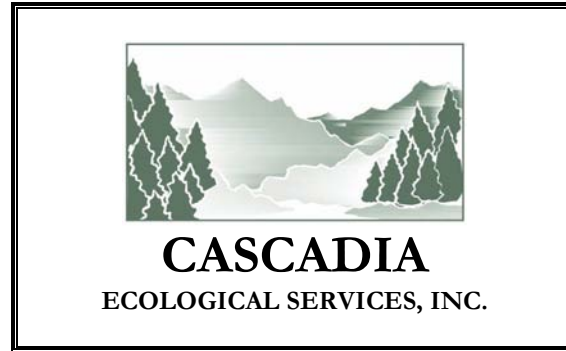




**COMPENSATORY
WETLAND MITIGATION PLAN**

BRECKENRIDGE SUBDIVISION

CAMAS, WASHINGTON

**PREPARED FOR:
HINTON DEVELOPMENT CORPORATION
14010-A N.E. 3RD COURT
SUITE 106
VANCOUVER, WA 98685
(360) 546-1220**

**PREPARED BY:
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Revised October 16, 2006

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APPENDIX B – Breckenridge Subdivision Washington Department of Ecology Wetland Rating Form

TABLE 1. SITE SUMMARY

Report Preparer	James Barnes (President – Cascadia) Field Investigators: James Barnes/Scott Brummer
Site Location(s)	SE 202 nd Court, Camas, WA 98607
Owner / Applicant	Hinton Development / J. Dawkins
Tax Parcel (s) / Lot Size	125601-000 (5.07 Acres)
County	Clark County
Lat./Long.	45° 35' 22.2" N, 122° 27' 57.7" W
Legal Description	NE ¼ of Section 8, Township 1 North, Range 3 East of the Willamette Meridian
Municipal Jurisdiction	Camas
Zoning	R1-6
Comprehensive Plan Zoning	SFH
Topography	Slightly sloping (North) to Moderately Steep Slopes (South)
Elevation	High point: ~392 feet above mean sea level (North) Low Point: ~326 feet above mean sea level (South)
Drainage Basin	Columbia River
Nearest Water	On-site un-named tributary stream
Land Form	River terrace
Soil Map Unit(s)	Hesson clay loam, 0 to 8 percent slopes (HcB) Olympic clay loam, 8 to 20 percent slopes (OLD) Powell silt loam, 8 to 20 percent slopes (PoD)
NWI Classification	No mapped wetland classifications on-site
Priority Habitat	Riparian Conservation Habitat Area
Habitat Area Buffer	No mapping indicators
Species Area Buffer	No mapping indicators
Current Land Use	Vacant
Adjacent Land Use	Residential
Proposed Land Use	Residential subdivision

1.0 Background

This revised compensatory wetland mitigation plan addresses project impacts and mitigation work that is proposed for the Breckenridge Subdivision in Camas, Washington. The overall project is 10.66 acres in size.

The applicant, Hinton Development, is requesting subdivision approval to subdivide approximately the project area per Clark County GIS into 32 lots for single-family residential detached dwellings in the R-7.5 zone. The site has been annexed to the City of Camas from Clark County and was zoned R1-6 in the Clark County. The developer's agreement between the City of Camas and Hinton Development states that the property be zoned R-7.5 and developed under City of Camas zoning standards. The lots are proposed to meet the dimensional standards for the R-7.5 zoning district and will utilize the density transfer with regards to the wetland/wetland buffers and steep slopes.

Currently there is a house and a garage on the site, which will remain and become lot #6; the remainder of the site is vacant and only occupied by wetlands, a stream, vegetation and trees. All uses proposed in Breckenridge subdivision comply with the Camas Comprehensive plan and the underlying zoning designation.

The City of Camas, Washington Department of Ecology (DOE), and the Corps of Engineers (Corps) have local, state, and federal jurisdiction (respectively) over the wetlands on the project site.

2.0 Existing Site Conditions

Wetlands & Buffers

A wetland delineation report (Appendix A) was completed for this site by Cascadia Ecological Services in February 2006. According to the findings of the report, the wetlands on this site are assigned the following buffers based on the definitions given in the City of Camas Municipal Code, Chapter 18.31.050 – Wetland Standards and the Washington Department of Ecology's Wetland Rating System:

Category 4 Wetland – Generally 50 feet (25 feet for low quality wetlands)

Class 4 (Np) Stream – 25 feet

The north-central portion of the study area contains a Palustrine Emergent Non-Persistent wetland which receives seasonal hydrology from a wetland on the property to the north. An old road bed extends from east to west across the north property line linking SE 202nd Court to a rock quarry along the west side of the study area. This road has effectively inhibited flow across the natural drainage through the study area creating a wetland on the property to the north. However, due to the pervious nature of the roadbed, water from the off-site wetland flows onto the study area through a small emergent wetland. This wetland tapers in shape as it continues to the southwest into a defined stream channel which flows across the southwest portion of the site. The emergent wetland area in the north study area is located between large thickets of Himalayan blackberry (*Rubus discolor* - FACU). The dominant vegetation in the wetlands is nootka rose (*Rosa nutkana* - FAC), soft rush (*Juncus effusus* - FACW), Watson willowherb (*Epilobium watsonii* - FACW-), and curly dock (*Rumex crispus* - FAC+). As the wetland enters the drainage corridor in the southwest portion of the site, the

topography transitions to a steep stream corridor which averages less than three feet in width along most of its length. Little to no wetland vegetation exists in the stream channel as the stream banks are dominated by upland species.

Generally, soils in the wetlands are a dark gray silty clay loam (generally 10YR 3/1) with common distinct dark reddish-brown mottles (generally 10YR 3/4). Soils were saturated to the surface at the time of the site visit. Other hydrology indicators in the wetland areas included redoximorphic features such as iron concretions and oxidized rhizospheres within 10 inches of the soil surface. Wetland hydrology is being influenced to some degree by off-site drainage alterations which are directing point source stormwater flows onto the northeast corner of the property.

Uplands

The upland plant community within the north portion of the site is dominated by scattered areas of Himalayan blackberry and black hawthorn (*Crataegus douglasii* - FAC); trailing blackberry (*Rubus ursinus* - FACU), Canada thistle (*Cirsium arvense* - FACU+), tall fescue (*Festuca arundinacea* - FAC-), dandelion hawkbeard (*Crepis runcinata* - FACU), bracken fern (*Pteridium aquilinum* - FACU), and St. John's Wort (*Hypericum formosum* - FAC).

The central and south portions of the site are dominated by a Douglas fir (*Pseudotsuga menziesii* - FACU) and big-leaf maple (*Acer macrophyllum* - FACU) forest. The understory vegetation consists of beaked hazelnut (*Corylus cornuta* var. *californica* - FACU), osoberry (*Oemleria cerasiformis* - FACU), trailing blackberry, Himalayan blackberry, vine maple (*Acer circinatum* - FAC-), swordfern (*Polystichum munitum* - FACU), and bracken fern.

Soils

The Clark County Soil Survey (Sheet 3) identifies the following soil mapping units on this site:

Hesson clay loam, 0 to 8 percent slopes (HcB). This soil is the dominant soil of the high terraces along the mountain foot slopes in the county. This soil is well drained and has moderately slow permeability. This soil is classified as non-hydric according to the Clark County hydric soils list.

Olympic clay loam, 8 to 20 percent slopes (OID). This soil is on rolling, strongly sloping mountain foot slopes and long straight side slopes below ridgetops. In a typical profile, the upper 7 inches is friable, dark reddish-brown clay loam; the next 12 inches is firm, reddish-brown heavy clay loam. This soil is well drained and moderately slowly permeable. This soil is classified as a non-hydric soil according to the Clark County hydric soils list.

Powell silt loam, 8 to 20 percent slopes (PoD). This soil is on long, smooth side slopes below ridges and at the foot slopes of steep areas. It is similar to Powell silt loam, 0 to 8 percent slopes, except that it is steeper and the surface layer is 1 to 3 inches thinner. Surface runoff is medium, and the hazard of erosion is moderate. The principal crops are hay, pasture, and corn for silage. There are small acreages of strawberries, grain, and prunes. Grasses and legumes are grown on more of this soil than on Powell silt loam, 0 to 8 percent slopes. The slope limits row cropping. Grain is grown in rotation with long-lived legumes

and grasses. Some areas are in timber. This soil is classified as a non-hydric soil according to the Clark County hydric soils list.

3.0 General Groundwater Conditions

Groundwater levels are high to saturated at the surface in places within the wetland areas throughout the dormant season and during early and late periods of the growing season. Groundwater in this area appears to move in a southwesterly direction. Groundwater quality through this area is believed good with no indications of contaminants by regulatory agencies.

4.0 Hydrologic Conditions

A seasonally high subsurface water table and surface water runoff provides hydrology to the wetlands during the dormant season. During the wetland delineation, saturation occurred within the upper 12 inches in most of the excavated pits. Other wetland test data points within the property boundaries exhibited saturated soil conditions or water table depths of greater than 12 inches on average.

5.0 Impact Assessment and Mitigation Ratio Discussion

According to Section 18.31.050 (B) of the City of Camas Municipal Code, adverse impacts to wetlands and wetland buffers shall be avoided to the maximum extent practicable.

Because the site contains significant areas of steep slopes, wetlands, and associated buffers, development is precluded within much of the western portion of the property. The proposed wetland and buffer impacts are in the northwest portions of the project area and are associated with an access road and two lots.

In addition to complying with the critical area requirements in the City of Camas, the Applicant has also provided larger perimeter lots along the eastern property line to meet beveling standards. In order to avoid any additional impacts to sensitive areas on the site, the Applicant used density transfer provisions. With density transfer, the adjusted maximum density for the site is 49 lots. The Applicant is proposing 32 lots, 32% less than what is allowed. Additionally, the R-7.5 zone allows for a minimum lot size of 5,250 SF (with density transfer). The average proposed lot size is 7,910 SF due to the existing topographic conditions and beveling techniques. The Applicant has attempted to avoid to the extent practicable adverse impacts to wetlands and wetland buffers while trying to achieve a well designed and economical plat for the community.

The proposed lot layout will require a 3,520 square foot wetland fill in the northern most portion of the wetlands within the northwest corner of the project area; specifically in the area of Lot 14.

In addition, an indirect wetland impact of 1,458 square feet will occur directly south of the direct wetland impact. This impact is necessary to maintain a 25 foot buffer between the development area and the wetlands. Code allows for a buffer reduction to 25 feet for wetlands determined to be of generally low quality in terms of function and value. The north portion of the Category 4 wetlands south of the proposed wetland impact and west of the

proposed Breckenridge Court meet the City's definition of low quality wetlands. The vegetative structure in these wetlands is primarily a monoculture of soft rush with a buffer area consisting of extensive non-native blackberry thickets.

The Applicant will mitigate for the wetland impacts through wetland creation (7,700 square feet), wetland enhancement (7,538 square feet) and buffer enhancement (9,200 square feet) between the subdivision and the wetlands. The resulting mitigation ratio for wetland creation is 2.18:1 which exceeds Ecology's recommended 2:1 mitigation ratio for impacted Category 4 wetlands. Although not required by City Code, the Applicant will enhance portions of the wetland buffer adjacent to the wetland creation area and the existing wetland to increase the functions and values of the wetland area in addition to reducing human activity in the wetlands.

The filling of the small wetland area is not expected to result in the loss of flood storage or wildlife habitat. In fact, it is expected that wildlife habitat will be significantly improved in the wetland and buffer as a result of the proposed mitigation because the non-native blackberries will be replaced by native plants which are utilized to a much greater extent by wildlife species.

No changes in water quality are expected as all stormwater will be treated prior to discharge into the wetlands. While human intrusion on the site may increase due to the nature of the development, it should not detrimentally affect the wetland areas as all of the adjacent properties are already developed and wildlife species on the site are accustomed to human activity.

Because the direct wetland impacts that will be required for this project do not exceed 1/10 of an acre, a Corps of Engineers Nationwide Permit will not be required. The Applicant will be required, however, to provide pre-construction notification to the Corps.

6.0 Mitigation Site Area & Proposed Work

The existing upland bench along the west and east sides of the wetland area will be excavated to the same elevation as the wetland to create hydrologic conditions suitable for the establishment of the proposed wetland shrub and tree plantings within the wetland creation area. Upon establishment of the mitigation plantings, it is expected that the wetland will assume the characteristics of the adjacent mixed scrub-shrub/forested wetland to the south.

Enhancement of the existing and created wetland areas in addition to the adjacent buffer with native shrubs and trees will increase plant species richness and vegetation structure within the wetland providing niches for a greater variety of wildlife than is currently present. Woody stem vegetation will be used in mass throughout the planting area to develop habitat for egg laying amphibians. The interspersed between the erect vegetation and the shallow water regime will be high. Vegetation will be planted to develop different levels of height to provide diverse utilization of habitat species.

7.0 Breckenridge Subdivision Wetland Creation and Enhancement Area Planting Specifications

Table 2. Wetland Creation Area Planting Zone (7,700 sq. ft.)

Planting density: 5 trees and 10 shrubs/ 1,000 sq. ft. or 218 trees and 436 shrubs / acre

Plant shrub species in clusters of 3 to 5 plants.

