

Chapter 17.02B - Island County Critical Areas Regulations

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17.02B.040 - Relationship to other regulations.

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H. **Assessment.** The assessor's office shall consider the protection and buffering requirements of this chapter in determining the fair market value of land.

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17.02B.060 - Definitions.

Accessory Use. See definition section 17.03.040.

Adaptive management means a systematic process for continually improving management policies, regulations and practices by learning from the outcomes of previous policies, regulations and practices.

Adequate building site means an area large enough to accommodate a reasonably sized home, driveway, utilities, septic system, and, if necessary, a well.

Agricultural activities, existing and on-going means those activities conducted on lands defined in RCW 84.34.020(2), and those activities involved in the production of crops or livestock. These activities include the operation and normal maintenance of legally existing farm and stock ponds or drainage ditches, operation and normal maintenance of legally existing unregulated streams, changes between agricultural activities, and normal maintenance, repair, or operation of legally existing serviceable structures, facilities, or improved areas. Activities which bring an area into agricultural use are not part of an on-going operation. Forest practices and maintenance of legally existing vegetation, landscaping and gardens are not included in this definition. This definition is limited to legally existing uses and activities.

Agriculture or agricultural activities. See section 17.030.040.

Alteration of a wetland, a deepwater habitat, or a fish and wildlife habitat conservation area means in any wetland, deepwater habitat, or a fish and wildlife habitat conservation area or required buffer; the placement, erection or expansion of any solid material or structure; the discharge or disposal of any dredged material or waste, including filling, grading, channelization, removing, dredging, draining, mining or extraction of any materials; the removal or harvesting of trees or other vegetation; the modification for use as a storm water retention/detention facility; or the alteration of the width of the buffer through buffer averaging.

Anadromous fish means fish species that spend most of their lifecycle in salt water, but return to freshwater to reproduce.

Anadromous fish stream means a regulated stream that has been determined by the County to contain anadromous fish. Maxwellton, Glendale, and Kristoferson Creeks have been designated anadromous fish streams.

Anadromous fish stream wetland means 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.

Animal unit. One (1) animal unit equals 1,000 pounds of livestock, according to Natural Resources Conservation Service nutrient management conservation standards for livestock species.

Areas with a critical recharging effect on aquifers used for potable water or aquifer recharge areas. See definition of Critical Aquifer Recharge Area.

Baseline monitoring means surface water quality sampling and other monitoring activities (such as vegetation surveys, etc.) designed to establish local trends and seasonal patterns necessary for the interpretation of County-wide data.

Best available science means scientific information such as research, inventory, monitoring, surveys, modeling, synthesis, expert opinion, or assessment that is used to designate, protect, or restore critical areas. As defined by WAC 365-195-900 through 365-195-925, best available science is derived from a process that includes peer-reviewed literature, standard methods, logical conclusions, and reasonable inferences, quantitative analysis, and documented references to produce reliable information.

Best management practices (BMPs) means conservation practices, systems of practices and management, and mitigation measures intended to control soil loss, reduce water quality degradation, minimize adverse impacts to surface water and ground water flows, and minimize adverse impacts to the chemical, physical, and biological characteristics of critical areas. Island County Public Works maintains a BMPs manual which describes suitable and appropriate BMPs (Island County Best Management Practices Field Manual for Small Construction Sites). When best management practices are required by this chapter, or by a condition attached to a permit issued pursuant to the requirements of this chapter, the BMPs described in this manual shall be used, except that when BMPs are required for an activity related to a legally established existing and on-going agricultural activity, appropriate NRCS (natural resources conservation service) guidelines may also be used.

Bog means a relatively undisturbed wetland: with at least seventy (70) percent ground cover of mosses; or with water with a pH of less than 5.0; or with more than thirty (30) percent 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 4 of the Washington State Wetland Rating System for Western Washington 2014 Update 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."

Buffer means the area contiguous with a critical area that maintains the functions and/or structural stability of the critical area. Critical area buffers shall be maintained in a natural state and no development shall occur in a buffer unless explicitly authorized by Island County Code.

Chapter means Island County Code chapter 17.02B.

Cleared area means, for the purposes of regulating wetlands, the surface area on a lot that is or will be cleared or otherwise altered by a development proposal. All areas that have been or are proposed to be altered are considered cleared area including building site(s), drain field, well site, lawns, landscaping, driveways and access roads. See "Land use intensity."

Clearing means cutting, killing, grubbing or removing vegetation or other organic plant material by physical, mechanical, chemical or any other similar means. For the purpose of this definition of "clearing," "cutting" means the severing of the main trunk or stem of woody vegetation at any point.

Coal mine hazard areas means areas in proximity to abandoned coal mines and associated underground mine workings. No coal mine hazard areas were found in Island County and therefore there is no risk from this hazard.

Coastal lagoon wetland means 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. The general locations of coastal lagoons have been mapped by the County and are subject to the provisions of chapter 90.58 RCW (Shoreline Management Act), and chapter 17.05A.

Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting

unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Compliance assessment means a property or area-specific evaluation of compliance with adopted critical area requirements. Compliance assessment will routinely be initiated if a worsening water quality trend is identified and will typically precede source identification.

Conditional use. See definition section 17.03.040.

Contingency plan means a plan that establishes actions that will be taken should monitoring identify that restoration or mitigation is not successfully achieving the established benchmarks and standards within the established time periods.

Contributing area means the land and/or water area uphill from a wetland that drains into that wetland. Contributing area is used to determine the sensitivity of a wetland to adverse water quality impacts and the size of the water quality buffer needed to protect wetland functions.

County means Island County, Washington.

Critical aquifer recharge area (CARA) means areas with a critical recharging effect on aquifers used for potable water including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water or is susceptible to reduced recharge.

Critical area permit means a permit issued pursuant to the requirements of this chapter. Critical area permits include: exemption authorizations, permitted alteration permits, and critical area variances.

Critical areas means wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas.

