CLARK COUNTY STAFF REPORT



DEPARTMENT: Public Works / Parks Division

DATE: March 8, 2016

REQUESTED ACTION: Approve the concept plan for Cougar Creek Woods Community Park

<u>X</u> Consent <u>Hearing</u> County Manager

PUBLIC WORKS GOALS:

Provide safe and efficient transportation systems in Clark County

- 🛛 Create and maintain a vibrant system of parks, trails and green spaces
- Continue responsible stewardship of public funds
- Promote family-wage job creation and economic development to support a thriving community
- Maintain a healthy, desirable quality of life

Increase partnerships and foster an engaged, informed community

Cultivate a nimble, responsive work force

Make Public Works a great place to work

BACKGROUND

Cougar Creek Woods is a 10-acre property located at 11515 NW 16th Avenue in Felida. It was purchased in 2009 for use as a future community park and regional trail head. The future expansion of Cougar Creek Trail will provide a necessary connection from the Salmon Creek Greenway to Hazel Dell Avenue and will provide approximately 5 miles of new trail. The Felida Neighborhood Association (Felida NA) has been actively engaged in essentially the entire park planning process, which included more than 5,000 hours of volunteer time and over \$10,000 of their own funding resources for community outreach and producing a draft concept plan of the community park and trail section. The Felida NA President presented the concept plan on November 13th to the Clark County Parks Advisory Board who voted unanimously to approve the plan. It is Clark County Park's number one goal to develop partnerships with public and private organizations to increase parks and recreation opportunities. This project aligns well with that goal.

COUNCIL POLICY IMPLICATIONS

None - Cougar Creek Woods Community Park and Trail Head has been identified in the Comprehensive Parks, Recreation and Open Space Plan to be constructed in 2018. Clark County will seek RCO grant funding to financially support park construction in conjunction with private funding.

ADMINISTRATIVE POLICY IMPLICATIONS

None

COMMUNITY OUTREACH

The Felida NA has held several outreach events to seek citizen input and support for the design of the Cougar Creek Woods Community Park and Trail Head concept plan. By public request, the recently approved Comprehensive Parks, Recreation and Open Space Plan

identifies Cougar Creek Woods to be constructed in 2018. The Clark County Parks Advisory Board approved the concept plan on November 13, 2015.

BUDGET IMPLICATIONS

YES	NO	
Х		Action falls within existing budget capacity.
	Χ	Action falls within existing budget capacity but requires a change of purpose within existing appropriation
	v	Additional budget capacity is necessary and will be requested at the next supplemental
	Δ	If YES, please complete the budget impact statement. If YES, this action will be referred to the county council with a recommendation from the county manager.

BUDGET DETAILS

Local Fund Dollar Amount			
Grant Fund Dollar Amount			
Account			
Company Name			

DISTRIBUTION:

Board staff will post all staff reports to The Grid. http://www.clark.wa.gov/thegrid/

Bill Bjerke Parks Division Manager

Heath H. Henderson, PE

Public Works Director/County Engineer

APPROVED: CLARK COUNTY, WASHING **BOARD OF COUNTY COUNCILORS**

DATE: MAR. 8, 2016 SR 050-16 SR#

APPROVED:_____ Mark McCauley, Acting County Manager

DATE: _____

PW16-010



CONCEPTUAL DEVELOPMENT PLAN

10-ACRE PUBLIC PARK PROPERTY

PARK SIGN STREET TREES NEW SIDEMALK

REGIONAL TRAILHEAD FOR COUGAR CREEK & SALMON CREEK TRAILS -
BLACK CHAIN-LINK FENCE ALONG FRONTAGE
CONCEPTUAL STORMWATER FACILITY
PARKING LOT (26 STALLS) WITH TWO HANDICAP VAN ACCESSIBLE STALL BOLLARDS ENTRY POINTS
EVERGREEN TREE SCREEN
PICNIC SHELTER (SAME DESIGN AS FELIDA COMMUNITY PARK)
ACCESSIBLE RESTROOM (SAME DESIGN AS FELIDA COMMUMNITY PARK, 12' ACCESSIBLE PERVIOUS ASPHALT PATHS & MAINTENANCE ROADS
ACCESSIBLE PLAY AREA W/ PLAY EQUIPMENT
PICNIC AREA
3-ACRE DEVELOPED AREA
TRI- MOUNTAIN NATURE PLAY AREA (SLIDES, CLIMBING, BRIDGE,
DRY STREAM ETC)

ACCESSIBLE NATURE PLAY AREA (BOULDERS, STUMPS, LOGS, ETC ...)

