



ISLAND COUNTY



WETLAND IDENTIFICATION GUIDE



Introduction

The Island County Wetland Identification Guide is designed to help residential landowners study the lay of their land, make note of its characteristics, and see if their Camano or Whidbey Island property is affected by a wetland or wetland buffer. The value and function of critical areas are also discussed, along with step-by-step instructions to complete the Field Indicators Worksheet that is included with this booklet.

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When development is proposed, the Field Indicators Worksheet is required for County review. Planning staff will in turn confirm the information on the submitted Worksheet, to verify if a wetland or buffer may be affected. Upon completing their Critical Area Determination, other Worksheets may be required. Even before a permit application is filed, County Planners are available for a flat rate to make a Preliminary Critical Area Determination. This service helps property owners or prospective purchasers avoid potential pitfalls.

Completing this workbook may take several hours or several days depending upon the amount of acreage a landowner needs to traverse looking for low spots, mapping sloped areas, and studying the types of plants, soils, and habitat on their property.

Some residential property owners may opt to hire a private consultant to provide a report that contains all elements of the required Worksheet(s). There may be some circumstances when the latter will be recommended, especially where a wetland has been altered.

Because nearby wetlands can impact future land use goals, some landowners should obtain permission to enter neighboring parcels in order to fully complete their Worksheet. When access to nearby land is not possible, determinations can be based upon database information and maps.

Throughout the process, guidebook users are welcome to contact the Department of Planning and Community Development for more information.

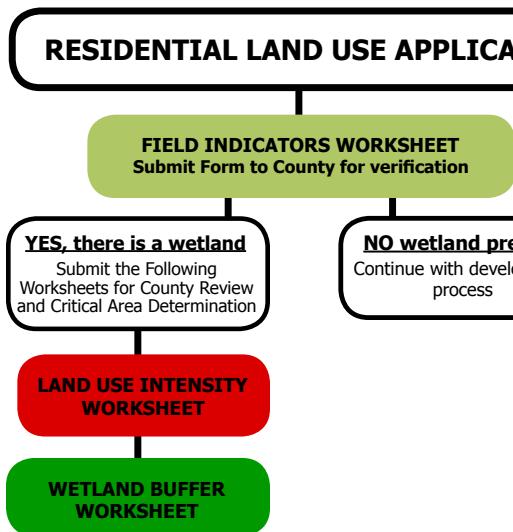


A Field Indicators Worksheet is required to be submitted for all development proposals.

Type of Land Use development will determine process

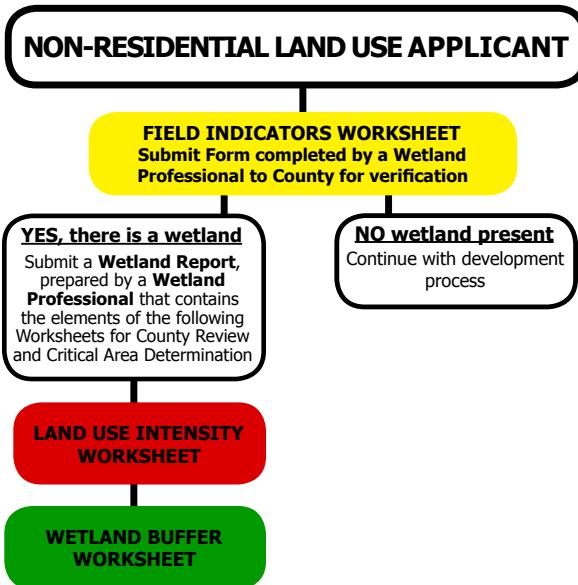
Residential Applicants

The chart below illustrates the process and Worksheets required for Critical Area Review of any proposal for single family residential land uses. At any step, the applicant has the option to instead hire a wetland professional to prepare report(s) which contain the required elements.



Non-Residential or Commercial Development

The chart below illustrates the process and Worksheets required for Critical Area Review of any non-residential or commercial development land use proposals. The applicant **must** retain a wetland professional to prepare report(s) which contain the required elements.



Alteration may affect ease of identification

Wetland identification is a complex subject, and this simplified guidebook may not be sufficient in every situation. Some wetlands or their buffers are easy to identify, while others are more complicated. This workbook is designed primarily for helping landowners identify wetlands that have **not** been altered or disturbed.

Most alterations to Camano and Whidbey Island wetlands happened in the 150 years that preceded Island County's adoption of the CAO (Critical Areas Ordinance). Since 1985, these regulations have severely curtailed alterations to wetlands and associated buffers.

Typical alterations in years past involved clearing of vegetation, plowing or tilling of wetland soil, redirecting water flow, and grading and filling. Other actions that can cause wetlands to be considered "altered" are ditching, tiling, draining, compacting, off-site conveyance, herbicide use, and upstream damming (natural or man-made). Impervious surfaces such as roads and structures also disturb wetland functions by altering the amount of water and pollutants that enter and exit a wetland.

If a property shows indications that a wetland or buffer has been altered or disturbed, landowners are encouraged to first consult with County Critical Areas Planners to determine the best course of action before completing the Worksheets in this booklet.

What are wetlands?

Most wetlands contain these three characteristics:

Hydrology - A wetland may be ponded year round, or just a seasonally soggy area. The area does not have to be wet all the time, but must have water at or near the soil's surface continually for at least 2-3 weeks per year.



Vegetation - Only specific plant species can handle the oxygen deprived conditions present in wetlands. Some plants are normally found only in wetlands, such as cattails, skunk cabbage, slough sedge, and water lilies, while others can be found both inside and outside of wetlands, such as red alder, salmonberry, and red cedar.

Soil - Wetland soils are poorly drained and develop certain characteristics due to the presence of water and absence of oxygen. These soils can be identified by being darker than non wetland soil, or grey with rusty streaks or spots.



Why are wetlands important?

Wetlands Retain Water: When rain arrives after periods of dry weather, wetlands act like a sponge, absorbing the water and releasing it slowly to connecting channels and estuaries. This provides more time for water to infiltrate into aquifers which replenish drinking water supplies. During rainy periods, some wetlands even prevent flooding and erosion downstream by retaining heavy runoff.



Wetlands Purify Water: Wetland soil, together with the plants, microbes, and organisms living within, acts like a filter to trap and detoxify pollutants that are carried into the wetland by runoff or wind. As long as this capacity is not overwhelmed by too much pollution at once, water leaves most wetlands cleaner than when it entered. Through this filtering process, both groundwater and surface water are cleaned.



Wetlands Provide Habitat: Wetlands provide a rich habitat. In Island County, wetlands sustain at least 150 species of birds, 44 mammals, 8 amphibians, 6 reptiles, over 4 species of salmonids, as well as over 249 plant species.



Wetlands add to Rural Character: Wetlands provide open spaces that add to the rural character and scenic vistas of our communities. Healthy wetlands maintain property values, provide incentives for tourism, and are essential for sustaining safe shores and waters for recreational activities on Camano and Whidbey Islands.



Non-native plants affect wetlands

Invasion by non-native plant species can threaten wetlands by displacing native species and changing the ecological processes within affected habitats. These species can be spread by such activities as agriculture, development, or other modifications to the landscape. Non-native plant seeds are spread by wind, wildlife, and water. Because most local animals are not adapted to the new invader, they too may be impacted.

Examples of Native Plants



Skunk Cabbage
Lysichiton americanum



Cattails
Typha latifolia



Water Parsley
Oenanthe sarmentosa

Examples of Non-Native Plants



Yellow Iris
Iris pseudacorus



Reed Canary Grass
Phalaris arundinacea



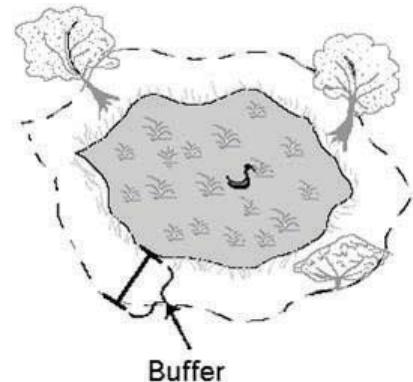
Bull Thistle
Cirsium vulgare



English Holly
Ilex aquifolium

What is a buffer?

Buffers are an important means of wetland protection. A buffer is an undisturbed vegetated area that surrounds a wetland. Because there are different types of wetlands with assorted characteristics, functions, and sensitivities, their buffer sizes will vary. Buffers are also influenced by the type of land use activity or development that is proposed near or adjacent to critical areas. For instance, a commercial use affects a wetland differently than a single home on 5 acres.