Deepwater habitats or ponds means any open freshwater area that has a mean annual water depth greater than 6.6 feet, lacks soil, and/or is either unvegetated or supports only floating or submersed macrophytes, and is not a lake as defined in the Island County Shoreline Master Program or this chapter. Many such areas were in part or in whole, artificially constructed within wetlands prior to 1998; these are subject to regulation under the provisions of this chapter. Rarely, some such areas were wholly constructed in upland soils (non-hydric) and would not be regulated as either wetlands or as fish and wildlife habitat areas.

Delta estuary means an area of alluvial deposits from the Skagit or Stillaguamish Rivers where the surrounding marine water is measurably diluted by fresh water from these rivers. The general location of the delta estuary has been mapped by the

County and is subject to the provisions of chapter 90.58 RCW (Shoreline Management Act), and chapter 17.05A.

Delta estuary wetland means an estuarine wetland located directly adjacent to or within a delta estuary.

Department means the Island County Department of Planning and Community Development.

Development means any activity that results in a use or modification of land or its resources. Development activities include, but are not limited to: dredging, drilling, dumping, filling, earth movement, grading, clearing or removal of vegetation; storage of materials or equipment; building or construction; land division, boundary line adjustments, lot segregations, subdivision and short subdivisions; binding site plans; site plan approvals; planned residential developments (PRDs); variances; shoreline development or substantial development; activity conditionally allowed; and septic approval.

Development proposal means any activity that requires authorization from Island County for a lot that contains or is affected by a critical area or critical area buffer. Development proposals include subdivisions, short subdivisions, planned residential developments, conditional use permits, site plan approvals, boundary line adjustments, septic permits, and clearing/grading permits.

Dike means a manmade embankment or revetment normally set back from the river bank or channel in the floodplain for the purpose of keeping floodwaters from inundating adjacent land.

Diking means a system of levees or banks, usually constructed of earth to control or confine water and create a protection against tidal or floodwaters. Where coastal dikes are located within shoreline jurisdiction, they are regulated in the Shoreline Master Program.

Diking and drainage system means any lawfully constructed combination of dike, levee, and drainage which actually does or is designed to prevent inundation and facilitate drainage of land upland of the ordinary high water mark.

Drainage ditch means an unregulated stream constructed to drain surface or ground water. Ditches are graded (manmade) channels installed to collect and convey runoff from fields and roadways, except those that directly result from the modification of a natural stream. Ditches that support salmonids are considered to be regulated streams.

Enhancement means an action or actions that overall heighten, intensify, or improve some of the processes, structure and/or functions of a wetland. See "Mitigation."

Erosion hazard areas means areas containing soils which, according to the United States Department of Agriculture Natural Resources Conservation Service Soil Survey Program, may experience significant erosion. Erosion hazard areas also include coastal erosion-prone areas and channel migration zones.

Estuarine wetlands means tidal wetlands containing emergent vegetation that are usually semi-enclosed by land but have open or partly obstructed access to Puget Sound. All estuarine wetlands are subject to the provisions of chapter 90.58 RCW (Shoreline Management Act) and chapter 17.05A.

Exceedance means a measured increase in a monitoring parameter above an adopted water quality standard that will trigger a responsive action.

Exempt activity means a development or development activity which either meets the precise terms of one (1) of the exempt activities identified in this chapter, or which is determined by the Planning Director to be an exempt activity pursuant to the procedures and requirements identified in section 17.02B.300.

Exemption authorization means a Type I decision issued by the Planning Director in those instances where a proposed development does not meet the precise terms of the exempt activities identified in this chapter but is otherwise consistent with the standard exemption environmental protection criteria and threshold criteria identified in section 17.02B.300. An exemption authorization may also be voluntarily requested by an applicant in order to document that a proposed development is an exempt activity, even if the proposed development is specifically listed as being an exempt activity.

Existing. See definition in section 17.03.040.

Farm management plan, custom means a custom plan that is site-specific and is developed for a specific property owner/operator. A custom plan provides a farm management system that implements Natural Resources Conservation Service Best Management Practices. Conservation districts as well as Island County, consultants, property owners and, with the consent of an owner, lessees are all eligible to prepare farm plans if the preparer is certified by Natural Resources Conservation Service and the document is determined by the County to meet Natural Resources Conservation Service standards.

Farm management plan, standard means a standard plan that implements NRCS BMPs for low intensity agriculture. A standard plan is prepared and adopted by the County. There are two (2) types of standard plans. The first type applies

BMPs to protect critical areas and is used, on a County-wide basis, by low intensity agriculture. The second type applies BMPs to protect critical areas for low intensity agriculture located in the following drainage basins with salmon bearing streams or potential salmon bearing streams: Maxwelton, Glendale, Onamac, and Triangle Drainage Basins.

Farmed wet meadows shall mean those wetlands whose vegetative cover has been sufficiently modified in the past as a result of grazing, seeding, cutting for hay, or other agricultural practices, such that they are dominated by a pasture species (such as blue grass, orchard grass, fescue, clovers, reed canary grass, etc.) and invasive wetland species indicative of continuous disturbance. They often are saturated or have standing water during the wet season and part of the growing season but are often dry during the summer months.

Fish and wildlife habitat conservation areas (FWHCA) means areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. In Island County, FWHCA also include locally important and designated habitats and species (WAC 365-190-030(6)).

Flood, flooding, or floodway. See definition in chapter 14.02A.

Frequently flooded areas means all areas of special flood hazard as mapped within the County, and other areas that could be threatened by flooding or areas subject to flooding due to high groundwater. Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface. Classifications of frequently flooded areas include, at a minimum, the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program. Frequently flooded areas under shoreline jurisdiction are subject to the provisions of chapter 90.58 RCW (Shoreline Management Act) and chapter 17.05A.

Geologically hazardous area means areas that because of their susceptibility to erosion, sliding, or other geologic events, are generally not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns. Areas susceptible to one (1) or more of the following types of

hazards shall be classified as a geologically hazardous area: erosion hazard; landslide hazard; and seismic hazard.

