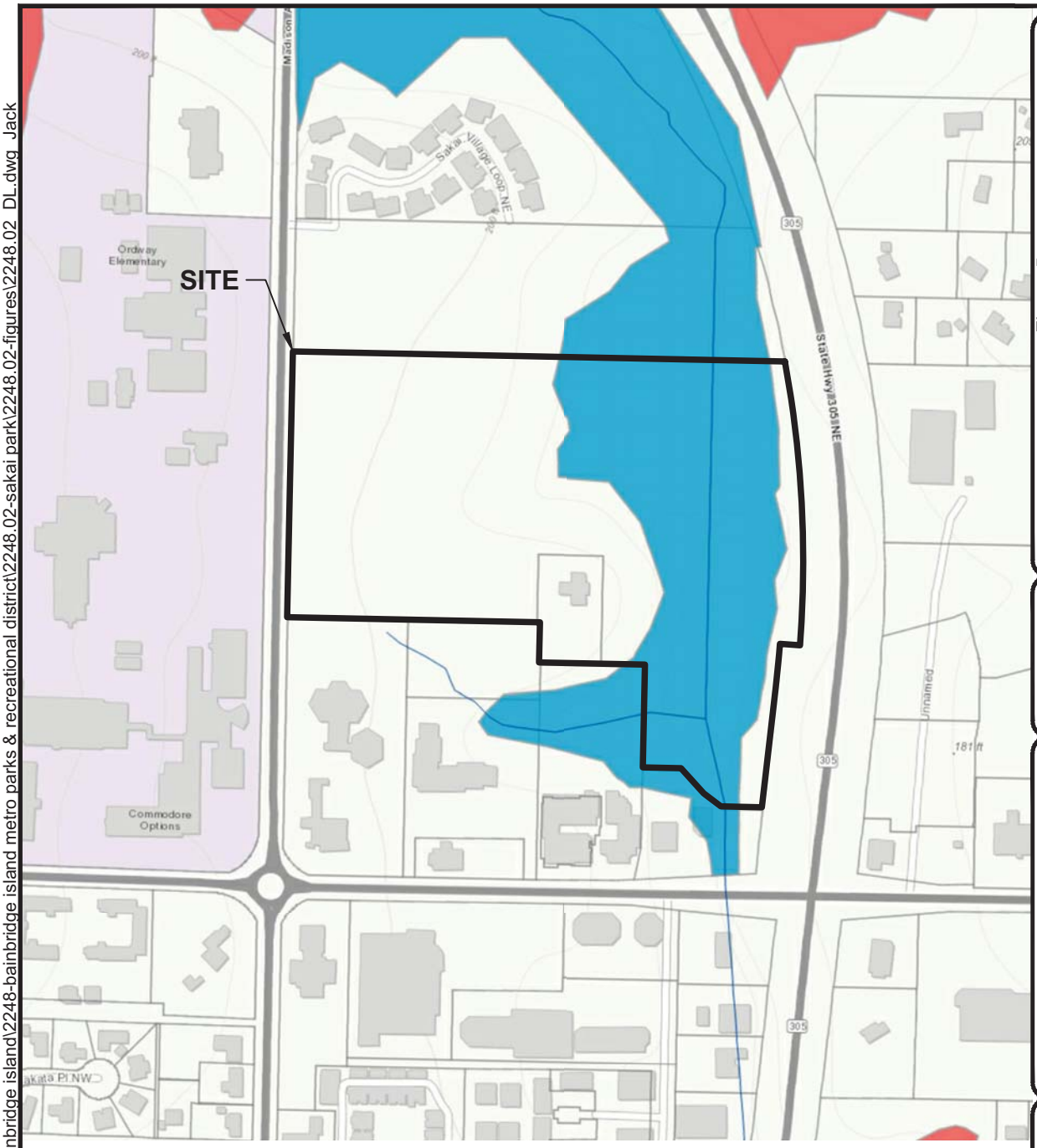

Figure 5
BAINBRIDGE ISLAND CRITICAL AREAS MAP
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

DATE: 1/9/17
DWN: JLL
REQ. BY:
PRJ. MGR: JB
CHK:
PROJECT NO: 2248.02

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Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305
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0 400 800
SCALE IN FEET

N
W E
S

LEGEND:

Wetlands
- No Delineation
- Delineated
- Not a Wetland

Streams
- F = Fish
- Ns = Non-Fish Seasonal
- Np = Non-Fish Perrenial
- N = Non-Fish Unknown
- S = Shoreline

FEMA Flood Hazard
- A = Low Flood Risk
- AE = High Flood Risk
- VE = High Flood Risk

Kitsap County Parcels

NOTE(S):
1. Map provided on-line by the City of Bainbridge Island at web address: *https://cityofbi.maps.arcgis.com/home/index.html*

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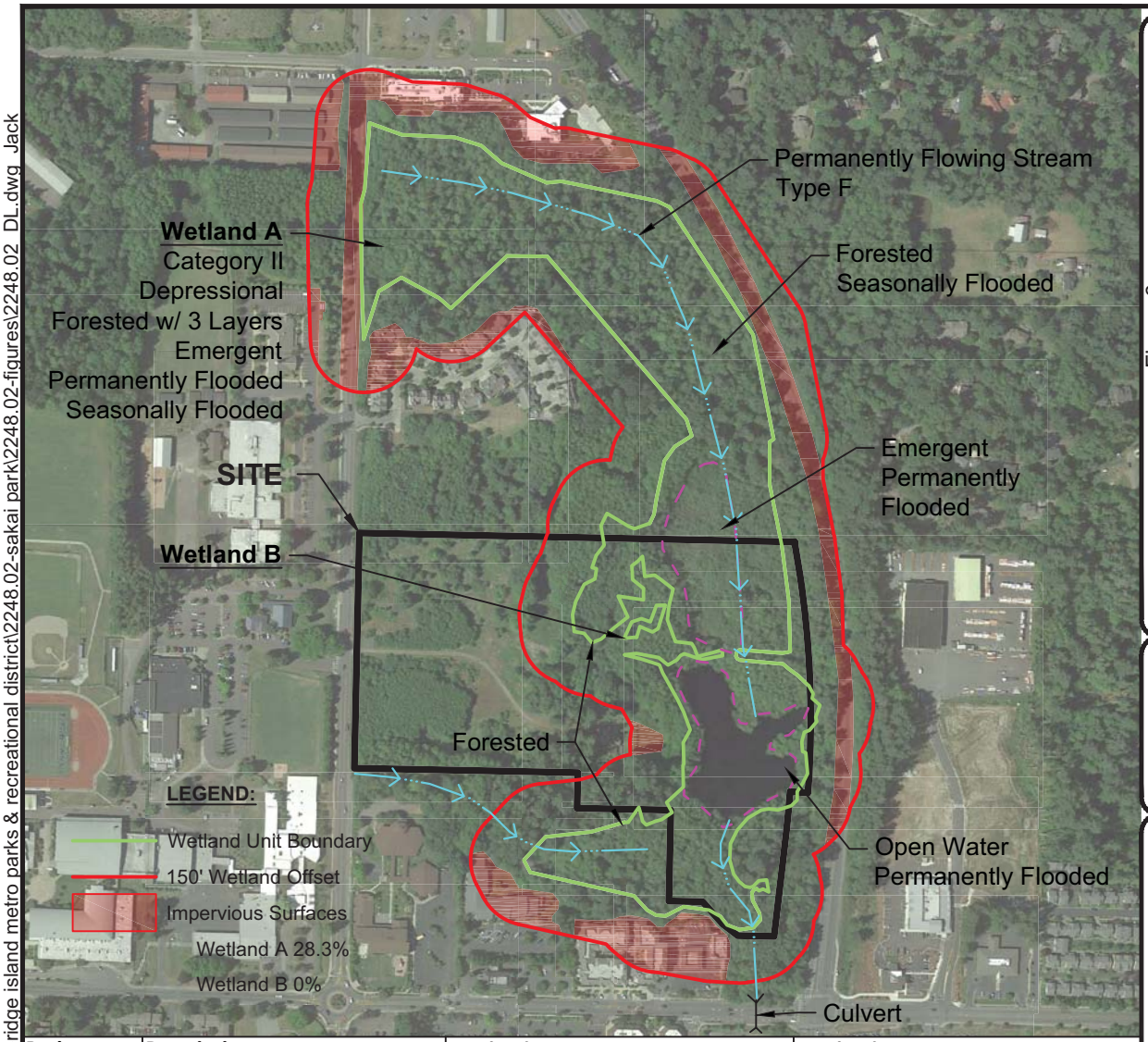

Rating Question	Description	Wetland A	Wetland B
D 1.1, D 4.1	Location of Outlet	Wetland has highly constricted outlet	Wetland has no outlet
D 1.3	Distribution of persistent plants	Persistent, ungrazed plants > 1/10 of area	Persistent, ungrazed plants > 1/10 of area
D. 1.4	Area of seasonally flooded	Area seasonally ponded > 1/2 of the wetland	Area seasonally ponded > 1/2 of the wetland
D 2.2	Boundary of area w/in 150' of the wetland in land uses that generate pollutants	>10% of the area within 150' in land uses that generate pollutants	<10% of the area within 150' in land uses that generate pollutants
D 5.2	Boundary of area w/in 150' of the wetland in land uses that generate excess runoff	>10% of the area within 150' in land use that generate excess runoff	<10% of the area within 150' in land use that generate excess runoff
D 4.3	Contributing Basin-Contribution of wetland to storage in the watershed	Area of the basin is less than 10 times the area of the wetland	Area of the basin is less than 10 times the area of the wetland
D 5.3	Contributing Basin covered in intensive land uses	>25% of the area of the basin covered with intensive land uses	<25% of the area of the basin covered with intensive land uses
H 1.1	Cowardin Plant Classes	Forested with 3 strata, Emergent	Forested with 3 strata
H 1.2	Hydroperiods	Permanently flooded, Seasonally flooded & Permanently Flowing Stream	Seasonally flooded
H 1.4	Interspersion of habitats	High Interspersion of habitat	No Interspersion of habitat

NOTE(S):

1. Aerial photo from Google Earth™.

Figure 6
WETLAND RATING FORM-150' OFFSET
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

DATE: 1/9/17
DWN: JLL
REQ. BY:
PRJ. MGR: JB
CHK:
PROJECT NO: 2248.02

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Longview, WA 98632
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Fax: (360) 414-9305
www.eco-land.com
Ecological Land Services

SCALE IN FEET
0
500
1000

N
W
E
S

Figure 7
WETLAND RATING FORM-1 KM OFFSET
Sakai Park
Bainbridge Island Metro Parks & Recreation District
City of Bainbridge Island, Kitsap County, WA
Section 23, Township 25N, Range 2E, W.M.

DATE: 1/9/17
DWN: JLL
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SCALE IN FEET
0
1400
2800

N
W
E
S

LEGEND:

	Wetland Unit Boundary
	Contributing Basin
A	Accessible Habitat (2.3%)
U	Undisturbed Habitat (6.4% *Includes Accessible Habitat)
H	High Intensity Land Use (73.2%)
M	Moderate/Low Intensity Land Use (18.8% *Includes MA)
MA	Moderate/Low Intensity Land Use Directly Abutting Wetland (0%)

H 2.1 - Accessible habitat is < 10% of 1 km Polygon (2.3%).
H 2.2 - Undisturbed habitat 10-50% and > 3 patches (15.8%).
H 2.3 - > 50% of polygon is high land use intensity.

NOTE(S):
1. Aerial photo from Google Earth™.

Photo 1 was taken from along the main driveway entrance to the Sakai property. The driveway ends at the existing house, which is visible in the background of Photo 3. This photo looks west toward the entrance to the property at Madison Avenue. It shows the historic pasture and areas of forest that are developing on portions of the pasture.

Photo 2 was taken from the same location as Photo 1 and looks north along the slope that begins about midway across the property. It shows a section of pasture that remains between two areas of deciduous forest.

Photo 3 was taken from the same location as Photos 1 and 2 and it looks east toward the existing home, which is currently uninhabited. The house is situated in the conifer trees in the background with the roof visible just beyond the trees.

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Photoplate 1
Project Name: Sakai Park
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 4 was taken from the same location as Photos 1 through 3 (Photoplate 1). It looks south along the conifer tree line with additional pasture to the right. The forest in the background is on the property immediately to the south.

