



Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

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## **CRITICAL AREA STUDY AND BUFFER MITIGATION PLAN**

**FOR**

### **ICOM – HARBOUR POINTE BLVD**

*MUKILTEO, WA*

*Wetland Resources, Inc. Project #14060*

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April 15, 2014

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### ATTACHMENTS:

DOE WETLAND RATING FORMS

FIELD DATA FORMS

CRITICAL AREA STUDY MAP & MITIGATION PLAN (SHEET 1/1)

## INTRODUCTION

*Wetland Resources, Inc.* (WRI) conducted a site investigation in July 2012 for the 0.8-acre property located southwest of Harbour Pointe Boulevard SW and Mukilteo Speedway in the city of Mukilteo, WA (portion of Section 27, Township 27N, Range 4E, W.M. The purpose of the investigation was to identify jurisdictional wetlands and/or streams in the vicinity of the subject parcel. The development proposal for this site will include construction of a mosque with associated parking and an access driveway. To do this, the applicant will apply for a variance to reduce a portion of the on-site wetland buffer to a minimum 25-width.

The entire site is forested and relatively level with minor undulations throughout. Access is from the north via Harbour Pointe Boulevard. Surrounding land use consists of commercial to the north, east, and south, and undeveloped and residential use to the west. Dominant plant species found throughout the site consist of red alder and big-leaf maple in the canopy, with salmonberry, Oso-berry, Himalayan blackberry, red elderberry, and sword fern in the understory.

WRI identified one wetland in the northern portion of the site. The wetland is depressional with an intermittent outlet into a pipe that crosses under Harbour Pointe Blvd. The wetland appears to receive hydrology from roadside runoff and a high seasonal groundwater table. It is vegetated with red alder, Scouler's willow, salmonberry, Himalayan blackberry, stinging nettle, and reed canary grass. The wetland receives a total score of 38 points for functions on the DOE Wetland Rating Form, including a habitat score of 10 points. The wetland is therefore classified as a Category III wetland. In the city of Mukilteo, Category III wetlands with fewer than 20 points on high-intensity land use site typically receive maximum 80-foot buffers. No other critical areas were identified within 300 feet of the site.

### WETLAND CLASSIFICATION—COWARDIN SYSTEM

According to the Cowardin System, as described in Classification of Wetlands and Deepwater Habitats of the United States, the classifications for the on-site wetland is as follows:

**Wetland A:** Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded.

### WETLAND CLASSIFICATION—CITY OF MUKILTEO

Under the Mukilteo Municipal Code (MMC) for Wetland Regulations, Chapter 17B.52B, the on-site wetland is classified using the Washington State Department of Ecology's (DOE) Wetland Rating System for Western Washington (MMC 17B.52B.060; Hruby 2004). Completed rating forms are provided in Appendix B of this report. Wetland buffer widths vary depending upon the intensity of adjacent land use. Buffer widths were determined according to Table I within 17B.52B.070(E).

### **Wetland A - Category III**

Wetland A is a depressional wetland that receives a total score for functions of 38 with a habitat rating of 10. Wetlands attaining a total score for functions of 30 and 50 points are classified as Category III wetlands. Category III wetlands with a habitat score of fewer than 20 points typically receive 80-foot buffers on high intensity land use and 60-foot buffers on medium intensity land use.

In the city of Mukilteo, regulated streams, wetlands and their buffers are designated collectively as Native Growth Protection Areas (NGPAs). All Native Growth Protection Areas shall be shown on the development site plans or final plat maps, and shall be noted as follows, per MMC 17.52.035:

*There shall be no clearing, excavation, or fill within the native growth protection area shown on the face of this site plan/plat, with the exception of required utility station, removal of dangerous trees, thinning of woodlands for the benefit of the woodlands as determined by a certified landscape architect or arborist, and removal of obstructions on drainage courses, or as allowed under Section 17.52A.070, Vegetation management on steep slopes.*

### **NATIVE GROWTH PROTECTION AREA SIGNS**

Signs designating the presence of the NGPA shall be posted along the NGPA boundary. Signs shall be placed at approximately 50-foot intervals around the perimeter of the NGPA. An example of Type 1 sign language is as follows:

**NATIVE GROWTH PROTECTION AREA**  
THIS WETLAND AND UPLAND BUFFER ARE PROTECTED TO  
PROVIDE WILDLIFE HABITAT AND MAINTAIN WATER QUALITY.  
PLEASE DO NOT DISTURB THIS VALUABLE RESOURCE.

