

Return To:

RICK MAY  
12945 SW 135<sup>th</sup> Ave  
TIGARD OR 97223

<b>WETLAND &amp; HABITAT CONSERVATION AREA NOTICE</b>	
Grantor:	<u>RICK &amp; JULIE MAY</u>
Grantee:	The Public
Tax Parcel #:	<u>03-07-36-44-0400 + 0402</u>
Legal Description:	<u>See attached Legal &amp; Lot line Adj.</u>
	<u>AFN# 2013000696</u>
	<u>4/8/2013</u>
<b>NOTICE:</b> This site contains wetland and habitat conservation areas. Restrictions on use or alteration of the site may exist. For more information contact the City of Stevenson Planning Department.	
Wetland Delineation Recording #:	<u>See attached</u>

AFN #2012181943 Recorded 11/01/2012 at 02:23 PM DocType: DEED Filed by:  
COLUMBIA GORGE TITLE Page: 1 of 2 Auditor Timothy O. Todd Skamania County, WA

When recorded refers to:

Angela Skeie:  
27 Cedar Falls Drive  
Astoria, WA 97103

REAL ESTATE EXCISE TAX

29788

NOV -1 2012

Filed for Record at Request of:  
Columbia Gorge Title  
Escrow Number: S12-0184JA

PAID exempt  
Vickie Chelland  
SKAMANIA COUNTY TREASURER

QUIT CLAIM DEED

THE GRANTOR KENNETH R. SKEIE for and in consideration of DISSOLUTION OF MARRIAGE in hand,  
conveys and quit claims to THE GRANTEE ANGELA P. SKEIE, A SINGLE WOMAN the following described  
real estate, situated in the County of Skamania State of Washington, together with all after acquired title or  
interests therein:

Abbreviated Legal: PT of SE 1/4 SE 1/4 SEC 36 T3N R7E & LOTS 5 - 18, BLOCK 2 MELDAN ACRES 2.0  
ADDITION

For Full Legal See Attached Exhibit 'A' on Page 2

Tax Parcel Number(s): 03-07-36-4-4-0400-00, 03-07-36-4-4-0401-00, 03-07-36-4-4-0402-00

Date: 10-31-2012

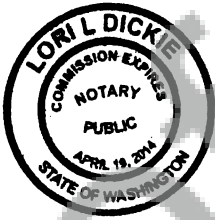
Kenneth R. Skeie  
KENNETH R. SKEIE

STATE OF WASHINGTON  
COUNTY OF COWLITZ SS:

I certify that I know or have satisfactory evidence that KENNETH R. SKEIE  
the person(s) who appeared before me, and said person(s) acknowledged that  
signed this instrument and acknowledge it to be his free and voluntary act for the  
uses and purposes mentioned in this instrument.

Date: 10-31-2012

[Signature]  
Notary Public in and for the State of WASHINGTON  
My commission expires: 12-15-14



## EXHIBIT A

## PARCEL I

A tract of land in the Southeast quarter of the Southeast quarter of Section 36, Township 3 North, Range 7 East, in the Willamette Meridian, County of Skamania and State of Washington, more particularly described as follows:

Beginning at the Northwest corner of Lot 1 of MELDAN ACRES, according to the official Plat thereof; thence North 26°22' West 440 feet to the initial point of the tract herein described; thence North 64°04' East to Kanaka Creek Road; thence following Kanaka Creek Road in a Northwesterly direction to intersection with the divisions line between the North and South halves of the Shepard D.L.C.; thence West along the said divisions line to intersection with Kanaka Creek Cut-Off Road to a point Southwesterly along the said Kanaka Creek Cut-Off Road to a point North 26°22' West of the initial point; thence South 26°22' East to the initial point, said tract of land being located in Section 36, Township 3 North, Range 7 East of the Willamette Meridian.

Skamania County Assessor  
Date 11-1-12 Parcel 3-7-36-4-4-400  
401  
Ym 402

## PARCEL II

A tract of land in the Southeast quarter of the Southeast quarter of Section 36, Township 3 North, Range 7 East, in the Willamette Meridian, County of Skamania and State of Washington, more particularly described as follows:

Beginning at the Northwest corner of Lot 1 of MELDAN ACRES, according to the official Plat thereof, on file and of record in the office of the Auditor of Skamania County, Washington; thence North 26°22' West 461 feet to the initial point of the tract hereby described; thence North 26°22' West 390.8 feet to intersection with the Southerly Right-of-Way line of the County Road known and designated as Kanaka Creek Cut-Off Road; thence South 58°52' West following the Southerly line of said road 48.52 feet to intersection with the West line of the Shepard D.L.C.; thence South following the West line of the Shepard D.L.C. 323.68 feet; thence East 236.34 feet to the initial point.

## PARCEL III

Lots 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18 of Block 2 of MELDAN ACRES SECOND ADDITION, according to the Plat thereof, recorded in Book 'A', Page 96, Skamania County Plat Records.

## PARCEL IV

A tract of land in the Southeast quarter of the Southeast quarter of Section 36, Township 3 North, Range 7 East, in the Willamette Meridian, County of Skamania and State of Washington, more particularly described as follows:

Commencing at the Northwest corner of Lot 1 of Block 2 of the FIRST ADDITION TO MELDAN ACRES TRACT, as shown by Plat recorded at Page 93, Book 'A' of Plats, records of Skamania County, Washington; thence North 25°56' West 200 feet; thence North 64°4' East to the West line of Kanaka Creek Road; thence Southerly along the West line of Kanaka Creek Road to a point which is North 64°4' East of the point of beginning; thence South 64°4' West to the point of beginning.