Photo 5 was taken of the area of forest that lies downslope and south of the existing home. The home is located just beyond the deciduous trees in the background. There is a carpet of English ivy across this upland forest.

Photo 6 was along the south property line and shows a corner that was observed during the field delineation.

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Photoplate 2
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 7 was taken of a portion of the upland forest that lies east of Wetland A.

Photo 8 shows another area of upland forest that lies between Wetland A and the historic home.

Photo 9 was taken from just north of the historic home and looks northerly toward Wetland A. There are dense blackberry thickets at the top of the slope with red alder upland forest visible beyond the blackberry.

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Photoplate 3
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 10 was taken from the top of the slope near the existing house, looking east into Wetland A, which is represented by the alder canopy in the middle of the photo.

Photo 11 was taken from the same location as Photo 10 and looks southeast toward Wetland A.

Photo 12 was taken of the permanently ponded area on the property known as Sakai Pond.

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Photoplate 4
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 13 shows the stream that enters the wetland from the property to the south. This stream begins at Madison Avenue and ends at the western boundary of Wetland A.

Photo 14 is taken from the upper limits of the stream that flows easterly across the property to the south. A large control structure is located just beyond the upper fern.

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Photoplate 5
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 15 was taken of the wetland boundary on the edge of the permanently ponded area on the property known as Sakai Pond. This photo was taken from a narrow tongue of upland about midway along the wetland boundary and looks south into the pond.

Photo 16 shows the stream that runs south into Sakai Pond, separating the two sides of the upland finger.

Photo 17 was taken at the north end of Sakai Pond in an area of deciduous tree cover and herbaceous understory.

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Photoplate 6
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 18 shows the area where Test Plot 1 was conducted. This area is within a forested mosaic so is dominated by upland plants that are growing on hummocks.

Photo 19 shows the area where Test Plot 2 was conducted. This area is just upslope of Test Plot 1 (Photo 18) and has similar vegetation, but absence of hydric soil and hydrology makes this plot an upland.

Photo 20 shows the area where Test Plot 3 was conducted. This area is at a property corner along the southern property line in an area of deciduous trees with sparse understory upslope of the open water.

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Photoplate 7
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 21 shows the area where Test Plot 4 was conducted. This area is near a property corner along the southern property line, southwest of the open water pond and downslope of Test Plot 3 (Photoplate 7, Photo 20)

Photo 22 shows the area where Test Plot 5 was conducted. This area lies on a narrow spit of higher elevation running east to west near the middle of the wetland just north of Sakai Pond.

Photo 23 shows the area where Test Plot 7 was conducted. This area is north-west of Test Plot 5 (Photo 22), within Wetland A.

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Photoplate 8
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 24 shows the area where Test Plot 8 was conducted. This area lies within the westernmost portion of Wetland A, just west of the upland dividing Wetland A and B.

Photo 25 shows the area where Test Plot 9 was conducted. This area is the upland separating Wetland A and Wetland B, to the west of Wetland B. It contains similar vegetation to the surrounding wetlands but had no hydric soil or wetland hydrology.

Photo 26 shows the area where Test Plot 10 was conducted. This area an old road bed that lies just west of Wetland A, situated in an area dominated by common wetland shrub species, but lack of hydric soil and hydrology make this area an upland.

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Photoplate 9
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 27 shows the area where Test Plot 11 was conducted. This area is at the northern end of the property, at the edge of the forested that abruptly transitions to a mowed pasture area.

Photo 28 shows the area where Test Plot 12 was conducted. This area is situated in a shallow depression on the west half of the property. It is within a small clump of vegetation that is surrounded by mowed grass.

Photo 29 shows the area where Test Plot 13 was conducted. This area is within a stand of young alder in the western portion of the site, south of the driveway.

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Photoplate 10
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 30 shows the area where Test Plot 14 was conducted. The area is a grassy strip near the south property line.

Photo 31 shows the area where Test Plot 15 was conducted. This area is in the small depression Wetland B, which is almost entirely surrounded by Wetland A but separated by narrow areas of upland.

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Photoplate 11
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

Photo 32 was taken to show another area of the upland that borders the west side of the Sakai Pond. This is one of the areas where English ivy is dominant.

Photo 33 was taken looking through the forested wetland toward Sakai Pond.

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PROJ.#: 2248.021

Photoplate 12
Project Name: Sakai Property
Client: Bainbridge Island Metro Parks and Recreation District
Kitsap County, Washington

APPENDIX A

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 1

Investigator(s): J.Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): MLRA 2 Lat: 47.6372128250286 Long: -122.51763929469 Datum: Magellan

Soil Map Unit Name: 30 Kitsap silt loam, 15-30% slopes NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 1 wascompleted in the wetland as it runs south of the property and along a seasonal stream. It is positioned within a forested mosaic area so is dominated by upland plants that are growing on hummocks.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	10	yes	FAC
2.			
3.			
4.			
50% = 5, 20% = 2	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus spectabilis*	25	yes	FAC
2. *Gautheria shallon*	25	yes	FACU
3.			
4.			
5.			
50% = 25, 20% = 10	50	= Total Cover	
Herb Stratum (Plot size: 10' diameter)			
1. *Polystichum munitum*	20	yes	FACU
2. *Rubus ursinus*	5	no	FACU
3. *Dryopteris expansa*	5	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 15, 20% = 6	30	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	50	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: This test plot is conducted in a forested mosaic area where the vegetation includes several upland plant species. The dominant upland species are functioning as hydrophytes so the vegetation criterion is determined to be met. There may be additional wetland plant species in this area during the growing season but were not present because the delineation was conducted after the end of the growing season.

Project Site: Sakai Park

SOIL

Sampling Point: TP 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					si lo	no redoximorphic concentrations
10-16	2.5Y 5/2	70	10YR 4/6	30	C	M	sa si lo	redoximorphic concentrations
								si-silt
								lo - loam
								sa - sand

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

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 Soils Present? **Yes** ☒ **No** ☐

Remarks: The soil profile most closely matches the description for depleted matrix, hydric soil indicator F3, depleted matrix, by having at least 60% depleted matrix with distinct redoximorphic concentrations.

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 Stresses 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):	4
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	surface

Wetland Hydrology Present? **Yes** ☒ **No** ☐

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

Remarks: A shallow water table was observed at 4 inches and is a primary indicator for wetland hydrology so the wetland hydrology criterion is met.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 2

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): MLRA 2 Lat: 47.6373711813332 Long: -122.51761435227 Datum: Magellan

Soil Map Unit Name: 30 Kitsap silt loam, 15-30% slopes NWI classification: _____

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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 2 is located upslope north of TP1, near the south property line. Similar species populate both the upland and wetland areas but absence of hydric soil and hydrology makes this plot an upland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	5	yes	FAC
2.			
3.			
4.			
50% = 2.5, 20% = 1	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus spectabilis*	35	yes	FAC
2. *Gaultheria shallon*	25	yes	FACU
3. *Ilex aquifolium*	10	no	FACU
4.			
5.			
50% = 35, 20% = 14	70	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Polystichum munitum*	25	yes	FACU
2. *Dryopteris expansa*	10	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 17.5, 20% = 7	35	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	60	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC and FACW species.

Project Site: Sakai Park

SOIL

Sampling Point: TP 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3								Duff
3-12	10YR 3/3	100					sa si lo	no redoximorphic concentrations
12-20	7.5YR 4/6	100					si lo	compacted, no redox concentrations
								sa - sand
								si - silt
								lo - loam

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: The soil profile meets none of the hydric soil indicators because the soil matrix chroma is too high in both layers.

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 Stresses 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):	14
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: Water table was below 12 inches so hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 3

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): MLRA 2 Lat: 47.6373280081864 Long: -122.51735800948 Datum: Magellan

Soil Map Unit Name: 30 Kitsap silt loam, 15-30% slopes NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 3 is located east of TP2, also near the south property line, upslope of the open water. Similar species populate both the upland and wetland areas but absence of hydric soil and hydrology makes this plot an upland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	20	yes	FAC
2.			
3.			
4.			
50% = 10, 20% = 4	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus spectabilis*	30	yes	FAC
2. *Gaultheria shallon*	5	no	FACU
3.			
4.			
5.			
50% = 17.5, 20% = 6	35	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Polystichum munitum*	15	yes	FACU
2. *Rubus ursinus*	10	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 12.5, 20% = 5	25	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. *Hedera helix*	75	yes	FACU
2.			
50% = 37.5, 20% = 15	75	= Total Cover	
% Bare Ground in Herb Stratum 75			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	40	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is not met because there is less than 50% dominance by FAC species

Project Site: Sakai Park

SOIL

Sampling Point: TP 3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					si lo	no redoximorphic concentrations
10-16	2.5Y 5/2	100					fi sa lo	no redoximorphic concentrations
								si - silk
								lo - loam
								fi - fine
								sa - sand

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: This soil profile meets none of the hydric soil indicators because the underlying layer does not contain the redoximorphic features required to meet the depleted matix indicator.

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 Stresses 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: .Hydrology was not present during the field visit and there was no evidence of wetland hydrology

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 4

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): MLRA 2 Lat: 47.63733010288 Long: -122.51721639895 Datum: Magellan

Soil Map Unit Name: 64 Water NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 4 lies southwest of the open water pond, downslope from TP3.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	5	yes	FAC
2.			
3.			
4.			
50% = 2.5, 20% = 1	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus armeniacus*	15	yes	FAC
2. *Rubus spectabilis*	15	yes	FAC
3.			
4.			
5.			
50% = 15, 20% = 6	30	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Ranunculus repens*	35	yes	FAC
2. *Oenanthe sarmentosa*	10	yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 27.5, 20% = 9	45	= Total Cover	
Woody Vine Stratum (Plot size: 15' diameter)			
1. *Hedera helix*	35	yes	FACU
2.			
50% = 17.5, 20% = 7	35	= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC and OBL species

Project Site: Sakai Park

SOIL

Sampling Point: TP 4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/2	100					si lo	no redoximorphic concentrations
10-16	2.5Y 4/2	90	10YR 5/6	10	C	M	fi sa lo	redoximorphic concentrations
								si - silt
								lo - loam
								fi - fine
								sa - sand

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

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 Soils Present? **Yes** ☒ **No** ☐

Remarks: The soil profile most closely matches the description for hydric soil indicateor F3, Depleted Matrix because the depleted matrix begins within 10 inches of the soil surface and has distinct mottling. The soil observed at this test plot closely matches the profile description for Kitsap silt loam.

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 Stresses 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):	1
Water Table Present?	Yes	☒	No	☐	Depth (inches):	6
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: A shallow water table was observed at 6 inches and surface water at a depth of 1 inch so there are primary indicators present for wetland hydrology

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 5

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): MLRA 2 Lat: 47.6385346629411 Long: -122.51704369425 Datum: Magellan

Soil Map Unit Name: 64 Water NWI classification: PEM1F

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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 5 lies on a narrow spit of higher elevation running east to west near the middle of the wetland just north of the open water pond. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	20	yes	FAC
2.			
3.			
4.			
50% = 10, 20% = 4	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus spectabilis*	35	yes	FAC
2. *Ilex aquifolium*	10	no	FACU
3. *Spiraea douglasii*	10	no	FACW
4.			
5.			
50% = 27.5, 20% = 11	55	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Rubus ursinus*	10	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 5, 20% = 2	10	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	67	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species.

Project Site: Sakai Park

SOIL

Sampling Point: TP 5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	5YR 2.5/1	100					si lo	no redoximorphic concentrations
8-12	2.5Y 4/2	100					si lo	no redoximorphic concentrations
12-16	10YR 5/1	90	10YR 4/6	10	C	M	si cl lo	redoximorphic concentrations
								si - silt
								lo - loam
								cl - clay

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: This soil profile meets none of the hydric soil indicators because the layer with the depleted matix within 10 inches has no redoximorphic concentrations and the depleted layer with redoximorphic features begins below a depth of 10 inches. The soil observed at this test plot closely matches the profile description for Kitsap silt loam.