Grading means any excavating or filling or combination thereof or any leveling to a smooth horizontal or sloping surface on a property, but not including normal cultivation associated with an agricultural operation.

Growing season means the time of year where natural conditions permit the growth of vegetation. Growing season dates are determined through onsite observations of biological activity indicators in a given year (such as growth and development of vegetation and soil temperature). Typically, the growing season in Island County begins in mid to late February and ends by October 31.

Habitat means the physical location or type of environment in which a species lives or occurs.

Habitat management plan (HMP) means a site-specific plan set for either wetlands or fish and wildlife habitat conservation areas. For wetlands, a site-specific plan for maintaining, re-establishing, rehabilitating, enhancing, creating or preserving habitat for a wetland dependent species. For fish and wildlife habitat conservation areas, specific requirements for a habitat management plan are set forth in section 17.02B.430.

Habitat of local importance means an area designated by the County pursuant to chapter 36.70A RCW. Once designated a habitat of local importance, the area becomes a critical area. The procedure and criteria for such designations are set forth in section 17.02B.220 and the areas that have been designated are listed in section 17.02B.230.

Habitat rating system means the procedure for assigning a habitat score to a wetland, as defined by the Washington State Wetland Rating System for Western Washington - Revised (Hruby, 2014) or a comparable procedure established by the County.

Hazard tree means any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors, and which because of its location is at risk of damaging permanent physical improvements to property or causing personal injury.

Herbaceous balds means variable-sized patches of grass and forb vegetation located on shallow soils over bedrock that commonly is fringed by forest or woodland, and often found on steep slopes. Dominant flora includes herbaceous vegetation, dwarf shrubs, mosses, and lichens. Rock outcrops, boulders, and scattered trees are often present, especially Douglas-fir, Pacific madrone, and

Oregon white oak. Balds typically are smaller than twelve (12) acres though may be larger.

High intensity agriculture shall mean existing and on-going agriculture including dairies, animal feeding operations and concentrated animal feeding operations as those terms are used in federal and state regulations, and livestock operations with an animal unit density greater than three (3) per acre.

Highly erodible soils means soils that show extensive ongoing erosion as a result of land uses, or that have a "severe" or "very severe" susceptibility to erosion from water according to the Natural Resources Conservation Service. Maps showing the location of these soils are available from the Natural Resources Conservation Service and the County. Location may also be established through a field survey by a qualified soil scientist. These include the following mapped soil series:

Alderwood fine sandy loam (Ab)

Alderwood fine sandy loam (Ac)

Alderwood gravelly sandy loam (Af)

Bow loam (Bc)

Bozarth fine sandy loam (Be)

Carbondale muck (Ca)

Casey fine sandy loam (Cc, Cd)

Casey loam (Cf, Cg)

Coveland loam (Cn, Co)

Everett gravelly sandy loam (Ee)

Greenwood peat (Ga)

Hovde sand (Ha)

Hoypus coarse sandy loam (Hd)

Hoypus gravelly loamy sand (Hg)

Indianola loamy sand (Ib, Ic)

Keystone loamy sand (Kd, Ke)

Mukilteo peat (Mb, Mc)

Pondilla fine sand (Pa)

Rifle peat (Ra, Rb)

Semiahoo muck (Sc, Sd)

Swantown loam (Sm)

Tanwax peat (Tb)

Townsend sandy loam (Tf)

Townsend sandy loam (Tg)

Hydrophytic vegetation means plant life growing in water or in a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Invasive plant species means a non-native plant species that can displace native plant species if allowed to proliferate. See "Non-native plant species."

Lake means a body of water surrounded by land. Lakes that are twenty (20) acres or greater in size are subject to the provisions of chapter 90.58 RCW (Shoreline Management Act), and chapter 17.05A. These include Goss Lake, Lone Lake, Crockett Lake, Deer Lake, Kristoferson Lake, Cranberry Lake, and unnamed lakes located in: Section 24, Township 29 N, Range 2 E; Section 6, Township 31 N, Range 1 E; and Section 18, Township 33 N, Range 2 E.

Land division. For the purposes of this chapter, land division means the segregation of a parcel of land into smaller parcels or lots, including land divisions, short subdivisions, long subdivisions, lot segregations, or boundary line adjustments, all defined in section 16.06.040.

Land use intensity means a determination by the Planning Director for every development proposal regulated by this chapter. Intensity shall be based on the type, character, density and location of the proposed use or structure, cleared area and impervious surfaces (use, structure and impervious surface are defined in chapter 17.03) proposed by the development proposal and potential adverse impact that may be caused by the development proposal. Land use intensity is used to determine the size of a wetland buffer.

Landslide hazard area. See definition in section 11.02.030.

Large ponded wetland means 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 an average rainfall year. Most, but not all, large ponded wetlands have been mapped by the County.

Liquefaction means the temporary transformation of stable saturated loose granular soil deposits into fluid-like state similar to quicksand usually caused by the shaking of earthquake. The soils dramatically lose strength once liquefaction occurs.

Livestock means domestic animals, fish, and fowl all types customarily raised or kept on farms for profit or other purposes, but not including household pets such as dogs, cats, birds, etc.

Lot. See definition in section 17.03.040.

Low impact development means a site design and/or structures that incorporate specific measures to reduce and compensate for adverse water quality or quantity impacts to critical areas or critical area buffers. Land use intensity may be reduced by incorporating low impact development techniques into a development proposal. See "Land use intensity." Low impact development techniques include measures that reduce the quantity and improve the quality of storm water runoff. Specific suggested techniques are described in more detail in the Rural Stewardship Guide.

Low intensity agriculture means existing and on-going agriculture, including livestock management with an animal unit density of less than one (1) per acre; or seasonal hay mowing and related activities; and horticulture involving one (1) acre or less of cultivated land. For livestock, the amount of acreage shall be determined by the amount of grazed or mowed acreage where manure or compost made from manure is applied.