*Proposed*

# PARCEL I

A tract of land in the Southeast quarter of the Southeast quarter of Section 36, Township 3 North, Range 7 East, in the Willamette Meridian, County of Skamania and State of Washington, more particularly described as follows:

Beginning at the Northwest corner of Lot 1 MELDAN ACRES, according to the official Plat thereof, thence North 26°22' West 440 feet to the initial point of the tract herein described; thence North 64°04' East to Kanaka Creek Road; thence following Kanaka Creek Road in a Northwesterly direction to intersection with the divisions line between the North and South halves of the Shepard D.L.C.; thence West along the said divisions line to intersection with Kanaka Creek Cut-Off Road to a point Southwesterly along the said Kanaka Creek Cut-Off Road to a point North 26° 22' West of the initial point; thence South 26°22' East to the initial point, said tract of land being located in Section 36, Township 3 North, Range 7 East of the Willamette Meridian.

# PARCEL II

A tract of land in the Southeast quarter of the Southeast quarter of Section 36, Township 3 North, Range 7 East, in the Willamette Meridian, County of Skamania and State of Washington, more particularly described as follows:

Beginning at the Northwest corner of Lot 1 of MELDAN ACRES, according to the official Plat thereof, on file and of record in the office of the Auditor of Skamania County, Washington: thence North 26°22' West 461 feet to the initial point of the tract hereby described; thence North 26°22' West 390.8 feet to intersection with the Southerly Right-of-Way line of the County Road known and designated as Kanaka Creek Cut-Off Road; thence South 58°52' West Following the Southerly line of said road 48.52 feet to intersection with the West line of the Shepard D.L.C.; thence South following the West line of the Shepard D.L.C 323.68 feet, thence East 236.34 feet to the initial point.

Parcel I and Parcel II, as noted above, irrevocably bound as one parcel of record.

Skamania County Auditor  
Date 4-17-72 Parcels 3-7-36-4-4-400  
3-7-36-4-4-401  
LM

*[Signature]*

PAGE 2 OF 4

# **Wetland Delineation and Preliminary Wetland Assessment for 329 Kanaka Creek Road, Stevenson, Washington**

**Prepared for**  
**May & Associates**  
Tigard, Oregon 97223

**Prepared by**  
**Pacific Habitat Services, Inc.**  
Wilsonville, Oregon 97070  
(503) 570-0800  
(503) 570-0855 FAX

**October 29, 2013**



**Wetland Delineation and  
Preliminary Wetland Assessment  
for 329 Kanaka Creek Road,  
Stevenson, Washington**

**Prepared for**

**Rick May  
May & Associates  
12945 SW 135th Ave  
Tigard, OR 97223**

**Prepared by**

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(503) 570-0800  
(503) 570-0855 FAX  
PHS Project Number: 5299**

**October 29, 2013**

TABLE OF CONTENTS

	Page
I. INTRODUCTION.....	1
II. RESULTS AND DISCUSSION .....	1
A. Landscape Setting and Land Use.....	1
B. Site Alterations .....	1
C. Precipitation Data and Analysis .....	1
D. Methods .....	2
E. Description of all Wetlands and Other Non-Wetland Waters .....	2
F. Deviation from LWI or NWI.....	8
G. Mapping Method .....	8
H. Results and Conclusions.....	8
I. Disclaimer.....	8
III. REFERENCES.....	9
APPENDIX A: Figures	
Figure 1: Vicinity Map (USGS)	
Figure 2: National Wetland Inventory Map	
Figure 3: City of Stevenson Critical Area Map	
Figure 4: Soil Survey Map	
Figure 5: Aerial Photograph	
Figure 6: Wetland Delineation Map	
APPENDIX B: Wetland Delineation Data Sheets	
APPENDIX C: Site Photos	
APPENDIX D: Wetland Rating Forms	



**I. INTRODUCTION**

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation on the property located at 329 Kanaka Creek Road in Stevenson, Skamania County, Washington. Wetland delineation field work was conducted on August 21 and 29, 2013. This report presents the results of PHS's wetland delineation. Figures, including a map depicting the location of wetlands within the study area, are located in Appendix A. Data sheets documenting on-site conditions are provided in Appendix B. Ground-level photos of the study area are in Appendix C. Completed wetland rating forms for each of the wetlands are included in Appendix D.

**II. RESULTS AND DISCUSSION**

**A. Landscape Setting and Land Use**

The subject property consists of three tax lots located between Kanaka Creek Road and School Street in the City of Stevenson, Skamania County, Washington. The site is bordered by School Street on the northwest and by Kanaka Creek Road on the east. Much of the site is bordered by low to moderate density residential development, and Stevenson Elementary is located south of the site.

Under existing conditions, much of the site is forested, with second-growth or third-growth forest covering much of the site. An existing single family residence and an associated shed are present on the site. The site's topography slopes generally to the south. Two drainages cross the site, as described below, and two depressions containing wetland areas are present in the eastern portion of the site.

**B. Site Alterations**

An excavated pond is present within the lawn associated with the on-site residence, as described in Section E of this report. The date that this pond was first created is not known, but maintenance excavation and the construction of a concrete weir appear to have occurred in the recent past. PHS did not observe any evidence of recent fill, other excavation, or other disturbance within the study area and, therefore, considered normal environmental conditions to be present.

**C. Precipitation Data and Analysis**

Table 1 compares the average monthly precipitation to the observed monthly precipitation in the Stevenson, Washington area in the three full months prior to the start of PHS's wetland delineation field work as well as in the month of August, the month in which much of the field work was conducted. Table 1 also compares the observed precipitation, as recorded at Cascade Locks, Oregon (the closest weather station for which cumulative precipitation data is available) to the average monthly precipitation and the normal precipitation range, as identified in the NRCS WETS table for Skamania County. As shown in Table 1, observed precipitation was extremely variable in the months leading up to the wetland delineation field work, ranging from more than twice the average in May to only five percent of average in July.