When buffers are disturbed, the functions of the wetland can be reduced

Wetland with an Intact Buffer



Wetland with a Disturbed Buffer



Vegetated buffers around wetlands help protect wetland functions by

- **Providing the initial filtering of sediments and other pollutants from runoff.** A wetland can be adversely affected when a buffer's protective ability is reduced. If the buffer's vegetation filters out some of the pollutants and sediments first, it can help the wetland do its job. This helps keep streams, lakes, aquifers, and the Puget Sound clean for humans and all species.
- **Providing wood and other organic matter.** These materials are useful to animals, plants and other life. Downed organic matter and woody debris provide a source of nutrients for bugs and plants, as well as shelter for animals.
- **Maintaining shade, water temperature, and the microclimate.** Buffers protect these wetland functions and habitat. Plants and animals can be adversely affected by even small changes to wetland functions.

About the Field Indicators Worksheet

Information provided in the **Field Indicators Worksheet** helps landowners and applicants identify if their property contains or is affected by a wetland or wetland buffer. This Worksheet is required to be submitted with all development proposals. County Planners will review the submitted Worksheet and issue a Critical Area Determination.

As discussed earlier, an area must meet three specific criteria to be considered a wetland: First, a wetland must have **Hydrological** indicators. Secondly, only specific types of **Vegetation** can grow in a wetland. Lastly, a wetland must have specific **Soil** conditions. Most wetlands have all three characteristics.

Tools You May Need



SHOVEL

Used to dig hole for hydrology test and to collect soil sample



MEASURING TAPE

Used to measure depth of hole for hydrology test and soil sample



MACHETE

May be used to cut small trail for access to potential wetlands



CAMERA

Pictures provide helpful information about land characteristics

Field Indicators Worksheet - 3 Parts



Section #1 - HYDROLOGY

Hydrology is the movement and distribution of water. Determining hydrology is important because wetlands need to have water present at some time of the year for at least 2-3 weeks. The Hydrology Section (Questions 1-6) of the Field Indicators worksheet guides in the identification of water on or near your property, how frequently water is present, and how it enters/exits your property.

Section #2 - VEGETATION

The Vegetation Section (Questions 7-8) of the Field Indicators Worksheet helps to identify the type of plants you have on your property. Because only certain types of plants can survive in the oxygen-deprived soils that are characteristic of wetlands, there are certain indicator plants that can be used to verify the presence of a wetland. Brief descriptions as well as detailed photographs are provided in the Wetland Vegetation Section of this guide.



Section #3 - SOIL

The Soils Section (Questions 9-11) of the Field Indicators Worksheet will help you determine if your property has wetland soils. Technically termed "hydric soils", these soils serve as an essential indicator for determining the presence of a wetland. Hydric soils are created in areas where water displaces oxygen that would otherwise be present.

HYDROLOGY - Questions 1-6

Hydrology is the movement or distribution of water through a given area. Control of water movement, or hydrology, is one function of a wetland. Some wetlands can absorb runoff and/or slowly release water to connecting channels, estuaries, or aquifers and are usually low-lying in the landscape.

The following instructions help with completing Questions 1-6 of the Field Indicators Worksheet. Please use the comments box for questions, to provide photos, or to include more detailed information. Use a second page if you need more space. After Question 6, you will sketch a Hydrology map. A separate sheet of paper, no larger than 11x17 inches, may be used.

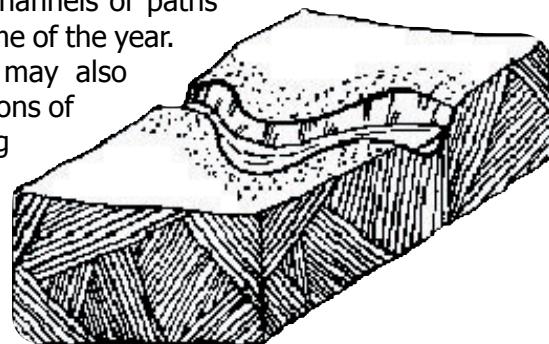
1. Indicate whether there is standing water on the property at any time of the year. Please check only one box. If you check yes, indicate whether the standing water is present short term (4 weeks - 4 months), seasonally (4 months - 8 months) or longer (8 months - year round).

2. Relative elevation is an important factor in determining where water runoff flows, the possibility of soil erosion, and where water collects. Because water flows downhill, flat or depressed areas can collect greater amounts of water over time and are more susceptible to longer periods of saturation. For question 2, check all the boxes that apply in relation to areas where there is or has been standing water.

3. Sometimes surface water is actually located right below the ground level. Even though it is located just below the surface, it is still considered surface water. After examining your property for potential wetlands, dig a hole (about 16 inches deep) where you believe there may be a wetland. Potential areas are located in low spots or depressions on your property, as well as areas where you have observed ponding or water flow in the past. Leave the hole alone for about an hour. Return and observe whether there is any standing water in the hole. If there is water within 10 inches of the ground level, it is considered a positive indicator of wetland hydrology. (See picture, left)



4. Identify slopes that contribute water **onto** your property. For question 3, check all that apply. General observations can be made by walking around the perimeter of your property and observing any channels or paths where water was flowing into your property at any time of the year. Elevation sloping downwards onto your property may also indicate paths for water to travel. Below are illustrations of streams and seasonal streams that may be dry during your survey. Water can enter your property in many different ways, e.g. streams, ditches, culverts, swales, etc. If there are other contributing features, please indicate them in the appropriate space.



5. For question 5, check all that apply. Identify all the features that transfer water away from your property. Walk your property lines and observe any areas that slope downward and away from your land or where water exits any time of the year. Look for any evidence of a channel that may indicate water flowing off of your land. Water can exit your property in many ways, e.g. culverts, ditches, streams, percolation into the ground, etc. If there are other features in which water leaves your property, please indicate them in the spaces provided.



Even seasonal streams leave defined channels in the ground, and are indicators of hydrology.

6. Look for defined channels. Channels can be any width or depth; larger channels indicate higher amounts of water entering and leaving your property. Based on your observations, indicate how long the channel has been at that location and use your best judgment to estimate whether it is less than or greater than 2 feet wide. Also indicate if there is a grass lined swale, which is an area that appears to have been ponded at some point.

