
**CRITICAL AREAS REPORT
BATTLE POINT PARK
11299 Arrow Point Drive NE
Bainbridge Island, Washington**

DRAFT

Prepared for

Bainbridge Island Metropolitan Park and Recreation District
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1.0 INTRODUCTION

Christy Carr has been authorized by Bainbridge Island Metropolitan Park and Recreation District (BI Parks) to complete a wetland delineation and critical areas report for Battle Point Park (park) in Bainbridge Island, Washington. The park location is shown on Figure 1, Vicinity Map. I understand that BI Parks intends to initiate a master planning process for the park in the fall of 2009 and that this report will provide a summary of baseline conditions related to aquatic critical areas at the park to use in that process.

Battle Point Park is a 90.3-acre public park bordered on three sides by roads: Arrow Point Drive to the east, Battle Point Drive to the west and Frey Avenue to the north. The park includes a large expanse of open space with two ponds, lawn, ornamental and native vegetation and recreational trails. Active use components at the park include a variety of ball fields, tennis and roller hockey courts, a large children's play structure and picnic area. The park is also home to several structures including the Transmitter Building, BI Parks maintenance shop and offices and a water tower.

The general purpose of this report is to assist BI Parks in their master planning process for the park in a manner that complies with current applicable regulations related to aquatic critical areas. I visited the park on several days in October 2009 to investigate the presence of aquatic critical areas and general environmental features in park. This report provides a summary of the field reconnaissance, a description and evaluation of the critical areas observed within the park and a review of regulatory implications of potential future site development per local, federal and state permitting requirements.

2.0 METHODOLOGY

2.1 Paper Inventory

Existing publicly available sources of information regarding the potential presence and characteristics of regulated aquatic critical areas were reviewed prior to field reconnaissance. These sources include:

- United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map;
- Bainbridge Island Municipal Code 16.20 – Critical Areas (BIMC 16.20);
- City of Bainbridge Island Wetlands and Streams Map; and
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey map.

The project is located in North Kitsap Peninsula Drainage Area of the Kitsap Basin Water Resource Inventory Area 15. NWI mapped wetland features identified by the USFWS are shown in Figure 2. Wetland and stream classifications identified by the City of are shown on Figure 3. These maps both show a large palustrine forested wetland complex associated with the pond at the project site.

The Soil Survey of Kitsap County, Washington (USDA 1980) identifies two soil types at the park: Kapowsin gravelly loam (0 to 6 percent slopes) and Kapowsin Variant gravelly clay loam (0 to 5 percent slopes). Kapowsin soils are described as moderately well drained with low to

moderate available water capacity and permeability. These soils are saturated and have a perched water table at a depth of 1 to 2 feet during the rainy season. Kapowsin soil series are not classified as hydric soils according to Hydric Soil List for Kitsap County, Washington; however, they have hydric inclusions such as Norma and Shalcar soils (USDA 2008a).

2.2 Wetland Classification and Rating

Wetlands were characterized using the wetland classes defined by the Cowardin system (Cowardin et al., 1979). The Cowardin system describes wetlands by the plant communities, soils and hydrologic regimes present. Wetlands were rating using the categories according to *Washington State Wetland Rating System for Western Washington* (Hruby, 2004). This four-tier rating system was used to determine the hydrogeomorphic class of, and to rate the water quality, hydrologic and habitat functions for each wetland. The city uses the state rating system to categorize wetlands for the purposes of establishing wetland buffer widths, wetland uses and replacement ratios for wetlands (BIMC 16.20.160.B).

2.3 Field Reconnaissance

Field reconnaissance was conducted throughout the park. Data was collected for three wetland parameters: vegetation, soils, and hydrology, in accordance with the *Washington State Wetlands Identification and Delineation Manual* (Ecology, 1997) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountain, Valleys, and Coast Region* (USACE 2008). Based upon positive confirmation of the three wetland parameters, sample plots were established in the field to determine wetland boundaries and document the condition of the wetland and adjacent upland habitats. In general, two sample plots were established for each wetland to document typical conditions, one within the wetland and one in the surrounding upland.

Observations in the field were documented using field notes and digital photos. A summary of field findings is provided below. The locations of wetland and stream features observed in the field are shown in Figure 4.

3.0 CRITICAL AREA DESCRIPTION AND EVALUATION

Two wetlands (Wetland A and B) were identified and delineated within the park (Table 1). No streams were observed on-site. While there are several drainage courses (swales) throughout the park, they do not meet the City's definition of a stream (BIMC 16.20.030.46). The following sections describe each wetland with details regarding its habitat features, general condition and wetland rating. Figure 4 shows wetland boundaries and sample plot locations. See Table 1 below for a summary of the function, rating and category of each wetland. Site photographs are included in Appendix A. Wetland data sheets are included in Appendix B. Wetland rating forms are included in Appendix C.