\*SEE RECORDED PLAT FOR RESTRICTIONS

The signs shall be constructed of aluminum or similar durable material. They shall be secured to 4" x 4" x 7' (min.) pressure treated posts buried a minimum of two feet in quick setting concrete.

### **WETLAND DETERMINATION REPORT**

#### **Methodology**

Wetland conditions were evaluated using the on-site, routine methodology described in the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), (referred as 2010 Regional Supplement). In general, wetland delineation consisted of two tasks: (1) assessing vegetation, soil, and hydrologic characteristics to identify areas meeting the wetland identification criteria, and (2) mapping wetland boundaries using aerial photography and existing survey information.

The following criteria descriptions were used in the boundary determination:

## **Vegetation Criteria**

### *Wetland Vegetation Criteria*

The 2010 Regional Supplement defines hydrophytic vegetation as “the community of macrophytes that occurs in areas where inundation or soil saturation is either permanent or of sufficient frequency and duration to exert a controlling influence of the plant species present.” Field indicators were used to determine whether the vegetation meets the definition for hydrophytic vegetation.

## **Soils Criteria and Mapped Description**

The National Technical Committee for Hydric Soils, as described in the 2010 Regional Supplement, defines hydric soils as “a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.” Field indicators were used to determine whether a given soil meets the definition for hydric soils.

According to the Soil Survey of Snohomish County Area Washington, the underlying soils on the subject property consist of Alderwood Urban Land Complex 8 to 15 percent slopes.

Alderwood- Urban land complex, 8 to 15 percent slopes: This map unit is on till plains. This unit is about 60 percent Alderwood gravelly sandy loam and about 25 percent urban land. Included in this unit are small areas of Everett and Indianola soils on terraces and outwash plains, Kitsap soils on terraces and terrace escarpments, and Ragnar soils on outwash plains. Included areas make up about 15 percent of the total acreage.

The Alderwood soil is moderately deep over a hardpan and is moderately well drained. It formed in glacial till. Typically the surface layer is very dark grayish brown gravelly sandy loam about 7 inches thick. The upper part of the subsoil is dark yellowish brown and dark brown very gravelly sandy loam about 23 inches thick. A weakly cemented hardpan is at a depth of about 35 inches. Depth to the hardpan ranges from 20 to 40 inches. Permeability of this soil is moderately rapid above the hardpan and very slow through it. Available water capacity is low. Urban land consists of areas that are covered by streets, buildings, parking lots, and other structures that obscure or alter the soils so that identification is not possible.

## **Hydrology Criteria**

The 2010 Regional Supplement states that criteria for designation as a wetland based on hydrology is met when “areas are seasonally inundated and/or saturated to the surface for a consecutive number of days  $\geq$ 12.5 percent of the growing season, provided that soil and vegetation parameters are met. Areas inundated or saturated between 5 and 12.5 percent of the growing season in most years may or may not be wetland. Areas saturated to the surface for less than 5 percent of the growing season are non-wetlands.” Field indicators are employed in the determination that wetland hydrology parameters are met.

## BOUNDARY DETERMINATION FINDINGS

### Wetland A

The on-site wetland is located in the northern portion of the property. Dominant vegetation within the wetland is represented by: red alder (*Alnus rubra*, Fac), Scouler's willow (*Salix scouleriana*, FacW), salmonberry (*Rubus spectabilis*, Fac), Himalayan blackberry (*Rubus armeniacus*, Fac), lady fern (*Athyrium filix-femina*, Fac), reed canary grass (*Phalaris arundinacea*, FacW), and stinging nettle (*Urtica dioica*, Fac+).

The underlying soils were very dark gray (10YR 3/1) sandy loam about 18 inches thick. The soils were saturated during our July 2012 site visit.