ACCESS POINT WITH BOLLARDS -AMPHITHEATER / OUTDOOR CLASSROOM SPLIT RAIL FENCE -

8' ACCESSIBLE PERVIOUS ASPHALT PATHS

· INTERPRETIVE PLAQUES LOCATED THROUGHOUT · 2-3 DEAD TREES TO BE CUT DOWN AND MAY BE USED FOR NATURE PLAY

4' PATH (SURFACE MATERIAL TO BE DETERMINED)

NOTE: NUMEROUS EXISTING FOOTPATHS EXIST THROUGHOUT THE WOODED AREA.

8' PATH (SURFACE MATERIAL TO BE DETERMINED)

7-ACRE NATURAL FORESTED AREA

WETLAND BUFFER RIPARIAN HABITAT BUFFER -VIEWPOINT / OVERLOOK

EXISTING SPRINGS, CATEGORY 3 WETLAND, & TYPE NP STREAM

COUGAR CREEK GREENWAY TRAIL EXTENSION NORTH TO NW 119TH STREET FOOTBRIDGE W HANDRAILS -

POSSIBLE FUTURE EXTENSION OF COUGAR CREEK GREENWAY TRAIL FURTHER SOUTH (OFFSITE)

COUGAR CREEK GREENWAY TRAIL EXTENSION NORTH TO NW 119TH STREET (OFFSITE)

STEEP SLOPES (40-150%) WITHIN CLARK COUNTY GIS MAPPED LANDSLIDE HAZARD AREA AND SEVERE EROSION HAZARD AREA

EXISTING CATEGORY 3 WETLAND AREAS

COUGAR CREEK (TYPE F STREAM)





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SCALE

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Felida Neighborhood Association (Felida NA) is planning to hold its 3rd annual Holiday Event for "Kids in Need" and "Kids with Special Needs" in December 2013.

Board members, partners, and community volunteers are organizing a Silent Auction to benefit this event:

DECEMBER 15, 2013 – SUNDAY 2:30PM TO 4:30PM HOLIDAY EVENT SILENT AUCTION Salmon Creek Chuck's Produce and Street Market Community Classroom 2302 NE 117th Street off Highway 99 Salmon Creek area, east of Klineline Park

Please help us bring some holiday cheer to kids In our community. Last year, we were able to give many new bicycles, books, toys, stuffed animals, hats, scarves, mittens, blankets, school supplies, backpacks; several refurbished computers; refreshments and food. Kids participated in several learning opportunities provided by the Felida NA and partners. It was a great event filled with kids, family members, smiles, shouts of joy, and positive energy!

Please let us know if you have any silent auction items or gifts for kids: books, toys, blankets; or school and art supplies that you would like to donate. If you would like to volunteer at arts and crafts, gifts, wrapping, and other stations, please call. Teenage volunteers must have a mentor or parent present on-site. (Contact Milada Allen, if you need a community service letter.)

Felida NA Holiday Event toy donation barrels are located as follows:

Lobby of the Three Creeks Library, Salmon Creek, by Salmon Creek Fred Meyer
 Clark Regional Wastewater District, 8000 NE 52nd Court, off 78th Street/Padden

If you have any questions, would like to sponsor an activity, volunteer, or need more information, call: Dr. Milada Allen, President at (360)573-4030 OR Rebecca Lillie, Treasurer at (503)348-5492.

Felida NA is a nonprofit, tax exempt, 501(c)(3) organization. www.clark.wa.gov/neighborhoods/weeklyupdate.html -- click on "Felida NA"

MANY THANKS TO OUR ACTIVE DUTY MILITARY, VETERANS, AND THEIR FAMILIES!!! HAPPY HOLIDAYS TO ALL!!!!! %* %* %* %* %* %* %* %* %* %* %* %* %

COUGAR CREEK WOODS COMMUNITY PARK

Great News! You, your family, and neighbors are invited to "block captains" and general public meetings to review proposed Alternative #1 (2010) and provide input for proposals for other alternatives, design, funding plans for the Cougar Creek Woods Community Park (CCWC Park).