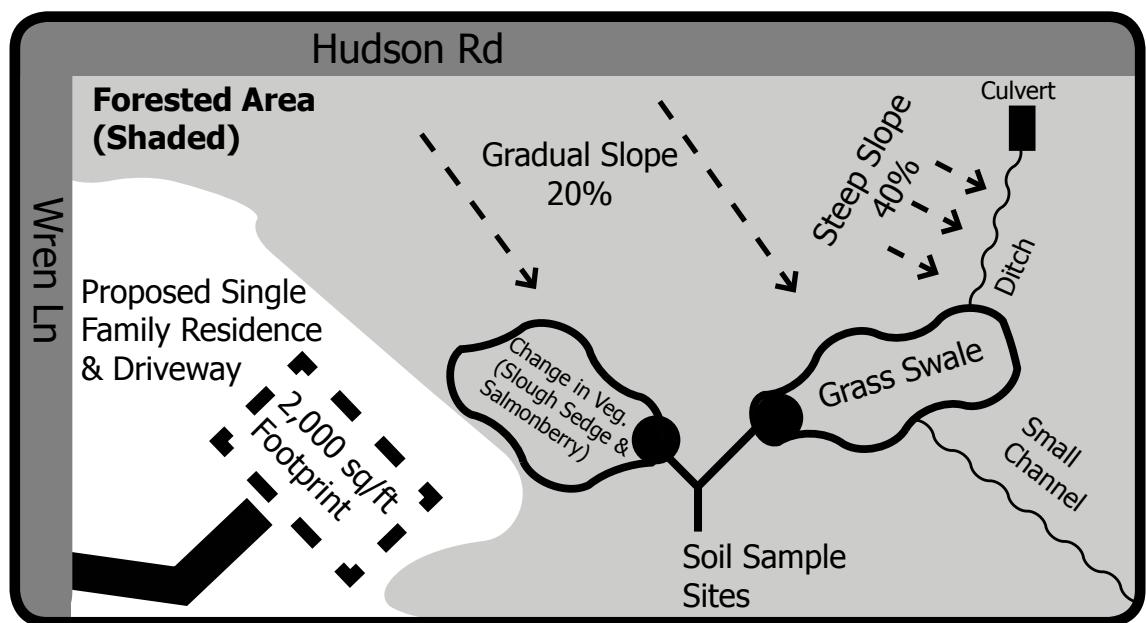


Hydrology Map

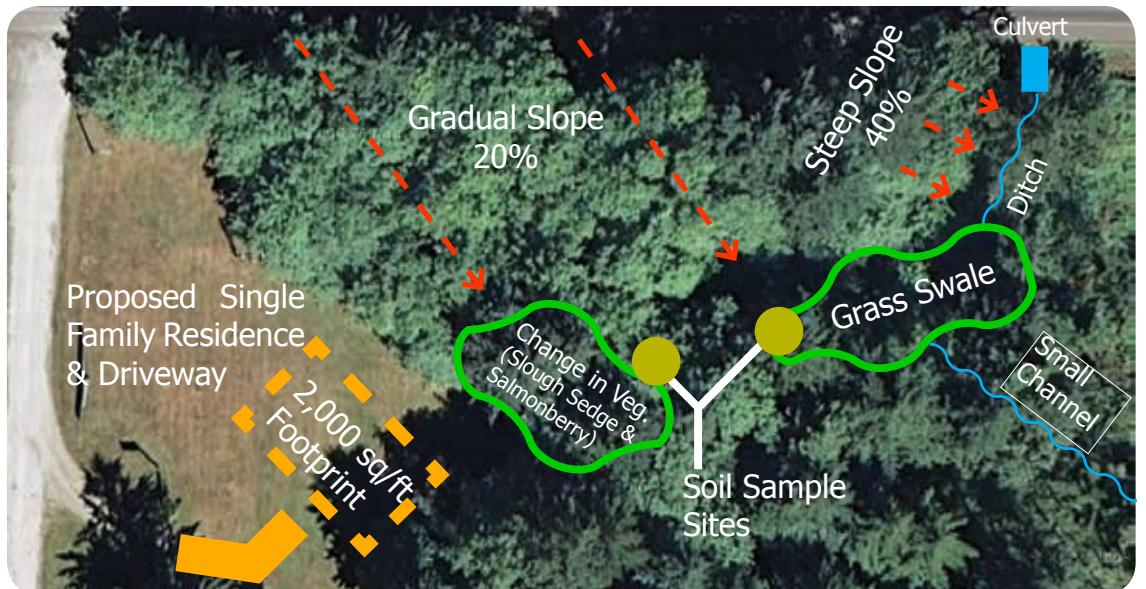
After answering questions 1-6 of the Hydrology Section of the Field Indicators Worksheet, you will be asked to draw a Hydrology map outlining observed hydrological features. This map will provide a visual impression of the hydrological features that exist on your property, as well as help County Planners identify where potential wetlands may exist making their site visit more efficient.

The following examples are provided to help you develop your map. Please keep your map organized and easy to understand. Include information from your answers, as well as any residential structures and roads or other improvements that are existing or proposed. If you would like an **Aerial Overlay** map you may obtain one from the County Planning offices or download at: <https://data-islandcountygis.opendata.arcgis.com/>

Sample Site Map



Sample Site Map w/ Aerial Overlay



VEGETATION - Questions 7-8

Vegetation is another indicator for identifying the presence of wetlands. Wetland plants have adapted to soil that is deprived of oxygen. Their roots are also submerged from short to long periods of time, requiring them to exist where most plants cannot. Because only certain plants are able to thrive in such conditions, they provide a valuable indicator of a wetland's presence.

Please use the following descriptions and pictures to identify and record any wetland indicator plants for Questions 7-8 of the Field Indicators worksheet. This Vegetation Section identifies only those wetland plants that are most common in Island County. Because some plants make better indicators than others, each plant's ranking of Poor, Moderate, Good, or Excellent is color-coded to the right of the plant's name, with "Poor" being the least indicative of a wetland, and "Excellent" being the best. Native plants are listed first in this section, followed by Non-Native species.

Native Vegetation

American Speedwell – *Veronica americana*

General: Perennial plant standing 10-70 cm tall. Usually has 3-5 pairs of oval to lance-shaped leaves on the flowering stem which are sharply pointed. Blue to violet saucer-shaped flowers are present in loose clusters along the stem.

Excellent

Where Found: Wet ground or shallow water, marshes, seepage areas, along springs and streams, wet clearings, ditches, and skidder tracks.



Bull Rush – *Schoenoplectus acutus*

General: Stout dense round stems forming large colonies. Very tall (over 4-5 feet) with few leaves, mostly at the base. Small brownish to grey spikes are found branching off the top of the stems.

Excellent

Where Found: Marshes, muddy shores, and shallow water.



Native Vegetation

Cattails - *Typha latifolia*

General: A tall plant usually found in or near standing water. Typically 1-3 m tall with unbranched stems and coarse spongy tops. This plant has long narrow leaves which grow 1-2 cm wide.

Where Found: Marshes, ponds, lakeshores, and wet ditches in slow-flowing or quiet water.



Coontail / Hornwort - *Ceratophyllum demersum*

General: A completely submersed aquatic plant with serrated forked leaves arranged in green whorls measuring 1-3 cm. Usually found on the bottom of lakes, it can float in columns 30-100 cm tall or in dense mats just below the surface of the water.

Where Found: Lakes, ponds, sloughs, slow-moving streams and other aquatic areas.



Labrador Tea – *Ledum groenlandicum*

General: Shrub ranging from 0.5-1.5 m tall with twigs. Has narrow oblong leaves measuring 6 cm long with a deep-green color on top and dense rust-colored hairs underneath; hairs on young leaves may not be rust colored. Small white flowers are located on top of the shrub and grow in umbrella-like clusters which become drooping capsules in the fall.

Where Found: In bogs.



Excellent

Native Vegetation

Pacific Silverweed — *Potentilla anserina ssp. pacifica*

General: A coastal estuarine species with glossy green leaves that are 3-50 cm long. Silverweed has yellow flowers that bloom in May-August. Leaves dry out and become brown but are still identifiable through much of the winter.

Where Found: Wet areas, marsh edges, stream sides, beaches, and common at low to middle elevation.

Excellent



Slough Sedge, Swamp Grass, or Saw Toothed Grass - *Carex obnupta*

General: Coarse stiff stems standing 60-150 cm tall. Have a purplish sheath covering the stem that is rough when running one's finger downward. Leaves are coarse and about 3-10 mm wide and shorter than stems. Small seed clusters are shiny and are yellowish, green or brown in color and sprout off of the stem.

Where Found: Primarily found in marshes, forested wetlands and stream-banks. Also found in lakeshores, wet forest openings, bogs, meadows, and clearings.

Excellent



Skunk Cabbage – *Lysichiton americanum*

General: Has large lance-shaped leaves growing straight up from the ground and measure between 30-150 cm tall. Most noted for its large bright yellow leaf-like flower, skunk odor, and large green leaves.

Where Found: Swamps, wet forests, mucky seepage areas, and wet meadows.

Excellent



Native Vegetation

Water Parsley – *Oenanthe sarmentosa*

General: Weak-stemmed plant that trails along the ground or water and grows up to 1 m long. Plant is green and has white flowers that grow in compact clusters that rise up from the stem on 1-3 cm long stalks. Leaves are parsley-like (see picture).

Where Found: In temporary standing water along streams and sloughs, in marshes, wet meadows, clearings, and forest edges.



Excellent

Cooley's Hedge Nettle – *Stachys cooleyae*

General: Leafy perennial with hairy heart/egg-shaped leaves that are about 6-15 cm long. This nettle stands 70-150 cm tall and has deep red/purple flowers that grow in small clusters along the top of the stem.

Where Found: Moist roadsides, clearings, thickets, and open woods.



Good

Crabapple – *Malus fusca*

General: Shrub or small tree with spikes extending from branches. Leaves are about 10 cm long and have either an egg-shape or sometimes a mitten shape with pointed ends. In the fall they turn red or yellow-orange. Plant bears small egg-shaped apples that are initially green but turn yellow or red.

Where Found: Moist woods, swamps, edges of standing and flowing water, upper beaches, and on the outer-edges of estuaries.



Good

Native Vegetation

Hardhack - *Spiraea douglasii*

General: Shrub growing 2 m tall in dense clusters or thickets. Oblong/oval leaves that are darker green on top and whitish green on the underside. Tiny pink to deep-pink flowers grow in crowded clusters on the top of the shrubs in early summer and later turn darker.

Where Found: Swamps, stream-banks, lake margins, and wet meadows. Often the dominant shrub component of wetlands.

Good



Red Stemmed Dogwood – *Cornus sericea*

General: Shrub with many stems and branches that often lie on the ground. Young stems are smooth, round, and often bright red. Leaves are pointed and turn red in the fall. Has small white to greenish flowers with 4 petals. Shrub bears small white inedible berries which occasionally have a blue tinge.