The dominance of species rated "Facultative" or wetter meets the criteria for hydrophytic vegetation in the areas mapped as wetland. Based on field indicators of hydric soils, it appears that the areas mapped as wetland are saturated to the surface for more than 12.5 percent of the growing season, thereby fulfilling wetland hydrology criteria.

### Non-Wetland

Typical vegetation found throughout the non-wetland areas of the site consists of red alder, big-leaf maple (*Acer macrophyllum*, FacU), black cottonwood (*Populus balsamifera*, Fac), salmonberry, Oso-berry (*Oemleria cerasiformis*, FacU), red elderberry (*Sambucus racemosa*, FacU), and western sword fern (*Polystichum munitum*, FacU).

The color of the soils sampled in the non-wetland areas are is very dark grayish brown (10YR 2/2) in the upper four to six inches with a dark yellowish brown (10YR 4/4, 10YR 3/4) in the sublayer. Soil texture throughout the profile is a sandy loam. The soils were slightly moist at the time of the site investigation.

Based on the lack of field indicators, it appears that areas of the site mapped as non-wetland are not saturated to the surface for more than 12.5 percent of the growing season, thereby not fulfilling wetland hydrology criteria.

## FUNCTIONS AND VALUES ASSESSMENT

### Methodology

The methodology for this functions and values assessment is based on professional opinion developed through past field analyses and interpretation. This assessment pertains specifically to the on-site wetland and stream system, but is typical for assessments of similar systems common to Western Washington.

### Value Assessment

The on-site wetland is a depressional wetland with an intermittently flowing outlet. Wetlands with limited outflow retain water longer and allow for higher potential to perform hydrologic functions. This wetland appears to receive its hydrology from stormwater runoff and a seasonal high groundwater table. It appears to have some potential to provide valuable stormwater control functions for the surrounding areas.

The dense vegetation cover within this wetland combined with its highly depressional characteristic in an urban area result in moderately high water quality improvement functions within this wetland.

Habitat functions are limited within this wetland and the surround areas, due to the low connectivity to other diverse habitats. The subject wetland and its vegetated buffer to the south do provide some nesting and foraging opportunities. Based on the existing vegetation structure and plant diversity, it is highly likely that the site is used by a variety of small birds and mammals. However, the on-site wetland is unprotected to the north, and the overall level of habitat functions is relatively low.

## **PROJECT DESCRIPTION**

The applicant is proposing to construct a mosque with associated parking and an access driveway. The majority of the development will occur in the southern part of the site, away from the on-site wetland and buffer area. However, in order to gain access to the development area, the proposed driveway will require permanent wetland buffer impacts. To accomplish this, the applicant will apply for a variance for buffer a reduction that is more than 50 percent of the standard buffer width.

### *Avoidance Discussion*

Complete avoidance of direct wetland impacts will be achieved. Due to the location of the on-site wetland near the entrance to the site, permanent buffer impacts are unavoidable. The total area of permanent buffer impact will amount to 3,765 square feet. The proposed driveway will be 26-foot wide and will parallel the eastern property line. There is no feasible alternative for access into the site that would result in less impact and achieve the same safety requirements. Placing the driveway as far as possible away from the wetland will minimize impacts to the greatest extent. The result is a minimum 19-foot wide buffer between a portion of the on-site wetland and the driveway. The applicant will construct the driveway out of suitable materials that are accepted or preferred by the City. Because the 3,765 square feet of buffer impact will be permanent, the applicant proposes compensation in the form of buffer enhancement and purchase of fee-in-lieu credits, per 17.52.025.C.4.

### *Impact Analysis*

The proposed access driveway will result in 3,765 square feet permanent buffer impacts and a minimum buffer width of 19 feet for the eastern side of the on-site wetland. The vegetation to be impacted will include several red alder trees, a big leaf maple, and salmonberry, Oso berry, and sword fern in the understory. The buffer reduction will result in loss of potential habitat for a variety of small birds and mammals that may use the site. It will also result in reduced shade and protection for the wetland.

No impacts to hydrologic control functions within the on-site wetland are expected since no filling or direct discharge are proposed. Likewise, no long-term effects to water quality functions are expected if the driveway runoff is designed to sheet flow.