Macrophyte means any plant species that can be readily observed without the aid of optical magnification.

Maintenance or repair means usual acts to prevent a decline, lapse, or cessation from a lawfully established condition or restores a development to a state comparable to its original condition, including but not limited to maintaining the same size, shape, configuration, location and appearance, provided such restoration is commenced within a reasonable period of time. Replacement of a structure is not considered normal maintenance or repair, except where specifically authorized by this chapter or section 17.03.230. With respect to structures, repairs that exceed fifty (50) percent of the value of the structure over any three-year period shall constitute replacement and shall not be considered maintenance or repair.

Mature forested wetland means 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 eighty (80) to 200 years old; crown cover may be less than 100 percent; and, decay, decadence, number of snags and quantity of downed material is generally less than found in old-growth

forests. County maps will be regularly updated to identify mature forested wetlands as they are located through review of development proposals.

Medium intensity agriculture shall mean existing and on-going agriculture including livestock operations with an animal unit density of one (1) but not greater than three (3) per acre and all horticultural operations larger than one (1) acre of cultivated land.

Mitigation means avoiding, minimizing, or compensating for adverse critical areas impacts.

Mitigation bank means a site where wetlands are re-established, rehabilitated, enhanced, preserved or created expressly for the purpose of providing mitigation in advance of any specific development proposal. Mitigation banks must qualify and be certified under chapter 173-700 WAC before they can be established and used in Island County.

Mitigation plan means a detailed plan that describes and explains actions that are needed to compensate for alterations to a critical area or critical area buffer. A mitigation plan will usually include a plan for management of the critical area as well as a monitoring and contingency plan. A mitigation plan is prepared when a wetland or fish and wildlife conservation area is proposed to be altered.

Mitigation, off-site means mitigation that is located on another parcel or site from the critical area or critical area buffer impacts being mitigated.

Mitigation, on-site means mitigation that is located on the same parcel or site as the critical area or critical area buffer impacts being mitigated.

Monitoring means the repetitive measurement of some aspect of a natural resource and/or human activity using ecological indicators as the basis for identifying changes to that resource.

Mosaic wetland means a group of two (2) or more wetlands, each less than one (1) acre in size; located, on average, less than 100 feet apart; and at least fifty (50) percent 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 a single wetland.

Native plant wetland means 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. County maps identify some but not all native plant wetlands.

Native species means plants and animals which are indigenous to Island County. Plant species are defined in Flora of the Pacific Northwest: An Illustrated Manual (C.

Leo Hitchcock and Arthur Cronquist, University of Washington Press, 2 nd ed., 2018).

Necessary appurtenances means those improvements which are minimally necessary to establish a single family home. Such improvements shall include a septic system, well, driveway, and utility connections.

Non-native plant species means plant species which have been introduced into Island County. For plants, non-native species are defined in Flora of the Pacific Northwest: An Illustrated Manual (C. Leo Hitchcock and Arthur Cronquist, University of Washington Press 2 nd ed., 2018).

Non-residential. See definition in section 17.03.040.

Permitted alteration permit means a Type II decision issued by the Planning Director for those development activities identified in section 17.02B.310 as being permitted alterations.

Permitted Use. See definition in section 17.03.040.

Perturbation means deviation of an ecological system or process from its regular or normal state of path, caused by an outside influence.

Planning Director. See definition in section 17.03.040.

Planning policies means policies contained in the Island County Comprehensive Plan.

Practical means, as used herein: appropriate; useful; sensible; or likely to be effective.

Primary association means use of an area by a protected species for rearing young, roosting, breeding, or foraging on a regular basis during the appropriate season, as well as habitats that are used less frequently or regularly but which provide for essential life cycle functions. Areas of primary association for listed salmonids shall include all aquatic environments in which they reside, as well as riparian environments necessary to support the formation and function of the aquatic environment. Areas of primary association for protected flora and fungi include both the immediate area where the species occurs and the contiguous habitat necessary for its long term persistence.

Priority habitat means a habitat type or elements with unique or significant value to one (1) or more fish and wildlife species as classified by the Washington Department of Fish and Wildlife. A priority habitat may consist of a unique vegetation type or dominant plant species (such as eelgrass meadows or oak woodlands), a described successional stage (such as old growth and mature

forests), or a specific structural element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags). A priority habitat may contain priority and/or non-priority fish and wildlife species.

Priority species means any fish or wildlife species requiring protective measures and/or management guidelines to ensure their persistence as genetically viable population levels as classified by the Washington Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate, and monitor species, and those of recreational, commercial, or tribal importance.

Protected species means fish and wildlife species and their associated habitat that are regulated as FWHCA in this chapter.

Qualified professional means a person with experience and training with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have a degree in wildlife biology, ecology, fisheries, or a closely related field and a minimum of two (2) years of professional experience related to the subject species/habitat type. A qualified professional shall be selected by the Planning Director, or approved by the Planning Director if selected by the applicant. A wetland professional is a qualified professional with expertise in wetlands.

Reasonable means, as used herein: rational; logical; realistic; in accordance with common sense; or not expecting more than is possible or achievable.

Reasonable use means the logical or rational use of a specific parcel of land which a person can be expected to conduct or maintain fairly and appropriately under the specific circumstances, considering the size of the lot, the type of use or structure proposed and similar uses and structures in the general vicinity of the lot, that are permitted uses consistent with and conforming to current regulations.

Regulated activities means all development occurring within designated critical areas and their buffers that is not either listed as an exempt activity in section 17.02B.300 or been determined to be an exempt activity by the Planning Director in accordance with section 17.02B.300.

Remodel means to renew, renovate or make over a part of an existing building for the purpose of its appearance or layout. Remodel may include repair or relocation of interior walls but does not include repair, replacement or relocation of any of the exterior floors, walls or roof.

Residential. See definition in section 17.03.040.