CCWC Park Acquisition and Status Background

The 2007 Parks Capital Facilities Plan identified the need for a community park in this area. The Plan was adopted following numerous public meetings and hearings. In 2009, the 10-acre CCWC Park parcel at 11515 NW 16th Avenue -- about a block south of the NW 119th Street, in Felida NA, Park District #9 -- was purchased for \$990,000 (market value \$2.4 million in 2008). This site was purchased to serve as a community park and trail-head for the Cougar Creek Trail. It includes a portion of the Cougar Creek Greenway and Cougar Creek.

In 2010, over 700 adjacent park stakeholders provided input during several meetings. A Draft CCWC Park Alternative #1 was prepared and reviewed at several public events, meetings, and three annual July 4 events in Felida Community Park (+/-4,000 to 4,500 participants/year). Proposed Alternative #1 diligently avoided all wetlands, steep slopes, resources and areas protected by several County ordinances, environmental laws, and resource protection agencies. (The proposed park development area is located within the area approved for residential development of 36 homes. The remainder of the parcel was proposed to remain "natural.") The state grant application was pulled off the consent agenda. Several developers wanted to build a subdivision and trade/surplus/sale options were explored by the County. Community objected.

In 2013, the Clark County Board of Commissioners had directed Vancouver-Clark Parks and Recreation staff to apply for and accept an out-of-cycle grant from the State of Washington for 50% reimbursement of the acquisition costs (\$558,000) associated with the CCWC Park.

Get Involved in Your CCWC Park

Many changes in 2014 could impact CCWC status and/or development timelines (p. 4). Park Alternative #1, developed in 2010, is on the <u>http://5CsPark.com</u>.¹ It is time to move forward and continue with public input for Alternatives #2, and #3 or #4 (do nothing). The Clark County 20-year Comprehensive Growth Management Plan 2004- 2024; with amendments through 2012, specify that community parks "... generally serve residents within a one- to three-mile radius of the park site" (p. 7-4). The CCWC (or "5Cs") Park Committee and Felida NA plan to distribute information and flyers to a 2.5-mile radius. They need volunteers, block captains and help with outreach. Bring neighbors to the "5Cs" Park Committee and block captains (10-30 homes/block) outreach meeting on: January 10, 2014, Friday from 7:00pm to 8:30pm Fire Station 62/Felida, 11600 NW Lakeshore Avenue, Felida

Felida NA (lead) and CCWC Park Committee have a limited "green light" to seek public input. Attend meetings, get information; propose alternatives; volunteer; bring family, neighbors, ideas:

February 13, 2014 (Thursday), 6:30 – 8:30pm, Three Creeks Library, Salmon Creek
 February 21, 2014 (Friday), 6:30 – 8:30pm, Felida Fire Station, 11600 NW Lakeshore

- February 21, 2014 (Friday), 6:30 8:30pm, Felida Fire Station, 11600 NW Lakeshore
 March 13, 2014 (Thursday 6:30 8:30pm, Three Creeks Library, Salmon Creek
- March 13, 2014 (Thursday 6:30 8:30pm, Three Creeks Library, Salmon Creek

If you cannot attend above meetings, but live or own property in the CCWCP 2.5-mile radius: 1) visit new website designed by Edee Lemonier, CCWC Park volunteer: <u>http://5CsPark.com</u> 2) call Milada at (360)573-4030, or 3) send your input, ideas, and contact information to: CCWC Park Com/Felida NA, c/o Milada Allen, P.O. Box 61552, Vancouver, WA 98666

¹ New, under construction, website, to keep friends of the park and community stakeholders informed about CCWCPark

COUCAR CREEK WOODS COMMUNIA PARK - OUUREACH SUMMARS (2010-2015)