<i>Tree Species</i>	<i>Plant Form</i>	<i>Minimum Size</i>	<i>Minimum Spacing</i>	<i>Required Number</i>
Oregon ash (<i>Fraxinus latifolia</i>)	Bare Root	3-4'	6'	20
Black cottonwood (<i>Populus balsamifera</i>)	Bare Root		6'	20
Total				40
<i>Shrub Species</i>	<i>Plant Form</i>	<i>Minimum Size</i>	<i>Minimum Plant Cluster Spacing</i>	<i>Required Number</i>
Creek dogwood (<i>Cornus sericea</i> <i>var.occidentalis</i>)	Bare Root	3-4'	3-4'	10
Twinberry (<i>Lonicera involucrata</i>)	Bare Root	3-4'	3-4'	10
Nootka rose (<i>Rosa nutkana</i>)	Bare Root	3-4'	3-4'	10
Pacific willow (<i>Salix lasiandra</i>)	Cuttings	5'	3-4'	50
Total				120

Table 3. Wetland Enhancement Area Planting Zone (7,538 sq. ft.)

Planting density: 5 trees and 10 shrubs/ 1,000 sq. ft. or 218 trees and 436 shrubs / acre

Plant shrub species in clusters of 3 to 5 plants.

<i>Tree Species</i>	<i>Plant Form</i>	<i>Minimum Size</i>	<i>Minimum Spacing</i>	<i>Required Number</i>
Oregon ash (<i>Fraxinus latifolia</i>)	Bare Root	3-4'	6'	20
Black cottonwood (<i>Populus balsamifera</i>)	Bare Root	3-4'	6'	20
Total				40
<i>Shrub Species</i>	<i>Plant Form</i>	<i>Minimum Size</i>	<i>Minimum Plant Cluster Spacing</i>	<i>Required Number</i>
Creek dogwood (<i>Cornus sericea</i> <i>var.occidentalis</i>)	Bare Root	3-4'	3-4'	20
Twinberry (<i>Lonicera involucrata</i>)	Bare Root	3-4'	3-4'	20
Nootka rose (<i>Rosa nutkana</i>)	Bare Root	3-4'	3-4'	20
Pacific willow (<i>Salix lasiandra</i>)	Cuttings	5'	3-4'	20
Total				120

Table 4. Wetland Buffer Area Planting Zone (9,200 sq. ft.)

Planting density: 5 trees and 10 shrubs/ 1,000 sq. ft. or 218 trees and 436 shrubs / acre

Plant shrub species in clusters of 3 to 5 plants.

<i>Tree Species</i>	<i>Plant Form</i>	<i>Minimum Size</i>	<i>Minimum Spacing</i>	<i>Required Number</i>
Douglas fir (<i>Pseudotsuga menziesii</i>)	Bare Root	3-4'	6'	25
Big-leaf maple (<i>Acer macrophyllum</i>)	Bare Root	3-4'	6'	25
Total				50
<i>Shrub Species</i>	<i>Plant Form</i>	<i>Minimum Size</i>	<i>Minimum Plant Cluster Spacing</i>	<i>Required Number</i>
Oceanspray (<i>Holodiscus discolor</i>)	Bare Root	3-4'	3-4'	20
Osoberry (<i>Oemleria cerasiformis</i>)	Bare Root	3-4'	3-4'	20
Red flowering currant (<i>Ribes sanguineum</i>)	Bare Root	3-4'	3-4'	20
Tall Oregon-grape (<i>Mahonia aquifolium</i>)	Bare Root	3-4'	3-4'	20
Common snowberry (<i>Symphoricarpos albus</i>)	Bare Root	3-4'	3-4'	20
Total				100

Source of Plant Materials. All plant materials will be obtained from nurseries specializing in native Pacific Northwest plant materials, preferably from the southwest Washington or Willamette Valley area.

Planting Time. Plant bare-root shrubs and trees between mid-November and early-March, when plants are dormant. If planting is conducted outside this time period, use containerized plant stock with extra watering to ensure that plants become adequately established. Seed mixture application shall occur in early fall or late spring during periods of adequate rainfall to ensure establishment.

Planting Guidelines. For bare-root stock, excavate a hole large enough in diameter to accommodate the plant roots without restriction. Plants will be held in place with the top of the root mass at ground level. Topsoil will be backfilled around the roots and lightly tamped to remove any air pockets in the soil. For containerized plants, excavate a hole, 1 ½ times the size of the containerized root mass and plant as above.

Future maintenance shall consist of scarification (by hand) to keep the 1-foot diameter area around the plantings free of herbaceous vegetation until they are well established. Supplemental watering (3-4 times during the summer season) may be required to ensure plant survival and mitigation success.

8.0 Best Management Practices & Utility Locate

Sediment and erosion control measures will be in place and will include but are not limited to silt fencing and straw mulch cover in all excavated or otherwise disturbed soil areas. Silt fencing will be installed along the perimeter of the existing wetland boundary and shall remain in place until the soils within the adjacent uplands are stabilized.

Call **(360) 696-4848** or **1-800-553-4344** at least two working days before any earthwork activities are started, and all affected utilities will send workers to mark each underground line with color-coded paint.

9.0 Performance Standards

The performance standards are used to evaluate whether the project's goals and objectives are being met. These standards are listed below for each component.

1) Performance Standard: Vegetation

The survival rates for herbaceous and woody species and desired recruitment species within the mitigation area will be as follows:

- a) Year One: 100% survival of planted woody species and desired recruitment species.
- b) Year Two: 80% survival of planted woody species and desired recruitment species.
- c) Year Three: 80% survival of planted woody species and desired recruitment species.
- d) Year Four: 80% survival of planted woody species and desired recruitment species.

- e) Year Five: 80% survival of planted woody species and desired recruitment species.

2) Performance Standard: Plant Species Composition

It is expected that the plant species best adapted to the site conditions within the mitigation areas will exhibit the highest survival rates within additional numbers of those plant species occurring over the course of the monitoring period and after through natural recruitment. Therefore, the overall species composition within the mitigation area may change over time.

3) Performance Standard: Invasive Plant Species

Invasive plant species coverage within the confines of the wetland enhancement area will not exceed 10 percent during the monitoring period.

4) Performance Standard: Wetland Hydrology

During the time period of March 1 to October 31, or the growing season, the hydrology of the emergent wetland mitigation area shall range at minimum from saturated at the surface to ponded or flooded for 30 consecutive days.

5) Performance Standard: Cover by proposed plant community including volunteer species

For the duration of the monitoring period, cover will be less than 10% for all non-native invasive species within the enhanced wetland area. Non-native species shall be removed by hand or with herbicides only as recommended and supervised by a licensed aquatic applicator and the Clark County Weed Control Board.

6) Performance Standard: Trash and debris within created and enhanced wetland areas

Any trash or debris which exceeds 1 ft³/100ft² (equal to the volume of a standard size office garbage can) shall be removed from the created and enhanced wetland areas. In general, there should be no evidence of dumping.

7) Performance Standard: Erosion

Eroded damage greater than 2 inches deep where the cause of damage is still present or where there is potential for continued erosion will be stabilized with appropriate erosion control BMP's (e.g., seeding, mulching, riprap).

10.0 Security Bonding and Instruments

If required by the City of Camas, CES will provide the Applicant with performance and maintenance bonds costs which will be recorded with the appropriate regulatory agency prior to final wetland permit approvals.

11.0 Monitoring and Maintenance Plans

The following actions will be implemented as part of the monitoring and maintenance plan on this site:

1. The initial and all successive year plantings will be supervised by a wetland biologist or landscaping professional to ensure that correct planting procedures are followed and those plantings are installed according to the planting scheme.
2. Monitoring of all planted areas shall begin once the mitigation site is established and shall continue at least once each year during four successive growing seasons. CES will monitor the mitigation site at appropriate times during the year to chronicle wetland hydrology and plant survival. A report documenting the monitoring results will be submitted to the City of Camas each monitoring year. This report will identify deficiencies in the enhancement progress and any contingency measures that will be taken to correct those deficiencies. Photographs taken from established photo-stations will be included with these reports.
3. Monitoring will be achieved using fixed vegetation sampling stations within areas representative of the plant communities being established. These monitoring stations would be used for the duration of the monitoring program. At each monitoring station, an overall photo pan of the project area will be taken annually to document the condition of the enhanced areas.
4. To ensure planting success, the Applicant will be responsible for performing minor maintenance over the monitoring period. This will include the selective removal of undesirable plant species such as blackberry or reed canarygrass that may be hindering the growth and establishment of the favored plant stands. Undesirable plant species will be removed by hand or in accordance with the recommendations of the local Weed Control Board. An area, 1-foot in diameter surrounding each planted woody species, will be kept free of competing vegetation. This can be accomplished by scarifying the area by hand, through the use of weed-control rings, or by mechanical means.
5. Maintenance of the mitigation area may include a temporary above ground irrigation system capable of watering the entire wetland mitigation area if monitoring results deem it necessary.
6. CES shall supervise any maintenance that is required within the permit area.

12.0 Integrated Pest Management

Invasive plant species which are most prevalent on the site include Canada thistle and reed canarygrass. Both of these plant species may be controlled through intensive mechanical means such as mowing or cutting and with approved aquatic herbicides. Control of these or any other invasive plant species on the site with the use of herbicides must be coordinated with CES and the Clark County Weed Control Board. Only persons possessing a valid aquatic herbicide applicators license shall administer herbicide applications in the aquatic areas of the site.

13.0 Project Implementation

Wetland creation grading will occur during the period of July to September 30 after issuance of permits. Plantings will be installed after the wetland creation grading is completed during the period of December to March 31 of 2007. All plantings will be monitored during the first growing season following the initial planting (2007), and then for the next five growing seasons.

14.0 Contingency Plans

Contingency plans are designed to identify potential courses of action, and any corrective measures to be taken when monitoring indicates project goals are not being met. Table 5 summarizes the maintenance and contingency requirements for this project. In general, the contingency measures for this site are as follows:

1. Replacement Plantings—Replacement plantings will be made throughout the monitoring period if monitoring reveals that unacceptable plant mortality has occurred. Woody species will be re-planted to the original number of plants in the accepted mitigation plan annually throughout the duration of the monitoring and maintenance period.
2. Planting Plan Modifications—Modifications to the planting plan (i.e., plant species and densities) will be made if monitoring identifies problems with the original planting scheme. For example, if annual monitoring identifies that plant mortality is attributed to an inappropriate hydrologic regime, the replacement plantings should be made using a more suitable plant species.

Any recommended changes to the planting scheme will be documented in the annual monitoring report. The addition of any new plant species, not already included in this mitigation plan, must be approved by the City of Camas.

3. Soil Erosion—any areas demonstrating soil erosion problems will be restored as soon as possible. If there does not appear to be a problem with the original design, the eroded areas will be restored by replacing any lost topsoil and replanted according to the original planting scheme.
4. The plant communities included in this mitigation plan contain a variety of species representing a wide range of hydrologic regimes (facultative upland to facultative wetland). It is expected that as the plant community evolves, the individual species will

become established in the appropriate hydrologic regime. This may result in a plant distribution that varies slightly from the planting scheme detailed in this plan. This should not be viewed as a failure unless these variations result in unacceptable plant mortality or otherwise jeopardize the overall wetland functions and values. If monitoring identifies that the site is persistently wetter or drier than expected, and this variation is causing unacceptable plant mortality, then changes in the planting scheme will be made as described above (i.e., Planting Plan Modifications).

Table 5. Maintenance and Contingency Requirements

Performance Category	Performance Standard	Monitoring Measure	Monitoring Schedule	Contingency
Wetland hydrology in wetland creation areas	Total area of wetland creation shall be at least 7,700 square feet.	During the time period of March 1 to October 31, or the growing season, the hydrology of the emergent wetland mitigation area shall range at minimum from saturated at the surface to ponded or flooded for 30 consecutive days.	February to April of first 3 years with normal rainfall.	Re-evaluate location of wetland creation area
Survivorship of planted species.	Survivorship shall be 100%.	Comprehensive count of failed plantings	Year 1	Replace failed plantings.
	Survivorship shall be 80% for any given species.	Comprehensive count of failed plantings	Years 2 through 5	Replace failed plantings.
Cover by proposed plant community, including volunteers	Cover will be >20% for tree species, >40% for all woody species.	Visual Estimate	Year 5	Install additional plantings.
Cover by non-native, invasive weeds	Cover will be <10% for all non-native invasive species.	Visual Estimate	All years monitored	Hand removal, herbicides only as recommended and supervised by a licensed aquatic applicator and the Clark County Weed Control Board.
Trash and debris	Any trash or debris which exceeds 1 ft ³ /100ft ² (equal to the volume of a standard size office garbage can). In general, there should be no evidence of dumping.	Visual Estimate	All years monitored	Remove trash and debris from mitigation area.
Erosion	Eroded damage >2 inches deep where cause of damage is still present or where there is potential for continued erosion.	Visual Estimate	All years monitored	Eroded areas should be stabilized with appropriate erosion control BMP's (e.g., seeding, mulching, riprap).