Where Found: Moist soil, bogs, streambanks, open forests, thickets, bog forest edges, and disturbed sites.

Good

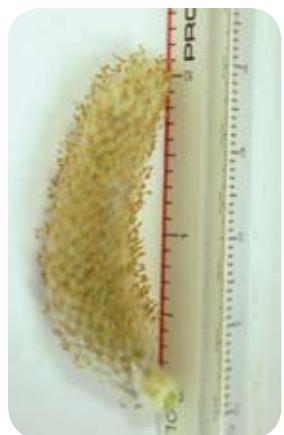


Willows - *Salix lucidia*, *Salix hookeriana*, *Salix scouleriana*, ect

General: Found in shrub and small tree form, willows vary from 2-12 m tall. A defining trait of willows are the different types of catkins they produce (seen right side below). Catkins can appear as a densely hairy pod, as a drooping cylindrical cluster of tiny pale yellow flowers, or as a small green spiky looking twig. Not all plants with catkins are willows, however, plants found with catkins in Island County are likely to be willows. Although not all willows are listed in this section, *Salix lucidia*, *Salix hookeriana*, *Salix scouleriana* are a few of the most common willows found in Island County.

Where Found: Forested wetlands, pond edges, and along streams.

Good



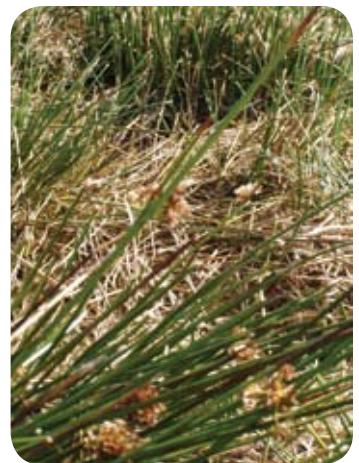
Native Vegetation

Common Rush – *Juncus effusus*

General: Grows in dense clusters with single round spiky stems growing 25-130 cm tall. Fluffy crowded groups of small greenish/brownish flowers from the top of the stem grow away from the main stem.

Where Found: Moist to wet fields, pastures, roadsides, ditches, clearings, tideflats, pond margins, and bogs. Often found in disturbed habitats.

Moderate

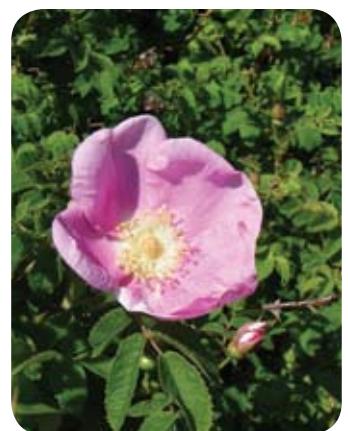


Nootka Rose – *Rosa nutkana*

General: Up to 3 m tall with pairs of opposing thorns along the length of the stem, as shown in the left most picture. Characterized by 4-8 cm wide pink flowers and red fruit.

Where Found: Shorelines, meadows, thickets, streamsides, roadsides, and clearings.

Moderate



Red Alder – *Alnus rubra*

General: Up to 25 m tall, Red Alders are deciduous trees and have thin grey smooth bark with white patches of lichens. Alder leaves are 5-15 cm long and remain green until they drop off in the late fall.

Where Found: Moist woods, stream banks, floodplains, slide tracks, and recently cleared lands. Red alders often indicate wetlands but are also found in recently cleared non-wetland areas.

Moderate



Native Vegetation

Salmonberry - *Rubus spectabilis*

General: Often forming dense thickets, this shrub has thorny branches and grows to 4 m tall. It is mainly characterized by the yellow or reddish "raspberry looking" berries that are visible early summer.

Where Found: Moist wet places, forests, disturbed sites, along stream edges, and wet recently logged areas.

Moderate



Sitka Spruce - *Picea sitchensis*

General: Large evergreen tree growing from 50-70 m tall with a trunk diameter of up to 5 m. The crown is broad and conic in younger trees and becomes more cylindrical as they age. The leaves are sharp and needlelike with a green color on the top portion and shaded white on the underside.

Where Found: Forested wetlands.

Moderate



Western Red Cedar - *Thuja plicata*

General: A large tree up to 60 m tall with grey to reddish-brown bark. Branches tend to spread or droop slightly and then turn upward like a "J" on the end. Cones are in loose clusters present throughout the branches and are about 1 cm long each.

Where Found: Mostly found in moist to wet soils, bogs, and shaded forests.

Moderate



Non-Native Vegetation

Eurasian Water-Milfoil – *Myriophyllum spicatum*

General: Aquatic plant with leafy stems growing 30-100 cm long. Leaves are whorled, 1-3 cm long and separate into many thread-like segments giving it a featherlike appearance.

Where Found: Lakes, ponds, sloughs, slow-moving streams and other aquatic areas.

Excellent

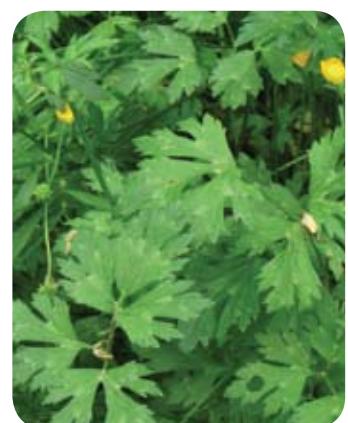


Creeping Buttercup – *Ranunculus repens*

General: Grows from fibrous roots and has dark green leaves, often with pale spots, seen year round. Most noted for its deep yellow (10-35 cm wide) flowers with hairy stems.

Where Found: Moist disturbed sites, fields, pastures, gardens, lawns, ditches, clearings, and in settled areas.

Good



Hairy Willow-Herb – *Epilobium hirsutum*

General: Most distinct for its size: 1 to 2 m tall. It has showy pink-purple flowers extending from the top of the plant, pod-like seed capsules, hairy, toothed leaves, and hairy stems.

Where Found: Wet and semi-wet areas.

Good



Non-Native Vegetation

Reed Canary Grass – *Phalaris arundinacea*

General: This rough-stemmed grass grows 2-7 m tall with roughed sheathes covering the stalks. The bottom portion of the stalk is usually green and can fade to red towards the top. Often abundant locally.

Where Found: Wet places in disturbed sites, including clearings, ditches along roads, marshy spots and depressions, stream-banks and along edges of wetlands, and around areas of human habitation and agricultural practices.

Good



Velvetgrass – *Holcus lanatus*

General: Known for the “velvety” feeling of its leaves. Has a compact flowering panicle that is usually purple tinged. Grows 30-100 cm tall.

Where Found: Fields, lawns, roadsides and other developed areas. Common in all of Island County.

Good



Yellow Iris - *Iris pseudacorus*

General: This plant can grow up to 1 m tall and has long blade-like leaves that extend upwards from the ground. A yellow flower blooms from the end of the stem from June through July.

Where Found: Bogs, streambanks, and ponds.

Excellent



Non-Native Vegetation

Bull Thistle – *Cirsium vulgare*

General: Spiny, toothed leaves and spines on stems. Pink-purple prickled flowers are 2 to 4 cm long and longer than those of Canadian Thistle. Is rooted with a fleshy taproot.

Where Found: Fields, pastures, meadows, clearings and roadsides. Common in agricultural areas.



Moderate

Himalayan Blackberry – *Rubus procerus* or *Rubus discolor* or *Rubus armeniacus*

General: This plant forms dense impenetrable thickets with branches most notably covered in sharp thorns. Green leaves are present year round and have three or five lobes. Produces edible berries in late summer.

Where Found: Disturbed sites and can dominate wetlands.



Moderate

Canadian Thistle – *Cirsium arvense*

General: Spiny, toothed leaves, and prickles on pink-purple flowers. Flowers are 1 to 2 cm long and smaller than those of Bull Thistle. Grows via creeping rhizomes.

Where Found: Fields, pastures, meadows, clearings and roadsides. Common in agricultural areas.



Poor

Non-Native Vegetation

English Holly – *Ilex aquifolium*

General: Shrub or tree growing to 6 m tall. Has thick, shiny dark-green leaves with toothed margins. Produces bright red berries in the fall.

Where Found: Forested areas. Is often planted as ornamental or cultivated for commercial use.

Poor



English Ivy – *Hedera helix*

General: Grows as a trailing or climbing vine. Old vines can be up to a foot in diameter. Leaves are typically dark green and grow in two forms: young leaves have 3-5 lobes and older leaves are oval-shaped. Mature plants produce clusters of greenish-white flowers.