**Table 1: Comparison of Average and Observed Precipitation in the Stevenson, Washington Area for the Months Prior to the Wetland Delineation Field Work**

Month	Average Precipitation <sup>a</sup>	30% Chance Will Have		Observed Precipitation <sup>b</sup>	Percent of Average
		Less Than Average <sup>a</sup>	More Than Average <sup>a</sup>		
May	3.29	1.93	3.99	6.83	208
June	2.23	1.29	2.71	2.11	95
July	0.81	0.24	0.99	0.04	5
August	0.85	0.12	1.01	0.55	65

Notes: a. Source: NRCS WETS Table for Arson Fish Hatchery (WA1160), Skamania County (<http://www.wcc.nrcs.usda.gov/ftpref/support/climate/wetlands/wa/53059.txt>)  
b. Source: Data for the Cascade Locks weather station (MLKSO3) as reported by Weather Underground Website (<http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=MLKSO3&graphspan=month&month=8&day=18&year=2013>)

Total observed precipitation for the water year (October 1, 2012 through August 31, 2013) was 77.32 inches, which is approximately 91 percent of normal, or approximately average. Although precipitation in the months preceding PHS’s wetland delineation field work fluctuated from much higher than average to nearly non-existent, total precipitation for the water year was approximately average.

**D. Methods**

PHS delineated the limits of the jurisdictional wetlands in the study area based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y-87-1* (“The 1987 Manual”) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. PHS conducted the wetland delineation and data collection on August 21 and 29, 2013.

PHS evaluated the delineated wetlands according the Washington Department of Ecology’s *Washington State Wetland Rating System for Western Washington* (Ecology Publication #04-06-025). PHS also contacted Ben Shumaker, Planning Director for the City of Stevenson who indicated that the project site is within an area of “Moderate Intensity Use”, as defined by City code. This assessment was completed for the purposes of determining the appropriate wetland categories and the extent of Critical Areas on the site, in accordance with Chapter 18.13 of the City of Stevenson, Washington Code of Ordinances. Completed rating forms for each of the wetlands are included in Appendix D.

**E. Description of All Wetlands and Other Non-Wetland Waters**

PHS identified and delineated five wetlands and two stream channels within the study area. An excavated pond is also present. General descriptions of the on-site wetlands and discussion of their characterization in accordance with the City of Stevenson’s Critical Areas ordinance are provided below. The area of each wetland, the Cowardin and HGM classifications , and wetland ranking , is provided in Table 2 in Section H of this report.

**Wetland A**

Wetland A is an isolated depression located in the eastern portion of the project site. The Cowardin classification of the wetland is palustrine forested, seasonally ponded (PFOE). The HGM classification is Depressional. The total area of Wetland A is approximately 12,355 square feet (0.28 acres).

The irregular topography within the depression that contains Wetland A suggests that the depression may have been created by excavation at some point in the past, and the large amount of woody debris in the southern portion of the depression appears to be material discarded when the site was logged in the past. Under existing conditions, Wetland A is vegetated with a young second-growth forest community. Black cottonwood (*Populus balsamifera*; FAC), red alder (*Alnus rubra*; FAC), and Oregon ash (*Fraxinus latifolia*; FACW) are dominant in the forest canopy, and Oregon ash and red-twig dogwood (*Cornus alba*; FACW) are dominant in the forest understory. Slough sedge (*Carex obnupta*; OBL) and reed canarygrass (*Phalaris arundinacea*; FACW) are dominant herbaceous species within the wetland. Data Points 2 and 3 characterize Wetland A. The soils within Wetland A show redoximorphic characteristics and meet hydric soil indicators. Sediment deposits and water marks on tree trunks indicate that water ponds within the wetland for sufficient duration to meet wetland hydrology indicators. The presence of redoximorphic features only within the top six inches of the soil profile at Data Point 3 suggests that surface water is the primary source of wetland hydrology rather than an elevated water table.

Data Points 1 and 4 characterize the non-wetland community adjacent to Wetland A. Red alder, bigleaf maple (*Acer macrophyllum*; FACU), and sweet cherry (*Prunus avium*; FACU) are dominant in the forest canopy, and bigleaf maple, beaked hazelnut (*Corylus cornuta*; FACU), Himalayan blackberry (*Rubus armeniacus*; FACU), Oregon grape (*Mahonia aquifolium*; FACU), and snowberry (*Symphoricarpus albus*; FACU) are dominant in the understory. Common herbaceous species include sword fern (*Polystichum munitum*; FACU) and slough sedge. Although hydrophytic species such as red alder and slough sedge are present, the plant community does not meet the dominance test or any other wetland vegetation indicators at these sample points. Unlike the soils in the wetland community, the soils at the non-wetland data points do not meet hydric soil indicators, and there is no evidence of wetland hydrology.

Wetland A is a Category III wetland under the *Washington State Wetland Rating System for Western Washington*. Under the rating system, Wetland A received a total score of 39, as follows:

Score for water quality functions	24
Score for hydrologic functions	7
Score for habitat functions	8
<b>Total score</b>	<b>39</b>

In accordance with Chapter 18.13 of the City of Stevenson, Washington Code of Ordinances, Wetland A has a 60-foot buffer because it is a Category III wetland within a Moderate Intensity Use area and has a habitat score of 19 or less.

**Wetlands B**

Wetland B is a very small, shallow, isolated depression located in the eastern portion of the project site. The Cowardin classification of the wetland is palustrine forested, seasonally ponded (PFOE). The HGM classification is Depressional. The total area of Wetland B is approximately 861 square feet (0.02 acres).

Under existing conditions, Wetland B is vegetated with a young second-growth forest community. Black cottonwood and Oregon ash are dominant in the forest canopy, and Himalayan blackberry is dominant in the forest understory. The herbaceous layer is very sparsely vegetated throughout the wetland, and no herbaceous species were recorded at Data Point 5, which characterizes Wetland B. The soils within Wetland B show redoximorphic characteristics and meet hydric soil indicators. Sediment deposits indicate that water ponds within the wetland for sufficient duration to meet wetland hydrology indicators. The presence of clay loam soils at eight inches below the soil surface slows the downward movement of water through the soil, and the ponding of surface water is likely the primary source of wetland hydrology in Wetland B.