15.0 Literature Cited

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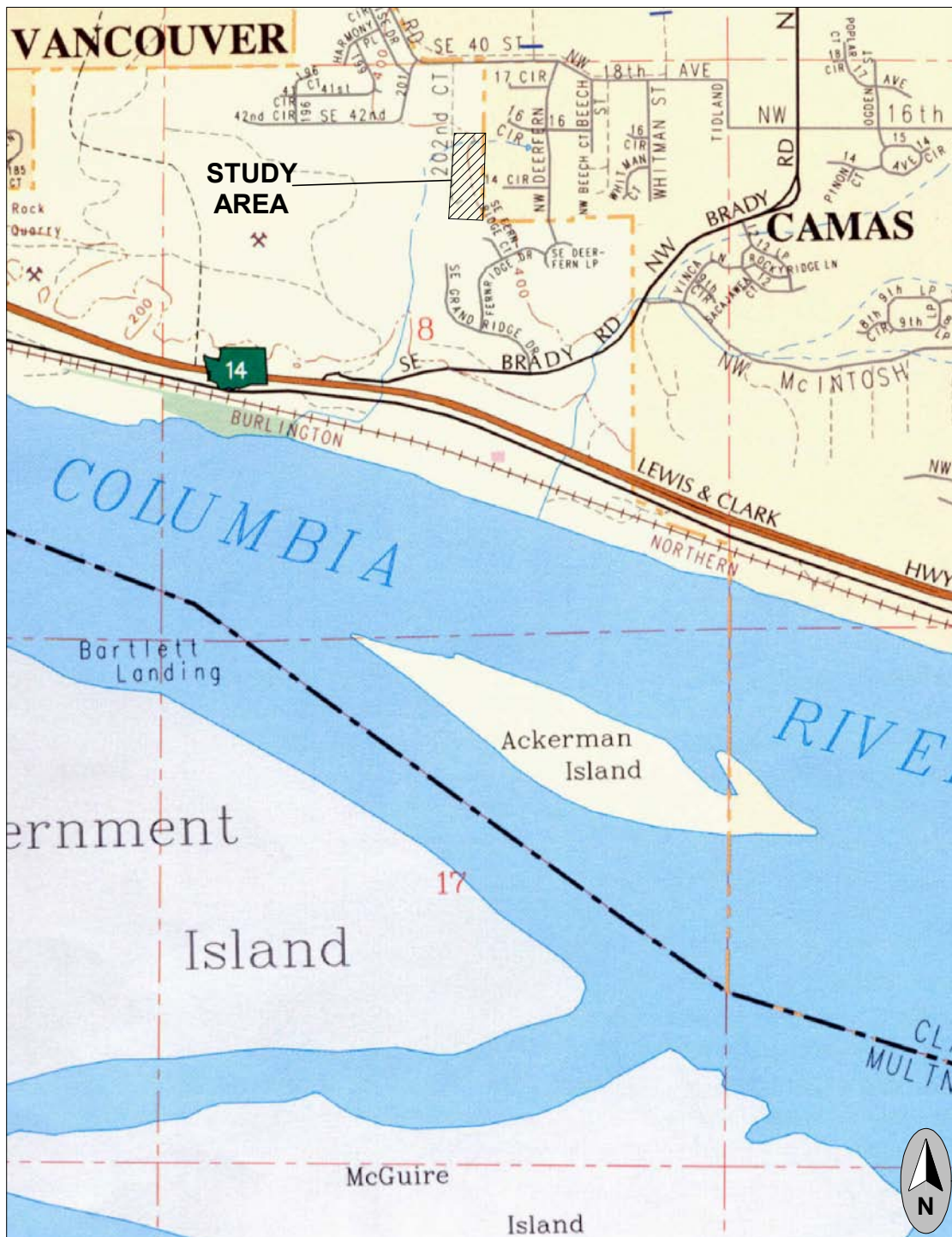
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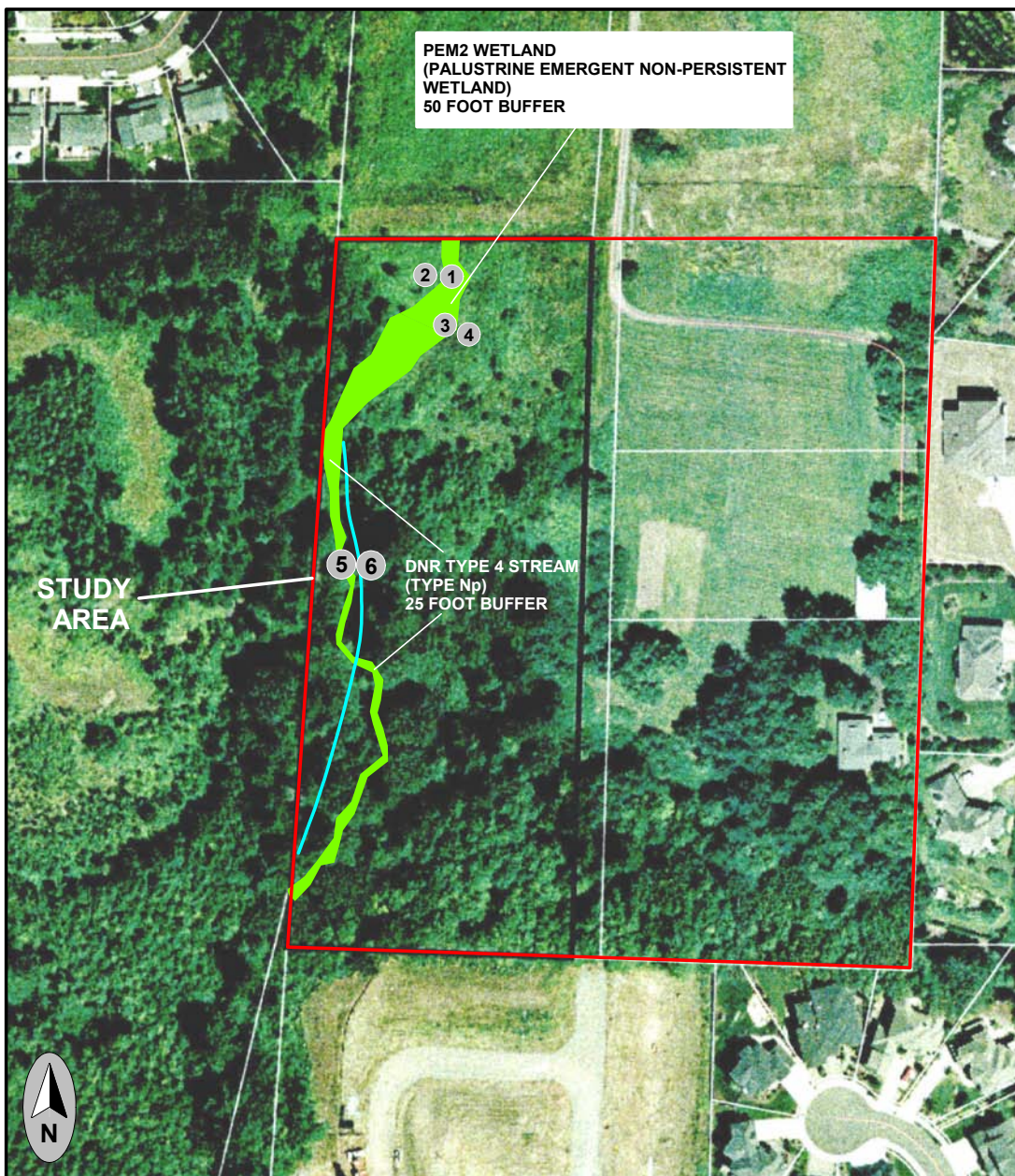
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SHEET 1
 LOCATION MAP
 COMPENSATORY WETLAND MITIGATION PLAN
 BRECKENRIDGE SUBDIVISION (125601-000)
 SCALE: NTS
 DATE: 7/12/06



GRAPHIC SOURCE: CLARK COUNTY GIS

1 - WETLAND DATA PLOT

NOTE: GRAPHIC DEPICTS THE SURVEYED LOCATION OF FLAGGED WETLANDS ON THE SITE. IT IS RECOMMENDED THAT THE APPROPRIATE REGULATORY AGENCIES VERIFY THE WETLAND BOUNDARIES PRIOR TO MAKING SUBSTANTIAL FINANCIAL COMMITMENTS TO THE PROJECT.



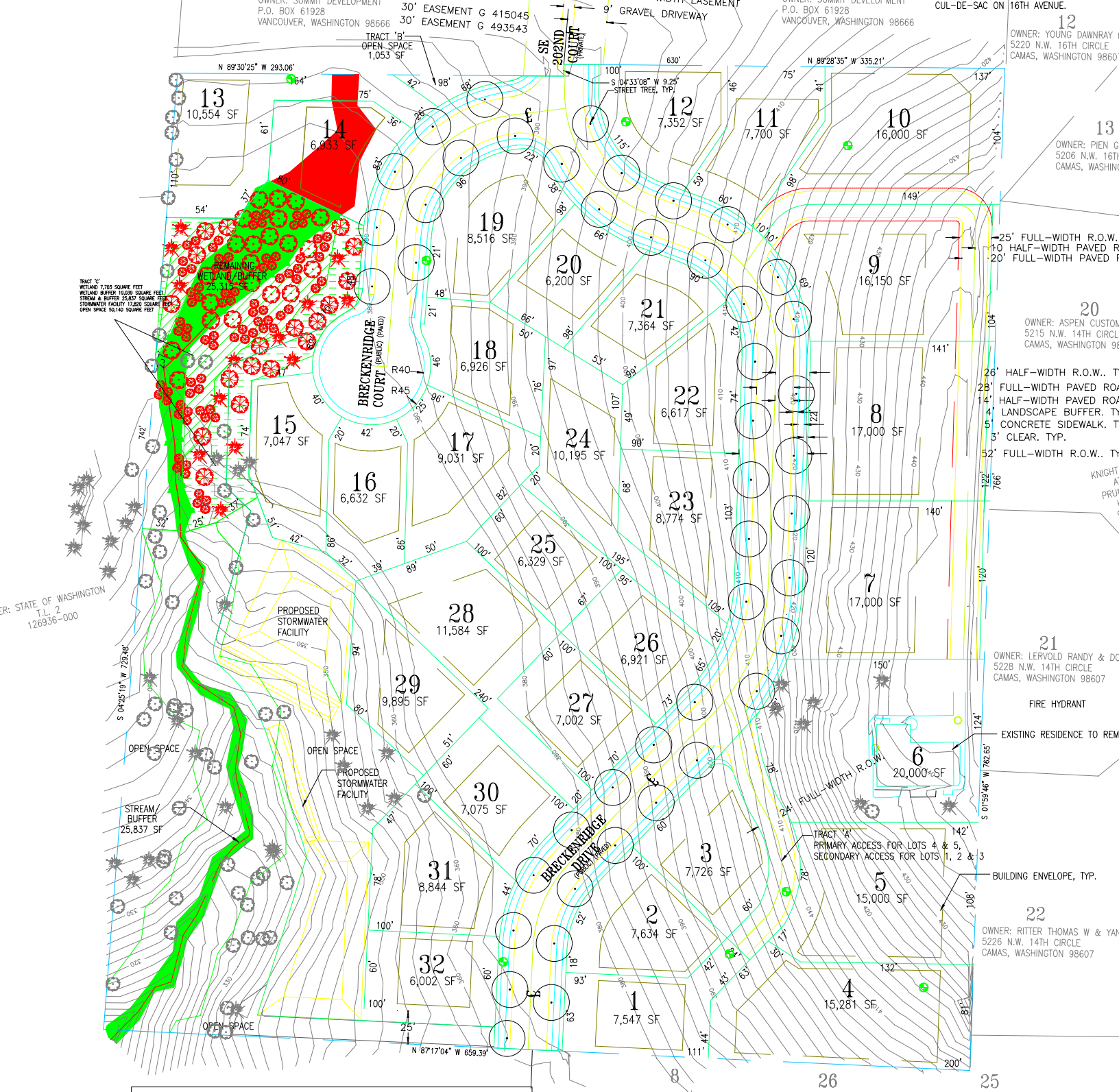
CASCADIA

ECOLOGICAL SERVICES, INC.

P.O. BOX 1502
21012 N.E. 276TH WAY
BATTLE GROUND, WA 98604
(360) 687-5192

SHEET 2
EXISTING SITE CONDITIONS
COMPENSATORY WETLAND MITIGATION PLAN
BRECKENRIDGE SUBDIVISION (125601-000)
SCALE: 1" = 200'
DATE: 7/12/06

- | | |
|---|--|
|  | PROPOSED WETLAND FILL:
3,520 SQUARE FEET |
|  | PROPOSED INDIRECT WETLAND
IMPACT: 1,458 SQUARE FEET |
|  | REMAINING WETLAND
AREA: 25,315 SQUARE FEET |
|  | WETLAND CREATION
AREA: 7,700 SQ. FT. |
|  | WETLAND BUFFER
ENHANCEMENT AREA:
9,200 SQ. FT. |



	PROPOSED WETLAND FILL 3,520 SQUARE FEET		EXISTING HARDWOOD TREE
	REMAINING WETLAND AREA: 25,315 SQUARE FEET		EXISTING EVERGREEN TREE
	WETLAND ENHANCEMENT AREA: 7,538 SQUARE FEET		MITIGATION HARDWOOD TREES
	WETLAND CREATION AREA: 7,700 SQUARE FEET		MITIGATION EVERGREEN TREES
	WETLAND BUFFER ENHANCEMENT AREA: 9,200 SQUARE FEET		MITIGATION WOODY SHRUBS

BASE GRAPHIC SOURCE: OLSON ENGINEERING

PLANT ACCORDING TO THE SPECIFICATIONS GIVEN
IN TABLE 2.0. LOCATIONS OF PLANTINGS MAY BE
ADJUSTED AT THE TIME OF PLANTING TO ACCOMMODATE
THE PROPER PLANTING CONDITIONS FOR THE
APPROPRIATE SPECIES.

CASCADIA ECOLOGICAL SERVICES IS NOT RESPONSIBLE
FOR LOCATING UTILITIES WITHIN THE CONFINES OF
THE WETLAND CREATION AREA. PRIOR TO COMPLETING
ANY EARTHWORK, A UTILITY LOCATE MUST BE
CONDUCTED.