Where Found: Developed forested areas.

Poor



Evergreen Blackberry/Cutleaf Blackberry – *Rubus laciniatus*

General: Thorny perennial that grows as a bush or along the ground. Stems grow up to 10 m long. The leaves are green and smooth above and hairy beneath. Produces black edible berries in late summer.

Where Found: Roadsides and disturbed areas at low elevations.

Poor



SOIL - Questions 9-11

Wetlands contain "hydric soils" that occur as a result of water saturation, significant changes in soil environment, and/or flooding or ponding that has occurred long enough during the growing season to deprive the soil of oxygen.

The following will help complete Questions 9-11 in the Soil section in the Field Indicators worksheet.



Remove a soil sample from 12 inches below the surface, in an area where you believe there may be a wetland. You may use the same hole you dug in Question #3.

9. Return to the hole(s) you dug for Question #3. Measure 12 inches from the surface and remove soil samples from this depth. Observe whether the soil is **moist**, dry, or muddy. Inspect the soil for color and indicate whether the sample taken from the bottom of the hole is Dark/Black, Grey w/ Rust Spots, or Brown. The color chart below illustrates different colors of soil. Check only one box. (To better identify the edge of the wetland, dig additional holes away from the potential area until you no longer see wetland type soils).

Which example below does the soil at the bottom of the hole most resemble?



Dark/Black Grey w/ Rust Brown

10. Take a sample of soil from the bottom of the 12 inch hole and smell it. If the soil smells similar to sulfur or rotten eggs, then check the box. Check only one box.

11. Check the soil for moisture. Is the soil saturated with water or is it just damp? Squeeze a sample of soil from the bottom. If it molds together like clay or is moist, it is saturated. If it crumbles apart, it is dry. Check only one box.

Island County Planning and Community Development

Field Indicators Worksheet

The Field Indicators Worksheet will help you and the County determine if a wetland or wetland buffer is on your property. Applicants for permits for single family residential uses must either complete this Worksheet or, at their option, hire a wetland professional to complete a Wetland Report that includes the elements of the Worksheet. All other applicants (commercial or non-residential) must do the latter, if the County verifies that the development proposal is for land that contains or is affected by a wetland.

The comments section of this Worksheet may be used to record any particulars or information about your property. You may attach additional pages and photographs.

The County will verify the information provided in this Worksheet or related wetland report.

This Worksheet must be included with every application for development. Prospective purchasers may also ask the County to review the Worksheet to assist them in determining whether the property they are interested in purchasing contains wetlands.

Applicant Name (please print): _____

Date: _____

Parcel or Key Number: _____

Hydrology

The presence of water is the most obvious and common indicator of a wetland. There are several factors that must be considered in describing whether or not you have water on your property. Some wetlands have standing water all year long; others are soggy only during wetter months of the year; and, others appear wet only after storm events.

1. Is there ever standing water on the property?

Yes No

If No, proceed to question #3

If Yes, is it:

4 weeks - 4 months 4 months - 8 months - Seasonally 8 months - Year Round

2. If you answered yes to question #1, are the surrounding adjacent areas:

Topographically higher Yes No

Topographically lower Yes No

Topographically the same elevation Yes No

3. When you dug the hole, did you observe any water within 10 inches of the ground surface?

Yes No

4. Identify any features through which water flows onto your property (Check all that apply)

Stream Culverts Ditches Roadside Ditch
 Storm Drains Ponds, lakes, estuaries Pumps Other _____

5. Identify any features through which water flows off of your property (Check all that apply)

Stream Culverts Ditches Roadside Ditch
 Storm Drains Ponds, lakes, estuaries Pumps Other _____

6. Are there defined ditches/channels on, or near your property that have water?

Yes, there are ditches/channels that have occasional water flow (e.g. after storm events).

Yes, there are ditches/channels that have regular water flow during wet months.

Yes, there are ditches/channels that have water flow all year long.

No, there are no defined channels

If Yes, how wide is defined channel?

Large (>2 ft across) Small (<2 ft across) Grass Lined Swale (dried up pond)

Comments:

Hydrology Map

Please refer to the *Hydrology Map Example* found in the *Wetland Identification Guide* for instructions

Draw a close approximation of the features you listed in questions 1-6 of the Hydrology section of the Field Indicators Worksheet. Please label the features and approximate dimensions. You may also include areas where wetland vegetation was observed and sites where you performed your soil samples. An organized and informative drawing will help make our site visit more efficient. For greater accuracy, you may obtain an aerial map of your parcel from the Island County Planning and Community Development offices, and use it as the base layer for your map. The Hydrology Map section of the *Island County Wetland Identification Guide* has further information.

Comments:

Vegetation

Only certain types of vegetation can survive in wetland conditions. In fact, some plants, trees and shrubs live nowhere else except in wetlands, e.g. skunk cabbage. Other types of vegetation are tolerant of both wet and drier conditions, e.g. salmonberry and alder. Most trees and plants look different depending upon the time of the year. This can make it difficult to identify exactly what's on your property. Numerous photographs of the more common types of wetland vegetation are shown during different seasons. **Please include these observations in your Hydrology Map.**

7. Are there any native wetland plants on the property that are identified in the Wetland Vegetation section of the Wetland Identification Guide? (Check all that apply)

<input type="checkbox"/> Slough Sedge	<input type="checkbox"/> Cooley's Hedge Nettle	<input type="checkbox"/> Crabapple	<input type="checkbox"/> Red Stemmed Dogwood
<input type="checkbox"/> Labrador Tea	<input type="checkbox"/> Water Parsley	<input type="checkbox"/> Skunk Cabbage	<input type="checkbox"/> American Speedwell
<input type="checkbox"/> Cat Tail	<input type="checkbox"/> Common Rush	<input type="checkbox"/> Willows	<input type="checkbox"/> Red Alder
<input type="checkbox"/> Salmonberry	<input type="checkbox"/> Nootka Rose	<input type="checkbox"/> Bull Rush	<input type="checkbox"/> Western Red Cedar
<input type="checkbox"/> Pacific Silverweed	<input type="checkbox"/> Sitka Spruce	<input type="checkbox"/> Hardhack	<input type="checkbox"/> Grasses (other than lawn)

8. Are there any non-native wetland plants on the property that are identified in the Wetland Vegetation section of the Wetland Identification Guide?

<input type="checkbox"/> Creeping Buttercup	<input type="checkbox"/> Reed Canary Grass	<input type="checkbox"/> Yellow Iris	<input type="checkbox"/> Himalayan Blackberry
<input type="checkbox"/> Eurasian Milfoil	<input type="checkbox"/> Evergreen Blackberry	<input type="checkbox"/> Velvetgrass	
<input type="checkbox"/> Canadian Thistle/ Bull Thistle	<input type="checkbox"/> Hairy Willow-herb		

Comments:

Soil

While water and vegetation can be identified by simply observing what is on your property, learning about your soils will take a little more work. Soil characteristics change as a result of the regular presence of water. Minerals in the soil will start to rust and organics are unable to decompose. By digging some holes you can see whether or not the area you are looking at is in fact a wetland. The Wetland Identification Guide's Soil section provides additional information that you may find useful in answering the following questions. You will need to dig a hole 12 inches deep in order to answer the following questions. **Please include the locations where you took your soil samples in your Hydrology Map.**

9. Indicate the color of the soil at the bottom of the 12 inch deep hole that you dug.

<input type="checkbox"/> Dark Black	<input type="checkbox"/> Grey w/rust spots	<input type="checkbox"/> Brown
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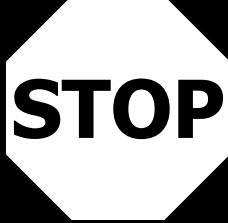
10. Does the soil smell sulfuric? (like rotten eggs)

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> At Times
------------------------------	-----------------------------	-----------------------------------

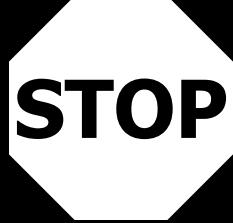
11. If you take a tablespoon size sample of the soil and squeeze it, is it saturated with water?

<input type="checkbox"/> Yes	<input type="checkbox"/> Moderate/Soil is damp	<input type="checkbox"/> No. Soil is dry
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Comments:



Continue only if.....



Applicants for single family structures must complete the following two Worksheets (Land Use Intensity Worksheet & Wetland Buffer Worksheet), if their site contains or is affected by a wetland or wetland buffer. At their option, residential applicants may choose to hire a wetland consultant to prepare a report that instead includes the elements of all relevant Worksheets.