There is a slight topographic rise that separates Wetland B from Wetland A. Data Point 6 characterizes the vegetation, soil, and hydrology characteristics of this topographic rise and documents the presence of upland between Wetlands A and B. Red alder and Himalayan blackberry are the dominant species in this community. All subdominant species at this data point are non-hydrophytic species (i.e., bigleaf maple, sweet cherry, and snowberry). Unlike the soils in the wetland community, the soils at the non-wetland data points do not meet hydric soil indicators, and there is no evidence of wetland hydrology.

Wetland B is a Category IV wetland under the *Washington State Wetland Rating System for Western Washington*. Under the rating system, Wetland B received a total score of 29, as follows:

Score for water quality functions	16
Score for hydrologic functions	4
Score for habitat functions	9
<b>Total score</b>	<b>29</b>

In accordance with Chapter 18.13 of the City of Stevenson, Washington Code of Ordinances, Wetland B has a 40-foot buffer because it is a Category IV wetland within a Moderate Intensity Use area and has a habitat score of 19 or less.

**Wetland C and Stream 2**

Wetland C is a narrow swale at the top of a seasonal drainage in the north-central portion of the project site. The Cowardin classification of the wetland is palustrine scrub-shrub, seasonally saturated (PSSE). The HGM classification is Slope. The total area of Wetland C is approximately 687 square feet (0.02 acres).



Although Wetland C occurs under a forest canopy, the wetland itself is sparsely vegetated. Shrubs, including Scouler's willow (*Salix scouleriana*; FAC) and Himalayan blackberry and scattered herbaceous species such as sedges (*Carex* spp.) and dock (*Rumex obtusifolius*; FAC) occur within the herbaceous layer. The soils within Wetland C show redoximorphic characteristics and meet the Redox Dark Surface hydric soil indicator. The soil within the wetland was not saturated at the time of PHS's field work, but drainage patterns and geomorphic position provided secondary wetland hydrology indicators. Surface runoff and a seasonally elevated groundwater table appear to be the primary sources of hydrology within the wetland. Data Point 7 characterizes Wetland C. Wetland 8 characterizes the non-wetland community adjacent to Wetland C. Dominant species include bigleaf maple, bitter cherry (*Prunus emarginata*; FACU), Scouler's willow, beaked hazelnut, Himalayan blackberry, and wild blue lettuce (*Lactuca biennis*; FAC). The soils lack redoximorphic features and do not meet hydric soils indicators, and there are no wetland hydrology indicators at Data Point 8.

An unnamed seasonally intermittent stream (identified as "Stream 2" on Figure 6) flows southward from the south end of Wetland C. Stream 2 is different from Wetland C to the north in that Stream 2 has a defined ordinary high water line (OHW), indicating concentrated flow, whereas Wetland C lacks an OHW line. Stream 2 flows southward for approximately 160 feet before ending north of the southern property boundary. There was no surface flow within Stream 2 at the time of PHS's wetland delineation field work.

Data Points 9 and 10 characterize the southern end of Stream 2. At Data Point 10, the stream channel contains a hydrophytic plant community, hydric soils and wetland hydrology indicators as well as an ordinary high water mark. Further downstream, at Data Point 9, wetland hydrology indicators are present within the channel, but the soil is not hydric and the plant community is not hydrophytic. Further downslope, south of the delineated limits of Stream 2, the ordinary high water mark ceases to exist, and there is no defined stream channel. Downstream of the end of the stream channel, the plant community is overwhelmingly dominated by Himalayan blackberry, with small amount of hydrophytic species such as manna-grass (*Glyceria x occidentalis*; OBL), yellow flag iris (*Iris pseudacorus*; OBL), scouring rush (*Equisetum arvense*; FAC) and bittersweet nightshade (*Solanum dulcamara*; FAC) growing among the blackberries, as characterized by Data Point 13. At Data Point 13 the soil is not hydric and no wetland hydrology indicators were observed at the time of PHS's wetland delineation field work.

An excavated pond is located within the lawn to the west of Stream 2. When water levels in the pond are high, water from the pond flows across a concrete weir structure and into an excavated channel that connects to the main stem of Stream 2. At the time of PHS's wetland delineation field work, the water level within the pond was lower than the top of the concrete weir (approximately two feet or more), and a garden hose was being used to provide water to the pond. Data Point 12 characterizes the area adjacent to the excavated pond. The plant community contains typical lawn grasses and weeds, with perennial ryegrass (*Lolium perenne*; FAC) and creeping bentgrass (*Agrostis capillaris*; FAC) occurring as dominant species. Although the plant community is hydrophytic, it is dominated by facultative species, and many of the subdominant plants are non-hydrophytic species. The soils adjacent to the pond are not hydric, and PHS did not observe any

wetland hydrology indicators outside the excavated pond. Additionally, hydric soils are not mapped in the area of the pond. Because the pond appears to have been excavated from an upland area to create an aesthetic landscaping feature, it is PHS’s opinion, subject to agency concurrence, that this pond is not a jurisdictional wetland or water of the State/U.S. subject to regulation under Section 404 of the Clean Water Act or Washington state wetlands regulations.

Wetland C is a Category IV wetland under the *Washington State Wetland Rating System for Western Washington*. Under the rating system, Wetland C received a total score of 14, as follows:

Score for water quality functions	2
Score for hydrologic functions	4
Score for habitat functions	8
<b>Total score</b>	<b>14</b>

In accordance with Chapter 18.13 of the City of Stevenson, Washington Code of Ordinances, Wetland C has a 40-foot buffer because it is a Category IV wetland within a Moderate Intensity Use area and has a habitat score of 19 or less. Stream 2 is characterized as Type Ns (Intermittent, Intermittent Non-Fish Bearing), and therefore, has a 50-foot riparian buffer, in accordance with City Code.

**Wetland D**

Wetland D is a small wetland located along the southern site boundary. The Cowardin classification of the wetland is palustrine emergent, seasonally saturated (PEME). The HGM classification is Flats. The total area of Wetland D is approximately 812 square feet (0.02 acres).