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SHEET 4
WETLAND MITIGATION AREA DETAIL
COMPENSATORY WETLAND MITIGATION PLAN
BRECKENRIDGE SUBDIVISION (125601-000)
SCALE: 1" = 100'
REVISED DRAWING DATE: 10/16/06

OWNER: SUMMIT DEVELOPMENT
P.O. BOX 61928
VANCOUVER, WASHINGTON 98666

30' EASEMENT G 415045
30' EASEMENT G 493543

30' HALF-WIDTH EASEMENT
9' GRAVEL DRIVEWAY

OWNER: SUMMIT DEVELOPMENT
P.O. BOX 61928
VANCOUVER, WASHINGTON 98666

12
OWNER: YOUNG DAWN H & KIT
5220 N.W. 16TH CIRCLE
CAMAS, WASHINGTON 98607

13
OWNER: PIEN GENE C E
5206 N.W. 16TH CIRCLE
CAMAS, WASHINGTON 98607

20
OWNER: ASPEN CUSTOM HOMES
5215 N.W. 14TH CIRCLE
CAMAS, WASHINGTON 98607

26' HALF-WIDTH R.O.W.. TYP.
28' FULL-WIDTH PAVED ROADWAY.
14' HALF-WIDTH PAVED ROADWAY.
4' LANDSCAPE BUFFER. TYP.
5' CONCRETE SIDEWALK. TYP.
5' CLEAR. TYP.
52' FULL-WIDTH R.O.W.. TYP.

KNIGHT POINT
AT
PRUNE HILL
H594
92231

21
OWNER: LERVOLD RANDY & DONNA
5228 N.W. 14TH CIRCLE
CAMAS, WASHINGTON 98607

FIRE HYDRANT

EXISTING RESIDENCE TO REMAIN

BUILDING ENVELOPE, TYP.

22
OWNER: RITTER THOMAS W & YAN HL
5226 N.W. 14TH CIRCLE
CAMAS, WASHINGTON 98607

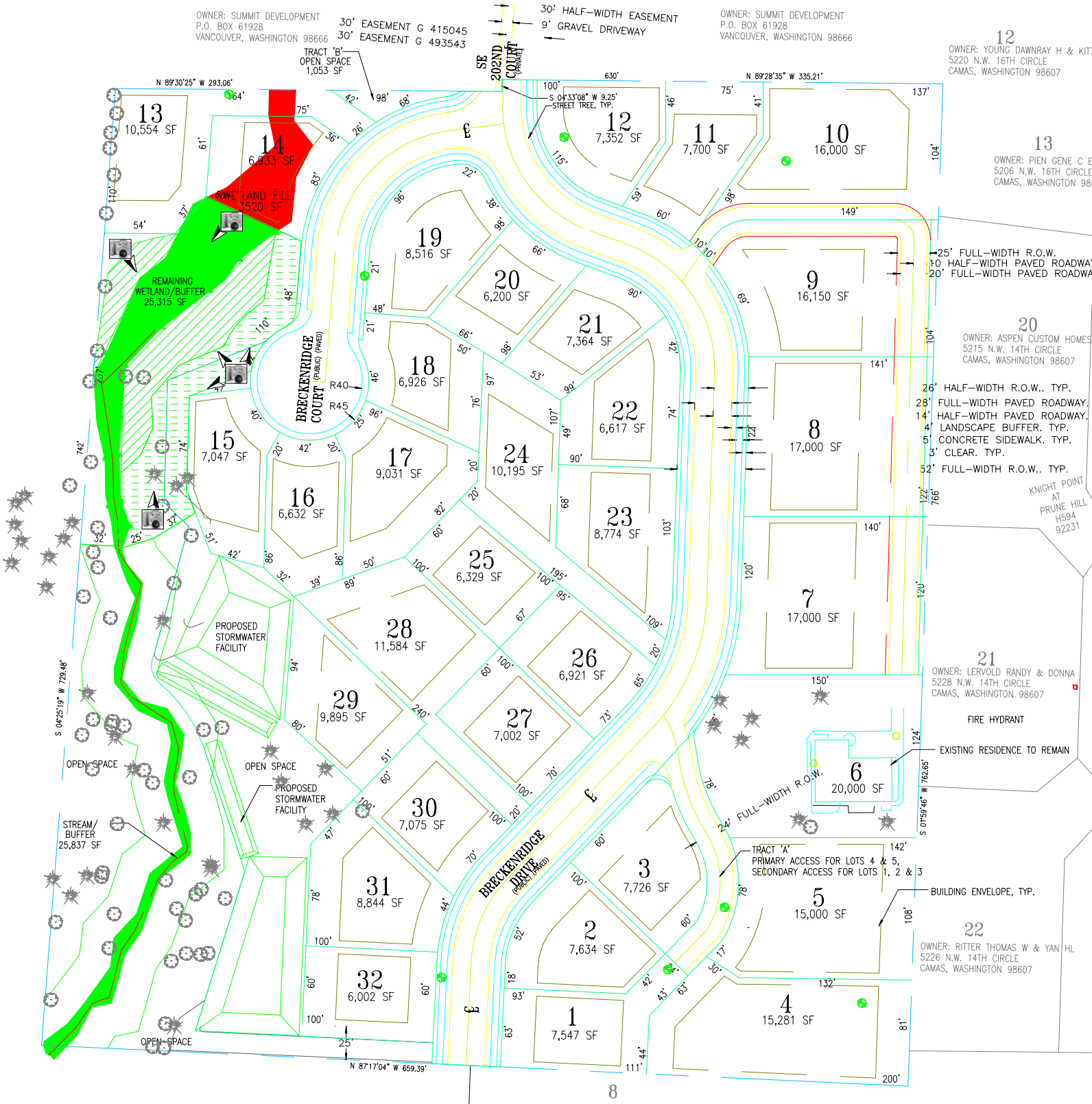


PHOTO-STATION



BASE GRAPHIC SOURCE: OLSON ENGINEERING



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SHEET 5
MITIGATION PHOTO STATIONS
COMPENSATORY WETLAND MITIGATION PLAN
BRECKENRIDGE SUBDIVISION (125601-000)
SCALE: 1" = 100'
DATE: 10/16/06

APPENDIX A



CASCADIA
ECOLOGICAL SERVICES, INC.

WETLAND DELINEATION & ASSESSMENT REPORT

HUEY PROPERTY

CLARK COUNTY, WASHINGTON

PREPARED FOR:
HINTON DEVELOPMENT CORPORATION
14010-A N.E. 3RD COURT
SUITE 106
VANCOUVER, WA 98685
(360) 546-1220

PREPARED BY:
CASCADIA ECOLOGICAL SERVICES, INC.
P.O. BOX 1502
BATTLE GROUND, WA
98604
(360) 687-5192

February 2, 2006

TABLE OF CONTENTS

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Results and Discussion	4-5
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Sheet 2 – Site Topographic Contours	
Sheet 3 – Clark County Soil Survey Map	
Sheet 4 – National Wetland Inventory Map	
Sheet 5 – Aerial Photography & Environmental Constraints	
Routine On-Site Determination Sheets	

TABLE 1. HUEY PROPERTY SITE SUMMARY

Report Preparer	James Barnes (President – Cascadia) Field Investigators: James Barnes/Scott Brummer
Site Location(s)	SE 202nd Court, Camas, WA 98607
Owner / Applicant	Hinton Development / J. Dawkins
Tax Parcel (s) / Lot Size	125601-000 (5.07 Acres)
County	Clark County
Lat./Long.	45° 35' 22.2" N, 122° 27' 57.7" W
Legal Description	NE ¼ of Section 8, Township 1 North, Range 3 East of the Willamette Meridian
Municipal Jurisdiction	Camas
Zoning	R1-6
Comprehensive Plan Zoning	SFH
Topography	Slightly sloping (North) to Moderately Steep Slopes (South)
Elevation	High point: ~392 feet above mean sea level (North) Low Point: ~326 feet above mean sea level (South)
Drainage Basin	Columbia River
Nearest Water	On-site un-named tributary stream
Land Form	River terrace
Soil Map Unit(s)	Hesson clay loam, 0 to 8 percent slopes (HcB) Olympic clay loam, 8 to 20 percent slopes (O1D) Powell silt loam, 8 to 20 percent slopes (PoD)
NWI Classification	No mapped wetland classifications on-site
Priority Habitat	Riparian Conservation Habitat Area
Habitat Area Buffer	No mapping indicators
Species Area Buffer	No mapping indicators
Current Land Use	Vacant
Adjacent Land Use	Residential
Proposed Land Use	Residential subdivision

INTRODUCTION

Cascadia Ecological Services, Inc. (CES) was contracted by Hinton Development to complete a wetland delineation and assessment for the Huey Property located in Camas, Washington. The project consists of one tax parcel (125601-000) for a total area of 5.07 acres. This report details the results of a wetland delineation conducted on January 18, 2006 by CES.

The project site is located near the south terminus of SE 202nd Court within Water Resource Inventory Area (WRIA) 28. WRIA 28 is located in Southwest Washington, with boundaries that extend to the western margins of the Wind River to the east, the Columbia River to the south, and the East Fork Lewis River to the north. The inventory area includes the southern and eastern portions of Clark County and southwestern Skamania County. It includes three major subbasins: the Lake River Subbasin, the Washougal River Subbasin, and the Bonneville Tributaries Subbasin. The project area is located within the Lake River subbasin (Wade, 2000).

The study area slopes from north to south and contains a narrow drainage within the southwest portion of the site. Seasonal drainage from wetlands in the north portion of the site provides flow to a DNR Type 4 or Np (non-fish bearing) stream which flows through the center and southwest portions of the property. The stream flows off-site at the southwest corner.

Approximately two-thirds of the study area is forested. The north portion consists of grassland and scattered shrub areas with extensive thickets of blackberries.

According to U.S. Geological Survey (USGS) mapping, the site topography slopes from a high point of approximately 392 feet above mean sea level near the north property line to approximately 326 feet above mean sea level at the southwest corner.

WETLAND DELINEATION METHODOLOGY

The wetland delineation followed the Routine Determination Method described as per the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Washington State Wetlands Identification and Delineation Manual (WSDOE 1997). According to the manuals, jurisdictional wetlands are defined as:

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 generally include swamps, marshes, bogs, and similar areas.

The Routine Determination Method uses three parameters to determine if wetlands exist in a given area: hydrophytic vegetation, hydric soils and wetland hydrology.

Except in certain situations defined in the manual, evidence of a minimum of one positive wetland indicator from each of the three parameters (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination.

Prior to conducting a site visit on January 18, 2006, CES reviewed existing information to assist with the determination of wetland boundaries on the project site. This review included the Clark County

Soil Survey, National Wetland Inventory maps, USGS Topographic Quadrangle maps and aerial photographs.

In order to conduct the wetland delineation, CES established several data observation points within the confines of the project area that corresponded with the terrain features, vegetation patterns, mapped hydric soil areas, and hydrologic indicators.

CES characterized the vegetation, soils, and hydrology at each of the observation points and used the information gathered as a basis for making the wetland determinations. Although numerous data observation points were established in order to make the wetland determinations, for the purposes of this report, six data observation points representative of the wetland areas are given (Sheet 5).

Vegetation on the site was compared to the National List of Plant Species that Occur in Wetlands: 1988 - Northwest (Region 9) (Reed 1988) to determine plant wetland indicator status. This list places plants into four categories:

Obligate wetland plants (OBL) -- plants likely to occur in wetlands greater than 99 percent of the time.

Facultative wetland plants (FACW) -- plants likely to occur in wetlands 67 to 99 percent of the time.

Facultative plants (FAC) -- plants equally likely to occur in wetland and non-wetland areas (34-66 percent of the time).

Facultative upland plants (FACU) -- plants that only occur in wetlands 1 to 33 percent of the time.

Hydrophytic vegetation are macrophytic plants that occur in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. The vegetation occurring in a wetland may consist of more than one plant community. Hydrophytic vegetation is present when more than 50 percent of the dominant species have an indicator status of OBL, FACW, and/or FAC.

Hydric soils are classified into two broad categories: organic and mineral. Organic soils (Histosols) develop under conditions of nearly continuous saturation and/or inundation. Organic hydric soils are commonly known as peats and mucks. All other hydric soils are mineral soils. Mineral soils have a wide range of textures (sandy to clayey) and colors (red to gray). Mineral hydric soils are those periodically saturated for sufficient duration to produce chemical and physical soil properties associated with a reducing environment. They are usually gray and/or mottled immediately below the surface horizon, or they have thick, dark-colored surface layers overlying gray or mottled subsurface horizons.

The project site was examined for areas of evident wetland hydrology characteristics. These include areas where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Such characteristics are usually present in areas that are inundated or have soils that are saturated to the surface for sufficient duration to

develop hydric soils and support vegetation typically adapted for life in periodically anaerobic soil conditions.

Wetland indicators that were noted on the project site included drainage patterns, visual observation of saturated soils and inundation.

RESULTS AND DISCUSSION

The U.S. Fish and Wildlife Service National Wetland Inventory (Sheet 4) does not indicate the presence of mapped wetlands on this site.

The Clark County Soil Survey (Sheet 3) identifies the following soil mapping units on this site:

Hesson clay loam, 0 to 8 percent slopes (HcB). This soil is the dominant soil of the high terraces along the mountain foot slopes in the county. This soil is well drained and has moderately slow permeability. This soil is classified as **nonhydric** according to the Clark County hydric soils list.

Olympic clay loam, 8 to 20 percent slopes (O1D). This soil is on rolling, strongly sloping mountain foot slopes and long straight side slopes below ridgetops. In a typical profile, the upper 7 inches is friable, dark reddish-brown clay loam; the next 12 inches is firm, reddish-brown heavy clay loam. This soil is well drained and moderately slowly permeable. This soil is classified as a **nonhydric** soil according to the Clark County hydric soils list.