Applicants for non-residential or commercial development proposals for properties that contain or are affected by a wetland or wetland buffer must submit a wetland report, prepared by a private consultant, which includes the elements of all relevant Worksheets: Field Indicators, Land Use Intensity, and Wetland Buffer.

Reminder:

Even if your property does not appear to contain or be affected by a wetland or wetland buffer, a **Field Indicators Worksheet** must be submitted with any development proposal. This applies to all permits for single family residential uses, as well as non-residential or commercial proposals.

Island County Planning and Community Development

LAND USE INTENSITY WORKSHEET

For all applications for any development proposal related to a Single Family Home that involves property **containing or affected by a wetland**, the single family landowner/applicant must either complete this Worksheet, or at their option they may hire a wetland professional to prepare a wetland report that includes the elements of this worksheet. For all other applications (non-residential or commercial), a private wetland professional must prepare a wetland report that contains the elements of this worksheet.

This Worksheet helps the County determine the Intensity of the uses or structures proposed for development. Land Use Intensity is a key determiner of the appropriate wetland buffer size.

Wetland buffers are established by two factors: 1) the type of wetland, and 2) the intensity of the development for your land. For property that is or will be developed for a single family home use, the *Rural Stewardship Plan* is an option for landowners to utilize for reducing a property's land use intensity level and protecting natural resources. Please ask Planning staff for more information about the Rural Stewardship Plan.

Applicant Name (please print): _____

Date: _____

Parcel or Key Number: _____

Intensity Level (circle one): **Low** **Medium** **High**

For County Use Only

Confirmation Date: _____

Confirmed By: _____

1. Land Use & Parcel Size (Check one):

My lot is, or will be, used for commercial, industrial, or other non-residential purposes – If you checked this, please select one of the following:

- My lot is **less** than 5 acres - If you checked this, yours is likely a **High** intensity use and you do not need to continue with this worksheet.
- My lot is **greater than or equal to** 5 acres - If you checked this, yours is likely a **Medium** intensity use and you do not need to continue with this worksheet.

My lot is, or will be, used for residential purposes - If you checked this, please select one of the following:

- My lot is **less than 1 acre**. If you checked this, yours is a **High** intensity use.
- My lot is from **1 acre to 2.49 acres** in size – Proceed to Question 2.a
- My lot is from **2.5 acres to 4.99 acres** – Proceed to Question 2.b
- My lot is from **5 acres to 9.99 acres** in size - Proceed to Question 2.c
- My lot is from **10 acres to 19.99 acres** in size - Proceed to Question 2.d
- My lot is greater than or equal to **20 acres in size** - Proceed to Question 2.e

2. Cleared area and/or impervious surface for residential uses:

If your parcel qualifies for 2 different Land Use Intensity ratings, you must choose the higher intensity rating.

a. Lots 1 acre to 2.49 acres (check one of the following):

- More than 50% of my lot is, or will be, cleared **or** more than 10% of my lot is, or will be, covered with an impervious surface – You are **High** intensity*
- Less than 35% of my lot is, or will be, cleared **and** less than 5% of my lot is, or will be, covered with an impervious surface – You are **Low** intensity - proceed to question 3
- From 35% to 50% of my lot is, or will be, cleared, **or** from 5% to 10% of the lot is or, will be, covered with an impervious surface – You are **Medium** intensity*

b. Lots **2.5 acres to 4.99 acres** (check one of the following):

- More than 45% of my lot is, or will be, cleared **or** more than 10% of my lot is, or will be, covered with an impervious surface – You are initially **High** intensity*
- Less than 30% of my lot is, or will be, cleared **and** less than 5% of my lot is, or will be, covered with an impervious surface – You are initially **Low** intensity - Proceed to question 3
- From 30% to 45% of my lot is, or will be, cleared **or** from 5% to 10% of the lot is, or will be, covered with an impervious surface – You are **Medium** intensity*

c. Lots **5 acres to 9.99 acres** (check one of the following):

- More than 40% of my lot is, or will be, cleared **or** more than 10% of my lot is, or will be, covered with an impervious surface – You are initially **High** intensity*
- Less than 25% of my lot is, or will be, cleared **and** less than 5% of my lot is, or will be, covered with an impervious surface – You are initially **Low** intensity - Proceed to question 3
- From 25% to 40% of my lot is, or will be, cleared **or** from 5% to 10% of the lot is, or will be, covered with an impervious surface – You are **Medium** intensity*

d. Lots **10 acres to 19.99 acres** (check one of the following):

- More than 35% of my lot is, or will be, cleared **or** more than 10% of my lot is, or will be, covered with an impervious surface – You are initially **High** intensity*
- Less than 20% of my lot is, or will be, cleared **and** less than 5% of my lot is, or will be, covered with an impervious surface – You are initially **Low** intensity - Proceed to question 3
- From 20% to 35% of my lot is, or will be, cleared **or** from 5% to 10% of the lot is, or will be, covered with an impervious surface – You are **Medium** intensity*

e. Lots **greater than or equal to 20 acres** (check one of the following):

- More than 30% of my lot is, or will be, cleared **or** more than 10% of my lot is, or will be, covered with an impervious surface – You are initially **High** intensity*
- Less than 15% of my lot is, or will be, cleared **and** less than 5% of my lot is, or will be, covered with an impervious surface – You are initially **Low** intensity - Proceed to question 3
- From 15% to 30% of my lot is, or will be, cleared **or** from 5% to 10% of the lot is, or will be, covered with an impervious surface – You are **Medium** intensity*

3. Low Intensity Requirements:

Residential uses that are classified as Low intensity **must include each** of the following standards in order to retain the low intensity designation.

- Structures, patios and decks shall be setback fifteen (15) feet from the outer edge of the wetland buffer; and
- Exterior lighting fixtures shall comply with the lighting standards of Chapter 17.03 ICC and shall be shrouded and directed away from a Wetland or Wetland Buffer; and
- Fertilizers, pesticides and herbicides shall not be applied in a manner that adversely impacts Wetland Functions or their Wetland Buffers; and
- Storm water from Impervious Surfaces shall be controlled before it reaches the Wetland Buffer.

**Note: A Land Use Intensity rating may be reduced through enrollment in the County's Rural Stewardship Plan. A commitment to the requirements outlined in the RSP can reduce your property's intensity score from High to Medium, or from Medium to Low. Such a reduction comes with significant added responsibility for current and future landowners. Please contact Planning and Community Development staff for more information.*

Island County Planning and Community Development

WETLAND BUFFER WORKSHEET

This Wetland Buffer Worksheet must be submitted with any development proposal related to a Single Family Home that involves property containing or affected by a wetland; or, at the single family homeowner's option, a Wetland Report including the elements of this Worksheet can be prepared by a Wetland Professional hired by the Single Family homeowner/applicant. A wetland report containing the elements of this worksheet, and prepared by a private wetland professional, will be required of all other applicants (non-residential or commercial) when the proposed development is on land that contains or is affected by a wetland or wetland buffer.

The following questions are designed to help you identify important characteristics of the wetland and the area surrounding it. Your answers should apply to the **entire wetland**, not just the part that is on your property. This Worksheet, along with information from the Land Use Intensity Worksheet, will help County planners determine the buffer width for your wetland. A buffer is the vegetated area adjacent to the boundary of a wetland that protects it from disturbance and inputs to protect water quality and habitat.

Applicant Name (please print): _____

Date: _____

Habitat Score: _____ (from Page WBW:7 of this Worksheet)

Wetland Buffer: _____ feet

For County Use Only

Confirmation Date: _____

Confirmed By: _____

Describe and Score the Wetland and Its Surroundings

1. High Priority Wetland Type

Does all or part of your wetland meet the definition of any of the following wetland types? Maps showing known locations of these types are available from the County. However, not all locations are known, so you should evaluate your wetland independently to see if it meets these definitions.

Bog: A relatively undisturbed Wetland with at least seventy percent (70%) ground cover of mosses; or with water with a pH of less than 5.0; or with more than thirty percent (30%) cover of Sitka Spruce, Western Red Cedar, Western Hemlock or Lodgepole Pine; and a preponderance of plants that are listed as bog species in Table 3 of the *2004 Wetland Rating System* prepared by the Washington State Department of Ecology; and having Peat or Muck soils at least sixteen (16) inches deep. Many Bogs are fed largely by precipitation. County maps identify the location of some but not all Bogs. *See also Relict Bog.* *If the criteria are met, put an "X" in the space at the beginning of this definition.* Many Bogs have acidic conditions, low nutrient levels; soils classified as peat or muck; and are fed largely by precipitation.