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 Stresses 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):	14
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: Water table was below 12 inches so hydrology was not present during the field visit and there was no evidence of wetland hydrology

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 6

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): MLRA 2 Lat: 47.6386310021053 Long: -122.51733699210 Datum: Magellan

Soil Map Unit Name: 64 Water NWI classification: _____

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	☐	
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 6 lies between Wetland A and Wetland B at a lightly higher elevation than either side. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	20	yes	FAC
2.			
3.			
4.			
50% = 10, 20% = 4	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus spectabilis*	25	yes	FAC
2.			
3.			
4.			
5.			
50% = 12.5, 20% = 5	25	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Equisetum arvense*	10	yes	FAC
2. *Rubus ursinus*	10	yes	FACU
3. *Polystichum munitum*	5	no	FACU
4. *Dryopteris expansa*	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 15, 20% = 6	30	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. *Hedera helix*	15	yes	FACU
2.			
50% = 7.5, 20% = 3	15	= Total Cover	
% Bare Ground in Herb Stratum _____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	60	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: **The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species.**

Project Site: Sakai Park

SOIL

Sampling Point: TP 6

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					sa si lo	no redoximorphic concentrations
6-16	2.5Y 5/2	90	7.5YR 5/6	10	C	M	fi sa lo	compacted
								sa - sand
								si - silt
								lo - loam
								fi - fine

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

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 Soils Present? **Yes** ☒ **No** ☐

Remarks: The soil profile most closely matches the description for hydric soil indicateor F3, Depleted Matrix because the depleted matrix begins within 10 inches of the soil surface and has prominent redoximorphic concentrations. The soil observed at this test plot closely matches the profile description for Kitsap silt loam.

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 Stresses 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: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 7

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): MLRA 2 Lat: 47.6386310021053 Long: -122.51733699210 Datum: Magellan

Soil Map Unit Name: 64 Water NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 7 lies within Wetland A, just east of Test Plot 6 and north of the open water pond.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	20	yes	FAC
2. _____			
3. _____			
4. _____			
50% = 10, 20% = 4	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus armeniacus*	15	yes	FAC
2. *Spiraea douglasii*	10	yes	FACW
3. _____			
4. _____			
5. _____			
50% = 12.5, 20% = 5	25	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Equisetum arvense*	5	yes	FAC
2. *Rubus ursinus*	5	yes	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
50% = 5, 20% = 2	10	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
50% = _____, 20% = _____		= Total Cover	
% Bare Ground in Herb Stratum _____			

Dominance Test Worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: **The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC and FACW species.**

Project Site: Sakai Park

SOIL

Sampling Point: TP 7

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					si lo	no redoximorphic concentrations
4-10	10YR 3/1	100					fi sa lo	no redoximorphic concentrations
10-16	2.5Y 5/2	90	7.5YR 5/8	10	C	M	fi sa lo	compacted
								sa - sand
								si - silt
								lo - loam
								fi - fine

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

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 Soils Present? **Yes** ☒ **No** ☐

Remarks: The soil profile most closely matches the description for hydric soil indicateor F3, Depleted Matrix because the depleted matrix begins within 10 inches of the soil surface and has prominent redoximorphic concentrations. The soil observed at this test plot closely matches the profile description for Kitsap silt loam.

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 Stresses 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):	10
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: A high water table was observed at 10 inches and is a primary indicator for wetland hydrology

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 8

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): MLRA 2 Lat: 47.6388024789895 Long: -122.51788367658 Datum: Magellan

Soil Map Unit Name: 64 Water NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 8 lies within the western most portion of Wetland A, just west of the upland dividing Wetlands A and B.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	20	yes	FAC
2. _____			
3. _____			
4. _____			
50% = 10, 20% = 4	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus armeniacus*	15	yes	FAC
2. *Rubus spectabilis*	5	yes	FAC
3. _____			
4. _____			
5. _____			
50% = 10, 20% = 4	20	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Geum macrophyllum*	20	yes	FAC
2. *Equisetum arvense*	10	yes	FAC
3. *Rubus ursinus*	10	yes	FACU
4. *Veronica americana*	5	no	OBL
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
50% = 22.5, 20% = 9	45	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
50% = _____, 20% = _____		= Total Cover	
% Bare Ground in Herb Stratum _____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species.

Project Site: Sakai Park

SOIL

Sampling Point: TP 8

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	90	7.5YR 5/8	10	C	M	gr sa lo	very gravelly with few large rocks
12-20	7.5YR 2.5/1	100					si lo	no redoximorphic concentrations
								gr - gravel
								sa - sand
								lo - loam
								si - silt

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

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 Soils Present? **Yes** ☒ **No** ☐

Remarks: The soil profile most closely matches the description for hydric soil indicator F6, Redox Dark Surface, because the dark matrix has a value of 3 or less and chroma of 2 or less, comprises at least 4 of the upper 12 inches and has distinct redoximorphic concentrations. The soil observed at this test plot closely matches the profile description for Kitsap silt loam.

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 Stresses 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):	6
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: A shallow water table was observed at 6 inches and is a primary indicator for wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 9

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): MLRA 2 Lat: 47.6388412892694 Long: -122.51774352746 Datum: Magellan

Soil Map Unit Name: 64 Water NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 9 lies in the upland separating Wetland B and Wetland A to the west of Wetland B. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	10	yes	FAC
2.			
3.			
4.			
50% = 5, 20% = 2	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus armeniacus*	20	yes	FAC
2. *Rubus laciniatus*	15	yes	FACU
3.			
4.			
5.			
50% = 17.5, 20% = 7	35	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Rubus ursinus*	20	yes	FACU
2. *Tiarella trifoliata*	15	yes	FAC
3. *Polystichum munitum*	5	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 20, 20% = 8	40	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	60	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: **The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species.**

Project Site: Sakai Park

SOIL

Sampling Point: TP 9

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

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-16	10YR 3/2	100					gr sa lo	no redoximorphic concentrations
								gr - gravel
								sa - sand
								lo - loam

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: The soil layer does not meet the definition of a depleted matrix so this soil profile meets none of the hydric soil indicators. The soil observed at this test plot closely matches the profile description for Kitsap silt loam.

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 Stresses 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):	14
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: Water table was below 12 inches so hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 10

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): MLRA 2 Lat: 47.6385090042428 Long: -122.51840999037 Datum: Magellan

Soil Map Unit Name: 30 Kitsap silt loam, 15-30% slopes NWI classification: _____

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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 10 was conducted along an old road bed that lies just west of Wetland A. It is situated in an area dominated by common wetland shrub species. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	5	yes	FAC
2.			
3.			
4.			
50% = 2.5, 20% = 1	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Cornus sericea*	10	yes	FACW
2.			
3.			
4.			
5.			
50% = 5, 20% = 2	10	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Polystichum munitum*	5	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 2.5, 20% = 1	5	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	
% Bare Ground in Herb Stratum _____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	67	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC and FACW species

Project Site: Sakai Park

SOIL

Sampling Point: TP 10

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					fi sa lo	no redoximorphic concentrations
5-	2.5Y 5/4	90	7.5YR 4/6	10	C	M	si lo	
								fi - fine
								sa - sand
								lo - loam
								si - silt

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: The soil profile meets none of the hydric soil indicators because the matrix chroma for the layer containing redoximorphic concentrations is too high.

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 Stresses 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: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 11

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): MLRA 2 Lat: 47.6392820109623 Long: -122.51856401926 Datum: Magellan

Soil Map Unit Name: 30 Kitsap silt loam, 15-30% slopes NWI classification: _____

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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 11 is located upland of Wetland A, along the the edge of the forest that abruptly transitions to a mowed pasture area. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	75	yes	FAC
2. _____			
3. _____			
4. _____			
50% = 17.5, 20% = 7	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rubus spectabilis*	10	yes	FAC
2. *Rubus armeniacus*	10	yes	FAC
3. *Ilex aquifolium*	10	yes	FACU
4. _____			
5. _____			
50% = 15, 20% = 6	30	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Poa spp.*	60	yes	FAC
2. *Polystichum munitum*	5	no	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
50% = 32.5, 20% = 13	65	= Total Cover	
Woody Vine Stratum (Plot size: 15' diameter)			
1. *Hedera helix*	25	yes	FACU
2. _____			
50% = 12.5, 20% = 5	25	= Total Cover	
% Bare Ground in Herb Stratum _____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	67	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species

Project Site: Sakai Park

SOIL

Sampling Point: TP 11

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/2	100					lo	no redoximorphic concentrations
14-	10YR 3/3	100					gr lo	no redoximorphic concentrations
								lo - loam
								gr - gravel

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: Neither of the soil layers meet the definition of a depleted matrix so this soil profile is determined to meet none of the hydric soil indicators.

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 Stresses 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: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 12

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): MLRA 2 Lat: 47.6389949902355 Long: -122.51945299554 Datum: Magellan

Soil Map Unit Name: 22 Kapowsin gravelly ashy loam, 0-6% slopes NWI classification: _____

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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 12 is situated in a shallow depression on the west half of the property. It is within small clump of shrub vegetation that is surrounded by mowed grass. There is metal debris in the depression that indicates this area was used to deposit garbage and perhaps burned when the site was farmed.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
50% = _____, 20% = _____		= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Cornus sericea*	75	yes	FACW
2. *Rubus spectabilis*	15	no	FAC
3. _____			
4. _____			
5. _____			
50% = 45, 20% = 18	90	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Poa spp.*	15	yes	FAC
2. *Rubus ursinus*	10	yes	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
50% = 12.5, 20% = 5	25	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
50% = _____, 20% = _____		= Total Cover	

% Bare Ground in Herb Stratum 75

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	67	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC and FACW species

Project Site: Sakai Park

SOIL

Sampling Point: TP 12

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/2	100						no redoximorphic concentrations
8-12	10YR 3/4	100						no redoximorphic concentrations
								si - silt
								lo - loam
								sa - sand
								gr - gravel
								cl - clay

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: Neither of the soil layers meet the definition of a depleted matrix so this soil profile meets none of the hydric soil indicators.

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 Stresses 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: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation Districts State: WA Sampling Point: TP 13

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): MLRA 2 Lat: 47.6380530139689 Long: -122.52051501451 Datum: Magellabn

Soil Map Unit Name: 22 Kapowsin gravelly ashy loam, 0-6% slopes NWI classification: _____

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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 13 lies within a stand of young red alder in the western portion of the site, south of the driveway. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	85	yes	FAC
2. *Pseudotsuga menziesii*	25	yes	FACU
3. _____	_____	____	____
4. _____	_____	____	____
50% = 55, 20% = 22	110	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rubus armeniacus*	5	yes	FAC
2. *Cytisus scoparius*	5	yes	FACU
3. _____	_____	____	____
4. _____	_____	____	____
5. _____	_____	____	____
50% = 5, 20% = 2	10	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Poa spp.*	90	yes	FAC
2. *Polystichum munitum*	5	no	FACU
3. *Blechnum spicant*	T	no	FAC
4. _____	_____	____	____
5. _____	_____	____	____
6. _____	_____	____	____
7. _____	_____	____	____
8. _____	_____	____	____
9. _____	_____	____	____
10. _____	_____	____	____
11. _____	_____	____	____
50% = 47.5, 20% = 19	95	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____	_____	____	____
2. _____	_____	____	____
50% = _____, 20% = _____	_____	= Total Cover	

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x1 =	_____
FACW species	_____	x2 =	_____
FAC species	_____	x3 =	_____
FACU species	_____	x4 =	_____
UPL species	_____	x5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species

Project Site: Sakai Park

SOIL

Sampling Point: TP 13

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	100					gr sa lo	no redoximorphic concentrations
8-10	7.5YR 4/4	100					gr sa lo	no redoximorphic concentrations
10-16	10YR 4/4	100					gr sa lo	no redoximorphic concentrations
								gr - gravel
								sa - sand
								lo - loam

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: None of the soil layers meet the definition of a depleted matrix so this soil profile meets none of the hydric soil indicators.

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 Stresses 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: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16
Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 14
Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR): MLRA 2 Lat: 47.6378830082204 Long: -122.51980200886 Datum: Magellan
Soil Map Unit Name: 22 Kapowsin gravelly ashy loam, 0-6% slopes NWI classification: _____
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	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 14 lies on a grassy strip near the south property line. FAC species dominate both the upland and wetland on site but absence of hydric soil and hydrology makes this plot an upland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	10	yes	FAC
2.			
3.			
4.			
50% = 5, 20% = 2	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus armeniacus*	15	yes	FAC
2. *Rubus spectabilis*	5	yes	FAC
3.			
4.			
5.			
50% = 10, 20% = 4	20	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Poa spp.*	80	yes	FAC
2. *Polystichum munitum*	5	no	FACU
3. *Rubus ursinus*	T	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 42.5, 20% = 17	85	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	
% Bare Ground in Herb Stratum 15			

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	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species

Project Site: Sakai Park

SOIL

Sampling Point: TP 14

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					gr sa lo	no redoximorphic concentrations
12-16	2.5Y 4/3	100					gr sa lo	no redoximorphic concentrations
								sa-sandy
								gr-gravelly
								lo-loam

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

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 Soils Present? **Yes** ☐ **No** ☒

Remarks: Neither of the soil layers meet the definition of a depleted matrix so this soil profile meets none of the hydric soil indicators.