Although Wetland D is under a canopy of trees, the plant community is dominated by herbaceous species, with only occasional trees and shrubs located at the edges of the delineated wetland. Red alder, Pacific ninebark (*Physocarpus capitatus*; FACW), Himalayan blackberry, and an unidentified sedge are dominant species within the wetland. The soils within Wetland D show redoximorphic characteristics and meet hydric soil indicators. Oxidized rhizospheres, geomorphic position, and a positive FAC-neutral test provide wetland hydrology indicators. Surface runoff and an elevated water table appear to be primary sources of wetland hydrology.

Data Point 15 characterizes the non-wetland community adjacent to Wetland D and documents a non-wetland separation between Wetland D and Wetland E to the west. Although the soil at Data Point 15 is hydric, the plant community is not hydrophytic, and wetland hydrology indicators were not observed at the time of PHS’s wetland delineation field work.

Wetland D is a Category IV wetland under the *Washington State Wetland Rating System for Western Washington*. Under the rating system, Wetland D received a total score of 19, as follows:

Score for water quality functions	8
Score for hydrologic functions	1
Score for habitat functions	10
<b>Total score</b>	<b>19</b>

In accordance with Chapter 18.13 of the City of Stevenson, Washington Code of Ordinances, Wetland D has a 40-foot buffer because it is a Category IV wetland within a Moderate Intensity Use area and has a habitat score of 19 or less.

**Wetland E**

Wetland E is a small wetland located near the southern site boundary. The Cowardin classification of the wetland is palustrine forested, seasonally saturated (PFOE). The HGM classification is Slope. The total area of Wetland E is approximately 610 square feet (0.01 acres).

Data Point 16 characterizes Wetland D. Red alder, Himalayan blackberry, manna-grass, and American speedwell (*Veronica Americana*; OBL) are dominant species within the wetland. The soils within Wetland E show redoximorphic characteristics and meet hydric soil indicators. At Data Point 16, drainage patterns and a positive FAC-neutral test provide wetland hydrology indicators. Water was seeping from the northern portion of the wetland at the time of PHS’s wetland delineation field work. However, surface flow from the seep goes subsurface as water flows down the slope such that the soils in the downslope portion of the wetland (e.g., in the vicinity of Data Point 16) were not saturated at the time of PHS’s field work.

Data Point 17 characterizes the non-wetland community adjacent to Wetland E and documents a non-wetland separation between Wetland E and Wetland D to the east. Although a hydrophytic plant community is present at Data Point 17, the soil is not hydric, and wetland hydrology indicators were not observed at the time of PHS’s wetland delineation field work.

Wetland E is Category IV wetland under the *Washington State Wetland Rating System for Western Washington*. Under the rating system, Wetland E received a total score of 20 as follows:

Score for water quality functions	6
Score for hydrologic functions	4
Score for habitat functions	10
<b>Total score</b>	<b>20</b>

In accordance with Chapter 18.13 of the City of Stevenson, Washington Code of Ordinances, Wetland E has a 40-foot buffer because it is a Category IV wetland within a Moderate Intensity Use area and has a habitat score of 19 or less.

**Stream 1**

Stream 1 is an intermittent stream that flows onto the site from a culvert under School Street near the northwestern corner of the project site. On-site, the northernmost portion of the channel is very steep and has been lined with boulders to stabilize the channel and prevent erosion. The remaining portion of the channel is less steep, but it appears to have been straightened and channelized by excavation at some point in the past. At the time of PHS’s wetland delineation field work, water was flowing from the culvert under School Street, but near the bottom of the boulder-lined portion of the channel the flow disappeared underground such that the majority of the channel lacked surface flow. Stream 1 is characterized as Type Ns (Intermittent, Intermittent Non-Fish Bearing), and therefore, has a 50-foot riparian buffer, in accordance with City Code.



**F. Deviation from NWI and Critical Areas Map**

The National Wetlands Inventory (NWI) does not show any wetlands on the project site. The City of Stevenson Critical Areas Map shows two wetlands on the site: a PFO wetland in the eastern portion of the site where PHS delineated Wetlands A and B and a PFO wetland along the southern site boundary where PHS delineated Wetlands D and E. In both cases, the mapped wetlands are larger than what was delineated based on an examination of vegetation, soil, and hydrology characteristics. Additionally, a stream does not flow out of either Wetland D or E, as indicated on the City’s Critical Area Map.

**G. Mapping Method**

PHS flagged the wetland and stream boundaries with blue flagging. Data points were flagged with lime green surveyor’s tape. PHS located the wetland and stream boundary flagging and wetland data point locations using a hand-held GPS. The estimated accuracy of the survey is +/- 3 feet.

**H. Results and Conclusions**

PHS delineated five wetlands and two non-wetland waters of the U.S. within the project area. The total area of wetlands and non-wetland waters within the project area is approximately 0.41 acres, as shown in Table 2.

**Table 2: Summary of Wetlands and Non Wetland Waters within the Project Site**

Feature	Area (s.f.)	Cowardin Class	HGM Class	Wetland Ranking
Wetland A	12,355	PFO	Depressional	Category III
Wetland B	861	PFO	Depressional	Category IV
Wetland C	687	PSS	Slope	Category IV
Wetland D	812	PEM	Flats	Category IV
Wetland E	610	PFO	Slope	Category IV
Stream 1	1,554	R4	Riverine	Type Ns
Stream 2	1,055	R4	Riverine	Type Ns
Total Wetlands:	17,934 (0.41 ac.)			

**I. Disclaimer**

This report documents the investigation, best professional judgment and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Washington Department of Ecology and/or the U.S. Army Corps of Engineers.