Short-term water quality improvement functions will be mitigated through installation of erosion control fencing along the boundaries of the proposed clearing areas.

*Proposed Mitigation Measures*

Pursuant to MMC 17.52.025.C.4: *In order for the property owner to receive a reduction in the required critical area buffer, administratively or through a variance, the remaining buffer shall be enhanced to reduce significant adverse impacts to the critical area and off-site buffer mitigation shall be required for the area of buffer reduced. Mitigation can be in the form of payment of a fee in-lieu of buffer mitigation through use of the Mukilteo habitat reserve (MHR) as described in the Mukilteo CAMP.*

Therefore, as mitigation for the aforementioned impacts, the applicant is proposing to enhance 3,765 square feet buffer area that remains on the site. Because of the intact understory, enhancement plantings will consist primarily of tree species. Enhancement plantings will be interspersed throughout the existing buffer vegetation to improve habitat complexity and diversity. Following correct installation of the approved mitigation measures, the buffer will have a higher potential for removing excess pollutants and sediments as stormwater sheet flows through the site. Other anticipated benefits would be increased screening and protection around the perimeter of the wetland, which ultimately benefit the habitat functions within the wetland. These assumptions are consistent with the guidelines provided in *Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands*. (Washington State Department of Ecology, 2005).

In addition, the applicant will pay into to a fee in-lieu program as part of the requirement for off-site buffer mitigation. The total area of off-site mitigation and purchase of fee in-lieu credits will be equivalent to enhancement of 3,765 square feet of forested buffer area. The City shall advise the applicant is how to complete this payment.

### VARIANCE DISCUSSION

Per MMC17.64.040.A, a variance may be granted only if all of the following criteria are met:

***1. The variance shall not constitute a grant of special privilege inconsistent with the rules and regulations governing the uses of other properties in the vicinity or zoning district in which the property for which the variance is requested is located.***

The variance is intended to relieve the applicant from hardship by allowing the applicant to construct a reasonable access driveway into to the developable portion in the south. No special privileges apply to this application.

***2. The variance must be necessary, because of special circumstances relating to the size, shape, topography, location, or surroundings of the subject property, to provide it with use rights and privileges permitted to other properties in the vicinity that are located in the same zoning district in which the subject property is located.***

The variance is necessary because of the location of the Category III wetland and its 80-foot regulated buffer at the only entrance point of the site. There is no way to access the site without



impacting the buffer and reducing it to a minimum 19-foot width. Not being able to provide access into the site would deny the applicant a reasonable use of the site that is otherwise allowed on other properties in the vicinity. The proposed 26-foot width of the driveway supports the safest driveway design with two clearly marked lanes. It is the minimum width necessary to achieve safe use of the driveway and site (see engineer’s plans for details).

**3. *The granting of the variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity or zone in which the subject property is situated.***

No harm to the public is expected, since the work will be completely contained within the property. No changes in storm water, utilities, or wastewater are expected to affect surrounding properties.

**4. *Hardships of a financial nature, hardships which are self-created, and hardships which are personal to the owner and not to the property, shall not be grounds for a variance.***

No hardships as mentioned above apply to this application.

**5. *Variations shall not be granted if the granting of the variance would allow a use not permitted outright or by conditional use permit, or any use prohibited outright or by implications in the zoning district involved.***

It is our understanding that the development of a place of worship (a mosque) is allowed on the subject site (zoned as Community Business).

**BUFFER ENHANCEMENT PLAN**

The applicant proposes to enhance 9,405 square feet of the remaining buffer areas on this site. The designated areas will be enhanced with trees space on approximate 15-foot centers, since most of the understory area is currently vegetated with native species. The plantings will be shade tolerant and will be marked with brightly colored ribbon for easy identification during maintenance and monitoring. The following list of tree plantings is recommended for this site.

**Buffer Enhancement Planting Plan (9,405 SF)**

Common Name	Latin Name	Size	Spacing	Quantity
Western red cedar	<i>Thuja plicata</i>	1 gal	15’	15
Douglas fir	<i>Pseudotsuga menziesii</i>	1 gal	15’	14
Big-leaf maple	<i>Acer macrophyllum</i>	1 gal	15’	14

## PROJECT GOALS AND OBJECTIVES

The goals of this mitigation plan are to offset the new on-site development by replacing and improving the ecological functions on this site. To achieve this, specific goals have been established and are listed below.