Restoration means an action or actions to repair, revitalize or otherwise return to their previous functioning condition critical areas or critical area buffers. Restoration requirements for unauthorized alterations are found in section 17.03.260.I.

Rural stewardship plan means a detailed site plan prepared voluntarily by or for an owner that establishes the location for authorized permitted uses, the location and classification of critical areas and critical area buffers, and best management practices for the long term use of the property. A rural stewardship plan is a voluntary option available to all owners of lots one (1) acre or larger in size.

Seismic hazard areas means areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, debris flows, lahars, soil liquefaction, or tsunamis.

Serviceable means infrastructure that is currently usable and durable enough to perform its intended function according to Island County or other responsible agency design and construction standards.

Shoreline jurisdiction means any area subject to the jurisdiction of the Island County Shoreline Master Program (SMP) in chapter 17.05A and the Washington State Shoreline Management Act (SMA).

Single family dwelling. See definition in section 17.03.040.

Slope gradient means the average slope, expressed as a percent, found within a contributing area measured from wetland edge to the nearest part of the development proposal. LiDAR imagery available from the Department may be used in this determination.

Small contributing area means a contributing area for a wetland that is less than ten (10) times the surface area of the wetland. A wetland with a small contributing area will require a larger wetland buffer because it is likely to be more sensitive to changes in water quality.

Small ponded wetland means 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 an average rainfall year. See "Large ponded wetland."

Source identification means sampling that is specific to an identified watershed or portion of a watershed intended to determine the source of an exceedance in water quality standards or thresholds or the source of any other impairment of a wetland.

Species of local importance means plants or animals designated by the County pursuant to chapter 36.70A RCW. The procedure and criteria for such designations

are set forth in section 17.02B.220 and the designated species of local importance are listed in section 17.02B.230.

Steep slopes. See definition in section 11.02.030.

Stream, regulated means the following features are defined as streams and are regulated as critical areas under the provisions of this chapter:

1. Natural stream channels means those areas where naturally occurring surface waters produce a defined channel, bed, bank or side, and where there is clear evidence of the passage of water such as bedrock channels, gravel beds, sand and silt beds and defined channel swales. The channel or bed need not contain water year-round.
2. Modified stream channels means those natural stream channels with or without headwaters that follow and/or replace historic natural watercourses that have been significantly channelized, relocated, and/or constrained. Modified stream channels include segments of a stream that have been legally modified, and are in compliance with all necessary permits in effect at the time of its approval.
3. Artificial stream channels means artificial channels either used by salmonids of any life stage, or that directly convey water from or through an existing regulated wetland.
4. Artificially created channels that serve to connect other streams are regulated as streams. This definition excludes those areas which have no defined channel, bed, bank or side; see "Wetlands" definition in chapter 17.02B.

Stream, unregulated means ditches and other water conveyance systems which are artificially constructed and actively maintained for irrigation and/or drainage and which are not otherwise classified as a regulated stream.

Structure. See definition in section 17.03.040.

Tsunami hazard areas means coastal areas susceptible to flooding, inundation, debris impact, and/or mass wasting as the result of wave action generated by seismic events.

Use. See definition in section 17.03.040.

Variance, critical areas means a Type III decision issued by the hearing examiner, upon a recommendation from the Planning Director, authorizing a deviation from the dimensional or performance standards of this chapter.

Volcanic hazard areas means areas subject to lava flows, pyroclastic surges, mud flows, lahars, debris flows, debris avalanche, ash clouds, ash fall, lateral blast,

ballistic debris, or flooding as a result of volcanic activity. No volcanic hazard areas were found in Island County and therefore there is no risk from this hazard.

Water quality standards means a specific numeric measure established for a monitoring parameter that, if exceeded, will require immediate action by the County to identify the source of the contamination. Water quality standards are established by chapter 173-201A WAC.

Water quality thresholds means a specific numeric measure established for a monitoring parameter set at a more stringent level than a standard that, if exceeded, will typically require some change in the monitoring program but not require immediate action.

Water quality trend means a detectable change over time for a monitoring parameter after baseline monitoring is completed. A trend can serve as early warning that an exceedance may occur in the future.

Watershed means the land and water area that drains to a particular stream, estuary, or other water body. A watershed is also referred to as a basin or sub-basin. The Department has mapped all watersheds of Island County.

Westside Prairie means herbaceous, non-forested (< sixty (60) percent forest canopy cover) plant communities that can either take the form of a dry prairie or a wet prairie. Typical plants include grasses, sedges, and forbs. Mosses, lichens, and bare ground may also be found in the spaces between grass and forb cover. Three (3) of the diagnostic grasses, sedges, or forbs found in the "Priority Habitats and Species List" prepared by WDFW, last updated February 2021, are required to identify dry prairie habitat.

Wetland means areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

Wetland category means wetlands in Island County that have been grouped or classified into one (1) of five (5) wetland categories, A through E.

Wetland dependent species means a plant or animal species that requires a wetland for some part of its life cycle and whose population in the County would decline if a particular wetland type is unavailable; or, the species occurs disproportionately in wetlands compared to other habitats.

Wetland edge means the boundary of a wetland as delineated using the technical resource guide specified in WAC 173-22-035.

Wetland functions means the beneficial roles served by wetlands in Island County are primarily water quality protection and enhancement including groundwater recharge and discharge and habitat for wetland dependent species. These beneficial roles are not listed in order of priority.

Wetland identification guide means a document prepared by the County. The guide contains a field indicator's worksheet, a land use intensity worksheet, and a wetland buffer worksheet.

Wetland maps means site-specific maps prepared and maintained by the Department that depict the general location and type of wetlands.

Wetland outlet means the location or locations where there is visible evidence of the discharge of surface water from a wetland at any season of the year. The size of the buffer needed to protect a wetland is based in part on whether the wetland has a wetland outlet. A wetland with no wetland outlet will require a larger wetland buffer because it is more sensitive to changes in water quality. When the presence of an outlet is unclear or uncertain, the wetland will be presumed to not have an outlet.