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 Stresses 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):	16

Wetland Hydrology Present? **Yes** ☐ **No** ☒

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

Remarks: Water saturation was below 12 inches so hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Sakai Park City/County: Bainbridge Island/Kitsap Sampling Date: 12/8/16

Applicant/Owner: Bainbridge Island Metro Parks and Recreation District State: WA Sampling Point: TP 15

Investigator(s): J. Bartlett, K. Boa Section, Township, Range: S23T25NR02E

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): MLRA 2 Lat: 47.6387455388626 Long: -122.5175296426 Datum: Magellan

Soil Map Unit Name: 30 Kitsap silt loam, 15-30% slopes NWI classification: _____

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: The old Sakai property is currently uninhabited with the old house at the south end. The remainder of the property is undeveloped with areas of pasture, developing forest (in former pasture), and deciduous forest across the east side. A large wetland lies along the east side within a shallow valley and is composed of a large pond with forested and emergent communities outside the ponded portion. Test Plot 15 is within Wetland B, which is almost entirely surround by Wetland A but separated by narrow areas of upland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus rubra*	15	yes	FAC
2.			
3.			
4.			
50% = 7.5, 20% = 3	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' diameter)			
1. *Rubus spectabilis*	10	yes	FAC
2. *Rubus armeniacus*	10	yes	FAC
3.			
4.			
5.			
50% = 10, 20% = 4	20	= Total Cover	
Herb Stratum (Plot size: 15' diameter)			
1. *Ranunculus repens*	30	yes	FAC
2. *Polystichum munitum*	10	no	FACU
3. *Rubus ursinus*	10	no	FACU
4. *Equisetum arvense*	5	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 27.5, 20% = 11	55	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
50% = _____, 20% = _____		= Total Cover	

% Bare Ground in Herb Stratum 45

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 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

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: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC species.

Project Site: Sakai Park

SOIL

Sampling Point: TP 15

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					fi sa lo	no redoximorphic concentrations
12-16	2.5Y 5/1	90	10YR 4/4	10	C	M	fi sa lo	compacted
								fi - fine
								sa - sand
								lo - loam

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

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 Soils Present? **Yes** ☒ **No** ☐

Remarks: The soil profile meets the criteria for hydric soil indicator A11, Depleted below Dark Surface, because of the dark surface layer over a depleted layer with redoximorphic concentrations.

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 Stresses 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):	2
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: A shallow water table was observed at 2 inches and is a primary indicator for wetland hydrology.

APPENDIX B

Wetland name or number A-Sakai Pond

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: 12/8/16

Rated by J Bartlett Trained by Ecology? X Yes ___No Date of training: 11/14

HGM Class used for rating Depressional Wetland has multiple HGM classes?__ _Y __X__N

NOTE: **Form is not complete without the figures requested** *(figures can be combined)*.

Source of base aerial photo/map Google Earth

OVERALL WETLAND CATEGORY __II__ (based on functions__X__ or special characteristics__ _)

1. Category of wetland based on FUNCTIONS

_____**Category I** – Total score = 23 – 27

__X__ **Category II** – Total score = 20 – 22

_____**Category III** – Total score = 16 – 19

_____**Category IV** – Total score = 9 – 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H **M** L	H **M** L	H **M** L	
Landscape Potential	H **M** L	**H** M L	H M **L**	
Value	**H** M L	**H** M L	H **M** L	**TOTAL**
Score Based on Ratings	**7**	**8**	**5**	**20**

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	**I II**
Wetland of High Conservation Value	**I**
Bog	**I**
Mature Forest	**I**
Old Growth Forest	**I**
Coastal Lagoon	**I II**
Interdunal	**I II III IV**
None of the above	**X**

Wetland name or number A-Sakai Pond

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	**2, 6**
Hydroperiods	D 1.4, H 1.2	**2, 6**
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	**2, 6**
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	**6**
Map of the contributing basin	D 4.3, D 5.3	**7**
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	**7**
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	**8**
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	**8**

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 figure above)*	S 4.1	
Boundary of 150 ft buffer (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	

Wetland name or number A-Sakai Pond

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the 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.

Wetland name or number A-Sakai Pond

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.*

Wetland name or number A-Sakai Pond

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	**2**
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	**3**
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	**2**
Total for D 1 Add the points in the boxes above	**7**

Rating of Site Potential If score is: ___**12-16 = H** __**X**__**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	**1**
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	**2**

Rating of Landscape Potential If score is: ___**3 or 4 = H** __**X**__**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	**1**
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	**4**

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

*Historically, water from the Bainbridge Island pool was conveyed into the small stream that lies on the property to the south. The water is no longer conveyed toward this wetland system so there is no additional sources of pollutants entering the wetland.

Wetland name or number A-Sakai Pond

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	**2**
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	**3**
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	**5**
Total for D 4 Add the points in the boxes above	**10**

Rating of Site Potential If score is: ___**12-16 = H** __**X**__**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 functions of the site?

D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	**1**
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	**3**

Rating of Landscape Potential If score is: __**X**__**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	**2**
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	**2**
Total for D 6 Add the points in the boxes above	**4**

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

Wetland name or number A-Sakai Pond

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
__X__	Emergent	3 structures: points = 2
____	Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
__X__	Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

__X__ 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

2

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*).

__X__	Permanently flooded or inundated	4 or more types present: points = 3
__X__	Seasonally flooded or inundated	3 types present: points = 2
____	Occasionally flooded or inundated	2 types present: points = 1
____	Saturated only	1 type present: points = 0
__X__	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**

2

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

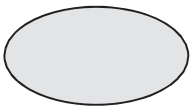
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

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

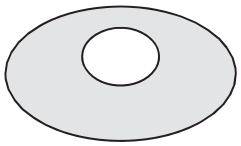
1

H 1.4. Interspersion of habitats

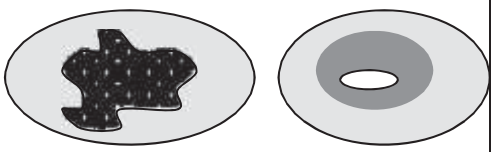
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always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



None = 0 points

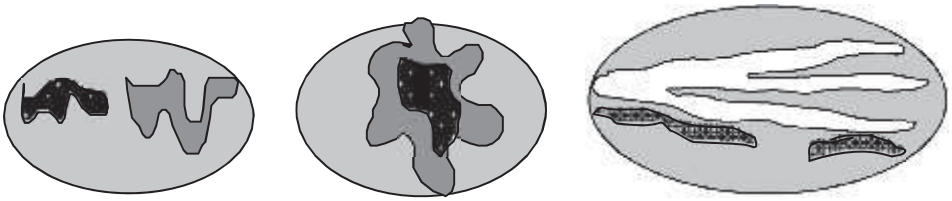


Low = 1 point



Moderate = 2 points

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



3

Wetland name or number A-Sakai Pond

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.* __X__ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). __X__ 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) __X__ 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)* __X__ 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)* __X__ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	**5**
Total for H 1 Add the points in the boxes above	**13**

Rating of Site Potential If score is: ___ **15-18 = H** __X__ **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 functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 2.3 **+** [(% moderate and low intensity land uses)/2] 0 **= 2.3** % 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:* % undisturbed habitat 6.4 **+** [(% moderate and low intensity land uses)/2] 9.4 **= 15.8** % 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 1 km 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** __X__ **< 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) within 100 m points = 1

Site does not meet any of the criteria above points = 0

Rating of Value If score is: ___ **2 = H** __X__ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number A-Sakai Pond

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.

—X **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-Sakai Pond

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle 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**	**Cat. I**
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**	**Cat. I** **Cat. 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 a 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 go to SC 2.4** **No = Not a 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 a WHCV**	**Cat. I**
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**	**Cat. I**

Wetland name or number A-Sakai Pond

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**	**Cat. I**
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**	**Cat. I** **Cat. 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**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

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Wetland name or number B

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland B Date of site visit: 12/8/16

Rated by J Bartlett Trained by Ecology? X Yes ___ No Date of training: 11/14

HGM Class used for rating Depressional Wetland has multiple HGM classes? __ Y X N

NOTE: **Form is not complete without the figures requested** *(figures can be combined)*.

Source of base aerial photo/map Google Earth

OVERALL WETLAND CATEGORY III (based on functions X 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			TOTAL
	Circle the appropriate ratings									
Site Potential	H	**M**	L	H	**M**	L	H	M	**L**	
Landscape Potential	H	M	**L**	H	M	**L**	H	M	**L**	
Value	**H**	M	L	**H**	M	L	H	**M**	L	
Score Based on Ratings	**6**			**6**			**4**			**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	**I** **II**
Wetland of High Conservation Value	**I**
Bog	**I**
Mature Forest	**I**
Old Growth Forest	**I**
Coastal Lagoon	**I** **II**
Interdunal	**I** **II** **III** **IV**
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	**2, 6**
Hydroperiods	D 1.4, H 1.2	**2, 6**
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	**2, 6**
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	**6**
Map of the contributing basin	D 4.3, D 5.3	**7**
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	**7**
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	**8**
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	**8**

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 figure above)*	S 4.1	
Boundary of 150 ft buffer (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	

Wetland name or number B

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the 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.

Wetland name or number B

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.*

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	**3**
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	**4**
Total for D 1 Add the points in the boxes above	**10**

Rating of Site Potential If score is: ___**12-16 = H** __**X**__**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	**0**
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	**0**

Rating of Landscape Potential If score is: ___**3 or 4 = H** ___**1 or 2 = M** __**X**__**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	**1**
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	**0**
Total for D 3 Add the points in the boxes above	**2**

Rating of Value If score is: __**X**__**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: 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	**5**
Total for D 4 Add the points in the boxes above	**9**

Rating of Site Potential If score is: ___ **12-16 = H** __X__ **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 functions of the site?

D 5.1. Does the wetland 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	**0**
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	**0**
Total for D 5 Add the points in the boxes above	**0**

Rating of Landscape Potential If score is: __ **3 = H** ___ **1 or 2 = M** __X__ **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	**2**
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	**2**
Total for D 6 Add the points in the boxes above	**4**

Rating of Value If score is: __X__ **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
_X_ Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

_X_ 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	4 or more types present: points = 3
_X_ Seasonally flooded or inundated	3 types present: points = 2
____Occasionally flooded or inundated	2 types present: points = 1
____Saturated only	1 type 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.

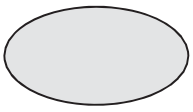
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

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

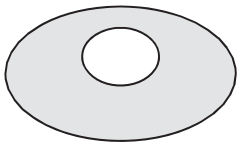
1

H 1.4. Interspersion of habitats

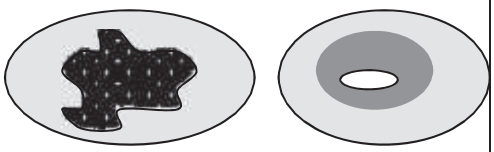
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always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



None = 0 points

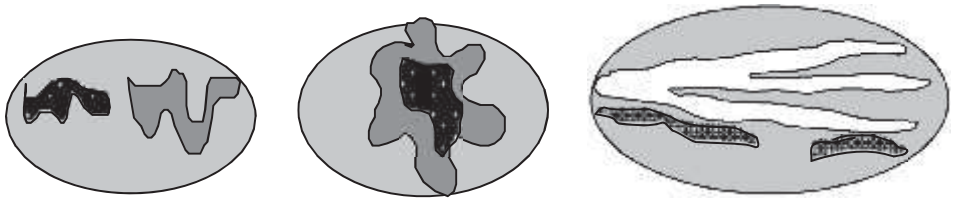


Low = 1 point



Moderate = 2 points

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



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.* __X__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)* __X__Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	**2**
Total for H 1 Add the points in the boxes above	**4**

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** __**X**__**0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 2.3 **+** [(% moderate and low intensity land uses)/2] 0 **= 2.3** % 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:* % undisturbed habitat 6.4 **+** [(% moderate and low intensity land uses)/2] 9.4 **= 15.8** % 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 1 km 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** __**X**__**< 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) within 100 m points = 1

Site does not meet any of the criteria above points = 0

Rating of Value If score is:___**2 = H** __**X**__**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number B

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.