### **Goal 1. Improve wetland buffer functions through vegetation enhancement.**

- **Objective 1.** Enhance 9,405 square feet of the on-site buffer.

### **Goal 2. Permanently protect the enhanced NGPA areas.**

- **Objective 1.** Install permanent signs to clearly mark the boundaries of the protected areas.

## PLANTING NOTES

Plant in the early spring or late fall and obtain all plants from a reputable nursery. Care and handling of all plant materials is extremely important to the overall success of the project. The origin of all plant materials specified in this plan shall be native plants, nursery grown in the Puget Sound region of Washington. Some limited species substitution may be allowed, only with the agreement of the landscape designer, wetland biologist, and/or City staff.

**Handling:** Plants shall be handled to avoid all damage, including breaking, bruising, root damage, sunburn, drying, freezing or other injury. Plants must be covered during transport. Plants shall not be bound with wire or rope in a manner that could damage branches. Protect plant roots with shade and wet soil in the time period between delivery and installation. Do not lift container stock by trunks, stems, or tops. Do not remove from containers until ready to plant. Water all plants as necessary to keep moisture levels appropriate to the species' horticultural requirements. Plants shall not be allowed to dry out. All plants shall be watered thoroughly immediately upon installation. Soak all containerized plants thoroughly prior to installation. Bare root plants are subject to the following special requirements, and shall not be used unless planted between November 1 and March 1, and only with the permission of the landscape designer, wetland biologist, and City staff. Bare root plants must have enough fibrous root to insure plant survival. Roots must be covered at all times with mud and/or wet straw, moss, or other suitable packing material until time of installation. Plants whose roots have dried out from exposure will not be accepted at installation inspection.

**Weeding:** Existing and exotic vegetation in the planting areas will be hand-weeded from around all newly installed plants at the time of installation and on a routine basis throughout the monitoring period. No chemical control of vegetation shall be used on this site.

**Planting Pits:** Planting pits shall be circular or square with vertical sides, and shall be 6" deeper and 12" larger in diameter than the root ball of the plant. Break up the sides of the pit in compacted soils. Set plants upright in pits. Burlap shall be removed from the planting pit.

Backfill shall be worked back into holes such that air pockets are removed without adversely compacting down soils.

**Water:** Plants shall be watered midway through backfilling, and again upon completion of backfilling. For spring plantings (if approved), a rim of earth shall be mounded around the base of the tree or shrub no closer than the drip line, or no less than 30 inches in diameter, except on steep slopes or in hollows. Plants shall be watered a second time within 24-48 hours after installation. The earthen rim / dam should be leveled prior to the second growing season.

**Plant Location:** Three-foot by two-inch by one quarter-inch (3' x 2" x 1/4") lath stakes or suitable flagging material shall be placed next to or on each planting to assist in locating the plants while removing the competing non-native vegetation and to assist in locating the plants during the monitoring period.

**Arrangement and Spacing:** The plants shall be arranged in a pattern with the appropriate numbers, sizes, species, and distribution that are required in accordance with the approved plans. The actual placement of individual plants shall mimic natural, asymmetric vegetation patterns found on similar undisturbed sites in the area. Spacing of the plantings may be adjusted to maintain existing vegetation with the agreement of the landscape designer, wetland biologist, and/or City staff.

**Inspection(s):** A wetland biologist shall be present on site to inspect the plants prior to planting. Minor adjustments to the original design may be required prior to and during construction.

**Mulch:** All landscaped areas denuded of vegetation and soil surface surrounding all planting pit areas shall receive no less than two to four inches of organic compost or certified weed free straw after planting. Compost or certified weed free straw shall be kept well away (at least two inches) from the trunks and stems of woody plants.

### **Temporary Erosion and Sedimentation Control**

Prior to beginning any development or mitigation activities, erosion control fencing shall be installed as described in the grading plan construction drawings. A pre-construction meeting between the City, the consulting wetland professional, contractor and equipment operator(s) will be held prior to any construction activities to inspect the location of siltation fencing.