Outreach & Major Community Events at	NA Meetings,	Klineline Kids	July 4 Kids	CCSO – Sept	May Day
Klineline, Felida Com Park, T Jefferson	flyers, park, +	Fish – April	Parade/Com	WP Open House	Felida L. Church
School (Sacajawea), WP, & other sites	# of people	# of participants	# of participants	# of participants	# of participants
2010					
2,500 Flyers to SFDs – 2.5 mile	5,000+				
Door-to-Door canvas 1.5 mile	1,700+				
18 input workshops – park & other sites	1,777+				
Other One-on-One meetings - various	317				
Letters to Felida NA + BOCCC	214+				
Felida NA Newsletter and on the web	17,000+				
Clark County Live					
Website, newspaper, e-mails, calls					
Public Comments – PRAC, BOCCC					
Major Community Events		2,000+	4,500+	4,000+	1,000+
0011					
<u>2011</u>	2 000				
1,500 Flyers to SFDs – .5 mile	3,000+				
Residents calls, letters, e-mails .5 mile	459+				
Felida NA Newsletter and on the web	15,000-17,000				
Lalidou Event for Kide in Nood	250				
Maior Community Events	259	2 600	4 000 1	4 500 1	000.
Major Community Events		2,000+	4,900+	4,500+	900+
2012	,				
2500 Elvers to SEDs – 2.5 mile	5.000+				
Door to Door canvas 5 mile+++	1.020+				
9 WS & Meetings - CCWCP park, etc.	478				
Other One-on-One meetings - various	69				
Holiday Event for Kids-in-Need	198				
Felida NA Newsletter and on the web	15,000-17,000				
Clark County Live, Website, FYI,	, ,				
Public Comments - various BOCCC		ļ			
Major Community Events		3,000+	5,000+	3,900+	800+
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Outreach & Major Community Events at	NA Meetings,	Klineline Kids	July 4 Kids	CCSO – Sept	May Day
Klineline, Felida Com Park, T Jefferson	flyers, park, etc	Fish – April	Parade/Com	WP Open House	Felida L. Church
School (Sacajawea), WP, & other sites	# of people	# of participants	# of participants	# of participants	# of participants
<u>2013</u>					
1,000 Flyers to SFDs & posts – 2.5 mile	2,000+				
Door-to-Door canvas, WS, mtgs groups	695+				
Felida NA Newsletter and on the web	15,000-17,000				
Holiday Event for Kids-in-Need	157+				
Clark County Live, Webs, newspaper		3,100+	5,500+	3,400+	700+
Major Community Events					
<u>2014</u>				,	
9 WS & mtgs – various locations	495+				
Felida NA Newsletter and on the web	15,000-17,000				
Clark County Live					
Public Comments - various BOCCC					
Several Partner workshops and input		3,500+	5,000+	2,100+	500+
Major Community Events					
<u>2015</u>					
2,000 Flyers to SFDs, public places +	4,000+				
Various workshops, individuals/groups	310+				
Clark County Live and on the web					
Website, newspaper, e-mails, calls					
Several Partner workshops and input					A
Clark County Parks Adv. Board - Dec.					
Major Community Events		3,700+	4,200+	2,000+	400+
Totals/major event:		17,900+	29,100+	19,900+	4.300+
Grand total for all events: 71,200+					•

+ lower count recorded 15,000 - 17,000 = an estimate based on newsletters and flyers counts

2015 data/Updated 1/3/16 by the Felida NA Executive Board members

COUCAR GREEK WOODDS COMMUNICY IZARIS → ALTHERMANNES SUMMARY (ZOHO-ZOLE)

See Attached Outreach Summary 2015	NA Meetings,	Klineline Kids	July 4 Kids	CCSO – Sept WP	May Day
For meetings, major events, workshops	flyers, park, +	Fish – April	Parade/Com	Open House	Felida L. Church
Conducted by Felida NA Board & CCWC	# of people	# of participants	# of participants	# of participants	# of participants
2010					
Alternative 1 (final original public input)	297	87	269	53	19
Alternative 2 (City/Clark Parks concept)	34	5	51	1	4
Alternative 3 (combined 1,2, draft input)	307	239	394	149	58
Alternative 4 (do nothing)	2	5	7	3	1
2011					
Alternative 1 (final original public input)	44	14	125	15	9
Alternative 2 (City/Clark Parks concept)	12	3	5	1	2
Alternative 3 (formal draftcombined)	488	189	416	184	78
Alternative 4 (do nothing)	4	3	7	3	1
2012			· ·		
Alternative 1 (final original public input)	29	7	79	41	7
Alternative 2 (City/Clark Parks concept)	14	9	11	6	1
Alternative 3 (professional map draft)	412	159	398	142	93
Alternative 4 (do nothing)	3	0	7	5	1
2013					
Alternative 1 (final original public input)	17	9	9	29	1
Alternative 2 (City/Clark Parks concept)	12	7	1	4	1
Alternative 3 (professional map drafts)	419	118	346	149	45
Alternative 4 (do nothing)	2	4	3	9	1
2014					
Alternative 1 (final original public input)	8	4	1	9	0
Alternative 2 (City/Clark Park concept)	5	3	6	2	1
Alternative 3 (combined 1,2, and new input)	224	62	221	137	36
Alternative 4 (do nothing)	0	1	1	0	1
2015					
Alternative 1 (final original public input)	. 4	8	2	4	2
Alternative 2 (City/Clark Park concept)	1	5	1	0	2
Alternative 3 (combined 1,2, and input)	232	139	329	133	75
Alternative 4 (do nothing)	3	5	0	7	0

Votes for Alternative 4 had notations to keep it "status quo" (e.g., existing natural open space with informal trails, and "as is" now. Everybody opposed to residential development and transportation/vehicular access/subdivision roads bifurcating Cougar Creek Woods Community Park site.