Powell silt loam, 8 to 20 percent slopes (PoD). This soil is on long, smooth side slopes below ridges and at the foot slopes of steep areas. It is similar to Powell silt loam, 0 to 8 percent slopes, except that it is steeper and the surface layer is 1 to 3 inches thinner. Surface runoff is medium, and the hazard of erosion is moderate. The principal crops are hay, pasture, and corn for silage. There are small acreages of strawberries, grain, and prunes. Grasses and legumes are grown on more of this soil than on Powell silt loam, 0 to 8 percent slopes. The slope limits row cropping. Grain is grown in rotation with long-lived legumes and grasses. Some areas are in timber. This soil is classified as a **nonhydric** soil according to the Clark County hydric soils list.

Based on the review of existing information and the on-site visit, one wetland was identified (Sheet 5) and delineated. The wetland is associated with a drainage pattern that originates off-site to the north and northeast. A summary of the wetland and non-wetland areas is presented below. Wetland boundaries have been flagged in the field but were not surveyed as of the date of this report.

Wetlands

The north-central portion of the study area contains a Palustrine Emergent Non-Persistent wetland which receives seasonal hydrology from a wetland on the property to the north. An old road bed extends from east to west across the north property line linking SE 202nd Court to a rock quarry along the west side of the study area. This road has effectively inhibited flow across the natural drainage through the study area creating a wetland on the property to the north. However, due to the pervious nature of the roadbed, water from the off-site wetland flows onto the study area through a small emergent wetland. This wetland tapers in shape as it continues to the southwest into a defined stream channel which flows across the southwest portion of the site. The emergent

wetland area in the north study area is located between large thickets of Himalayan blackberry (*Rubus discolor* - FACU). The dominant vegetation in the wetlands is nootka rose (*Rosa nutkana* - FAC), soft rush (*Juncus effuses* - FACW), Watson willowherb (*Epilobium watsonii* - FACW-), and curly dock (*Rumex crispus* - FAC+). As the wetland enters the drainage corridor in the southwest portion of the site, the topography transitions to a steep stream corridor which averages less than three feet in width along most of its length. Little to no wetland vegetation exists in the stream channel as the stream banks are dominated by upland species.

Generally, soils in the wetlands are a dark gray silty clay loam (generally 10YR 3/1) with common distinct dark reddish-brown mottles (generally 10YR 3/4). Soils were saturated to the surface at the time of the site visit. Other hydrology indicators in the wetland areas included redoximorphic features such as iron concretions and oxidized rhizospheres within 10 inches of the soil surface. Wetland hydrology is being influenced to some degree by off-site drainage alterations which are directing point source stormwater flows onto the northeast corner of the property.

Non-wetland Areas

The upland plant community within the north portion of the site is dominated by scattered areas of Himalayan blackberry and black hawthorn (*Crataegus douglasii* - FAC); trailing blackberry (*Rubus ursinus* - FACU), Canada thistle (*Cirsium arvense* - FACU+), tall fescue (*Festuca arundinacea* - FAC-), dandelion hawkbeard (*Crepis runcinata* - FACU), bracken fern (*Pteridium aquilinum* - FACU), and St. John's Wort (*Hypericum formosum* - FAC).

The central and south portions of the site are dominated by a Douglas fir (*Pseudotsuga menziesii* - FACU) and big-leaf maple (*Acer macrophyllum* - FACU) forest. The understory vegetation consists of beaked hazelnut (*Corylus cornuta* var. *californica* - FACU), osoberry (*Oemleria cerasiformis* - FACU), trailing blackberry, Himalayan blackberry, vine maple (*Acer circinatum* - FAC-), swordfern (*Polystichum munitum* - FACU), and bracken fern.

Soils within the upland areas generally matched the description of the mapped soil series (5YR 3/2). No primary or secondary wetland indicators were observed in the non-wetland portions of the site.

REGULATORY ISSUES

Based on the information presented above, the wetland areas shown on Sheet 5 were identified and delineated. The wetlands on this site are regulated based on the definitions given in the City of Camas Municipal Code, Chapter 18.31.050 – Wetland Standards. Associated required protective buffers are as follows:

PEM2 (Palustrine Emergent Non-Persistent) Wetland – Generally 50 feet
DNR Type 4 (Np) Stream – 25 feet

It is recommended that the City of Camas and the Corps of Engineers verify the flagged wetland boundaries before any substantial commitments are made towards project planning and design.

In addition to the City of Camas, jurisdictional wetlands are also regulated at the federal level by the U.S. Army Corps of Engineers (Corps) and at the state level by the Washington Department of

Ecology (WDOE). Current Corps and WDOE regulations allow the filling of up to 1/10 acre of certain types of wetlands with pre-construction notification. For wetland fills of 1/10 acres or less in waters of the US, the permittee must submit a report, within 30 days of completion of the work, to the Corps District Engineer describing the work that will be completed and the type and acreage of the loss of waters of the US.

Adverse impacts to wetlands or buffers include (but are not limited to) loss of flood storage potential, loss of wildlife habitat, any expected decrease in species diversity or quantity, changes in water quality, any increase in human intrusion, and impacts on associated wetland or water resources. Analysis of recommended measures to avoid significant adverse impacts to wetlands and their associated buffers and an identification of impacts that cannot be avoided or reduced is required by the City of Camas

Any impacts above the 1/10 acre threshold require prior approval from the Corps and the WDOE. It is recommended that the Corps and WDOE be contacted regarding current permit requirements before proceeding with any development activities that would affect wetlands on this site.

It should be noted that the Corps, DOE, and the City of Camas have the final authority in determining the wetland boundaries and categories under their respective jurisdictions.

REFERENCES

City of Camas Municipal Code Chapter 18.31.050. 2005. Title 18 – Zoning. Camas, Washington.

Department of the Army. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Kollmorgen Instruments Corporation. 1990. Munsell Soil Color Charts. Macbeth Division of Kollmorgen Instruments Corporation, 2441 North Calvert Street, Baltimore, Maryland.

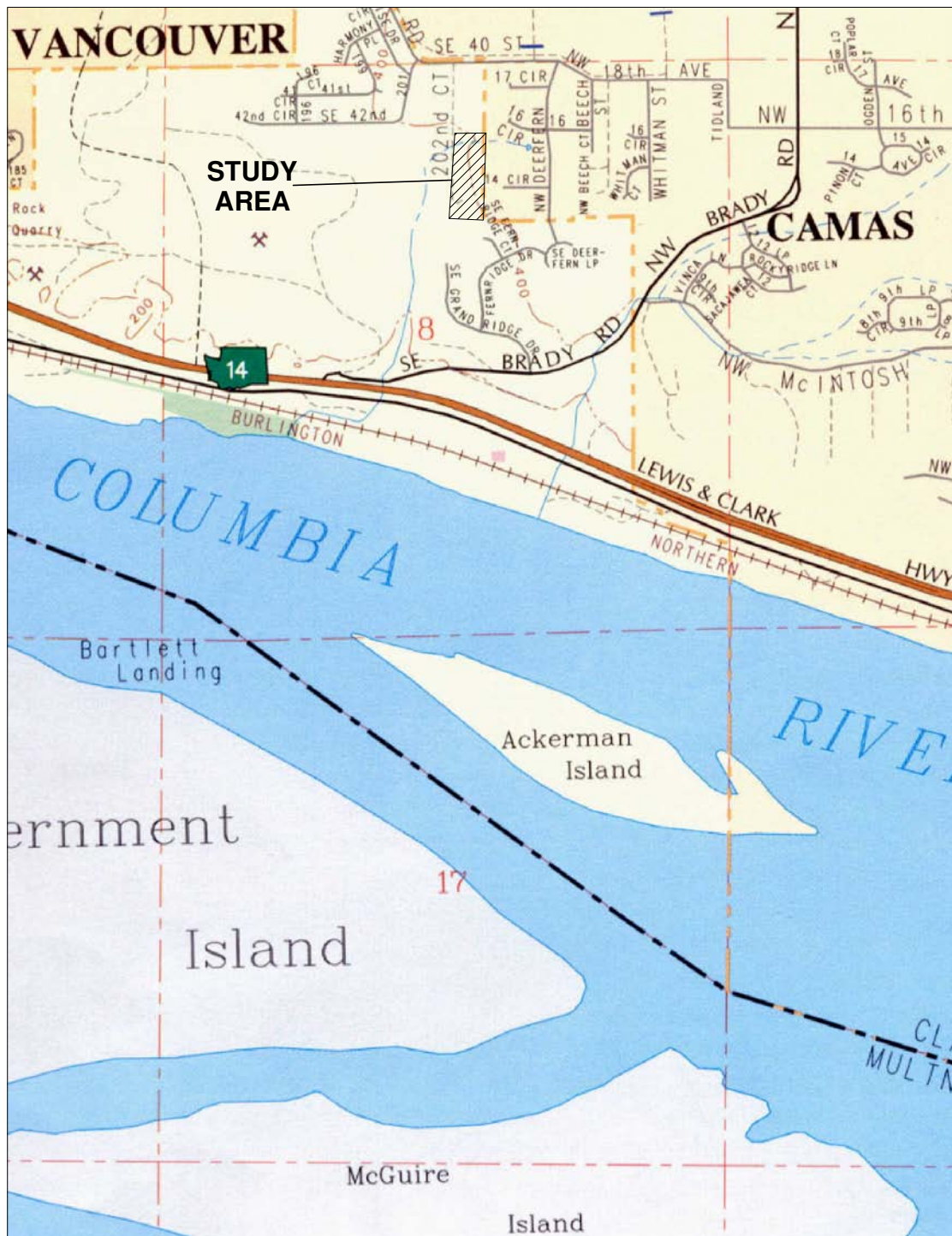
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USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

United States Department of Agriculture. 1972. Soil Survey of Clark County, Washington. Soil Conservation Service, in cooperation with Washington Agricultural Experiment Station. 112 pp. plus maps.

United States Fish & Wildlife Service. 1994. Supplement to Region 9 Wetland Plants List.

Wade, G. 2000. Salmon and Steelhead Limiting Factors – Water Resource Inventory Area 27 Final Report. Washington State Conservation Commission. Olympia, Washington.

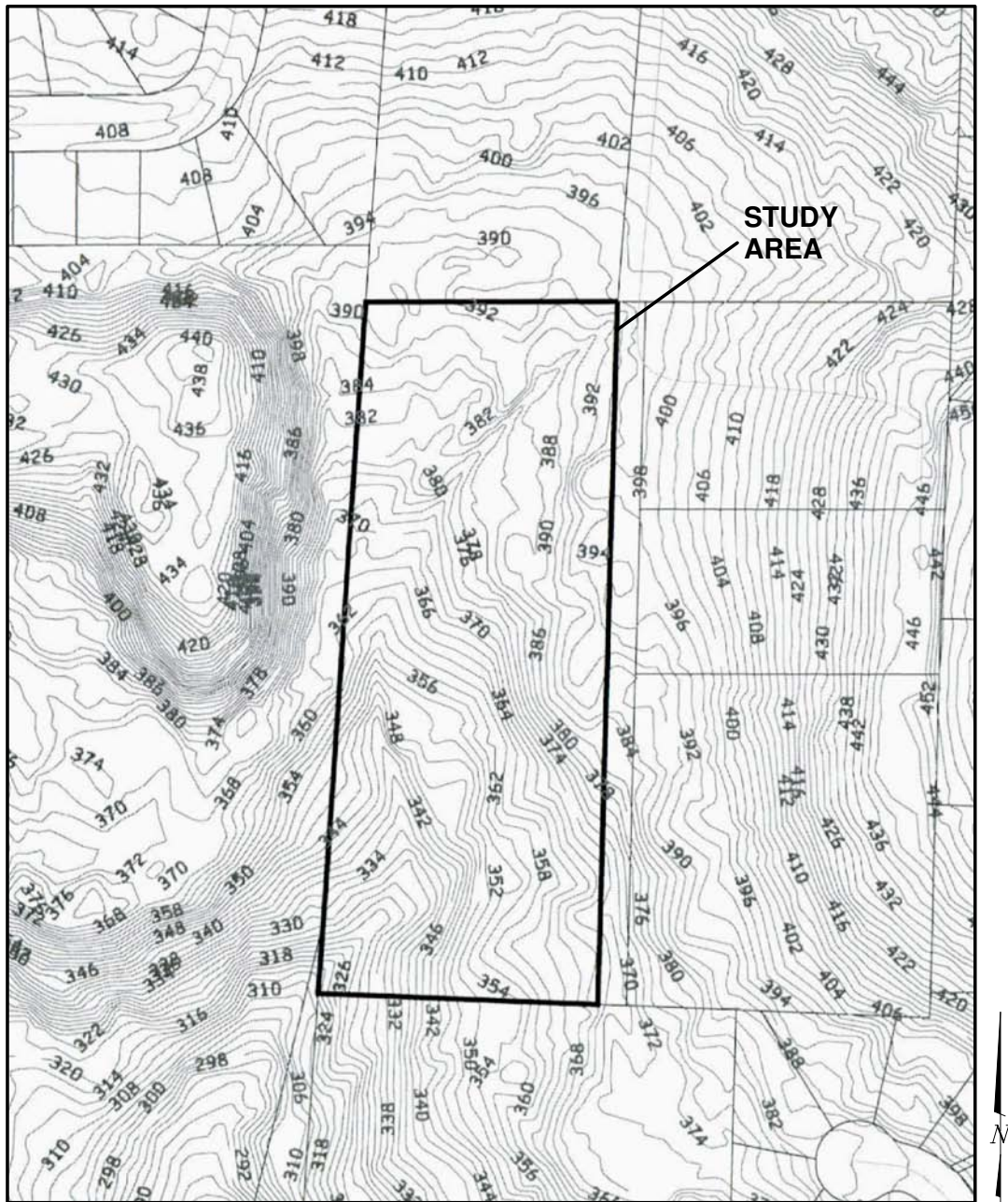


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SHEET 1
LOCATION MAP
WETLAND DELINEATION & ASSESSMENT REPORT
HUEY PROPERTY (125601-000)
SCALE: NTS
DATE: 2/2/06