Coastal Lagoon Wetland: A wetland located within a shallow water body adjacent to marine waters that is partly or completely separated from Puget Sound by a barrier beach. A Coastal Lagoon receives periodic influxes of salt water which may occur from storm surges or flow through porous beach sediments. The water in a Coastal Lagoon is saline or brackish (>0.5 ppt measured near the bottom) during most of the year. *If the criteria are met, put an "X" in the space at the beginning of this definition.*

Delta Estuary Wetland: An Estuarine wetland located directly adjacent to or within a Delta Estuary. These wetlands are located on the north end of Camano Island adjacent to the mouth of the Skagit and Stillaguamish Rivers. *If the criteria are met, put an "X" in the space at the beginning of this definition.*

Estuarine Wetland: A tidal wetland containing emergent vegetation that is usually semi-enclosed by land but has open or partly obstructed access to Puget Sound. *If the criteria are met, put an "X" in the space at the beginning of this definition.*

If the wetland meets one of the above, your buffer can be determined from the chart below; if not, please continue to the remaining questions.

The type of wetland you marked above gives a preliminary determination of the width of the buffer that may be recommended for a new Development Proposal. Select the largest applicable buffer from Table 1 below. **You are then done with this assessment.**

Table 1

Intensity Level (Intensity Worksheet)	Bog	Coastal Lagoon wetland	Delta Estuary wetland	Estuarine
Low	125 ft	100 ft	40 ft	30 ft
Moderate	190 ft	150 ft	90 ft	55 ft
High	250 ft	200 ft	125 ft	90 ft

2. Vegetation Forms (maximum of 4 points):

Which kinds of plant forms cover more than 10% of the wetland's vegetated area? Mark each kind with a "1" in the line next to it.

Aquatic Plants (e.g., coontail, pond lily) _____

Herbs (e.g., grasses, wildflowers, ferns) _____

Shrubs (e.g., willow, elderberry, alder, salmon berry) _____

Trees (e.g., cedar, sitka spruce, hemlock) _____

Sum the numbers and insert here (Maximum of 4 points): _____

3. Non-native Plant Cover (maximum of 6 points)

Are non-native plants present in your wetland? Check all that apply.

Non-native Shrubs and Vines (a partial list):

Himalayan Blackberry

Evergreen Blackberry

Holly

Others. List: _____

Non-Native Herbs (a partial list):

Reed Canary Grass

Velvetgrass

Creeping Buttercup

Yellow Iris

Hairy Willow-herb

English Ivy

Canada Thistle, Bull Thistle

Eurasian Milfoil

Others. List: _____

* Note: This list is not comprehensive. You may wish to consult *Flora of the Pacific Northwest* (C. Leo Hitchcock and Arthur Cronquist, University of Washington Press)

Now estimate the approximate percent of the entire wetland's **vegetated area covered by non-native species:**

Less than 5% (6 points; put "6" in the space to the left)

From 5 to 50% (3 points; put "3" in the space to the left)

More than 50% (0 points; put "0" in the space to the left)

Insert the point value here (Maximum of 6 points): _____

4. Dead Wood (maximum of 2 points):

What kind of dead wood is found in the wetland? Insert the points at the beginning of all lines where applicable.

Multiple large fallen logs greater than 4 inches in diameter at their base and longer than 6 ft (1 point)

Multiple large standing dead trees greater than 4 inches in diameter at chest height (1 point)

Neither of the above (0 points)

Sum the numbers and insert here (Maximum of 2 points): _____

The following questions describe how wetlands on your property are connected with other natural areas. These questions are important because they help describe how your wetlands fit into larger ecosystems, and that in turn partly determines their importance to wildlife and plants. Maps and aerial photographs available online or at the counter of the Planning Department can assist you in answering these questions.

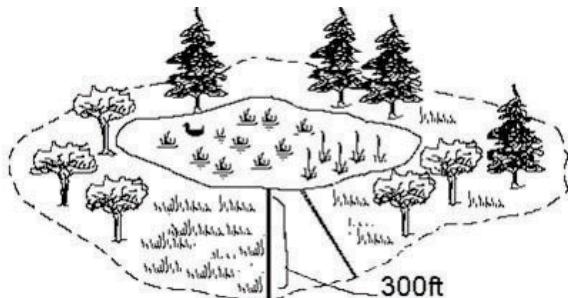
5. Surrounding Vegetation (Maximum of 10 Points):

How much of the area surrounding the wetland is "naturally vegetated"?

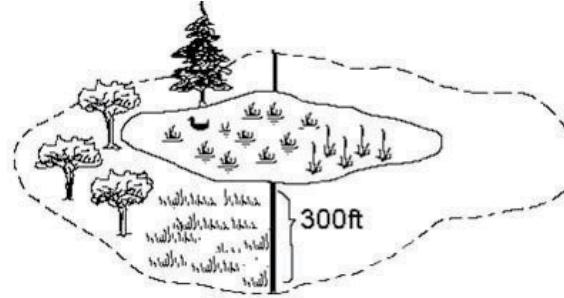
"Naturally vegetated" means no pavement, buildings, lawns, bare soil, tilled soil, bedrock, or heavily-grazed pasture.

Lightly-grazed or infrequently-mowed pasture is OK (mowed fewer than 4 times a year). Vegetation does not need to consist of native species.

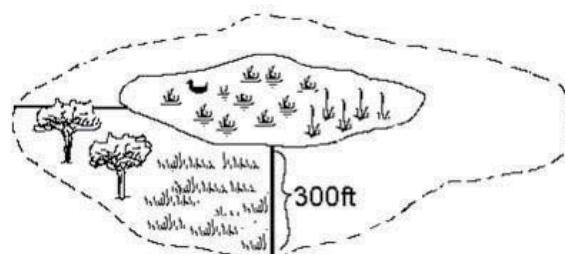
*Circle the diagram below that best describes the **surrounding vegetation** of your wetland. If more than one diagram applies choose the one with the higher point score. If none apply, give the wetland a 0. Maps and aerial photographs available online or at the counter of the Planning Department can assist you in answering this question.*



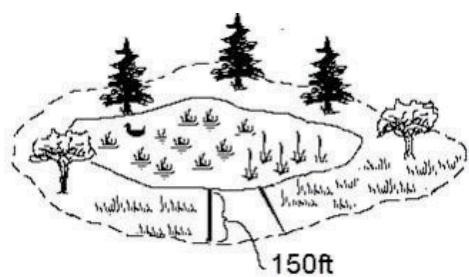
95% of 300ft upland area is naturally vegetated:
10 points



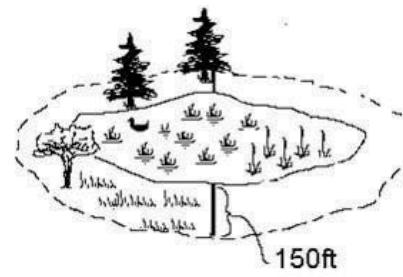
50% of 300ft upland area is naturally vegetated:
8 points



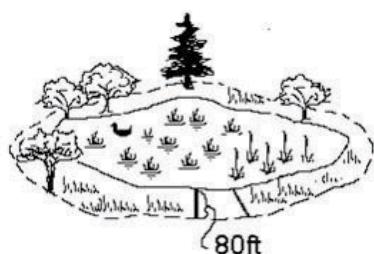
25% of 300ft upland area is naturally vegetated:
6 points



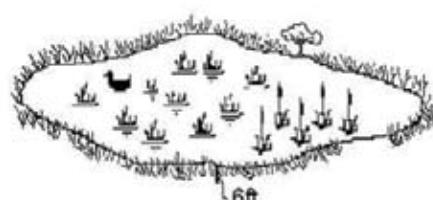
95% of 150ft upland area is naturally vegetated: 8 points



50% of 150ft upland area is naturally vegetated: 6 points



95% of 80ft upland area is naturally vegetated: 4 points



95% of 6ft upland area is naturally vegetated: 1 point

Insert the point value here (Maximum of 10 points): _____

6. Large Woodlands (Maximum of 10 Points):

“Woodlands” are areas of trees or shrubs.

“Connected to” includes areas that are separated from each other or from the wetland by distances less than 100 ft. Include wooded areas within the wetland when summing the acreage.

a. How much woodland is connected to your wetland? *Ignore all Roads*

More than 100 acres (5 points) _____

Greater than 9 to 100 acres (3 points) _____

From 1 to 9 acres (1 point) _____

None of the above/any other condition (0 points) _____

b. Assess this again, but this time consider roads as a disconnection. *Roads don't include private driveways.*

More than 100 acres (5 points) _____

Greater than 9 to 100 acres (3 points) _____

From 1 to 9 acres (1 point) _____

None of the above/any other condition (0 points) _____

The above two questions can be answered most easily by consulting maps and aerial photographs at the Planning Department.