67 Suggestions to add a dog park area anywhere within Felida NA (Foley Neighb.Park cited 49 times, Felida Com Park 7 times, Klineline 7).



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WETLAND DELINEATION & ASSESSMENT REPORT

NICHOLSON PROPERTY (188948-000)

VANCOUVER, WASHINGTON

PREPARED FOR: SYMMETRY, INC. 12808 NW 46TH AVENUE VANCOUVER, WA 98685 (360) 798-6520

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

NOVEMBER 8, 2005

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Sheet 4 – Environmental Constraints Map
Sheet 5 – Acrial Photography & Wetland Areas
Routine On-Site Determination Sheets

Site Summary

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Site Location(s)	11515 NW 16 th Avenue, Vancouver, WA 98685				
Applicant / Owner(s)	Roy Nicholson / Symmetry, Inc.				
Tax Parcel (s) / Lot Size	188948-000 / 10 acres				
County	Clark County				
Legal Description	NE 1/4 of Section 33, Township 3N, Range 1E				
Zoning	R1-7.5				
Topography	Rolling to steeply sloping				
Elevation	High point: ~232 feet above mean sea level				
	Low Point: ~92 feet above mean sea level				
Drainage Basin	Cougar Creek				
Nearest Water	Cougar Creek				
Land Form	Upland terraces/Stream corridor				
Soil Map Unit(s)	Hillsboro silt loam, 3 to 8 percent slopes (HoB)				
	Hillsboro silt loam, 8 to 15 percent slopes (HoC)				
	Hillsboro silt loam, 20 to 30 percent slopes (HoE)				
	Hillsboro loam, 30 to 65 percent slopes (HoG)				
NWI Classification	No mapped wetland classifications on-site				
Priority Habitat	Ripatian habitat mapped along east side of parcel				
Habitat Area Buffer	No Mapping Indicators				
Species Area Buffer	No Mapping Indicators				
Current Land Use	Residential				
Adjacent Land Use	Residential Development				
Proposed Land Use	Residential Development				

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INTRODUCTION

Symmetry, Inc. contracted with Cascadia Ecological Services, Inc. (CES) to complete a wetland delineation and assessment for the Nicholson property (Tax Serial No.: 188948-000) based on the regulatory requirements of the *Clark County Wetland Protection Ordinance*. The Applicant proposes residential development for this property. This report details the results of a wetland delineation conducted on November 11, 2005 by CES.

The 10 acre study area is located to the east of NW 16th Avenue and west of Cougar Creek and NW 117th Street in Clark County, Washington. The parcel is currently in residential use and is surrounded on all sides by other existing or developing residential properties.

According to U.S. Geological Survey (USGS) mapping, the site topography slopes from a high point of approximately 232 feet mean sea level at the residence along the west property boundary to 92 feet mean sea level at Cougar Creek along the east side.

WETLAND DELINEATION METHODOLOGY

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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 November 8, 2005, 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 area 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 (EACU) -- 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 (NWI) (Sheet 4 – Environmental Constraints Map) does not indicate the presence of mapped wetlands on this site.

The Clark County Soil Survey (USDA 1974) (Sheet 3) identifies the following soil mapping units on this site:

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Hillsboro silt loam, 3 to 8 percent slopes (HoB). This is the dominant soil in the southwestern part of the county. The relief is gently undulating. In most places the slopes are short. In a typical profile, the surface layer dark-brown silt loam about 7 inches thick. In sequence from the top, the upper 17 inches is friable, dark-brown silt loam; the next 16 inches is friable, dark grayish-brown heavy silt loam; and the lower 15 inches is friable, dark grayish-brown silt loam. The next layer, to a depth of 86 inches, is dark grayish-brown silt loam. The soil is well-drained, moderately permeable, and easily tilled. The available water capacity is very high. Fertility is moderately high. Surface runoff is slow, and erosion hazard is slight. Most of the acreage of this soil is cultivated or in urban fringe development. Nearly all of the crops suited to this area are grown. This soil is classified as **nonhydric** according to the Clark County hydric soils list but may contain hydric inclusions in sidehill seep areas.