GRAPHIC SOURCE: CLARK COUNTY GIS

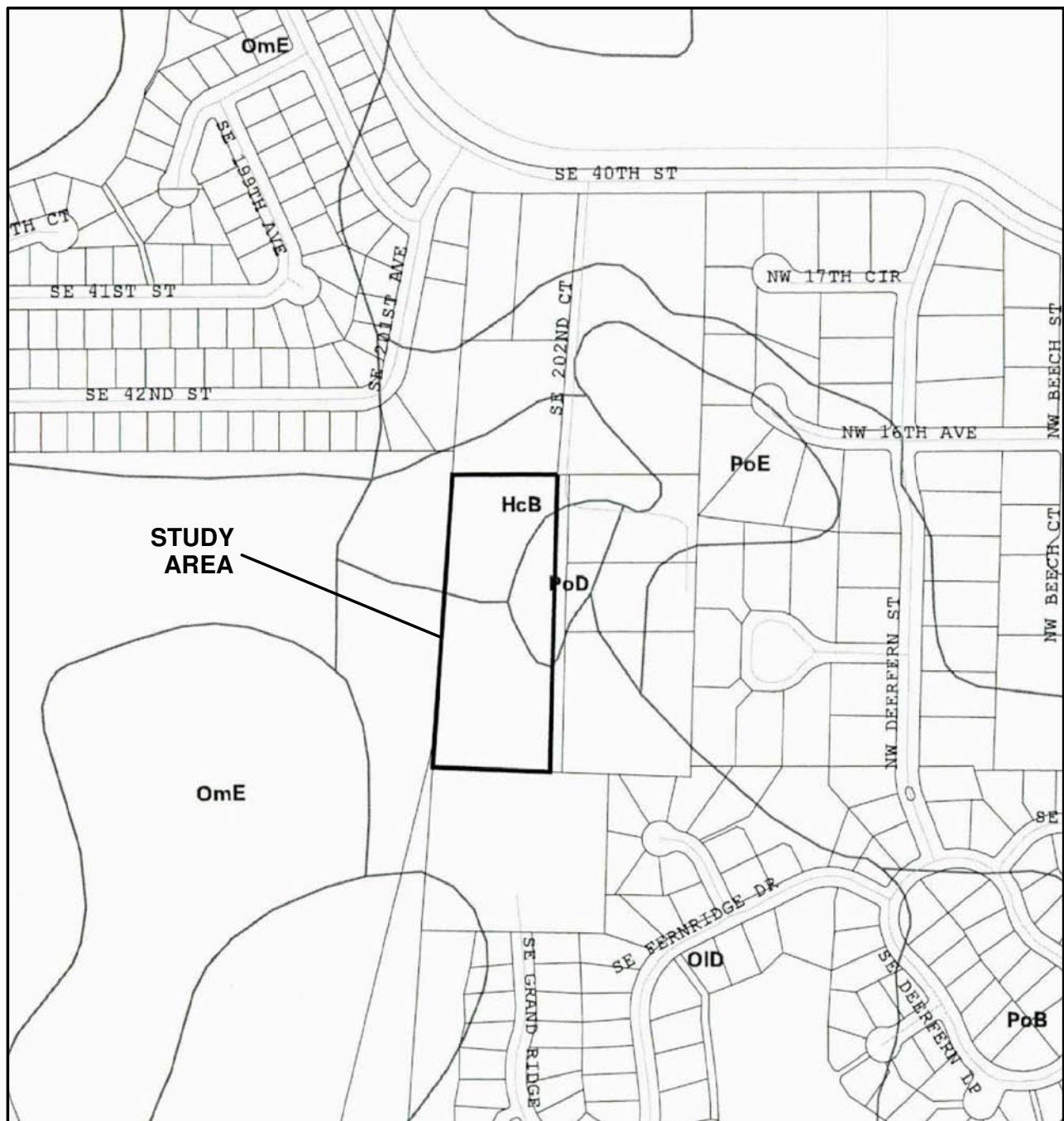


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SHEET 2
SITE TOPOGRAPHIC CONTOURS
WETLAND DELINEATION & ASSESSMENT REPORT
HUEY PROPERTY (125601-000)
SCALE: 1" = 200'
DATE: 2/2/06



GRAPHIC SOURCE: CLARK COUNTY GIS

LEGEND

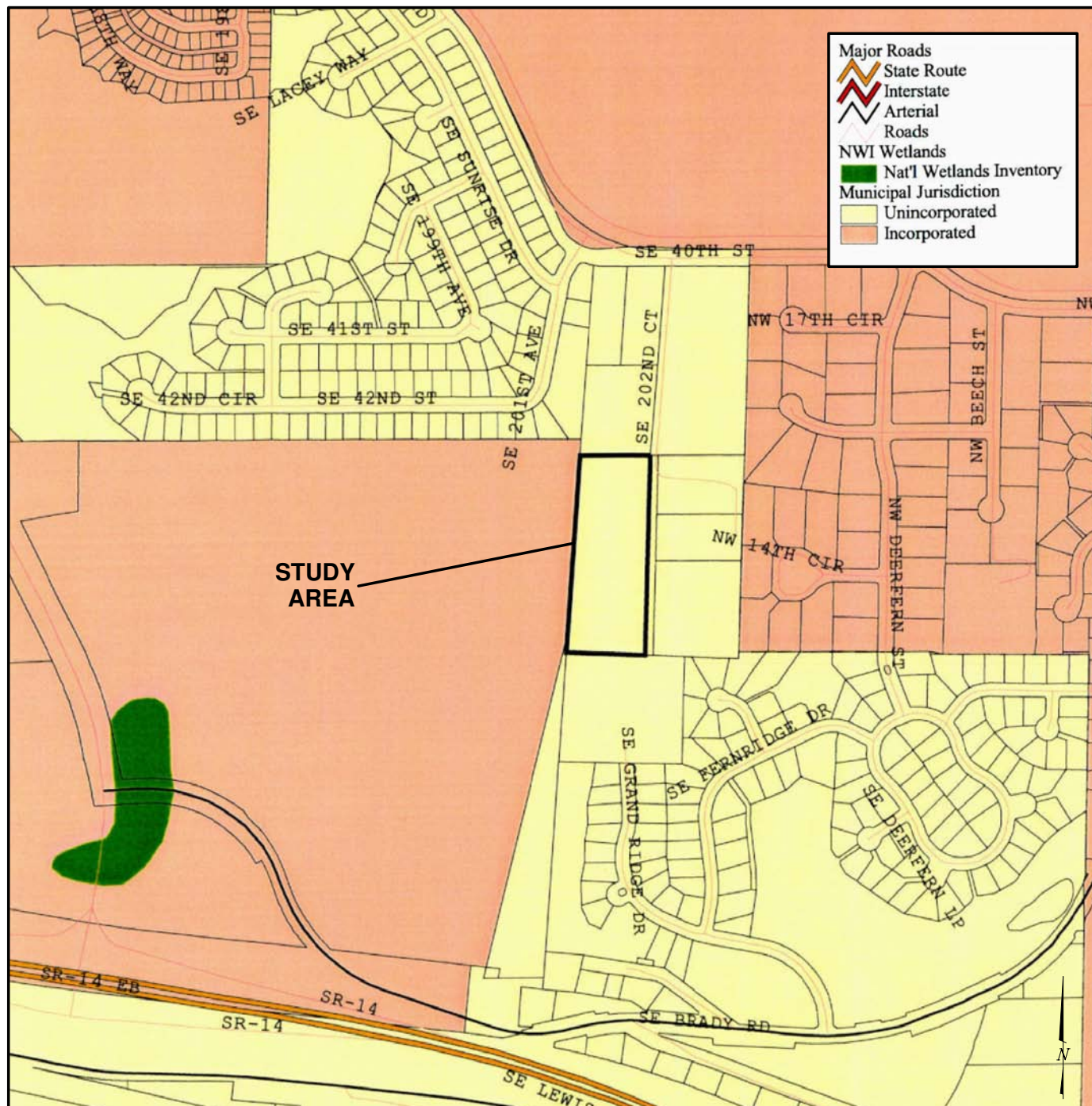
Hesson clay loam, 0 to 8 percent slopes (HcB)
 Olympic clay loam, 8 to 20 percent slopes (OID)
 Powell silt loam, 8 to 20 percent slopes (PoD)



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SHEET 3
CLARK COUNTY SOIL SURVEY MAP
WETLAND DELINEATION & ASSESSMENT REPORT
HUEY PROPERTY (125601-000)
SCALE: 1" = 400'
DATE: 2/2/06



GRAPHIC SOURCE: CLARK COUNTY GIS



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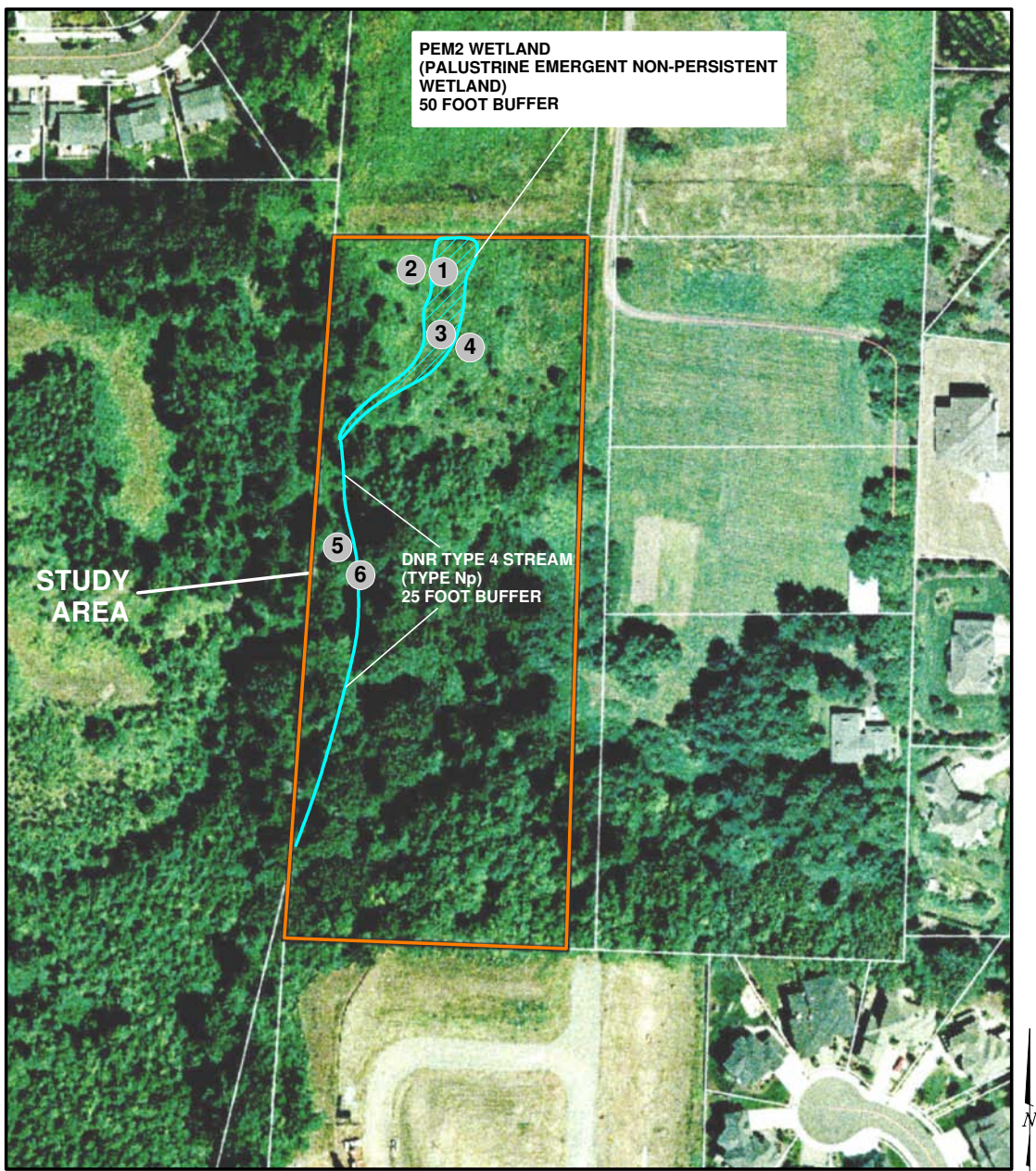
P.O. BOX 1502
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BATTLE GROUND, WA 98604
(360) 687-5192

SHEET 4

NATIONAL WETLAND INVENTORY
WETLAND DELINEATION & ASSESSMENT REPORT
HUEY PROPERTY (125601-000)

SCALE: 1" = 600'

DATE: 2/2/06



GRAPHIC SOURCE: CLARK COUNTY GIS

1 - WETLAND DATA PLOT

NOTE: GRAPHIC DEPICTS THE APPROXIMATE LOCATION OF FLAGGED WETLANDS ON THE SITE. SURVEYED BOUDARIES ARE NOT SHOWN. IT IS RECOMMENDED THAT THE APPROPRIATE REGULATORY AGENCIES VERIFY THE WETLAND BOUNDARIES PRIOR TO MAKING SUBSTANTIAL FINANCIAL COMMITMENTS TO THE PROJECT.