Add up the points from (a) and (b) and insert here (maximum of 10 points): _____

7. Distance to Lake or Saltwater (maximum of 5 points):

How far is this wetland from the nearest lake or saltwater area? *Select only the one condition with the highest score.*

Within 300 ft (5 points)

Between 300 ft and ½ mile (3 points)

More than ½ mile (0 points)

This can be answered most easily by consulting maps and aerial photographs at the Planning Department

Insert the point value here (Maximum of 5 points): _____

8. Nearby Wetlands (maximum of 5 points):

How many other County-mapped wetlands are within 1/2 mile of your wetland? This can be answered most easily by consulting maps and aerial photographs at the Planning Department. Insert the points on the line next to the one condition that gives the highest applicable points.

- three or more, and **none** are separated from this wetland by paved roads, lawns, bare soil, tilled soil, or heavily-grazed pasture (5 points)
- three or more, but **some** are separated from this wetland by paved roads, lawns, bare soil, tilled soil, or heavily-grazed pasture (4 points)
- one or two, and **none** are separated from this wetland by paved roads, lawns, bare soil, tilled soil, or heavily-grazed pasture (3 points)
- one or two, but **some** are separated from this wetland by paved roads, lawns, bare soil, tilled soil, or heavily-grazed pasture (1 point)
- none (0 points)

Insert the point value here (Maximum of 5 points): _____

9. Water Persistence and Pattern (maximum of 6 points):

Check and complete the section that describes your wetland in a normal year. Then add the additional points immediately beneath it if applicable.

More than 10% of wetland (or more than 1/4 acre) contains more than 4 inches of standing water during the **entire year**. (4 points)

Add 2 points if:

- Water is mostly scattered throughout the wetland in multiple patches and most of it floods herbs, grasses, or the thin stems of shrubs during the growing season.

More than 10% of wetland (or more than 1/4 acre) contains more than 4 inches of standing water for **part of the year, but not year-round**. (2 points)

Add 1 point if:

- Water is mostly scattered throughout the wetland and most of it floods herbs, grasses, or thin stems of shrubs during the growing season.

Other. (0 points)

Insert the total point value here (Maximum of 6 points): _____

Now add the points from questions 2 through 9 and record the total HERE: _____. This is your Habitat Score.

Are the points 22 or greater?

Yes. Answer the Wetland Outlet question below and proceed to *Table 2 below to make a preliminary determination of the width of the buffer that may be recommended for a new Development Proposal. You are then done with this assessment.*

No. Answer the Wetland Outlet question below and proceed to question #10.

Wetland Outlet?

An outlet is a location where there is visible evidence of the discharge of surface water from a wetland at any season of the year. Although the presence or lack of an outlet does not affect habitat directly, wetlands without outlets tend to be more sensitive because any pollution that reaches them becomes confined and is not diluted significantly. If the presence of an outlet is unclear or uncertain, the wetland should be presumed to not have an outlet.

Does the wetland have an outlet? Select one:

No

Yes

Table 2

Intensity Level (Land Use Intensity Worksheet)	Wetland Outlet	Habitat Score (Wetland Buffer Worksheet)			
		40 or higher	32-39	29-31	22-28
Low	Yes	125 ft	75 ft	75 ft	75 ft
	No	150 ft	125 ft	100 ft	75 ft
Moderate	Yes	200 ft	110 ft	110 ft	110 ft
	No	225 ft	175 ft	150 ft	110 ft
High	Yes	250 ft	150 ft	150 ft	150 ft
	No	300 ft	200 ft	175 ft	150 ft

10. Other Priority Wetland Types

Does all or part of the wetland meet the definition of any of the following wetland types? Maps showing known locations of some of these types are available from the County. However, not all locations are known, so you should evaluate your wetland independently to see if it meets these definitions.

Mature Forested Wetland: A Wetland one (1) acre or larger in size in which the tree canopy within the vegetated part of the Wetland is comprised predominantly of trees having diameters eighteen (18) inches or larger measured at 4.5 feet above ground level or the oldest trees are 80-200 years old; crown cover may be less than 100%; and, decay, decadence, number of snags and quantity of downed material is generally less than found in old-growth forests. County maps will identify Mature Forested Wetlands as they are located through review of Development Proposals. If the criteria are met, put a "A" in the space that began this definition.

Large Ponded Wetland: A non-Estuarine Wetland with visible evidence of at least five (5) acres of standing surface water in any part of the Wetland during most of the Growing Season for a normal year. If the criteria are met, put a "B" in the space that began this definition.

Wetland Associated With a Bog, Coastal Lagoon, or Delta Estuary: A Wetland that has a wetland outlet that connects the Wetland directly to a Bog, Coastal Lagoon or Delta Estuary, or is within 500 feet of a Bog, Coastal Lagoon or Delta Estuary in an uphill direction and within the same Contributing Area. If the criteria are met, put a "B" in the space that began this definition.

Anadromous Fish Stream Wetland: A Wetland that has a Wetland Outlet that connects the Wetland directly to an Anadromous Fish Stream or is within 500 feet of an Anadromous Fish Stream in an uphill direction and within the same Watershed. If the criteria are met, put a "B" in the space that began this definition.

Resident Salmonid Stream Wetland: A Wetland that has a Wetland Outlet that connects the Wetland directly to an Resident Salmonid Stream or is within 500 feet of an Resident Salmonid Stream in an uphill direction and within the same Watershed. If the criteria are met, put a "C" in the space that began this definition.

Mosaic Wetland: A group of two or more Wetlands, each less than one (1) acre in size; located, on average, less than one hundred (100) feet apart; and at least fifty percent (50%) of the surface area of Wetland and upland, taken together, is comprised of Wetlands. The group of Wetlands, including the upland area between the Wetlands, will be regulated as one Wetland. If the criteria are met, put a "C" in the space that began this definition.

Small Ponded Wetland: A non-Estuarine Wetland with visible evidence of water forming a contiguous surface area of at least one (1) acre in any part of the Wetland during most of the Growing Season for a normal year. If the criteria are met, put a "D" in the space that began this definition.

Native Plant Wetland: A Wetland with visible evidence that at least a majority of its vegetated surface area is covered by Native Species at some time of the year. If your wetland received a score of "6" or "3" for question 3 and if the criteria are met, put a "D" in the space that began this definition.

(None of the Above). Put an "E" in the space to the left.

11. Using Table 3 below, do a preliminary determination of the width of the buffer for a new Development Proposal. Do so by considering its Wetland Type (from question 10), whether it has an outlet, and the assessment you did using the Land Use Intensity Worksheet. If more than one letter (column headings) applies, select the one resulting in the largest buffer.

Table 3

Intensity Level (Intensity Worksheet)	Wetland Outlet	Wetland Type Category (from question 10)				
		A	B	C	D	E
Low	Yes	40 ft	35 ft	30 ft	25 ft	20 ft
	No	75 ft	50 ft	40 ft	35 ft	25 ft
Moderate	Yes	90 ft	65 ft	55 ft	45 ft	30 ft
	No	105 ft	90 ft	75 ft	60 ft	40 ft
High	Yes	125 ft	110 ft	90 ft	65 ft	40 ft
	No	175 ft	150 ft	125 ft	90 ft	50 ft

12. For Development Proposals on lots that are sloped between the proposed development and the wetland, increase the buffer recommendation in Table 3 using the multipliers in Table 4. However, a buffer wider than 300 feet will not be required.

Table 4

Slope Gradient	Additional Buffer Multiplier
5-14%	1.3
15-40%	1.4
>40%	1.5

Buffers may be decreased, averaged or increased based upon the buffer's condition and ability to perform its functions. The buffer as initially determined from the Land Use Intensity and Wetland Buffer Worksheets is subject to confirmation by the County.

If the wetland and/or buffer size leaves no room for the use of the property, there are options available to make sure that the wetland can be protected and still make your land usable for uses allowed under the zoning code. If this is your situation, please contact the Island County Critical Areas Planner to discuss your options.

Island County Department of Planning & Community Development

Whidbey Island

1 NE 6th Street • PO Box 5000
Coupeville, WA 98239-5000
(360) 679-7339 (North/Central Whidbey)
(360) 321-5111 ext 7339 (South Whidbey)

Camano Island

121 N. East Camano Drive
Camano Island, WA 98282
(360) 629-4522 ext 7339