—X **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. Circle 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**	**Cat. I**
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**	**Cat. I** **Cat. 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 a 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 go to SC 2.4** **No = Not a 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 a WHCV**	**Cat. I**
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**	**Cat. I**

Wetland name or number B

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**	**Cat. I**
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**	**Cat. I** **Cat. 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**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

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Robert L. Linz, Facilitator
Post Office Box 1735
Poulsbo, WA. 98370-0229

August 18, 2016

Mr. Terry Lande, Executive Director
Board of Directors
Bainbridge Island Metropolitan Park and Recreation District

IN PERSON DELIVERY

RE: ***Findings of the General Public Regarding Uses for the Sakai Property***

Dear Board Members :

After three open-to-the-public meetings; five Board meetings; considerable research from eight study groups, and an Island-wide survey on the topic, the results are in. I'm happy to report that the following uses, in no particular order, have been *recommended* by the public for your consideration as you develop the Sakai Property on North Madison Avenue here on Bainbridge.

Trails
Picnic shelter(s)
Multi-use Outdoor Complex, with Lighting
Community Recreation Center
Multi-Use Indoor Complex
Fifty Meter Pool
Mountain Bike Park/Trails
Tennis Court(s)
Playground
Passive Use(s)

I refer you to in-depth reports on your website for further study and understanding of the underlying rationale for each potential use. There is a wealth of information in those reports, including the Island-wide survey with several thousand responses from the public.

The performance and assistance of your staff members has been wonderful. They performed with perfection, setting up the rooms and handling all the details of registration and follow up. They were always ready to pitch in and help out. This work simply wouldn't have happened without them. Thank you for creating a work atmosphere where they could perform so well.

Thanks for your belief in this process as well – your support has made the work possible.

All my best !

Bob Linz, Facilitator

BAINBRIDGE ISLAND METROPOLITAN PARK & RECREATION DISTRICT
REGULAR BOARD MEETING AUGUST 18, 2016
BAINBRIDGE ISLAND AQUATIC CENTER

CALL TO ORDER A quorum being present, the meeting was called to order at 6:00 pm by Chair Swolgaard.

BOARD MEMBERS PRESENT: Lee Cross, Ken DeWitt, Jay Kinney, Kirk Robinson, Tom Swolgaard.

ADJUSTMENTS TO AGENDA: Add real estate to executive session.

PUBLIC COMMENTS ON NON-AGENDA ITEMS:

Charles Schmid, with Association of Bainbridge Communities, is requesting that the City and Park District change the zoning at Pritchard Park from WD-I, water dependent industrial to residential. This would make it consistent with the residential zoning of other island parks. He is aware that the Park District has requested a new zoning category specifically for parks but has been told by the City this has been postponed. Because of this, he is asking that the re-zone of Pritchard Park be done independently from the park zoning efforts.

Commissioner Robinson questioned if this extra step to pursue residential zoning for Pritchard Park is necessary since the issue would be addressed if and when a park zoning is in effect; he asked why the issue has been postponed by the City. Executive Director Lande said the new planning director would like to research the matter more thoroughly to determine if this is the best option for the Park District. Commissioner DeWitt commented on the possible transfer of the City's partial ownership of Pritchard Park to the Park District, saying how it is zoned could have SWM fee implications. The board asked that this topic be addressed at a future board meeting.

BOARD CONSENT

APPROVAL OF MINUTES: Upon hearing there were no corrections to the minutes of the July 21, 2016 regular board meeting, Chair Swolgaard stated the minutes stand approved as submitted.

APPROVAL OF PAYMENTS: MSC: Cross/DeWitt: Vouchers audited and certified by the auditing officer as required by RCW 42.24.080, and those expense reimbursement claims certified as required by RCW 42.24.090, have been recorded on a listing that has been made available to the Board. As of this date, the Board, by a unanimous vote, does approve for payment those vouchers included in the above list and summarized as follows:

Batch Dated	Batch Amt	Fund No.	Fund Name	Fund Amt	Pre-Approved
7/27/16	38,665.86	001	General	38,665.86	
7/28/16	26,542.41	001	General	22,587.38	7/28/16
		300	Capital	3,955.03	
8/15/16	94,746.88	001	General	73,012.26	7/22/16
		300	Capital	21,734.62	
July Payroll		001	General	410,140.44	

WORK GROUP PRESENTATIONS FROM SAKAI PUBLIC PROCESS

Bob Linz, facilitator of the Sakai public process that has been on-going since January, introduced the three remaining work groups unable to attend the July 21 board meeting when the other work groups made their presentations to the board.

1) WORK GROUP: SURVEY: The community's response to the survey was very high, with close to 2000 respondents. This high number validates the survey results and makes them fairly representative of the island. The survey was

developed by volunteers from the community, was not agenda driven, and was designed so people could not duplicate responses. The intent of the group was to provide a broad brush picture and get to the heart of what people want for the Sakai property. It was conducted as an online survey with paper copies also available at the Senior Center. The overwhelming majority of people were in favor of mixed use on the property, combining passive use with an active sports and recreation center. Given the central location of this site, people see it as a great hub for the community and the Park District that merits some development of the property while leaving other parts more passive. A large interest was indicated in having a gathering place that families and seniors could walk to.

2) WORK GROUP: CREATE A TABLE: This work group took the information generated by the different work groups and compiled it into one table. The table provides an overall picture of what the community would like at the Sakai property, and summarizes what the community came up with during this public process.

2) WORK GROUP: COMMUNITY CENTER: A community center is viewed by this work group as a place that provides social, recreational and educational opportunities for people of all ages. Initially the group toured Park District facilities, and then toured off-island facilities to see what community centers in the region have. They identified the following Park District facilities as lacking and would like to see them included in a community center on the Sakai property: 1) Teen Center: It is on School District property and will be taken down when construction begins; 2) Park District office: Was built in the late 1940's and remodeled three times to maximize use of the crowded facility. The bathrooms are outside, and the infrastructure is unsafe, outdated, and unable to handle the demands of current technology; 3) Gymnastics facilities: Gymnastics, one of the District's largest recreation programs, is housed in an undersized school facility with insufficient heating and cooling, and in the Transmitter Building, a facility with low ceilings suitable for small gymnasts only; 4) Senior Center: To meet the island's expanding senior population, more space with parking is needed for recreation programs. Some other uses that could be included in a community center include a dividable gymnasium, commercial kitchen, indoor track, and dividable conference rooms. Construction of a facility this large would most likely require a bond measure.

CONCLUSION:

Facilitator Bob Linz provided a letter to the board in which he presented the community's list of recommended uses for the Sakai property, the intended outcome of this public process. This list includes in no particular order the following: trails; picnic shelter(s); multi-use outdoor complex with lighting; community recreation center; multi-use indoor complex; fifty meter pool; mountain bike/trails; tennis court(s); playground; passive use(s).

Facilitator Bob Linz thanked the work groups for their tremendous work the past 6-7 months. He commended staff for all they did to bring about this public process, and expressed appreciation to the board for being open to trying a process that has not been done before. He thinks all the effort has paid off with good results.

The park board also expressed their appreciation to the community, saying it is amazing what the work groups did and that the information they have provided is not only useful but worth a lot.

Meeting adjourned for a break at 7:15 pm. Meeting reconvened at 7:25 pm.

GENERAL BUSINESS

RESOLUTION 2016-16: SURPLUS PROPERTY: Recreation Services Superintendent Bryan Garoutte asked the board to authorize the sale of the pottery studio's electric kiln, saying the additional donation of Rosemary Hawk funds has made it possible to purchase a new electric kiln and replace the old one. **MSC: Robinson/Cross: That Resolution 2016-16, authorizing the sale of the electric pottery kiln, be adopted.**

UPCOMING MEETINGS & EVENTS: August 4 board meeting cancelled.

Meeting adjourned for a break at 5:55 pm and reconvened at 6:02 pm.

WORK GROUP PRESENTATIONS FROM SAKAI PUBLIC PROCESS

Bob Linz, facilitator of the Sakai public process that started last January, summarized the three public meetings held on January 23, April 23, and July 16. The intended outcome of these meetings was to come up with a list of ten recommended uses for the Sakai property that were generated by the community. Citizen work groups were formed to research topics determined by the public process. Initially ten work groups were formed. One of these groups, School District and Park Collaboration, did not provide any information. Another group, Adventure Playground, has withdrawn. In addition to the initial ten work groups, several new groups have formed. This evening provides the opportunity for the groups to formally present what they have learned to the Park Board of Commissioners. The work group, Prioritize Projects, presented at the April 23 public meeting and did not think it necessary to present again. Three groups, Public Survey, Community Center, and Create a Table could not attend this evening so will make their presentations to the Park Board at the August 18 board meeting.

1) WORK GROUP: PARK VALUES: This group started with 406 values that were generated by the community at the January 23 public meeting. They looked at what these 406 values had in common and grouped them into six broader categories. The six values can be viewed on the Park District's website, and are summarized as follows: active lifestyle, nature preservation, community connectivity, responsible development, multi-generational opportunities, and creative learning. The group recommended that these six values be reviewed alongside the survey results to see if there is a consensus between them. This information can then be used to assist in decisions on how the property will be used.

2) NEW GROUP: TENNIS COURTS: This group consisting largely of members from the Bainbridge Community Tennis Association would like four outdoor tennis courts on the Sakai property. This would provide the community with grouped courts that promote community and are efficient to build and maintain. There is currently a lack of public tennis courts on the island which limits the number of people, including children, who can play. When asked by the Board if the group would be open to multi-use courts, the initial response by the group was to use the Sakai courts for tennis, and turn the other Park District tennis courts into multi-use courts.

3) WORK GROUP: FINANCIAL FEASIBILITY: This work group produced a report that came up with prospective cost figures for a variety of possible uses at the Sakai property. Options ranged from doing nothing to building a pool complex. Approximately nine acres of the Sakai property can be developed. To give an example of what this might look like, the Silverdale Hazelwood YMCA facility would cover the entire buildable area at Sakai. Any large facility will require capital funds as well as operational funds, and operational funds can exceed incoming revenue. The Sakai property could be utilized for less expensive uses while plans for a larger facility are being assessed.

4) NEW GROUP: 50 METER POOL: This group represents a lot of groups who use the two pools at the BI Aquatic Center. The Ray Williamson pool is past its prime, and to upgrade and repair it would be expensive. This group would like a new indoor aquatic center on the Sakai property with an indoor 50 meter x 25 yards pool. This could be used by a number of user groups while freeing up space at the overcrowded Nakata pool. While supportive of the concerns raised, it was pointed out by several commissioners that the current BI Aquatic Center does not cover its operational costs and is heavily subsidized. The Park District's main source of revenue is through property taxes, limited to a 1% increase each year, and user fees. While the Park District could charge more for the facility and its programs, it also has a responsibility to keep these available to the public. It was also noted that the Park District would not be the recipient of any sales or other tax revenues generated by more people coming to the island to use the new pool for

competitions. The group was encouraged to consider how to address their needs in light of these two major concerns, capital and operational costs.

Meeting adjourned for a break at 7:25 pm and reconvened at 7:30 pm.

5) WORK GROUP: DEMOGRAPHICS: This group was to look at the list of possible uses generated on January 23 and consider what percentage of the island's residents might be likely to use them. The group's work is based on the 2010 census and broke the island's population of 23,000 down into different age groups. The greatest number of island residents are in the 18-64 age range. It was noted that the demographic numbers generated can be compounded in value when uses are mixed. For example, the needs of both children and working parents could be met by providing uses at the Sakai property during the 3-6 pm time slot. While the results are subjective at some level, the information is meaningful as an indicator, and might be useful to the Board during the decision making process when considered alongside the other information presented.

6) NEW GROUP: MOUNTAIN BIKE: This group would like less than one acre on the Sakai property for a pump track. A pump track helps develop mountain biking skills and can be on flat or slightly sloping terrain. It is made out of dirt and blends with the existing terrain. A pump track is easy to construct and much of the work would be done by volunteers. It is inexpensive to build, the group would assume responsibility for raising the funds. A pump track of this size could be used by 10-20 people at the same time depending on the number of features it has. Youth mountain biking is rapidly growing throughout the state and nation.