Wetland professional means a person with both professional education typically a B.S. or higher degree in biology, environmental studies or related field, as well as training and experience in wetland technical issues such as experience performing wetland classification and delineations, assessing wetland functions, analyzing impacts to wetlands, and designing mitigation. A wetland professional should be a certified professional wetland scientist or have a minimum of two (2) years of experience in wetland technical issues.

Wetland report means a study prepared by a wetland professional.

Wetland type means a determination made by the County or a wetland professional that is based upon the natural characteristics of a wetland.

Wetland vegetation means plant species characteristically adapted for prolonged saturation and anoxic soil conditions and listed by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, or the Washington State Department of Ecology as wetland indicator plants.

Wetland/deep water boundary means the boundary between a wetland and deep water habitat lies at a depth of two (2) meters (6.6 feet) below low water; however, if emergent trees or shrubs grow beyond this depth at any time, their deep water edge is the boundary.

Wetlands associated with a bog, coastal lagoon, or delta estuary means 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. Wetlands associated with a coastal lagoon or delta estuary are also subject to the provisions of chapter 90.58 RCW Shoreline Management Act and chapter 17.05A.

White Oak Woodlands means stands of oak or oak/conifer where canopy coverage of the oak component of the stand is twenty-five (25) percent, or where total canopy coverage of the stand is < twenty-five (25) percent, but oak accounts for at least fifty (50) percent of the canopy coverage. Priority oak habitat consists of stands > one (1) acre in size. Stands < one (1) acre may also be considered a priority when found to be valuable to fish and wildlife based on a biological site assessment.

(Ord. No. C-75-14 [PLG-006-14], Exh. B, 9-22-2014; Ord. No. C-44-16[PLG-003-16], Exh. A, 5-3-2016; Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017; Ord. No. C-53-21 [PLG-005-21], Exh. A, 8-17-2021)

Editor's note— Ord. No. C-86-17 [PLG-009-17], Exh. A, adopted Aug. 15, 2017, changed the title of § 17.02B.060 from "Definitions—Fish and wildlife habitat conservation areas" to read as herein set out.

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17.02B.080 - General mitigation requirements.

- A. Developments permitted pursuant to this chapter that adversely impact or alter a critical area or its buffer shall include mitigation sufficient to maintain or replace critical areas functions and values or to minimize risks associated with geologic hazards. Mitigation shall ensure no loss of critical area functions or values. Any proposed development that cannot mitigate critical area impacts as determined by the Planning Director shall be denied.
- B. When an impact to a critical area or critical area buffer is proposed, the applicant shall demonstrate that all reasonable efforts have been taken to mitigate impacts in the following prioritized order (consistent with WAC 197-11-768):
 1. Avoiding the impact by not taking a certain action or parts of an action.

2. Minimizing impacts by limiting the degree of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.
6. Monitoring the impact and taking appropriate corrective measures.

(Ord. No. C-75-14 [PLG-006-14], Exh. B, 9-22-2014; Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017)

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17.02B.300 - Exempt activities.

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B. Fish and wildlife habitat conservation areas and wetlands. The following activities are exempt from the buffer, mitigation, and protection requirements for Fish and Wildlife Habitat Conservation Areas and Wetlands within this chapter.

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3. **Transportation infrastructure repair.** Normal maintenance or repair of existing serviceable public or private roads, paths, bicycle ways, trails, bridges, and associated storm drainage facilities. Where reconstruction is the normal method for maintenance or repair, it is considered exempt if it does not change the character, scope, or size of the original structure, facility, utility or improved area beyond the original design, unless such changes are intended to improve ecological conditions or habitat, such as fish passage.
 - a. This exemption shall not apply to tidegates which historically drained wetlands where:
 - (i) lack of maintenance of the tidegate for five (5) consecutive years has allowed positive indicators of wetland hydrology, wetland vegetation, or hydric soils to become established; or
 - (ii) maintenance or repair of the tidegate would result in adverse alteration of wetland hydrology.

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5. **Utility repair.** Normal and routine maintenance or repair of existing utility facilities or rights-of-way.
6. **Utility construction in improved right-of-way.** Installation, construction, relocation, operation, normal maintenance or repair, or alteration of all utility lines, equipment, or appurtenances, not including substations, in improved and maintained road rights-of-way. Replacement may be considered an exempt activity if it is the normal method of repair, as determined by the Planning Director. Relocation of utility lines, equipment, or appurtenances shall occur as far as feasible from the critical areas and its buffer. This exemption does not include the installation of throughput transmission facilities as defined in chapter 17.03.
7. **Existing structures.** Reconstruction, remodeling, or maintenance or repair of existing structures, provided there is no further intrusion into a critical area or its buffer. This exemption excludes the intentional demolition of existing structures where the reconstructed structure can be accommodated outside of the critical area and its buffer.

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17.02B.460 - Wetlands.

A. **Land use intensity.** The appropriate buffer for a wetland will, in part, be determined based on the intensity of a development proposal. Land use intensity shall be determined by the Planning Director on a case-by-case basis for development proposals that contain or are affected by a wetland or wetland buffer. The land use intensity worksheet from the wetlands identification guide shall be submitted with all development proposals on a lot that contains or is affected by a wetland or wetland buffer and will be used by the Planning Director in the determination of land use intensity. The Planning Director shall determine land use intensity as follows:

1. High intensity.

- a. All uses and structures located on lots less than one (1) acre in size shall typically be classified initially as high intensity.
- b. All non-residential uses and structures located on lots equal to one (1) acre but less than five (5) acres in size shall typically be classified initially as high intensity.
- c. For residential uses and structures:
 - i. More than ten (10) percent of the lot is covered with an impervious surface; or

ii. The cleared area exceeds the following thresholds:

Lot Size					
	1 to 2.49 acres	2.5 to 4.99 acres	5 to 9.99 acres	10 to 19.99 acres	>20 acres
Cleared Area	>50%	>45%	>40%	>35%	>30%

2. Medium intensity.

- a. All non-residential uses and structures located on lots equal to or greater than five (5) acres in size shall typically be classified initially as medium intensity.
- b. All residential uses and structures that do not meet the cleared area and impervious surface ratios established for high and low intensity uses shall typically be classified initially as medium intensity.