All sedimentation control facilities shall be kept in place and functioning until vegetation is firmly established. Refer to site engineer's TESC plan for all erosion and sedimentation control details.

## PROJECT MONITORING PROGRAM

### Purpose for Monitoring

A monitoring program shall be included as a part of the approved mitigation plan. To insure that the performance standards of the approved mitigation plan have been met, the mitigation and/or buffer enhancement site(s) shall be monitored for a minimum of five years. The monitoring period required by the city may be extended an additional two years if the wetland or buffer is not performing as expected by the mitigation or enhancement plan. The monitoring reports shall be submitted on August 1st of each year during the monitoring period.

Monitoring and reports shall be submitted in accordance with the following schedule:

- (1) At the time of construction;
- (2) Thirty days after planting;
- (3) Early in the growing season of the first year;
- (4) End of the growing season of the first year;
- (5) Twice the second year (at the beginning and end of the growing season); and
- (6) Annually thereafter, to cover a total monitoring period of at least five growing seasons.

### Performance Standards

#### ***Year 1 Monitoring***

Success Standard: 100 percent survival of planted species  
No greater than 10 percent coverage of invasive species. Zero tolerance of noxious weeds.

#### ***Year 2 Monitoring***

Success Standard: 90 percent survival of planted species  
No greater than 10 percent coverage of invasive species. Zero tolerance of noxious weeds.

#### ***Year 3 Monitoring***

Success Standard: 80 percent survival of planted species  
No greater than 10 percent coverage of invasive species. Zero tolerance of Noxious weeds.

#### ***Year 5 Monitoring***

Success Standard: 80 percent survival of planted species  
No greater than 10 percent coverage of invasive species. Zero tolerance of noxious weeds.

### Monitoring Methodologies

Monitoring sample plots and photo points will be established during the as-built inspection and shown on the as-built map. These will be used throughout the 5-year monitoring period. Within these plots, plant survival shall be measured, and invasive vegetation cover will be estimated. These plots shall be fixed, located using stakes, GPS, or other method and used for the duration of the monitoring period. The percentage of plant survival will be derived by subtracting the

number of missing or dead plants from the number of plants that were recorded in the transects during the initial visit to assess plan compliance.

Plant survival within the transects is assumed to be representative of the entire site. In addition to the transects, a visual inspection of the entire mitigation area shall be conducted to assess any high mortality areas not represented by the transects. As a supplement to the visual inspection, a panoramic photo of the entire mitigation site will be taken and included in each monitoring report. If one or more of the planted species exhibit a high rate of mortality and are deemed inappropriate for the site, a substitution may be recommended by the consulting biologist.

### **Photo points**

Permanent photo points will be established within the enhancement areas. Photographs will be taken from these points to visually record condition of the enhancement area. Photos shall be taken annually between May 15 and November 1 (prior to leaf drop), unless otherwise specified.

### **Monitoring Reports**

Monitoring reports shall be submitted by November 1 of each year during the monitoring period. As applicable, monitoring reports must include descriptions / data for:

- 1) Site plan and vicinity map.
- 2) Historic description of project, including date of installation, current year of monitoring, restatement of planting / restoration goals, and performance standards.
- 3) General appearance, health, mortality, colonization rates, percent cover, percent survival, volunteer plant species, invasive weeds, and/or other components deemed appropriate by the Department and a qualified consultant.
- 4) Slope condition, site stability, any structures or special features.
- 5) Wetland and buffer conditions, e.g., surrounding land use, use by humans, and/or wild and domestic creatures.
- 6) Wildlife Monitoring Methods shall include visual sightings, aural observations, nests, scat, tracks, and/or other means deemed appropriate by the Department and a qualified consultant. Wildlife monitoring components shall include species counts, species diversity, breeding activity, habitat type, nesting activity, location, usage, and/or other components deemed appropriate by the Department and a qualified consultant.
- 7) Assessment of nuisance / exotic biota and recommendations for management.
- 8) Color photographs (4" x 6" in size) taken from permanent photo-points that shall be depicted on the monitoring report map.