7) WORK GROUP: YOUTH SPORTS: This group set out to learn the perceived inadequacies of youth sport facilities on the island. A survey went out to leaders of youth sports on the island. The group's report outlines the survey questions, responses, and final conclusions of the group. Ideally the Sakai property would have two multi-use outdoor fields with lights and an indoor complex with gymnasium space for basketball, volley ball, gymnastics, etc. as well as meeting rooms and office space. Fields with lights would expand the inventory tremendously since this would provide for year round use. The overall objective is to provide space for kids to spend energy in positive ways.

A comment from the audience asked that a global approach be taken, saying if a non-pool option is selected for the Sakai property, the Ray Williamson pool must be included as part of the equation. It is important to consider what will happen when it breaks down.

Executive Director Terry Lande said every presentation has been incredible and expressed appreciation for all the work that has been done over the past six months. The challenge now is how to move forward and choose, given that it's unlikely all the recommended uses can be done.

Bob Linz said three more of the work groups will present at the August 18 board meeting, and the next step is work directly with the Park District. He commented on how well the public process has gone, saying he is pleased the board was open to it. It is rare he said for a public body to try this approach and that an intangible value is realized through it. A number of people attending the meeting also commented on how beneficial the process has been.

Meeting adjourned for a break at 8:25 pm and reconvened at 8:30 pm.

DIRECTOR'S REPORT (continued)

Park Services Director: Dan Hamlin: At Fort Ward Park on Wednesday morning, a young man was found deceased by a park user; the incident is under investigation and the Park District has been informed there is nothing the District could have done to prevent it from occurring. Since the grand opening of Owen's Playground last weekend, there has been non-stop use of the playground and an out-pouring of positive comments from the community. A four-year old fell today in the stump hop area of the playground and broke his arm; this was the result of active play and no fault of

Summary of Public Process

Planning the Sakai Property

First Public Meeting

Meeting date: January 23, 2016 - Attended by over 180 community members

- The goal of the entire public process was defined. Upon completion, the community will present the Park District with 10-12 recommended uses for the Sakai property.
- Exercises were done to brainstorm possible uses for the property and determine what the community values.
- Out of the above exercises, ten work groups were formed by the participants. Participants were asked to join one.
- Group names, group members, and contact information were posted on the Park District website following the meeting.
- Work groups were tasked with researching their topic, and presenting their results at a second public meeting that would be scheduled.
- Community members who were unable to attend the first meeting could get involved by contacting one of the groups on the website.
- As research was compiled, work groups submitted their information to the Park District for posting on the District website.

The minutes for his meeting can be viewed on the Park District website at www.biparks.org.

Second Public Meeting

Meeting date: April 23, 2016 - Attended by over 100 community members

- Work groups presented findings to date. (To view the work groups and their findings, go to www.biparks.org).
- Those attending the second meeting arrived at the following preliminary, non-prioritized recommended uses for the Sakai property:

1. Multi-use indoor complex with 50 meter pool
2. Mountain bike park
3. Tennis courts
4. Trails
5. Community center
6. Playground
7. Passive use
8. Multi-use outdoor complex with lighting
9. Adventure playground
10. Picnic shelters
11. Nature center

- It was agreed that a third public meeting was needed that would meet in 90 days. Prior to the third meeting, the work groups would refine, continue their work, or gather additional information for presentation at the upcoming third meeting.

- Community members can still get involved by joining a work group that interests them. Groups and contact information are listed on the District's website.

- The work groups will provide any additional information to the Park District for posting on the District website one week before the third public meeting or sooner.

The minutes for his meeting can be viewed on the Park District website at www.biparks.org.

Upcoming Third Public Meeting

Meeting date: July 16, 2016

- Work groups will be given the opportunity to share any additional findings and summarize their work in a short presentation.

- Community members will consider the work group's information as they review the preliminary, non-prioritized list of recommended uses generated at the second public meeting. They will decide if any additions or changes are needed.

- Community members will determine the final list of the community's 10-12 recommended uses that will be formally presented to the park board at an upcoming board meeting.

- A Park District representative will speak about the next steps.

Upcoming Board Meeting

Board meeting date: July 21, 2016

The work generated out of the above public process will be formally transferred to the Park District as follows:

- The community's list of 10-12 recommended uses for the Sakai property will be presented to the Board of Commissioners.

- The work groups will have the opportunity to present the Board with their findings and a summary of their work.

The information provided by the work groups will be of value to the Commissioners as they evaluate in coming months the community's list of recommended uses for the Sakai property.

BAINBRIDGE ISLAND METROPOLITAN PARK & RECREATION DISTRICT
PUBLIC MEETING: PLANNING THE SAKAI PROPERTY
APRIL 23, 2016
BAINBRIDGE ISLAND AQUATIC CENTER

INTRODUCTION

The public meeting for the Sakai property began at 10:00 am with an introduction and background information on the public process provided by Facilitators Bob Linz and Christina Hulet. The intent of this public process is for the public to generate 10-12 recommended uses for the property that will be given to the Park District's Board of Commissioners for further consideration and a decision on what uses will be included on the property. At the initial public meeting held on January 23, 2016, ten work groups were formed. These groups will present today what they have learned. The intent by the end of today's meeting is to synthesize the data that is presented and come up with any next steps for subsequent work that may be needed before the community is ready to pass off the list of 10-12 recommended uses to the Park District. It was also reiterated from the first meeting on January 23, that the Park District does not have an agenda or preconceived notion for what this property will be used for. The presentations today are the result of citizen work groups without input from the Park District. Bob Linz said the land has three natural characteristics: 1) Wetlands; 2) An area set aside for a Sakai family member to live on throughout that person's lifetime; 3) Dry uplands that are both flat and sloping. Certain legal constraints will determine what can or cannot done in each of these areas. (The following board members were present at the meeting today as observers: Tom Swolgaard, Lee Cross, Kirk Robinson).

WORK GROUP PRESENTATIONS

Facilitator Bob Linz said each of the groups would have five minutes to present and ten minutes for questions.

1) WORK GROUP: PARK VALUES

The task of this work group was to reduce the list of 400 values generated at the January 23 public meeting by consolidating the items on it into six primary values. The intent is to show where community interest lies. The six values will not be ranked by the work group. The results of their work can be reviewed on the Park District website at www.biparks.org.

2) WORK GROUP: SURVEY

A community survey was developed by this work group to randomly sample public preferences, needs and demands for the Sakai property. The survey gives everyone in the community the chance to give input and provides a good cross section of various uses on the island. The Park District did not give input into this survey.

The Survey Work Group does not yet have the final results since the survey is not due back until May 1. To date there has been a good response with 1800 respondents to the survey representing 20% of all island households. The results to date were made available and will also be posted on the District's website. The results will be used by the work group to help discern what uses the community would like to have at the Sakai property. Their work has not yet been completed.

3) WORK GROUP: FINANCIAL FEASIBILITY

The intent of this work group was to come up with a way to put a price tag on uses. In doing this, people would gain some awareness into how much something they might want would cost and how this would then translate into needed tax or other revenues to bring it about. The work group's presenter, Doug Rauh, encouraged people to keep their expectations in line with what would be needed to make their preferred use happen. He encouraged people to consider factors such as timeframe, what a community of this size can afford, and what the on-going cost will be for

operation and maintenance and whether this is affordable. This work group addressed how much expense (capital costs) would be involved to develop certain uses. It did not explore how these uses would be paid for or how they would be maintained. The results of this work can be viewed on the District's website.

4) WORK GROUP: PRIORITIZE PROJECTS

This work group took the long list of possible uses generated at the January 23 public meeting, and placed them in three categories based on the amount of work needed to implement them. These three categories ranged from the least complicated to the most complicated, and considered factors such as: 1) existing resources, staff and volunteers; 2) the need for additional funds and expertise, 3) regulations, approvals and construction contracts. The group's work can be viewed on the District's website.

5) WORK GROUP: DEMOGRAPHICS

This work group developed a system to break out the list of possible uses from the January 23 public meeting into five demographic age groups. Subjective scores for these uses were assigned based on the likelihood of different age groups using it. While this was a non-scientific process, the group tried to be reasonable in determining their estimates of use. The intent of this work group was to paint a picture that would create some clarity. The results of their work will be posted on the District's website soon.

Meeting adjourned for a break at 11:00 am. Meeting reconvened at 11:15 am.

6) WORK GROUP: CREATE A TABLE

The intent of this group was to create a table that would summarize information generated by other work groups. The goal was to provide an overall view of what the community wants or needs that could assist in making an informed decision about recommended uses for the property. The table does among other things the following: 1) breaks uses generated at the January 23 meeting into categories including: building, nature-related, sports, and other uses; and 2) Inserts information compiled by other work groups such as estimated costs, values, and project complexity. The table will be available soon for viewing on the District's website.

Following the presentation of the Table Work Group, some members of the audience expressed dissatisfaction with the work of several work groups saying the information presented today has been incomprehensible, non-scientific, and lacking in objective data. Facilitator Bob Linz said this is a bottoms up public process that is governed by the participants. He encouraged people who are not satisfied to contact work group members and get involved in the process. Some comments from the audience indicated discomfort with the lack of guidance from officials and experts, saying there was no clear structure that would result in a deliverable product.

facilitator
~~Facility~~ Bob Linz reviewed the overall process, saying there had been a first meeting on January 23 out of which ten work groups were formed. A second meeting was scheduled and the work groups had several months to complete their work. During this time anyone interested could jump in and get involved. All work group contact and other information has been posted on the Park District website. Not all the work groups finished their work in time to present their final results at the meeting today.

7) WORK GROUP: COMMUNITY CENTER

The intent of this work group was to research and explore a multi-age/multi-use recreational community center as a way to bring many youth and adult programs and activities, currently all over the island, under one roof on the Sakai property. The group toured current District facilities and found many of them lacking in their capacity to meet current

demands. Some of these included the District's gymnastics facilities, administrative offices, and the Teen and Senior Centers. The work group also toured a number of community centers in the region and gathered input from the people they spoke with. A handout of this group's work will soon be available on the District's website

8) WORK GROUP: YOUTH SPORTS

The goal of this work group was to gather data from Bainbridge Island sports leaders about their needs and the number of youth that would benefit from a new sports facility. The group developed a survey that was sent to leaders of a variety of sports activities conducted on fields and courts, in water, and within indoor facilities. The sports survey gathered input on perceived inadequacies of the current sports facilities on the island and what each organization would want. The work group reported lots of interest in creating a multi-use sports facility on the Sakai site. More information can be viewed on the District's website.

9) WORK GROUP: ADVENTURE PLAYGROUND

This work group focused on a specific use for the Sakai property. Presenter Kevin Mills said an adventure playground is a new notion in the United States that helps children get the most out of childhood. It is a program that allows children to create, design, build and destroy in an unstructured open play area. An adventure playground survey has been sent out that is intended not only to determine the community's level of interest but to be informative as well. Currently, there have been 47 respondents. He will submit the results later for posting on the District's website.

10) WORK GROUP: SCHOOL DISTRICT AND PARK DISTRICT COLLABORATION

The intent of this work group was to bring the School District and Park District together to unite development in such a way that open space would be preserved. There was no representative from this group present at the meeting.

Following the work group presentations, those attending the meeting were broken into groups to come up with suggestions for next steps. Discussion followed with possible next steps shared by the different groups and a number of comments from the public expressed. Many ideas were explored, including one group's suggestion to generate the list of recommended uses today. It was believed by a number of people in attendance that enough input had been received to produce for the Park District today a list of what the community would like to see in on the Sakai property. A show of hands indicated a willingness to move forward with this suggestion, and a preliminary, non-prioritized list of eleven uses was generated. The items included on this list were as follows:

1) Multi use indoor complex with 50 meter pool; 2) Mountain bike park; 3) Tennis courts; 4) Trails; 5) Community center; 6) Playground; 7) Passive use; 8) Multi-use outdoor complex with lighting; 9) Adventure Playground; 10) Picnic shelter; 11) Nature center.