Table 1. Summary of Critical Area, Rating Functions and Category

Critical Area	Western Washington Wetland Rating Functions (points) ¹			Total/Category ²
	Water Quality	Hydrologic	Habitat	
Wetland A	18	12	18	48/III
Wetland B	16	4	7	27/IV

Notes:

1. Wetland rating conducted in accordance with Washington State Wetlands Rating System for Western Washington, Publication #04-06-025 (Hruby, 2004).
 2. In accordance with BIMC 16.20.160.B
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3.1 Wetland A

Wetland A is a large mosaic wetland complex located on the north end of the park. The wetland is largely associated with man-made stormwater and landscape features including drainage swales and the pond. Within the wetland, there upland areas dominated by maintained lawn and ornamental vegetation along with paved and gravel trails. While Wetland A is comprised of various wetland areas, it was rated as a single wetland unit in accordance with guidance set forth in *Washington State Wetland Rating System for Western Washington* (Hruby 2004). Specifically, the different wetland areas are less than 100 feet apart and the difference in hydrologic gradient among the areas is less than 6 inches in elevation.

The forested portion of the wetland is dominated by various willow species (*Salix sp.*) and red alder (*Alnus rubra*). Dominant shrub and emergent species include Nootka rose (*Rosa nutkana*), slough sedge (*Carex obnupta*) and soft rush (*Juncus effusus*). Soils throughout the wetland are similar exhibiting a dark- to very dark-grayish brown matrix color with yellowish brown redoximorphic features. With the exception of the southwest corner of the wetland, soils were not saturated at the time of the October site visit; however, the redoximorphic features observed in the upper soil layers indicate a fluctuating water table. This is consistent with the mapped soil for the park (Kapowsin) which has a perched water table and is saturated during the rainy season. Primary sources of hydrology for Wetland A include stormwater runoff, direct precipitation and a high groundwater table. Since field reconnaissance was conducted outside of the rainy season, secondary hydrologic indicators were used to determine the presence of wetland hydrology. These include water-stained leaves, geomorphic position, FAC-neutral test and drainage patterns (Appendix B).

Wetland A is a palustrine wetland with forested, scrub-shrub, emergent and aquatic bed compents and is classified as a depressional wetland. Based on the functional attributes associated with the wetland, it has been rated as a Category III wetland, scoring 48 points on the state rating form (Appendix C). The wetland meets criteria consistent with a Category III rating because it scores moderate for water quality (18 points) and hydrologic (12 points) functions and low for low to moderate for habitat functions (18 points). Wetland A has potential and opportunity to increase water quality because more than 95 percent of the wetland area is covered by undisturbed vegetation and untreated stormwater discharges into the wetland. The wetland has potential to provide hydrologic functions due to its large water storage capacity; however, its location within the watershed does not provide any opportunity to perform hydrologic functions since it is not likely holding stormwater that would otherwise cause downstream flooding and/or erosion. The

wetland scores low to moderate for habitat functions because it has four vegetation communities, three hydroperiods, high plant species richness and several special habitat features. Wetland A has low opportunity to provide habitat for many species because its buffers and connections to other wetlands and vegetated areas are disturbed (roads/lawn areas). Wildlife observed within Wetland A during the October site visit includes songbirds, ducks and rabbits.

3.2 Wetland B

Wetland B is located approximately 20 feet south of an existing paved recreational trail. The wetland is located over 100 feet from Wetland A to both the east and west; as such, it is not considered part of wetland mosaic in accordance with guidance set forth in *Washington State Wetland Rating System for Western Washington* (Hruby 2004). The wetland is comprised of a very small, shallow bowl-like depression differentiating its soil, vegetation and hydrologic characteristics from the adjacent upland (buffer) area.

Vegetation within Wetland B is dominated by slough sedge. The soil pit within the wetland revealed a single-layer soil profile with a silt loam soil texture and a soil matrix color of 10YR 3/2 with 10YR 4/6 redoximorphic features (Kollmorgen Corporation, 1988). The primary hydrology sources for the wetland appears to be direct precipitation, surface water runoff and perched groundwater.

Wetland B is a palustrine, emergent wetland and is classified as a depressional wetland. Based on the functional attributes associated with the wetland, it has been rated as a Category IV wetland, scoring 35 points on the state rating form (Appendix C). The wetland meets criteria consistent with a Category IV rating because it scores moderate for water quality functions (16 points) and low for hydrologic (4 points) and habitat (7 points) functions. Wetland B has potential and opportunity to increase water quality because more than 95 percent of the wetland area is covered by undisturbed vegetation and untreated stormwater discharges into the wetland. The wetland has low potential and opportunity to provide hydrologic functions due to its minimal water storage capacity and location within the watershed. The wetland scores low for habitat functions because it has only one vegetation community (emergent), low plant species richness, no special habitat features and degraded (trail/lawn area) buffer areas. No wildlife was observed within Wetland B during the October site visit.