3. Low intensity.

- a. For residential uses and structures:
 - i. Less than five (5) percent of the lot is covered with an impervious surface; and
 - ii. The cleared area exceeds the following thresholds:

Lot Size					
	1 to 2.49 acres	2.5 to 4.99 acres	5 to 9.99 acres	10 to 19.99 acres	>20 acres
Cleared Area	>35%	>30%	>25%	>20%	>15%

- b. Low intensity uses and structures shall adhere to the following standards:
 - i. Structures, patios and decks shall be set back fifteen (15) feet from the outer edge of the buffer; and
 - ii. Exterior lighting fixtures shall comply with the lighting standards of chapter 17.03 and shall be shrouded and directed away from the wetland or wetland buffer; and
 - iii. Fertilizers, pesticides and herbicides shall not be applied in a manner that adversely impacts wetland functions or wetland buffers; and

iv. Storm water from impervious surfaces shall be controlled before it reaches the wetland buffer.

4. Intensity determinations will consider the potential adverse impacts to wetland functions expected to be caused because of site-specific characteristics and the orientation or location of the proposed use or structure in relation to the wetland. For example, the development proposal may qualify as low intensity under subsection 3. However, topography or soils and site location or design of the proposed structures may potentially generate adverse impacts to wetland functions. Therefore, if it is not modified by the applicant, the development proposal may be finally classified by the Planning Director in a medium or high intensity classification.

5. When a development proposal contains more than one (1) use or structure and the uses or structures are of differing land use intensity, the development proposal shall be classified in the intensity classification that provides the greatest protection to the critical area.

B. Wetland classification system. Wetlands shall be classified by the Planning Director based on the type of wetland and buffers will be established by the Planning Director based on the wetland classification. The classification that provides the greatest protection shall be used for wetlands that exhibit the characteristics of more than one (1) type. The field indicator's worksheet or a wetland report will be used by the Planning Director as well as the County's wetland maps and site investigations to determine the appropriate wetland classification.

Wetland Classification System	
Wetland Category	Wetland Type
A	Bogs
	Coastal Lagoon Wetlands
	Delta Estuary Wetlands
	Mature Forested Wetlands
B	Large Poned Wetlands
	Wetlands associated with a Type F Stream
	Wetland associated with a Bog or Coastal Lagoon or Delta Estuary
C	Other Estuarine Wetlands
	Resident Salmonid Stream Wetlands
	Mosaic Wetlands
D	Native Plant Wetlands
	Small Poned Wetlands
E	All Wetlands not otherwise classified

C. **Wetland buffers.** Generally, habitat and water quality are specific wetland attributes used to establish a wetland buffer. Special buffers have been established for bogs, coastal lagoon wetlands and wetlands located within the delta estuary. Buffers have also been established specifically for estuarine wetlands that are not coastal lagoon wetlands and delta estuary wetlands. These wetlands are either very rare, sensitive and/or are particularly important for anadromous fish. For all other wetlands both habitat and water quality buffers must be determined and the larger of the two (2) will be the buffer that applies. Water quality buffers shall be established based on the wetland's sensitivity to disturbance, wetland type and the land use intensity proposed by a development proposal. Habitat buffers shall be established using a habitat rating system and land use intensity. The habitat rating system shall allow a property owner and/or a wetlands professional to evaluate the character and relative quality of habitat located on his/her property for wetland dependent species. The habitat rating system is included in the wetland buffer worksheet contained in the wetland identification guide. This worksheet shall be submitted with all development proposals on a lot that contains or is affected by a wetland or wetland buffer. Buffers are set forth in Tables 1 through 4 below.

Buffer widths are presumed to be vegetated with native and/or non-native plant species that are adequate to protect wetland functions. If buffer vegetation is determined by the Planning Director to be inadequate to protect wetland functions, then if practical and reasonable, buffer vegetation shall be re-established, rehabilitated and/or enhanced so that it is adequate to protect wetland functions. Otherwise, expansion of the buffer may be required pursuant to this section.

1. Unless the activity or use is covered by section 17.02B.300 or section 17.02B.310, vegetated buffers shall be required as follows:
 - a. For regulated Category A, B, C and D wetlands less than 1,000 square feet in size and regulated Category E wetlands less than 5,000 square feet in size, the required buffer shall be fifteen (15) feet with a fifteen-foot setback for buildings and structures.
 - b. For Category A, B, C and D wetlands 1,000 square feet or larger in size and Category E wetlands 5,000 square feet or larger in size, the required buffer shall be as set forth in Tables 1 through 4.
 - c. A required wetland buffer shall not exceed 300 feet.
2. The applicable buffer can be determined using the following steps:
 - a. Step 1: Have the County establish the wetland type and the wetland size to determine whether a buffer is required.

- b. Step 2: Have the County determine the land use intensity of the development proposal and the wetland's contributing area.
- c. Step 3A: For wetlands regulated by this chapter that are under 1,000 square feet in size, use the fifteen-foot buffer plus fifteen-foot setback required under subsection 1.a. above.

Step 3B: For bogs, coastal lagoon wetlands, delta estuary wetlands and other estuarine wetlands, the required buffer can be determined from Table 1.

Step 3C: For all other wetland types, determine the habitat rating for the wetland. If the score is twenty-two (22) or higher, then use Table 2 to determine the required buffer. If the habitat rating is less than twenty-two (22), then go to step 4.