### III. REFERENCES

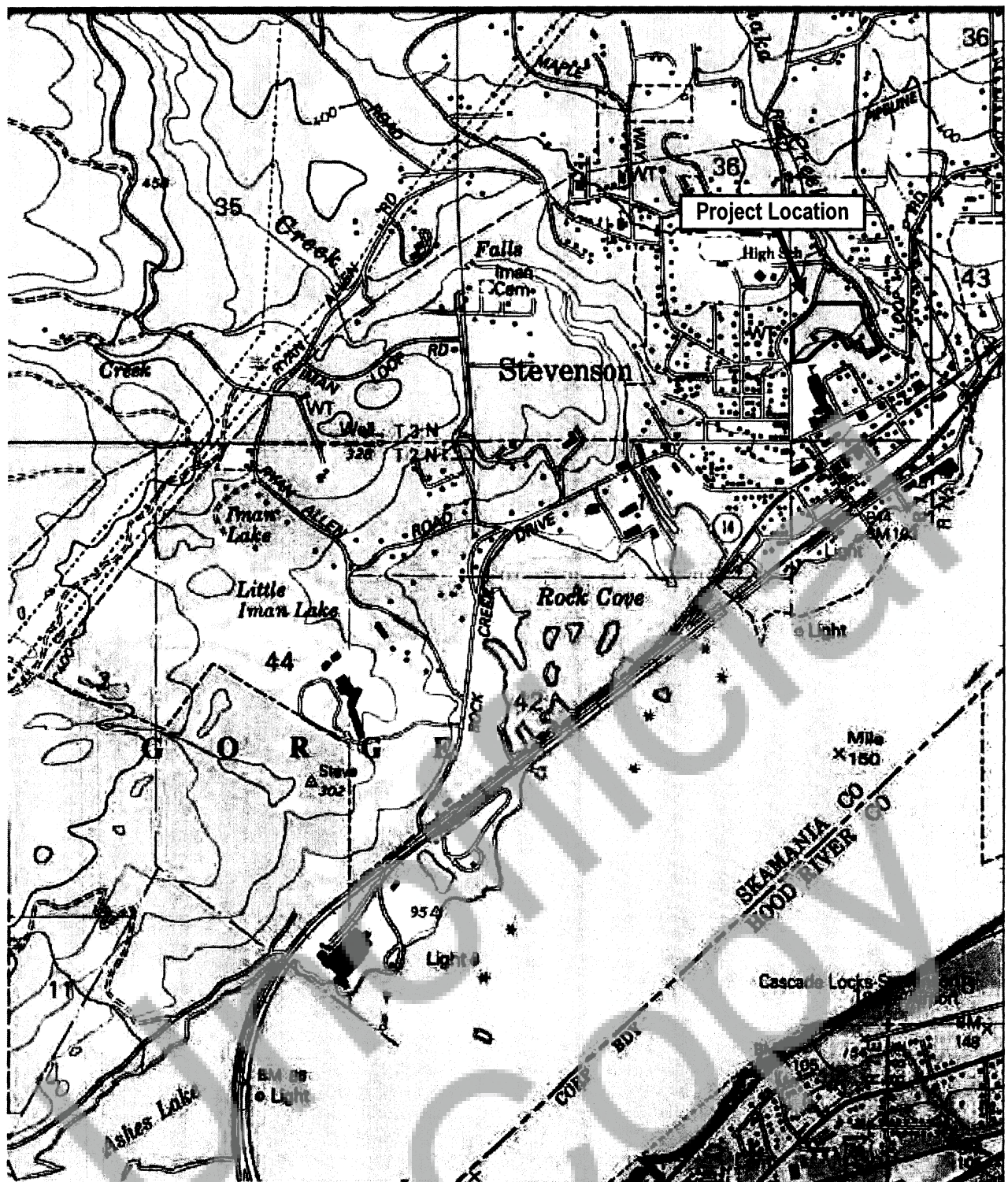
- Adamus, P.R. and D. Field. 2001 *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites. Willamette Valley Ecoregion, Riverine Impounding and Slopes/Flats Subclasses*. Oregon Division of State Lands, Salem, OR.
- City of Stevenson, Washington, 2008. Critical Area Map
- GoogleEarth. 2013. Aerial photograph
- Hitchcock, CL and A. Cronquist. 1973. *Flora of the Pacific Northwest: An Illustrated manual*. University of Washington Press.
- Hruby, T. 2004. *Washington State wetland rating system for western Washington – Revised*. Washington State Department of Ecology Publication #04-06-025.
- Lichvar, Robert W. and J. T. Kartesz. 2012. *North American Digital Flora: National Wetland Plant List*, version 3.0. [http://wetland\\_plants.usace.army.mil](http://wetland_plants.usace.army.mil)
- Munsell Color, 2009. *Munsell Soil Color Charts*.
- NRCS WETS Tables for Skamania County, Washington.  
<http://www.wcc.nrcs.usda.gov/ftpref/support/climate/wetlands/wa/53059.txt>
- US Army Corps of Engineers, Environmental Laboratory, 1987. *Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1*.
- US Army Corps of Engineers, Environmental Laboratory, 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*.
- USDA, Web Soil Mapper 2013. *Soil Survey of Skamania County, Washington*.  
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- US Fish and Wildlife Service. 2013. *National Wetlands Inventory Map for Skamania County, Washington*.
- US Geologic Survey. 1996. 7.5-minute topographic map, Bonneville Dam, WA-OR, quadrangle.
- US Geologic Survey, National Wetlands Inventory Mapper. 2013.  
<http://www.fws.gov/wetlands/Wetlands-Mapper.html>

# Appendix A

## Figures







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Location and General Topography  
NW Kanaka Creek Road, Stevenson, Washington  
(USGS Bonneville Dam Quadrangle, WA-OR, 1996)