Everyone present agreed that their interest was represented in the eleven uses identified. Concerns were then raised over whether the process was being rushed, since some of the work groups had not yet finished their work and the survey group's deadline for submitting the survey was still another week out. There was concern that without the survey results, the views of community members who had not been able to attend these meetings would not be represented. A lengthy discussion followed, during which it was pointed out by some community members that the survey group was only one of the ten work groups and that the work of all the groups must be considered.

The meeting concluded with a decision to hold another public meeting in 90 days. This would allow the work groups time to refine or finish up their work. Facilitator Bob Linz encouraged people to get involved and join one of the ten work groups that would best address their issues. He reiterated that the objective of this public process was to end up

with a final list of 10-12 recommended uses for the Sakai property that has been fully vetted and discussed, so it can be passed onto the Park District. The list of recommended uses that was generated during today's public meeting was put on hold until further input and discussion can be considered at the third public meeting in 90 days.

Meeting adjourned at 1:35 pm.

Elizabeth R. Shepherd
Terry M. Lande
BAINBRIDGE ISLAND METROPOLITAN
PARK & RECREATION DISTRICT

BY: _____
John Thomas Swolgaard

BY: _____
Kenneth R. DeWitt

BY: _____
Lee Cross

BY: _____
Kirk B. Robinson

ATTEST: _____
Jay C. Kinney

Idea List – Sakai Property Planning Meeting

- Community Gym
- Ice or Roller Rink
- Trails
- 50 Meter Pool
- Affordable Housing
- Picnic Area
- Parking
- Multi-use Park
- Equestrian Trough
- Camps
- Outdoor Pizza Oven
- Multi-purpose Meeting Space
- Mini Golf
- Outdoor Pool
- Community Center
- Volleyball
- Gazebo
- Fitness Stations along Trails
- Accessibility
- Beer Garden
- Pickle ball
- Gym Facility
- Skateboard Park
- T-ball Field
- Pool Hall
- Bowling Alley
- Tennis Court
- Covered BBQ
- Bocce ball Court
- Multi Sport
- Indoor Auditorium
- Fishing
- Swimming in Pond
- Museum honoring Sakai family
- Restored Uplands
- Boardwalk around Wetlands
- Open Space
- Bridge over Madison Ave
- Large covered park
- Covered bus stop
- Turf Field
- Rope Swing
- Teen Center
- Play Structure

- Rope Course
- Adventure Pit for Horses
- Disc Golf Course
- Park District Office
- Indoor Cafe/Play Area
- Steam Train Track
- Community Garden/Orchard/Forest
- Outdoor Basketball Court
- Unstructured Play Facility
- Disaster Preparedness Building
- Aquifer Technology Compound
- Trail Connection to Sound to Olympic Trail
- Universal Pet Warming Station
- Community Chicken Coop
- Learning Center for Environmental Education
- Non-motorized Camping
- Sound to Olympic Trail
- Sub-regional Trail
- Mountain Bike Park
- BMX or Pump Track
- Paved and unpaved trails for mountain biking
- Outdoor Amphitheater
- Don't Develop, just create nature trails
- Wading Pool
- Zip Line
- Pétanque
- Food Forest
- Continuous Asphalt Trail (multi-use and specifically roller skating)
- Plaza
- Drone Free Zone
- Nature trail that is off limits to dogs
- Outdoor covered structure (for community events)

updated 2/3/16

Sakai Community Forum 1/23/16

<u>Next Steps – Share-out</u>
Highest point earners from cards
25 pts 1
24 pts 2
23 pts 6
22 pts 1
21 and fewer - all others

<u>WORK GROUPS</u> *as determined by card points*

1) Prioritize Projects. First select small projects that can be done quickly with little expense or with existing Park staff or equipment .

2) Public Survey. Randomly sample public to find out what uses they would like to see in our newest park. **2)** Find out levels of community support for various uses. **3)** Survey demand 4) Find out the greatest need as decided by the people of Bainbridge Island… **5)** Survey to the community by needs then prioritize by number **6)** Evaluate the ideas. Which was the most value to the community? 7) Help design a user survey

3) Demographics. Determine the percentage of Bainbridge population the proposed concepts will impact.

4) Youth Sports Interest. A meeting of various youth sports interests to discuss the needs and volume of participation.

5) Create a Table Create a table with all the uses and specifications/requirements to determine what is feasible and what isn't.

6) School & Park Collaboration. Get the School District and Park District together to unite development to preserve open space.

7) Park Values Cull down the list of values to the top three values for the park

8) Multi-age, Multi-Use Community Center. Research for a multi-age community center with a teen center, senior center, gymnastic gym and Park offices.

9) Adventure Playground Determine how many parents are interested in creating an unstructured open play area.

10) Financial Feasibility Assign cost to each use.

Sakai Community Forum 1/23/16

Value cards - all

Health & wellbeing of Islanders
Underdeveloped space
Stewardship
Benefits all of community
Safe location / safety
Value of alleviating overcrowded venues
Value of nature
Reflectiveness
Place to contemplate
Nature
Something affordable
Quiet in the middle of town – respite
Historical
Engaging
Educational
Learning
Minimal development
Health
Sustainable
Multi-generational
Multi-interest group
All access – children
Healthy activities
Usable energy efficient
Animal friendliness
Observation
Nature
Diversity
Recreational
Preservation
Accessibility
Wildlife
Ecological Outdoor classroom
Low impact on wetlands
Potential farmland
Historical
Community
Recreation
Year-round usage
Financial support for the Island
Recreation for all
Family recreation

Community'
Team spirit
Dedication and hard work
Available space
New opportunities
Health through walking and observing nature
Physical activity with social and mental health
Natural environment
Open spaces
Year round activities
Centralized
Organized sports
Family-oriented
Free Play
Creativity
Cooperation
Community
Joy
Bonding
Pet exercise
Outdoor parties
Fostering wildlife
As natural as possible
Fitness
Public Space
Fostering interaction
Proximity
Treasure
Safety
Centrality
Community
Year-round multi-use
Appreciation
Sharing
History and heritage
Preservation
Community activity and health
Value to youth and adults
Engagement
Diversion – keeping youth off bad activities
Hours that work for everyone
Affordability
Accessibility
Day care
Food
Finances

Funs
Community entertainment
Intergenerational activity
Low cost using what's already there
Wildlife
Adding more sports
Connection
Networking
Transportation
Safety through non-motorized connections
Freedom
Diligence
Skill-building
Fitness for kids and adults
Socialization
Opportunities
Exercise
Less driving around the Island
Quality Municipal services
To preserve natural resources
To appreciate land use
Preserve water resources
Restoring unstructured play
Active community
Connectivity
Transportation – non-motorized
Efficiency
Resources
Future improvements
Reduced health concerns
Central locations
Parks is overseeing it
Indoor bathrooms
Flexibility for future use
Quietness
Nature
Natural, least-developed
Wildlife
Available to all
Darkness at night
Better or safer gymnastics
Safety for older kids
Community meeting location
FUN
Open Space
Green Space

Accessibility
Nature
Year-round accessibility and education
Central location
Nighttime activities
Tournament play , Island economic activity
Proximity to schools
Parking close to downtown
Community use
Health benefits
Health and exercise
Appreciation of nature
Safe passage
Contemplative exercise
Health, fitness & safe indoor activities
Staying dry
Indoor space for rain
Freedom of not being tied to the school district
Safe place for kids
Dedicated place for kids
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Practice
A place where all can come together
Community engagement
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Central area to downtown and schools
The ability to be outside and have shelter
Thinking big and long-term
Deeper connection to a food source
Personal hand in growing food
Nourishment
Growing and cooking skills
Nourishment
All-hour access
Bettering our athletes
Success
Protecting Nature
Restoration
No labyrinth of trails
The Sacred

Creativity
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Appreciation
Wetlands
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Environment
Balance
Preservation
Our Senior population
Access to nature
Multi-generational fitness
Multi-sport use
Wet weather opportunities for indoor sports
Reflection
Silence
Sharing inspired moments
Places to be in the rain
Protection
Safe and natural places to play
Water safety & it's teaching
Community gathering
Appreciating outdoors
Quality of Life
Happy, centered people
Access to benefits of nature
Sensitivity to wildlife
Clean air
Clean water, ground water
Diversity
Birds and their habitats
Beauty
Ecology
Love
Bounty
Retaining Nature
Production of local food
Low-carbon footprint
Diversity
Housing the diverse population of our Island
History
Education
Wellbeing
Learning
Contemplation

Beauty
Solitude
Conservation
Exercise
Retail
Supporting the Park District
Creativity
Central locations
Center of the Community
Public outdoor space for higher density development
Centralized park features
Fishing
Disable adults
Practice and Team sports
Safe location for students, without parent involvement
Walkability
Time
Adequate facilities for youth and teens
Safety
Accessibility of fishing
Families, children & the disabled
Athleticism
Fitness and Health
Future growth
Aquatic facilities
Old and young accessibility to Aquatics
Lack of the labyrinth
Economic development
Connection
Swimming is Life.
Water safety for all
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Advantages from proximity to schools
Proximity to schools
Year-round use
A Place for kids
Physical activity
Social interaction
Walking
Jogging
Swimming
Trout
Trails and Nature
Bird watching
In town

Fresh water pond
The Arts
Creativity in the sun
Art in the Winter
Learning
Career
Connection with Nature
Accessibility for wheelchairs and strollers
Athletics
Community Programming
Toddlers
Seniors
Having somewhere to gather
Youth development and engagements
Activities for kids
Attraction
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Low-impact
Natural hub to community
Low-costs
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Healthy lifestyle
Water safety
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Healthy activity
Nature experience
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Community for Teens
Fresh food
Longevity
Diversity
Art
Horticultural knowledge
Ecological approaches
All body types exercising
Active lifestyle
Water sports
Youth
Exercise for walking running, training, swimming, gymnastics, Middle-School, cross-country & track
Rest
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Connecting children with Nature
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Keeping kids engaged and occupied and away from trouble
Increased opportunities for swimming and fitness
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Increased job availability
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Recreational swimming
Competitive swimming,
General community use
Fitness
Well-being through Aquatics activities
Self-sustaining
Confidence
Safety
Community
Health
Goals
Nutrition & Wellbeing
Self-actualization
Job opportunities
Economic development
Accommodating as many people as possible for swimming
Indoor field for year-round athletics
Positive economic impact
Central location to nature
Ties to the Community
Bringing the community together through activity
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A place of commitment to our kids for generations to come
An area for people to congregate
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Off-road connection to downtown and North end of the Island
String of Pearls (trails)
Exercise, Health, and filling an underserved need
Dog exercise
Covered concert seating space
Arts appreciation
Music
Open-air play & Family time
Older kids learning about careers
History of farmland on the Island
Restoration / Development / Maintaining land as a farm

ISSUES FOR CONSIDERATION

1. Pedestrian Access
2. Traffic congestion
3. Do we already have this need met? (facilities)
4. Public Vote
5. Geography of land feasibility
6. Future planning
7. Sustainability
8. Allow sale of part of land to fund it?
9. Costs – capital
10. Partner w/others and given use
11. Sanitation facility
12. Impact to habitat
13. Connected trail systems – integration
14. Does use serve max population on BI?
15. Will use be relevant in 10 yrs?
16. Number of jobs created
17. Will there be neighborhood objections
18. Fire district requirements
19. Public works site plan development?
20. Utilities?
21. Insurance issues?
22. Property tax status
23. Staffing needs
24. Impact on private business'
25. Volunteer activities
26. Revenue potential
27. Alternative power
28. Environment /community and neighborhood impact
29. Traffic/access
30. Operational cost
31. Demand for use
32. Health dept. regulations
33. Parking
34. Timing/needs connected
35. Precluding uses
36. Space available (% of property)
37. Tourism potential
38. Integration w/neighboring organization
39. Stormwater/environment impact
40. Mitigation of noise
41. Safety/security
42. Carbon footprint – carbon sequestration
43. Building code (eg. Size, height)

44. Better location
45. Public transportation
46. Scientific/data on community demand
47. Historical , do not build
48. Phasing
49. Capacity (population)
50. Link to comprehensive plan
51. Private/ public money.
52. Aesthetic
53. Light pollution
54. Design
55. Detailed specs for each use for evaluation
56. Wetland regulations/details
57. Soil adequacy
58. Future park expansion (N + S)

BAINBRIDGE ISLAND METROPOLITAN PARK & RECREATION DISTRICT
PUBLIC MEETING: PLANNING THE SAKAI PROPERTY
JANUARY 23, 2016
BAINBRIDGE HIGH SCHOOL COMMONS

INTRODUCTION

The meeting started at 10:00 am with the public invited to participate in basic "Getting to Know One Another" exercises as they arrived. Once people had gathered, Facilitator Bob Linz, under contract with the Park District to conduct this public process on the Sakai property, introduced himself and his co-facilitators Neil Baker and Christina Hulet. He said the Sakai property was purchased by the public through a bond measure and encouraged everyone to participate in this process. He said there is no agenda on the part of the Park District or preconceived notion on what will be done with the property. The purpose of this meeting is engage the community and gather input into what they would like to see at the new park. The immediate task at hand is for the public through this process to deliver to the Park District a list of recommended 10-12 uses for the property. Subsequent meetings could follow if needed to accomplish this task. After receiving the list of recommended uses from the community, the Park District will take it from there.