Hillsboro silt loam, 8 to 15 percent slopes (HoC). This soil is similar to Hillsboro silt loam, 3 to 8 percent slopes, except that the surface layer is 1 to 3 inches thinner. Surface runoff is medium, and the erosion hazard is moderate. Most of the slopes are short. This soil is classified as **nonhydric** according to the Clark County hydric soils list.

Hillsboro silt loam, 20 to 30 percent slopes (HoE). This soil is along Salmon Creek, Whipple Creek, and other major drainageways in the western part of Clark County. It is similar to Hillsboro silt loam, 3 to 8 percent slopes, except that the surface layer is 2 to 4 inches thinner. Surface runoff is medium to rapid, and the erosion hazard is moderate to severe if the surface is left bare. This soil is classified as **nonhydric** according to the Clark County hydric soils list, but can contain hydric soil inclusions when associated with sidehill seeps.

Hillsboro loam, 30 to 65 percent slopes (HoG). This soil is similar to Hillsboro silt loam, 3 to 8 percent slopes, except that the surface layer is 7 to 10 inches thick. Surface runoff is rapid to very rapid, and the erosion hazard is severe to very severe if the surface is left bare. This soil is classified as **nonhydric** according to the Clark County hydric soils list, but can contain hydric soil inclusions when associated with sidehill seeps.

Based on the review of existing information and the on-site visit, two wetland complexes associated with Cougar Creek and a tributary stream were delineated within the east portion of the study area (Sheet 5). 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.

<u>Wetlands</u>

The topography of the study area is rolling to slightly sloping in the far west portion with lightly forested areas in the vicinity of the residence and a small fruit tree orchard near NW 16th Avenue. A mowed lawn area exists in the far northwest quadrant. All of the property to the east of the residence is heavily forested. The topography gradually slopes from an elevation of approximately 232 feet at the residence to 140 feet approximately 750 feet east of NW 16th Avenue.

At this location, the rolling terrain transitions into steep slopes which continue east to the floodplain of Cougar Creek. A tributary stream of Cougar Creek originates at a spring along the base of a steep

slope in the south-central portion of the site approximately 900 feet east of NW 16th Avenue and 400 feet west of the east property line. This tributary stream continues east from the spring into a deeply incised forested gully for approximately 200 feet before it eventually broadens into the Cougar Creek floodplain.

Another forested wetland area is located north of the tributary stream which originates from a sidehill seep. The wetland comprises a bowl shaped area which is mostly separated from Cougar Creek by an upland berm along most of the creek's length. Flow from the wetland enters into Cougar Creek through a narrow gap in the upland berm.

The forested wetlands in the vicinity of the tributary and other wetlands adjacent to Cougar Creek are dominated by an over story of red alder (*Alnus rubra* – FAC) and western red cedar (*Thuja plicata* – FAC); a shrub layer of nootka rose (*Rosa nutkana* - FAC), Pacific ninebark (*Physocarpos capitatus* - FACW-), red-osier dogwood (*Cornus stolonifera* - FACW), and salmonberry (*Rubus spectabilis* - FAC+); and a herbaceous layer of giant horsetail (*Equisetum telmateia* – FACW), deer fern (*Blechnum spicant* - FAC+), stinging nettle (*Urtica dioica* - FAC+), slough sedge (*Carex obnupta* - OBL), tall mannagrass (*Glyceria elata* – FACW+), bittersweet nightshade (*Solanum dulcamara* - FAC+), water parsley (*Oenanthe sarmentosa* - OBL), skunk cabbage (*Lysichiton americanum* - OBL), and piggy-back plant (*Tolmiea menziesii* – FAC). A bramble of Himalayan blackberry (*Rubis discolor* - FACU) is also located in the center an inundated portion of the forested wetland. Maidenhair fern (*Adiantum pedatum* - FAC) covers sections of the steep saturated slopes along the length of the tributary stream in addition to a small patch of Japanese knotweed (*Polygonum cuspidatum* - FACU) at its confluence with Cougar Creek.