## **MAINTENANCE**

The planting areas will require periodic maintenance to remove undesirable species and replace vegetation mortality. Maintenance may include, but will not be limited to, removal of competing grasses (by hand if necessary), irrigation, fertilization (if necessary), replacement of plant mortality, and the replacement of mulch for each maintenance period. Mulch should be replenished during the maintenance visits, every second year, or as needed.

## CONTINGENCY PLAN

If 20 percent of the plants are severely stressed during any of the inspections, or it appears 20 percent may not survive, additional plantings of the same species may be added to the planting area. Elements of a contingency plan may include, but will not be limited to: more aggressive weed control, pest control, mulching, replanting with larger plant material, species substitution, fertilization, soil amendments, and/or irrigation.

## PROJECT COSTS

The applicant shall enter into an agreement with the City to complete the mitigation plan approved by the City and shall post a mitigation surety to ensure mitigation is fully functional. The surety shall be in the amount of 150 percent of the estimated cost of the uncompleted actions or the estimated cost of restoring the functions and values of the critical area that are at risk, whichever is greater. The surety shall be based on a cost estimate of installing the project with mitigation plant materials, and any other related costs. Following successful determination of the mitigation plan, the bond shall be released.

### Estimated Costs:

\*Estimated Cost of Plants (at \$10.50/plant) \$451.50

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**Estimated Bond Amount (150% of Estimated Cost) \$564.37**

\*Estimate includes: cost of plant materials and labor per each one-gallon plant

**Estimated In-Lieu-Fee amount \$1,102.50**

(Cost of planting 105 one-gal plants in a 3,765 square foot buffer area)

## USE OF THIS REPORT

This Critical Area Study and Buffer Mitigation Plan is supplied to Mohammed Khan as a means of determining on-site critical area conditions. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to critical areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect. The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report and any implied representation or warranty is disclaimed.

*Wetland Resources, Inc.*



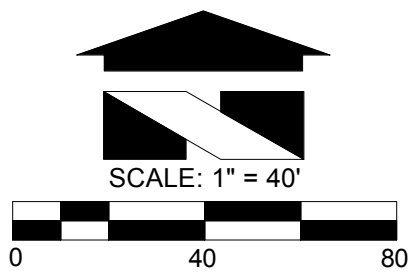
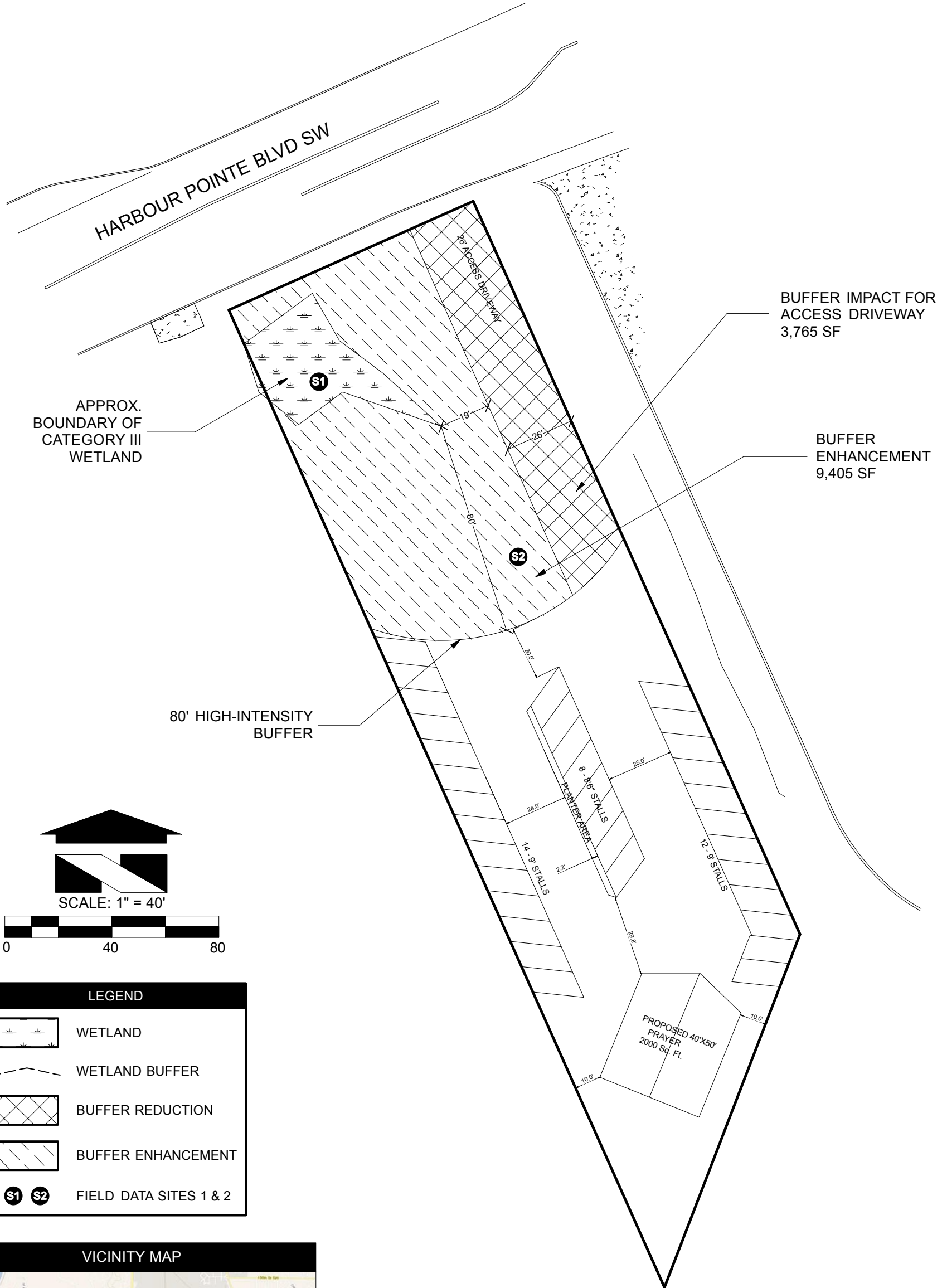
Andrea Bachman  
*Senior Ecologist*