Bob Linz said the members of the Park Board were here today to help harvest the information as observers/participants. (The following board members were present: Lee Cross, Ken DeWitt, Jay Kinney, Kirk Robinson, and Tom Swolgaard). Staff members were there to help as needed throughout the process.

Bob Linz reviewed basic information about the property that will assist participants in this process. This included facts about the property including its size of 23 acres with approximately 9 acres available for development. The property contains wetlands, a 2.2 acre pond, and stream corridors. It has 661 linear feet of street frontage on Madison Avenue North. In addition, several tables were displayed outlining island and park amenities on Bainbridge Island. An aerial photo of the property was also displayed showing property lines and wetland delineation.

Co-facilitator Neil Baker said this is a widely used process built around simple guidelines for participation; it is structured to welcome all ideas. The more ideas, the more opportunity for creative outcome.

Co-facilitator Christina Hulet said this is a very different planning process than what is traditionally done. Usually a government entity presents a proposal and the community gives input on the proposal. In this process, the community generates the proposal. Depending on how much work the community wants to do determines how informed the list of uses will be that is given to the Park District at the end of this process. She reiterated that the central purpose of this public process is for the community to develop a list of recommended uses for the District.

Christina went on to outline two goals for the day: 1) Develop a list of potential uses; 2) Ask what work needs to be done to research these uses in order to learn whether they are feasible options to recommend. To engage participants, exercises were done individually and then in small groups. Out of this, the following was developed: 1) A list of possible uses for the Sakai property; 2) A list of values that were important to the participants. Use ideas ranged from sport and art facilities to trails to a multi-generational community recreation center. (For use list, see Attachment 1 "Idea List"). Values ranged from safe gathering place for all ages to environmental appreciation to physical activity. (For values list, see Attachment 2 "Value Cards").

Break for lunch at 11:45 am. Meeting reconvened at 12:20 pm.

Bob Linz said the goal of the next exercise was to identify specifications. These are the issues that must be considered to determine whether the proposed uses are feasible. Examples of these could include items such as zoning, size, bond or funding needs, legal implications, or traffic impact. Following this exercise, participants identified a number of items

that should be considered such as adequate demand for use, available space, building codes, impact to habitat, and capital cost. (For specifications list, see Attachment 3 "Issues for Consideration").

Bob Linz prefaced the next exercise with the need for commitment on the part of participants. He encouraged people to participate only if they were willing to be involved in the next step and do the actual work that would be needed. He said the considerations raised on the specifications list just generated are crucial for creating the smaller list of recommended uses that will eventually be presented to the Park District. The next exercise posed the question: What is the next step?

Each participant answered this question according to what they thought the next step should be. The answers were written down on cards. The cards were exchanged among participants numerous times and ranked for priority. Those answers that ranked the highest provided the basis for the work groups that were formed.

Once the different work groups were identified, participants were asked to join the ones they were interested in working on. The work groups were formed and the responsibility was turned over to the members of each group to do the work needed to further research their area. (Anyone unable to attend today's meeting can join a work group by going to the Park District's website where all the attached lists have been published).

After the work groups have completed their research, a second public meeting will be held in approximately one month at which time the work groups will present what they have learned. (For list of work groups, see Attachment 4 "Work Groups").

In conclusion, Bob Linz thanked all participants for coming and reminded them that the goal is to present the Park District with a list of 10-12 recommended uses at the conclusion of this entire public process.

Meeting concluded at 2:45 pm.

Elizabeth R. Shepherd
Terry M. Lande
BAINBRIDGE ISLAND METROPOLITAN
PARK & RECREATION DISTRICT

BY: _____
John Thomas Swolgaard

BY: _____
Kenneth R. DeWitt

BY: _____
Lee Cross

BY: _____
Kirk B. Robinson

ATTEST: _____
Jay C. Kinney

Idea List – Sakai Property Planning Meeting **ATTACHMENT 1**

- Community Gym
- Ice or Roller Rink
- Trails
- 50 Meter Pool
- Affordable Housing
- Picnic Area
- Parking
- Multi-use Park
- Equestrian Trough
- Camps
- Outdoor Pizza Oven
- Multi-purpose Meeting Space
- Mini Golf
- Outdoor Pool
- Community Center
- Volleyball
- Gazebo
- Fitness Stations along Trails
- Accessibility
- Beer Garden
- Pickle ball
- Gym Facility
- Skateboard Park
- T-ball Field
- Pool Hall
- Bowling Alley
- Tennis Court
- Covered BBQ
- Bocce ball Court
- Multi Sport
- Indoor Auditorium
- Fishing
- Swimming in Pond
- Museum honoring Sakai family
- Restored Uplands
- Boardwalk around Wetlands
- Open Space
- Bridge over Madison Ave
- Large covered park
- Covered bus stop
- Turf Field
- Rope Swing
- Teen Center
- Play Structure

- Rope Course
- Adventure Pit for Horses
- Disc Golf Course
- Park District Office
- Indoor Cafe/Play Area
- Steam Train Track
- Community Garden/Orchard/Forest
- Outdoor Basketball Court
- Unstructured Play Facility
- Disaster Preparedness Building
- Aquifer Technology Compound
- Trail Connection to Sound to Olympic Trail
- Universal Pet Warming Station
- Community Chicken Coop
- Learning Center for Environmental Education
- Non-motorized Camping
- Sound to Olympic Trail
- Sub-regional Trail
- Mountain Bike Park
- BMX or Pump Track
- Paved and unpaved trails for mountain biking
- Outdoor Amphitheater
- Don't Develop, just create nature trails
- Wading Pool
- Zip Line
- Pétanque
- Food Forest
- Continuous Asphalt Trail (multi-use and specifically roller skating)
- Plaza

updated 1/28/16

Sakai Community Forum 1/23/16 **ATTACHMENT 2**

Value cards - all

Health & wellbeing of Islanders
Underdeveloped space
Stewardship
Benefits all of community
Safe location / safety
Value of alleviating overcrowded venues
Value of nature
Reflectiveness
Place to contemplate
Nature
Something affordable
Quiet in the middle of town – respite
Historical
Engaging
Educational
Learning
Minimal development
Health
Sustainable
Multi-generational
Multi-interest group
All access – children
Healthy activities
Usable energy efficient
Animal friendliness
Observation
Nature
Diversity
Recreational
Preservation
Accessibility
Wildlife
Ecological Outdoor classroom
Low impact on wetlands
Potential farmland
Historical
Community
Recreation
Year-round usage
Financial support for the Island
Recreation for all
Family recreation

Community'
Team spirit
Dedication and hard work
Available space
New opportunities
Health through walking and observing nature
Physical activity with social and mental health
Natural environment
Open spaces
Year round activities
Centralized
Organized sports
Family-oriented
Free Play
Creativity
Cooperation
Community
Joy
Bonding
Pet exercise
Outdoor parties
Fostering wildlife
As natural as possible
Fitness
Public Space
Fostering interaction
Proximity
Treasure
Safety
Centrality
Community
Year-round multi-use
Appreciation
Sharing
History and heritage
Preservation
Community activity and health
Value to youth and adults
Engagement
Diversion – keeping youth off bad activities
Hours that work for everyone
Affordability
Accessibility
Day care
Food
Finances

Funs
Community entertainment
Intergenerational activity
Low cost using what's already there
Wildlife
Adding more sports
Connection
Networking
Transportation
Safety through non-motorized connections
Freedom
Diligence
Skill-building
Fitness for kids and adults
Socialization
Opportunities
Exercise
Less driving around the Island
Quality Municipal services
To preserve natural resources
To appreciate land use
Preserve water resources
Restoring unstructured play
Active community
Connectivity
Transportation – non-motorized
Efficiency
Resources
Future improvements
Reduced health concerns
Central locations
Parks is overseeing it
Indoor bathrooms
Flexibility for future use
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Natural, least-developed
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Available to all
Darkness at night
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Deeper connection to a food source
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Hobby
Enjoying Nature
Retaining nature
Low-impact
Natural hub to community
Low-costs
Community participation
Healthy lifestyle
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Mental health
Keeping kids off the streets
Accessibility to water, specifically the pool
Meeting needs
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Outdoor access in the density of Winslow
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Dog exercise
Covered concert seating space
Arts appreciation
Music
Open-air play & Family time
Older kids learning about careers
History of farmland on the Island
Restoration / Development / Maintaining land as a farm

ISSUES FOR CONSIDERATION

ATTACHMENT 3

1. Pedestrian Access
2. Traffic congestion
3. Do we already have this need met? (facilities)
4. Public Vote
5. Geography of land feasibility
6. Future planning
7. Sustainability
8. Allow sale of part of land to fund it?
9. Costs – capital
10. Partner w/others and given use
11. Sanitation facility
12. Impact to habitat
13. Connected trail systems – integration
14. Does use serve max population on BI?
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16. Number of jobs created
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21. Insurance issues?
22. Property tax status
23. Staffing needs
24. Impact on private business'
25. Volunteer activities
26. Revenue potential
27. Alternative power
28. Environment /community and neighborhood impact
29. Traffic/access
30. Operational cost
31. Demand for use
32. Health dept. regulations
33. Parking
34. Timing/needs connected
35. Precluding uses
36. Space available (% of property)
37. Tourism potential
38. Integration w/neighboring organization
39. Stormwater/environment impact
40. Mitigation of noise
41. Safety/security
42. Carbon footprint – carbon sequestration
43. Building code (eg. Size, height)

44. Better location
45. Public transportation
46. Scientific/data on community demand
47. Historical , do not build
48. Phasing
49. Capacity (population)
50. Link to comprehensive plan
51. Private/ public money.
52. Aesthetic
53. Light pollution
54. Design
55. Detailed specs for each use for evaluation
56. Wetland regulations/details
57. Soil adequacy
58. Future park expansion (N + S)

Sakai Community Forum 1/23/16 **ATTACHMENT 4**

Next Steps – Share-out
Highest point earners from cards
25 pts 1
24 pts 2
23 pts 6
22 pts 1
21 and fewer - all others

WORK GROUPS *as determined by card points*

1) Prioritize Projects. First select small projects that can be done quickly with little expense or with existing Park staff or equipment.

2) Public Survey. Randomly sample public to find out what uses they would like to see in our newest park. **2)** Find out levels of community support for various uses. **3)** Survey demand 4) Find out the greatest need as decided by the people of Bainbridge Island... **5)** Survey to the community by needs then prioritize by number **6)** Evaluate the ideas. Which was the most value to the community? 7) Help design a user survey

3) Demographics. Determine the percentage of Bainbridge population the proposed concepts will impact.

4) Youth Sports Interest. A meeting of various youth sports interests to discuss the needs and volume of participation.

5) Create a Table Create a table with all the uses and specifications/requirements to determine what is feasible and what isn't.

6) School & Park Collaboration. Get the School District and Park District together to unite development to preserve open space.

7) Park Values Cull down the list of values to the top three values for the park

8) Multi-age, Multi-Use Community Center. Research for a multi-age community center with a teen center, senior center, gymnastic gym and Park offices.

9) Adventure Playground Determine how many parents are interested in creating an unstructured open play area.

10) Financial Feasibility Assign cost to each use.

JONES JONES
ARCHITECTS & LANDSCAPE ARCHITECTS

Johnpaul Jones
Duane Dietz
Rachael Kitagawa
Janelle Lotzgesell

kpff
Consulting Engineers

David Schwartz
Alex Sundell

TILGHMAN GROUP
TRANSPORTATION PLANNING

Ross Tilghman

PanGEO
INCORPORATED

Siew L. Tan