Generally, soils in the wetlands are a dark brownish gray silt loam (generally 10YR 3/1) with distinct dark reddish brown mottles (generally 10YR 3/4 to 3/6). Both the tributary stream and Cougar Creek contained flow and the forested wetland was saturated or inundated with areas of ponding. Other primary indicators of hydrology in the other wetland areas included water stained leaves and redoximorphic features (soil mottles and iron concretions) within 10 inches of the soil surface.

Non-wetland Areas

Upland areas within the study area are mostly associated with forested upland benches and sloping topography within the west and central portions of the site. A smaller forested upland area is associated with the hillslope along the east side of Cougar Creek.

The upland forest plant community on the property is dominated by an over story of Douglas fir (*Pseudotsuga menziesii* - FACU) and big-leaf maple (*Acer macrophyllum* - FACU). The shrub layer is dominated by common snowberry (*Symphoricarpos albus* - FACU), Oregon grape (*Mahonia aquifolium* - NOL), oceanspray (*Holodiscus discolor* - NOL), indian plum (*Oemleria cerasiformis* - NOL), salal (*Gualtheria shallon* - FACU), swordfern (*Polystichum munitum* - FACU), vine maple (*Acer circinatum* - FAC-), Himalayan blackberry, and trailing blackberry (*Rubus ursinus* - FACU).

The open grassland area to the north of the residence is dominated by common dandelion (*Taraxacum officinale* - FACU), tall fescue (*Festuca arundinacea* - FAC-), Queen Anne's lace (*Dancus carota* - NOL), and orchardgrass (*Dactylis glomerata* – FACU). A small apple orchard is located directly to the west of the house. Thickets of blackberries are common in the fringe areas adjacent to and within the forest.

Soils within the upland areas generally match the description of the non-hydric Hillsboro soil series (10YR 3/3). 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 would be likely be classified as <u>Category 2 and 3</u> wetlands based on the definitions given in the *Clark County Wetland Protection Ordinance*. Associated required protective buffers are as follows:

Category 2 wetlands – 250 feet Category 3 wetlands – 100 feet

Cougar Creek would likely be classified as a DNR Type 3 water with a 200 foot protective buffer based on the definitions given in the *Clark County Habitat Conservation Ordinance*.

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

In addition to Clark County, 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 <u>pre-construction</u> 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. Clark County requires wetland and/or habitat permits for any work within regulated wetlands or buffers except for those identified as exempt in the *Clark County Wetland Protection Ordinance*.

Any impacts above the 1/10 acre threshold require <u>prior approval</u> 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 Clark County have the final authority in determining the wetland boundaries and categories under their respective jurisdictions.

LITERATURE CITED

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

SHEET 1 VICINITY MAP NICHOLSON PROPERTY (188948-000) WETLAND DELINEATION & ASSESSMENT SCALE: NTS DATE: 11/8/05



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SHEET 2 SITE TOPOGRAPHIC CONTOURS NICHOLSON PROPERTY (188948-000) WETLAND DELINEATION & ASSESSMENT SCALE: 1" = 200' DATE: 11/8/05



LEGEND

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Hillsboro silt toam, 3 to 8 percent slopes (HoB) Hillsboro silt toam, 8 to 15 percent slopes (HoC) Hillsboro silt toam, 20 to 30 percent slopes (HoC) Hillsboro toam, 30 to 65 percent slopes (HoG)



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SHEET 3 CLARK COUNTY SOIL SURVEY MAP NICHOLSON PROPERTY (188948-000) WETLAND DELINEATION & ASSESSMENT SCALE: 1" = 400' DATE: 11/8/05



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NATHL SOURCE OUSIN COMPT SIS NOTE: NO MAPPED WETLAND AREAS ARE SHOWN WITHIN THE STUDY AREA ACCORDING TO THE NATIONAL WETLAND INVENTORY OR CLARK COUNTY ENVIRONMENTAL CONSTRAINTS MAP.





SHEET 4 ENVIRONMENTAL CONSTRAINTS MAP NICHOLSON PROPERTY (188948-000) WETLAND DELINEATION & ASSESSMENT SCALE: 1" = 400' DATE: 11/8/05

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Wetland areas shown above have been flagged and surveyed In the field. Wetland categories and buffer types are based on definitions given in the Clark County Wetland Protection Ordinance (Section 40.450).

Numerals depict wetland data point locations.

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SHEET 5 AERIAL PHOTOGRAPHY & WETLAND AREAS NICHOLSON PROPERTY (188948-000) WETLAND DELINEATION & ASSESSMENT SCALE: 1" = 200' DRAWING DATE: 12/18/05