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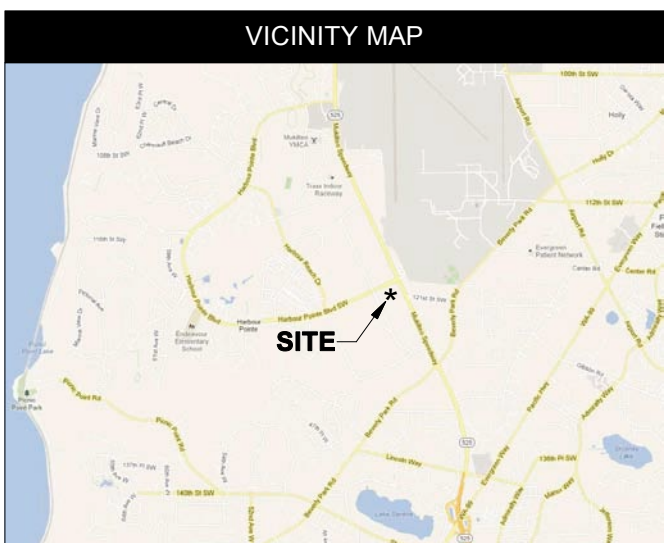
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**CRITICAL AREA STUDY & MITIGATION MAP**  
**ICOM- HARBOUR POINTE BLVD SW**  
 PORTION OF SECTION 27, TOWNSHIP 28, RANGE 04E, WM



LEGEND	
	WETLAND
	WETLAND BUFFER
	BUFFER REDUCTION
	BUFFER ENHANCEMENT
	FIELD DATA SITES 1 & 2



**Wetland Resources, Inc.**  
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CRITICAL AREA STUDY MAP & MITIGATION PLAN  
**ICOM- HARBOUR POINTE BLVD SW**  
 MUKILTEO, WA

Mohammed Khan  
 5500 Harbour Pointe Blvd., R104  
 Mukilteo, WA 98275

Sheet 1/1  
 WRI Job #14060  
 Drawn by: AB  
 Date: April 15, 2014