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SHEET 5
AERIAL PHOTOGRAPHY AND ENVIRONMENTAL CONSTRAINTS
WETLAND DELINEATION & ASSESSMENT REPORT
HUEY PROPERTY (125601-000)
SCALE: 1" = 200'
DATE: 2/2/06

Routine Onsite Determination

Project Name:	Huey Property (125601-000)		Fieldwork Date:	1/18/06	
Site Location:	SE 202 nd Ct., Camas, WA 98607		County:	Clark	State: WA
Applicant/Owner:	Hinton Development / J. Dawkins		Investigator(s):	JB/SB	
Land Form:	River Terrace		Plant Community	Emergent Wetland	
Plot	1	Location	North-central portion of Study Area		
Do normal conditions exist on site?	Yes	☒	No	☐	
Has site been significantly disturbed?	Yes	☐	No	☒	
Is this a potential problem site?	Yes	☐	No	☒	

Vegetation

Species/Indicator Status	Stratum	% Cover	Species/Indicator Status	Stratum	% Cover
<i>Epilobium ciliatum</i> / FACW-	H	25			
<i>Rumex crispus</i> / FAC+	H	20			
<i>Juncus effusus</i> / FACW	H	20			
<i>Rosa nutkana</i> / FAC	SH	20			

Percent of dominants: OBL, FACW, & FAC % Dominant (✓) 60%

Is the 1987 Manual hydrophytic vegetation criterion met? Yes ☒ No ☐

Remarks:

Soil

Mapped Series	Hesson clay loam, 0 to 8 percent slopes (HcB)		Taxonomy	Xeric Haplohumults	
On hydric soil list?	Yes	☐	No	☒	Confirmed map soil type or inclusion: No
Horizon	Depth	Matrix Color	Redoximorphic Features	Texture, Other	
A	0-16"	10YR3/1	10YR3/4 Mottles	Silty clay	

Hydric Soil Indicators Yes ☒ No ☐

☐ Histosol/Histic Epipedon	☐ On Hydric Soils List	☐ Gleyed
☐ Sulfidic Odor	☐ Reducing Conditions	☐ High Organic Content in Surface for Sandy Soils
☒ Concretions/Nodules within 3 inches	☐ Organic Pan/Streaking in Sandy Soils	☐ Other
☒ Redox. Features within 10 inches	☐ Regional Indicators	

Is the 1987 Manual hydric Soil criterion met? Yes ☒ No ☐

Remarks:

Hydrology

Recorded Data					
Recorded Data Available:	☐	Aerial Photos:	☐	Stream Gauge	☐
Other ☐					
Field Data					
Depth of Inundation:	0"	Depth to Saturation:	2"	Depth to Free Water:	8"
Primary Hydrology Indicators:			Secondary Hydrology Indicators:		
☐ Inundated	☐ Drift Lines	☒ Oxidized Root Channels (upper 12 inches)	☒ FAC- Neutral Test		
☒ Saturated within 12 in.	☐ Sediment Deposits	☐ Local Soil Survey	☐ Water Marks		
☒ Wetland Drainage Pattern: Drainageway	☒ Water Stained Leaves	☐ Other:	Growing Season: No		

Is the 1987 Manual hydrology criterion met? Yes ☒ No ☐

Remarks:

Determination

Wetland?	Yes	☒	No	☐
Remarks:				

Routine Onsite Determination

Project Name:	Huey Property (125601-000)		Fieldwork Date:	1/18/06	
Site Location:	SE 202 nd Ct., Camas, WA 98607		County:	Clark	State: WA
Applicant/Owner:	Hinton Development / J. Dawkins		Investigator(s):	JB/SB	
Land Form:	River Terrace		Plant Community	Upland	
Plot	2	Location	North-central portion of Study Area		
Do normal conditions exist on site?	Yes	☒	No	☐	
Has site been significantly disturbed?	Yes	☐	No	☒	
Is this a potential problem site?	Yes	☐	No	☒	

Vegetation

Species/Indicator Status	Stratum	% Cover	Species/Indicator Status	Stratum	% Cover
<i>Rubus discolor</i> / FACU	WV	80			
<i>Festuca arundinacea</i> / FAC-	H	20			

Percent of dominants: OBL, FACW, & FAC % Dominant (✓) 0%

Is the 1987 Manual hydrophytic vegetation criterion met? Yes ☐ No ☒

Remarks:

Soil

Mapped Series	Hesson clay loam, 0 to 8 percent slopes (HcB)		Taxonomy	Xeric Haplohumults	
On hydric soil list?	Yes	☐	No	☒	Confirmed map soil type or inclusion: No
Horizon	Depth	Matrix Color	Redoximorphic Features	Texture, Other	
A	0-17"	5YR3/2	None	Clay loam	

Hydric Soil Indicators Yes ☒ No ☐

☐ Histosol/Histic Epipedon	☐ On Hydric Soils List	☐ Gleyed
☐ Sulfidic Odor	☐ Reducing Conditions	☐ High Organic Content in Surface for Sandy Soils
☐ Concretions/Nodules within 3 inches	☐ Organic Pan/Streaking in Sandy Soils	☐ Other
☐ Redox. Features within 10 inches	☐ Regional Indicators	

Is the 1987 Manual hydric Soil criterion met? Yes ☐ No ☒

Remarks:

Hydrology

<u>Recorded Data</u>					
Recorded Data Available:	☐	Aerial Photos:	☐	Stream Gauge	☐
Other		☐			
<u>Field Data</u>					
Depth of Inundation:	0"	Depth to Saturation:	<18"	Depth to Free Water:	>18"
<u>Primary Hydrology Indicators:</u>			<u>Secondary Hydrology Indicators:</u>		
☐ Inundated	☐ Drift Lines	☐ Oxidized Root Channels (upper 12 inches)	☐ FAC- Neutral Test		
☐ Saturated within 12 in.	☐ Sediment Deposits	☐ Local Soil Survey	☐ Water Marks		
☐ Wetland Drainage Pattern: Drainageway	☐ Water Stained Leaves	☐ Other:	Growing Season: No		
Is the 1987 Manual hydrology criterion met?			Yes	☐	No ☒
Remarks:					

Determination

Wetland?	Yes	☐	No	☒
Remarks:				

Routine Onsite Determination

Project Name:	Huey Property (125601-000)		Fieldwork Date:	1/18/06	
Site Location:	SE 202 nd Ct., Camas, WA 98607		County:	Clark	State: WA
Applicant/Owner:	Hinton Development / J. Dawkins		Investigator(s):	JB/SB	
Land Form:	River Terrace		Plant Community	Emergent Wetland	
Plot	3	Location	North-central portion of Study Area		
Do normal conditions exist on site?	Yes	☒	No	☐	
Has site been significantly disturbed?	Yes	☐	No	☒	
Is this a potential problem site?	Yes	☐	No	☒	

Vegetation

Species/Indicator Status	Stratum	% Cover	Species/Indicator Status	Stratum	% Cover
<i>Rosa nutkana</i> / FAC	SH	30			
<i>Rumex crispus</i> / FAC+	H	20			
<i>Juncus effusus</i> / FACW	H	20			
<i>Rubus discolor</i> / FACU	WV	10			

Percent of dominants: OBL, FACW, & FAC % Dominant (✓) 70%

Is the 1987 Manual hydrophytic vegetation criterion met? Yes ☒ No ☐

Remarks:

Soil

Mapped Series	Hesson clay loam, 0 to 8 percent slopes (HcB)		Taxonomy	Xeric Haplohumults	
On hydric soil list?	Yes	☐	No	☒	Confirmed map soil type or inclusion: No

Horizon	Depth	Matrix Color	Redoximorphic Features	Texture, Other
A	0-16"	10YR4/1	10YR3/4 Mottles	Clay Loam

Hydric Soil Indicators Yes ☒ No ☐

☐ Histosol/Histic Epipedon	☐ On Hydric Soils List	☐ Gleyed
☐ Sulfidic Odor	☐ Reducing Conditions	☐ High Organic Content in Surface for Sandy Soils
☐ Concretions/Nodules within 3 inches	☐ Organic Pan/Streaking in Sandy Soils	☐ Other
☒ Redox. Features within 10 inches	☐ Regional Indicators	

Is the 1987 Manual hydric Soil criterion met? Yes ☒ No ☐

Remarks:

Hydrology

Recorded Data					
Recorded Data Available:	☐	Aerial Photos:	☐	Stream Gauge	☐
Field Data					
Depth of Inundation:	0.5"	Depth to Saturation:	Surface	Depth to Free Water:	Surface

Primary Hydrology Indicators:		Secondary Hydrology Indicators:	
☒ Inundated	☐ Drift Lines	☐ Oxidized Root Channels (upper 12 inches)	☒ FAC- Neutral Test
☒ Saturated within 12 in.	☐ Sediment Deposits	☐ Local Soil Survey	☐ Water Marks
☒ Wetland Drainage Pattern: Drainageway	☒ Water Stained Leaves	☐ Other:	Growing Season: No

Is the 1987 Manual hydrology criterion met? Yes ☒ No ☐

Remarks:

Determination

Wetland?	Yes	☒	No	☐
Remarks:				

Routine Onsite Determination

Project Name:	Huey Property (125601-000)		Fieldwork Date:	1/18/06	
Site Location:	SE 202 nd Ct., Camas, WA 98607		County:	Clark	State: WA
Applicant/Owner:	Hinton Development / J. Dawkins		Investigator(s):	JB/SB	
Land Form:	River Terrace		Plant Community	Upland	
Plot	4	Location	North-central portion of Study Area		
Do normal conditions exist on site?	Yes	☒	No	☐	
Has site been significantly disturbed?	Yes	☐	No	☒	
Is this a potential problem site?	Yes	☐	No	☒	

Vegetation

Species/Indicator Status	Stratum	% Cover	Species/Indicator Status	Stratum	% Cover
<i>Rubus discolor</i> / FACU	WV	90			

Percent of dominants: OBL, FACW, & FAC % Dominant (✓) 0%

Is the 1987 Manual hydrophytic vegetation criterion met? Yes ☐ No ☒

Remarks:

Soil

Mapped Series	Hesson clay loam, 0 to 8 percent slopes (HcB)		Taxonomy	Xeric Haplohumults	
On hydric soil list?	Yes	☐	No	☒	Confirmed map soil type or inclusion: No
Horizon	Depth	Matrix Color	Redoximorphic Features	Texture, Other	
A	0-18"	5YR3/2	None	Clay loam	

Hydric Soil Indicators Yes ☐ No ☒

☐ Histosol/Histic Epipedon	☐ On Hydric Soils List	☐ Gleyed
☐ Sulfidic Odor	☐ Reducing Conditions	☐ High Organic Content in Surface for Sandy Soils
☐ Concretions/Nodules within 3 inches	☐ Organic Pan/Streaking in Sandy Soils	☐ Other
☐ Redox. Features within 10 inches	☐ Regional Indicators	

Is the 1987 Manual hydric Soil criterion met? Yes ☐ No ☒

Remarks:

Hydrology

<u>Recorded Data</u>					
Recorded Data Available:	☐	Aerial Photos:	☐	Stream Gauge	☐
Other		☐			
<u>Field Data</u>					
Depth of Inundation:	0"	Depth to Saturation:	<18"	Depth to Free Water:	>18"
<u>Primary Hydrology Indicators:</u>			<u>Secondary Hydrology Indicators:</u>		
☐ Inundated	☐ Drift Lines	☐ Oxidized Root Channels (upper 12 inches)	☐ FAC- Neutral Test		
☐ Saturated within 12 in.	☐ Sediment Deposits	☐ Local Soil Survey	☐ Water Marks		
☐ Wetland Drainage Pattern: Drainageway	☐ Water Stained Leaves	☐ Other:	Growing Season: No		
Is the 1987 Manual hydrology criterion met?			Yes	☐	No ☒
Remarks:					

Determination

Wetland?	Yes	☐	No	☒
Remarks:				

Routine Onsite Determination

Project Name:	Huey Property (125601-000)		Fieldwork Date:	1/18/06	
Site Location:	SE 202 nd Ct., Camas, WA 98607		County:	Clark	State: WA
Applicant/Owner:	Hinton Development / J. Dawkins		Investigator(s):	JB/SB	
Land Form:	River Terrace		Plant Community	Upland Forest	
Plot	5	Location	West portion of Study Area		
Do normal conditions exist on site?	Yes	☒	No	☐	
Has site been significantly disturbed?	Yes	☐	No	☒	
Is this a potential problem site?	Yes	☐	No	☒	

Vegetation

Species/Indicator Status	Stratum	% Cover	Species/Indicator Status	Stratum	% Cover
<i>Pseudotsuga menziesii</i> / FACU	T	50			
<i>Corylus cornuta</i> var. <i>Californica</i> / FACU	SH	20			
<i>Symphoricarpos albus</i> / FACU	SH	20			
<i>Tolmiea menziesii</i> / FAC	H	10			

Percent of dominants: OBL, FACW, & FAC % Dominant (✓) 10%

Is the 1987 Manual hydrophytic vegetation criterion met? Yes ☐ No ☒

Remarks:

Soil

Mapped Series	Olympic clay loam, 8 to 20 percent slopes (OID)		Taxonomy	Xeric Haplohumults	
On hydric soil list?	Yes	☐	No	☒	Confirmed map soil type or inclusion: Yes

Horizon	Depth	Matrix Color	Redoximorphic Features	Texture, Other
A	0-18"	5YR3/2	None	Clay Loam

Hydric Soil Indicators Yes ☐ No ☒

☐ Histosol/Histic Epipedon	☐ On Hydric Soils List	☐ Gleyed
☐ Sulfidic Odor	☐ Reducing Conditions	☐ High Organic Content in Surface for Sandy Soils
☐ Concretions/Nodules within 3 inches	☐ Organic Pan/Streaking in Sandy Soils	☐ Other
☐ Redox. Features within 10 inches	☐ Regional Indicators	