4.0 REGULATORY IMPLICATIONS

It is not anticipated at this time that future park development activities will include impacts to wetland areas or their buffers. In the event that temporary construction and/or permanent impacts will result from park development activities, adherence to applicable local, federal and state regulations will be required.

4.1 Local Permitting

Battle Point Park is located within the City of Bainbridge Island. As such, any potential future site development impacting wetlands and/or their buffers is subject to the City's critical areas ordinance (BIMC 16.20). Wetland B, however, is less than 1,000 square feet and meets the criteria set forth in BIMC 16.20.160.D.7 for small wetlands (see Section 3.2) and is therefore exempt from City critical areas regulations.

Wetland A is a Category III wetland. Category III wetlands require buffer widths between 40-80 feet depending on the impact of land use as shown in Table 2. These buffer widths are in accordance with BIMC 16.20.160.D, Table 5, applicable to Category III wetlands with a habitat function score of less than 20. Any future site development encroaching upon wetland and/or buffer areas would require a Special Use Review Permit in accordance with BIMC 16.20.160.D.9 (Parks) and BIMC 16.20.160.G (Special Use Review). This permit review process would require a mitigation plan including a buffer replacement ratio of 1:1 (the first number representing the area impacted and the second number representing the area of mitigation) and a wetland replacement ratio ranging from 1:1 to 8:1 depending upon the type of mitigation (e.g., creation, rehabilitation, and enhancement).

Table 2. Summary of Required Buffer Widths for Category III Wetlands

Impact of Land Use	Buffer Width¹ (feet)	Examples of Land Use
Low	40	High-intensity recreation such as golf courses and ballfields
Moderate	60	Paved trails
High	80	Low-intensity open space such as passive recreation, natural resources preservation, and unpaved trails.

4.2 Federal and State Permitting

Work conducted within a wetland buffer would not require federal or state permits. However, if future park development includes impacts to a delineated wetland area, this will trigger federal permitting requirements in the form of Clean Water Act (CWA) Section 404 authorization. Requiring a federal permit would also trigger 401 Water Quality Certification through the Washington State Department of Ecology. It is likely park development activities would be eligible for a nationwide permit (NWP) issued by the US Corps of Engineers (Corps). The specific NWP that applies to a project is determined by the Corps after submittal of a Joint Aquatic Resources Permit Application (JARPA). An activity may be authorized under a NWP only if that activity and the applicant satisfy all of the NWP terms and conditions and compliance with state water quality conditions, as required. Most NWPs require pre-construction notification (PCN) to the Corps (the JARPA may be used as the PCN) and written concurrence from the Corps before project activities can proceed. Under the NWP, the Corps will try to determine whether the project complies with the Washington State Department of Ecology (Ecology) General 401 Certification Conditions first, and then the NWP-specific 401 conditions and Coastal Zone Management (CZM) requirements. If the Corps is able to determine that the project complies with the State General 401 Conditions, the NWP-specific conditions, and CZM conditions, they will state in their NWP authorization letter that no coordination with Ecology is required. If they do not have enough information or expertise to make that call, they will require that the applicant contact Ecology for “individual review”. Ecology then determines whether these conditions are met and whether an individual 401 Water Quality Certification and CZM are required. If no 401 or CZM conditions are required, Ecology will issue a letter indicating such.

A Corps permit also requires Endangered Species Act (ESA) compliance and agency consultation if endangered or threatened species are on or within close proximity to the project site. ESA

compliance would require a review of current Washington Department of Fish and Wildlife Priority Habitat and Species, USFWS, and other available data to determine occurrence of endangered and/or threatened species and potential effects of project activities. Depending upon the extent of the project action area (the distance of project effects from the project site), the Corps may require submittal of a Biological Evaluation (BE) or no effects documentation letter.

5.0 LIMITATIONS

Christy Carr has prepared this conceptual critical areas report in general accordance with the scope and limitations of her scope and fee proposal. Within the limitations of scope, schedule and budget, my services have been executed in accordance with the generally accepted practices at the time this report was prepared. No warranty or other conditions expressed or implied should be understood.

This report has been prepared for the exclusive use of BI Parks and their authorized agents and regulatory agencies following the described methods and information available at the time of the work. No other party may rely on the product of my services unless I agree in advance to such reliance in writing. The information contained herein should not be applied for any purpose or project except the one originally contemplated.

Wetland boundaries, classifications and discussions are based on my understanding of local, state, and federal regulations, and site conditions at the time of my work. The final boundary determinations and classifications for all critical areas discussed herein are to be made or verified by the appropriate jurisdictional agency.

6.0 REFERENCES

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FIGURES



APPENDIX A – SITE PHOTOGRAPHS



APPENDIX B – DATA SHEETS



APPENDIX C – STATE RATING FORMS