FIGURE  
1

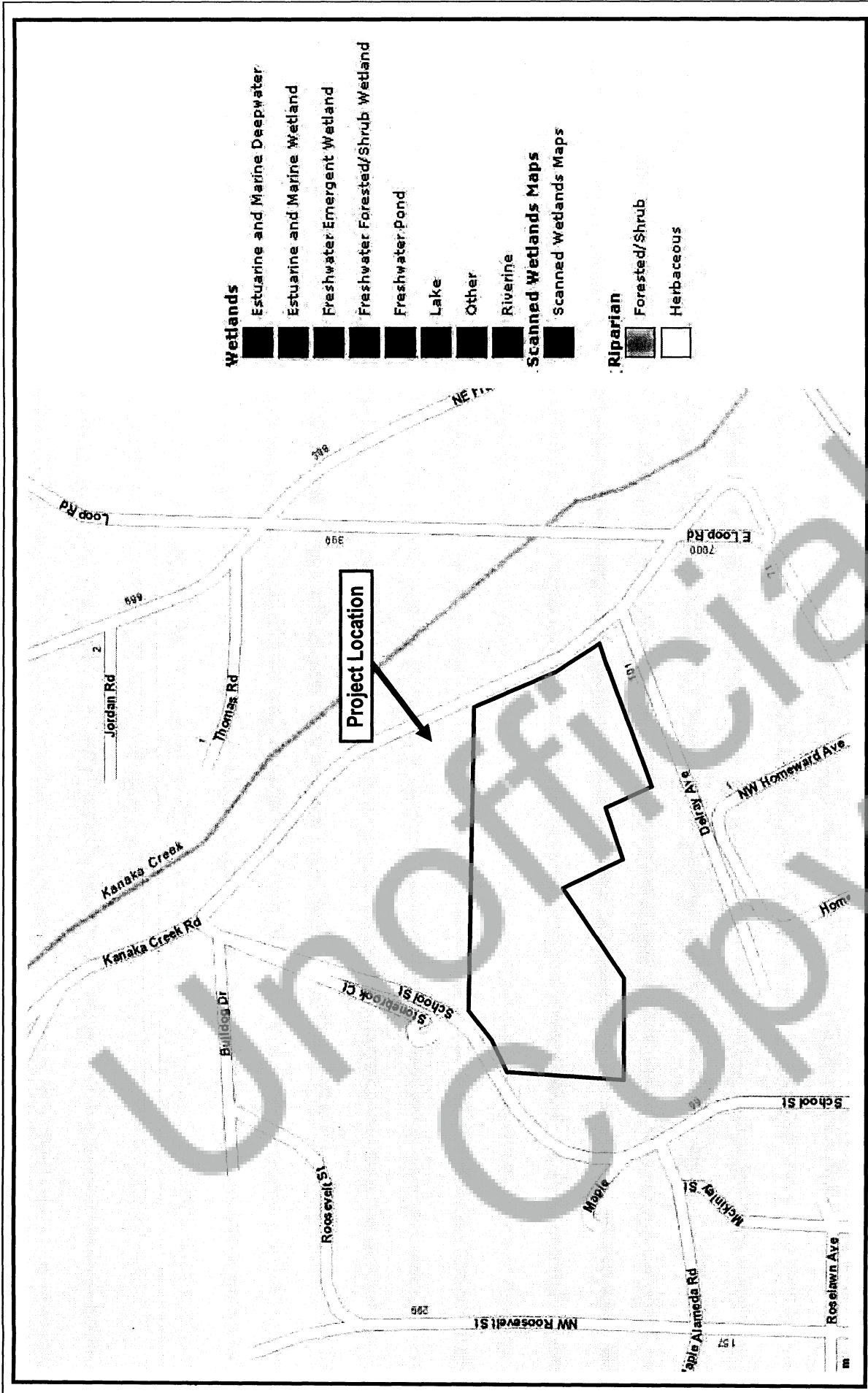


FIGURE  
2

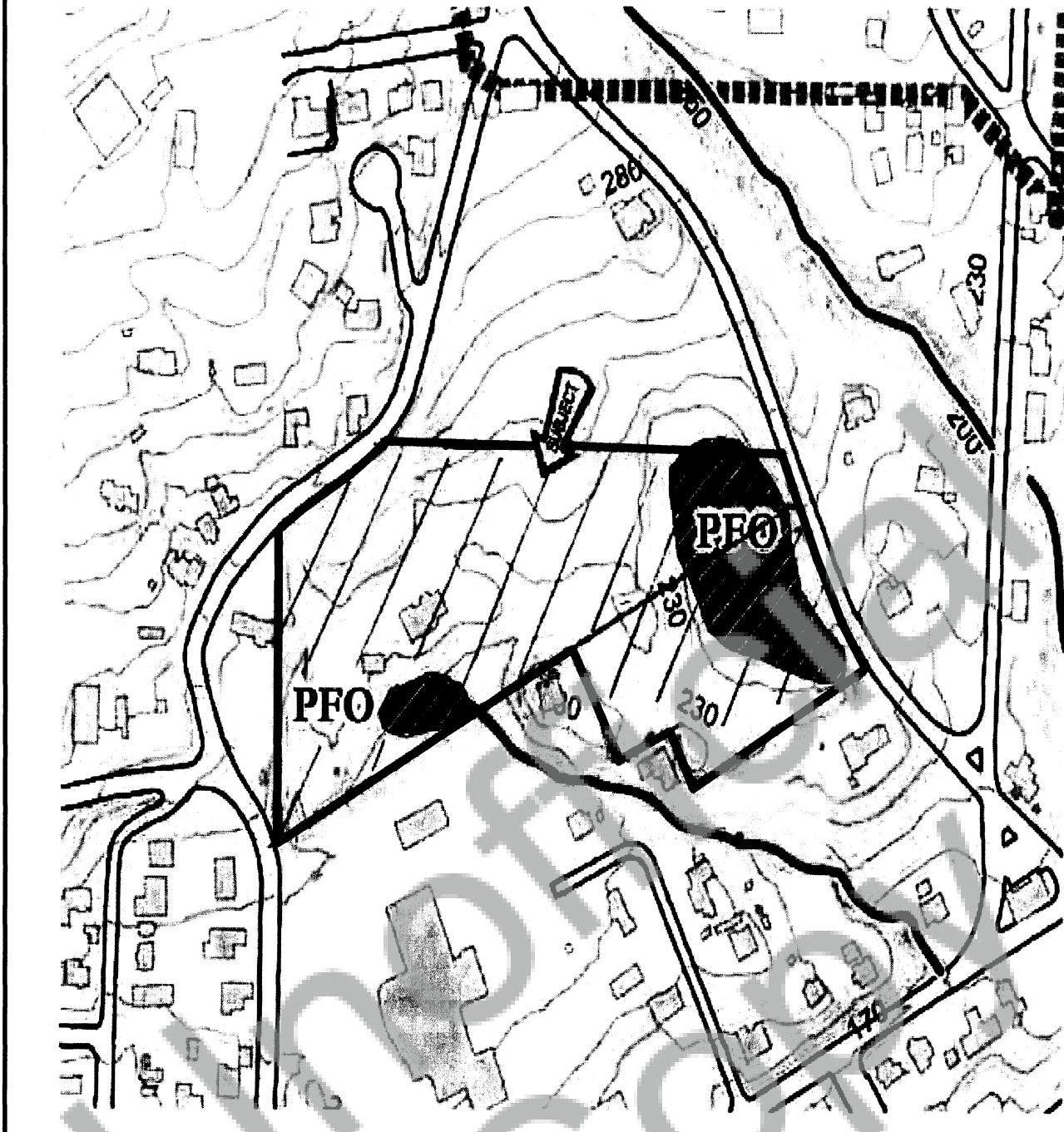
National Wetlands Inventory  
NW Kanaka Creek Road, Stevenson, Washington  
(U.S. Fish and Wildlife Service September 26, 2013)