Is the 1987 Manual hydric Soil criterion met? Yes ☐ No ☒

Remarks:

Hydrology

Recorded Data							
Recorded Data Available:	☐	Aerial Photos:	☐	Stream Gauge	☐	Other	☐
Field Data							
Depth of Inundation:	0"	Depth to Saturation:	>18"	Depth to Free Water:	>18"		

Primary Hydrology Indicators:		Secondary Hydrology Indicators:	
☐ Inundated	☐ Drift Lines	☐ Oxidized Root Channels (upper 12 inches)	☐ FAC- Neutral Test
☐ Saturated within 12 in.	☐ Sediment Deposits	☐ Local Soil Survey	☐ Water Marks
☐ Wetland Drainage Pattern:	☐ Water Stained Leaves	☐ Other:	Growing Season: No

Is the 1987 Manual hydrology criterion met? Yes ☐ No ☒

Remarks:

Determination

Wetland?	Yes	☐	No	☒
Remarks:				

Routine Onsite Determination

Project Name:	Huey Property (125601-000)		Fieldwork Date:	1/18/06	
Site Location:	SE 202 nd Ct., Camas, WA 98607		County:	Clark	State: WA
Applicant/Owner:	Hinton Development / J. Dawkins		Investigator(s):	JB/SB	
Land Form:	River Terrace		Plant Community	Upland Forest	
Plot	6	Location	West portion of Study Area		
Do normal conditions exist on site?	Yes	☒	No	☐	
Has site been significantly disturbed?	Yes	☐	No	☒	
Is this a potential problem site?	Yes	☐	No	☒	

Vegetation

Species/Indicator Status	Stratum	% Cover	Species/Indicator Status	Stratum	% Cover
<i>Urtica dioica</i> / FAC+	H	35			
<i>Tolmiea menziesii</i> / FAC	H	25			
<i>Symphoricarpos albus</i> / FACU	SH	10			
Percent of dominants: OBL, FACW, & FAC % Dominant (✓) 60%					
Is the 1987 Manual hydrophytic vegetation criterion met? Yes ☒ No ☐					
Remarks:					

Soil

Mapped Series		Olympic clay loam, 8 to 20 percent slopes (OID)		Taxonomy		Xeric Haplohumults	
On hydric soil list?		Yes	☐	No	☒	Confirmed map soil type or inclusion: Yes	
Horizon	Depth	Matrix Color	Redoximorphic Features	Texture, Other			
A	0-18"	5YR3/1	None	Clay Loam / Cobble			
Hydric Soil Indicators Yes ☒ No ☐							
☐ Histosol/Histic Epipedon	☐ On Hydric Soils List		☐ Gleyed				
☐ Sulfidic Odor	☐ Reducing Conditions		☐ High Organic Content in Surface for Sandy Soils				
☐ Concretions/Nodules within 3 inches	☐ Organic Pan/Streaking in Sandy Soils		☐ Other				
☒ Redox. Features within 10 inches	☐ Regional Indicators						
Is the 1987 Manual hydric Soil criterion met? Yes ☒ No ☐							
Remarks: Data point taken adjacent to stream channel							

Hydrology

<u>Recorded Data</u>							
Recorded Data Available:	☐	Aerial Photos:	☐	Stream Gauge	☐	Other	☐
<u>Field Data</u>							
Depth of Inundation:		1"		Depth to Saturation:		Surface	
				Depth to Free Water:		Surface	
<u>Primary Hydrology Indicators:</u>				<u>Secondary Hydrology Indicators:</u>			
☒ Inundated	☒ Drift Lines		☐ Oxidized Root Channels (upper 12 inches)		☒ FAC- Neutral Test		
☒ Saturated within 12 in.	☐ Sediment Deposits		☐ Local Soil Survey		☒ Water Marks		
☒ Wetland Drainage Pattern: Stream	☐ Water Stained Leaves		☐ Other:		Growing Season: No		
Is the 1987 Manual hydrology criterion met? Yes ☒ No ☐							
Remarks:							

Determination

Wetland?	Yes	☒	No	☐
Remarks:				

APPENDIX B

Wetland Rating Form

Washington State Wetland Rating System for Western Washington

Rating Summary

Wetland Name or Designation	BRECKENRIDGE SUBDIVISION
Location (S,T,R)	8/1N/3E
Completed by	JAMES BARNES
Affiliation	CASCADIA ECOLOGICAL SERVICES, INC.
Date of site visit	2/2/2006

Rating Based on Functions	Category IV
Water Quality Function Score	10
Hydrologic Function Score	2
Habitat Function Score	10
Total	22
Rating based on Special Characteristics	#N/A
Final Rating	Category IV

Special Wetland Type	#N/A
HGM Class	SLOPE
Rating Form Class	SLOPE

Considerations for Special Protection	y/n
Has the wetland been documented as habitat for any Federally listed Threatened or Endangered species?	n
Has the wetland been documented as habitat for any State listed Threatened or Endangered species?	n
Are Priority Species listed by Washington Department of Fish and Wildlife present?	n
Is the wetland designated as a "Wetland of Local Significance" by the local jurisdiction?	n

Slope Wetlands			
Water Quality functions			
S1. Does the wetland have the potential to improve water quality? (see p. 64)			
1.1 Characteristics of the average slope of the wetland:			
Slope is 1% or less	3		0
Slope is 1% to 2%	2		0
Slope is 2% to 5%	1		1
Slope is greater than 5%	0		0
1.2 The soil 2 inches below the surface is clay, organic, or smells anoxic (hydrogen sulfide or rotten eggs).		3	3
1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants:			
<i>Choose the score appropriate for the description that best fits the vegetation in the wetland. Dense vegetaion means that it is difficult to see the soil surface.</i>			
Dense ungrazed, herbaceous vegetation > 90% of the area wetland	6		6
Dense ungrazed, herbaceous vegetation > 1/2 of the area wetland	3		0
Dense woody vegetation > 1/2 of the area wetland	2		0
Dense ungrazed, herbaceous vegetation > 1/4 of the area wetland	1		0
Vegetation does not meet any of the criteria above	0		0
TOTAL (SUM)			10
S2. Does the wetland have the opportunity to improve water quality? (see p. 67)			
<i>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? Note which of the following conditions provide the sources of pollutants.</i>			
Grazing in the wetland or within 150 ft.		no	
Untreated stormwater discharges to wetland		no	
Tilled fields or orchards within 150 ft. of wetland		no	
Residential, urban areas, golf courses are within 150 ft. upslope of wetland		yes	
Other (Note)		n/a	
Multiplier			1
TOTAL for Water Quality Functions			10

Slope Wetlands			
Hydrologic Functions			
S3. Does the wetland have the potential to reduce flooding and erosion? (see p. 68)			
3.1 Characteristics of vegetaion that reduce velocity of surface flows during storms:			
<i>Choose the score appropriate for the description that best fits the vegetation in the wetland.</i>			
Dense, uncut, rigid vegetation covers > 90% of the area of the wetland (stems of plants should be thick enough or dense enough to remain erect during surface flows)	6		0
Dense, uncut, rigid vegetation covers > 1/2 of the area of the wetland	3		0
Dense, uncut, rigid vegetation covers > 1/4 of the area of the wetland	1		0
More than 1/4 of the area is grazed, mowed, tilled, or vegetation is not rigid	0		0
3.2 Characteristics of slope wetland that holds back small amounts of flood flows:			
The slope of the wetland has small surface depressions that can retain water over at least 10% of its area.			
Yes	2		2
No	0		0
TOTAL (SUM)			2
S4. Does the wetland have the opportunity to to reduce flooding and erosion? (see p. 70)			
Is the wetland in a landscape position where the reduction in water velocity it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows?			
<i>Note which of the following conditions apply:</i>			
Wetland has runoff that drains to a river or stream that has flooding problems		yes	
Other (Note)		n/a	
<i>Answer NO if the major source of water is controlled by a reservoir (e.g. the wetland is a seep that on the downstream side of a dam)</i>			
Multiplier			1
TOTAL for Hydrologic Functions			2

All Wetlands

Habitat Functions

H1. Does the wetland have the potential to provide habitat for many species?**1.1 Vegetation structure (see p. 72):**

Note all plant communities (Cowardin) that cover more than 10% of the wetland or 1/4/ acre

Aquatic bed	1		0
Emergent plants	1		1
Scrub/Shrub (more than 30% shrub cover)	1		1
Forested (more than 30% tree cover)	1		0
Forested ares with at least 3 strata (canopy, sub-canopy, shrub, herb/forb, moss/groundcover)	1		0
SCORE			1

1.2 Hydroperiod (see p. 73):

Note the types of water regimes(hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or 1/4/ acre to count (refer to text for descriptions of water regimes)

Permanently flooded or inundated	1		0
Seasonally flooded or inundated	1		1
Occaionally flooded or inundated	1		1
Saturated only	1		0
Permanently flowing stream or river in, oradjacent to, the wetland	1		0
Seasonally flowing stream or river in, oradjacent to, the wetland	1		1
Lafe-fringe wetland	2		0
Freshwater tidal wetland	2		0
SCORE			2

1.3 Richenss of Plant Species (see p. 75):

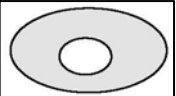
Count the number of plant species in the wetland that cover at least 10 sq. ft. Different patches of the same species can be combined to meet the size threshold.

Do not include eurasian milfoil, reed canarygrass, purple loostrife, or canadian thistle.

> 19 species	2		0
5 -5 19 species	1		1
< 5 species	0		0

1.4 Interspersion of habitats (see p. 76):

Use the diagrams below to determine interspersion between vegetation types, or vegetation types and unvegetatioed areas (may include open water or mudflats).

	None	0	0
	Low	1	1
	Moderate	2	0
	High	3	0

NOTE: If there are 4 or more vegetaion types or 3 vegetation types and openwater the score will be "High".

All Wetlands

Habitat Functions

1.5 Special habitat features (see p. 77):

Note all the habitat features that are present in the wetland.

Large, downed, woody debris (> 4 in. diameter and at least 6 ft. long)	1		0
Standing snags (diameter at the base > 4 in.)	1		0
Undercut banks are present for at least 6.6. ft. (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream for at least 33 ft. (10m)	1		0
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 deg. Slope) OR signs of recent beaver activity are present.	1		0
At least 1/4 acre of thin stemmed persistent vegetation or woody branched are present in areas that are permanently or seasonally inundated (structures for amphibian egg-laying)	1		0
Invasive plants cover less than 25% of the area in each stratum	1		0
TOTAL (SUM)			5

H2. Does the wetland have the opportunity to provide habitat for many species?

2.1 Buffers (see p. 80):

Choose the description that best represents the condition of the wetland buffer. The highest scoring criterion that applies to the wetland is to be used in the rating. Refer to the text for the definition of "undisturbed".

100 m (330 ft.) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% of circumference. No developed areas within undisturbed part of the buffer (also no grazing).	5		0
100 m (330 ft.) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% of circumference.	4		4
50 m (170 ft.) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% of circumference.	4		0
100 m (330 ft.) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% of circumference.	3		0
50 m (170 ft.) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% of circumference.	3		0
If the buffer does not meet any of the criteria above			
No paved areas (except paved trails) or buildings within 25 m (80ft.) of wetland > 95% circumference. Light to moderate grazing or lawns OK.	2		0
No paved areas or buildings within 25 m (80ft.) of wetland > 50% circumference. Light to moderate grazing or lawns OK.	2		0
Heavy grazing in buffer	1		0
Vegetated buffers are < 2m (6.6 ft.) wide for more than 95% of the circumference (e.g. tilled fields, paving, basalt bedrock to the edge of wetland).	0		0
Buffer does not meet any of the criteria above.	1		0

All Wetlands

Habitat Functions

2.2 Corridors and connections (see p. 81):

Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft. wide, has at least 30% cover of shrubs, forest, or native undisturbed prairie, that connects to estuaries, other wetlands, or undisturbed uplands that are at least 250 acres in size (dams in riparian corridors and heavily used gravel roads are considered breaks in the corridor)?

4

0

Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft. wide, has at least 30% cover of shrubs, forest, or native undisturbed prairie, that connects to estuaries, other wetlands, or undisturbed uplands that are at least 25 acres in size OR a lake-fringe wetland, if it does not have an undisturbed corridor as in the question above?

2

2

Is the wetland:

within 5 mi. (8km) of a brackish or salt water estuary OR

within 3 mi. of a large field or pasture (>40 acres) OR

within 1 mi. of a lake of a greater than 20 acres?

1

0

1

0

1

0

2.3 Near or adjacent to other priority habitats listed by WDFW

Note all PHS types that are within 330 ft. (100m) of the wetland.

Riparian

1

1

Aspen Stands

1

0

Cliffs

1

0

Old Growth Forest

1

0

Mature Forest

1

0

Prairies

1

0

Talus Slopes

1

0

Caves

1

0

Oregon White Oak Woodlands

1

0

Urban Natural Open Space

1

0

Estuary/Estuary-like

1

0

Marine/Estuarine Shorelines

1

0

SCORE

1

2.4 Wetland Landscape (see p. 84)

Choose the description below that best fits

There are at least 3 other wetlands within 1/2 mi. and the connections between them are relatively undisturbed (light grazing, lakeshore with some boating OK, but connections should NOT be bisected by paved roads, fill, fields, or other development).

5

0

The wetland is a lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within 1/2 mi.

5

0

There are at least 3 other wetlands within 1/2 mi. a, BUT the connections between them are disturbed.

3

0

The wetland is a lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within 1/2 mi.

3

0

There is at least 1 wetland within 1/2 mi.

2

0

There are no wetlands within 1/2 mi.

0

0

TOTAL (SUM)

2

TOTAL for Habitat Functions

10