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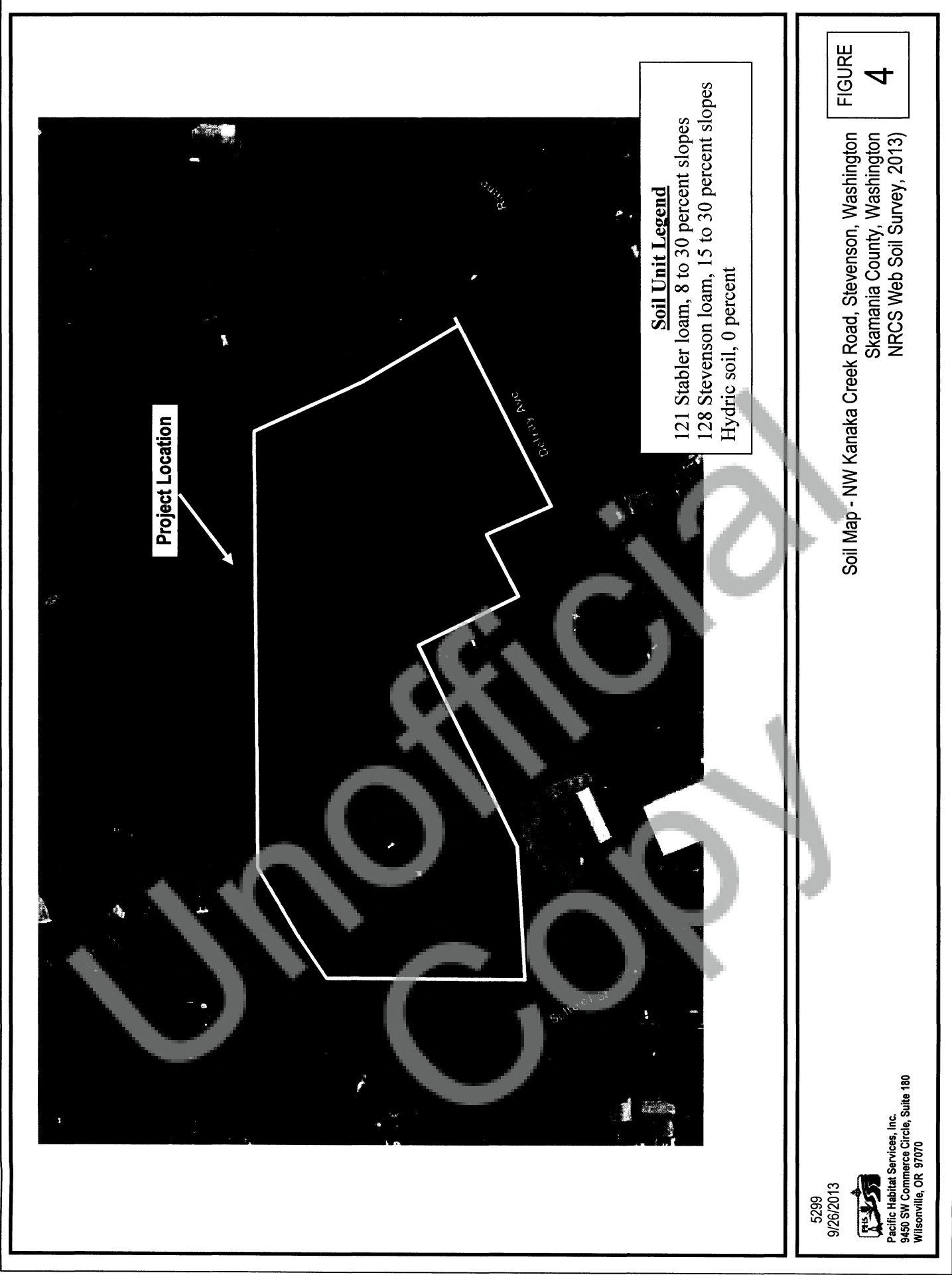


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Critical Area Map  
NW Kanaka Creek Road, Stevenson, Washington  
(City of Stevenson, Washington, 2008)

FIGURE  
1





**FIGURE 4**

Soil Map - NW Kanaka Creek Road, Stevenson, Washington  
Skamania County, Washington  
NRCS Web Soil Survey, 2013)



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FIGURE  
5

Aerial photo for NW Kanaka Creek Road, Stevenson, Washington  
(Google Earth 2013)