- d. Step 4: Determine whether the wetland has a surface water outlet and determine the slope gradient between the development proposal and the wetland.
- e. Step 5: Determine the applicable water quality buffer using Tables 3 and 4.
- f. Step 6: Determine whether any buffer modification standards are applicable.
- g. Step 7: Determine which buffer is larger. If the habitat buffer is larger then apply it to the entire wetland. If the water quality buffer is larger then apply it to the contributing area and apply a twenty-foot buffer to the non-contributing area.

- 3. Buffers are established in Table 1 for bogs, coastal lagoon wetlands, delta estuary wetlands and other estuarine wetlands.

Table 1: Special Case Buffers for Specific Wetlands Types				
Land Use Intensity	Bog	Coastal Lagoon Wetland	Delta Estuary Wetland	Other Estuarine Wetlands
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.

- 4. Habitat buffers for wetlands not covered by Table 1 shall be determined based on the score achieved through the County's habitat rating system. The wetland buffer worksheet contained in the wetland identification guide shall be submitted with all development proposals that are on land that contains or is affected by a

wetland or wetland buffer and will be used to assist the Planning Director in the determination of the applicable habitat buffer. Habitat buffers are established in Table 2.

Table 2: Habitat Buffers						
Land Use Inventory	Habitat Functions Score					
	Wetland Outlet	40 or higher	32-39	29-31	22-28	Less than 22
Low	Yes	125 ft.	75 ft.	75 ft.	75 ft.	Use Tables 3 and 4
	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.	

5. Water quality wetland buffers for wetlands that are not covered by Tables 1 or 2 are established in Table 3. For development proposals on lots that have a percent slope of five (5) percent or greater between the development proposal and the wetland, the water quality buffer from Table 3 will need to be adjusted using Table 4.
6. Visible evidence of an outlet is required to determine that a wetland has an outlet. If the presence of an outlet is unclear or uncertain, then the presumption will be that a wetland does not have an outlet.

Table 3: Water Quality Buffers						
Land Use Intensity	Wetland Category					
	Wetland Outlet	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.

* Use Table 1 for buffers for bogs, coastal lagoon wetlands and delta estuary wetlands

** Use Table 1 for buffers for other estuarine wetlands

7. For development proposals on lots that are sloped between the development proposal and the wetland, the water quality wetland buffer established in Table 3 shall be increased using the following multipliers:

Table 4: Slope Adjustment	
Slope Gradient	Additional Buffer Multiplier
5-14%	1.3
15-40%	1.4
>40%	1.5

8. Water quality buffers established in Table 3 and 4 shall apply only to a wetland's contributing area. For the non-contributing area of a wetland, the buffer shall be twenty (20) feet in width.
9. Except for mitigation banks, no buffers shall be required for voluntary wetland and wetland buffer improvement projects.
10. For wetlands regulated by this chapter, mitigation shall be required when the approved alteration of any wetland or wetland buffer cannot be restored.
11. Permissible maintenance activities for wetland buffers shall be specified in the approval conditions for a development proposal. Otherwise buffers shall remain undisturbed or, if re-established, rehabilitated, created or enhanced, in the condition established after completion of the approved activity.

D. Wetland buffer modification. After applying the critical area review criteria set forth in this section, the Planning Director shall have the authority to modify wetland buffers on a case-by-case basis.

1. A required wetland buffer may be reduced when a legally established road crosses a wetland buffer and the reduction will not adversely affect wetland functions as documented in a wetland report.
2. In lieu of a buffer reduction, buffer averaging may be approved when:
 - a. The total area contained in a buffer after averaging is not less than that which would be contained within the buffer if buffer averaging was not permitted; and
 - b. Buffer averaging will not adversely affect wetland functions as documented in a wetland report.
3. For a Category A and B wetland, a buffer modification under subsection 1. or 2. above shall not reduce the buffer to less than seventy-five (75) percent of the otherwise required buffer or thirty-five (35) feet, whichever is greater.

4. For a Category C, D and E wetland, a buffer modification shall not reduce the buffer to less than seventy-five (75) of the originally required buffer. An additional reduction, up to but not to exceed fifty (50) percent of the originally required buffer, may be granted through affirmative Planning Director decision, based on an evaluation of the Wetland Report for the following:
 - a. No additional impact on the wetland will occur; or
 - b. Other factors (such as slope, soil chemistry, soil structure, and/or plant community) indicate the proposed variable buffer width would result in more effectively addressing habitat fragmentation or protection of the wetland-dependent species; and
 - c. The buffer shall be enhanced with the planting of native shrubs.

In no case shall a buffer be reduced to less than twenty (20) feet.

5. A wetland buffer may be increased when:
 - a. The increase is needed to protect wetland functions; or
 - b. Buffer vegetation is inadequate to protect wetland functions and buffer re-establishment, rehabilitation or enhancement is not practical and reasonable; or
 - c. The wetland has a small contributing area; or
 - d. The wetland is a relict bog; or
 - e. For sloped lots, the sloped area between the development proposal and the wetland contains highly erodible soils.

(Ord. No. C-75-14 [PLG-006-14], Exh. B, 9-22-2014; Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017)

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17.02B.500 - Requirements

For general mitigation requirements see section 17.02B.080.

- A. Mitigation for individual projects may include a sequenced combination of the above measures as needed to achieve the most effective protection or compensatory mitigation for critical area functions.
- B. When a proposal will have an impact on a critical area or its buffer a mitigation plan shall be prepared.

- C. Mitigation plans shall be based on a scientifically valid assessment of critical area functions. Mitigation ratios shall be greater than 1:1 in spatial extent (area) when necessary to compensate for temporal losses, uncertainty of performance, and differences in functions and values. Mitigation may be on-site or off-site. For off-site mitigation to be accepted, the project proponent must demonstrate that greater function and value can be achieved off-site than on-site.
- D. Out-of-kind mitigation is not acceptable for impacts to priority habitats and species or wetlands, with the following exceptions:
 - 1. Protected habitats and species that are at greater risk can be substituted for impacted protected habitats and species; and
 - 2. In consultation with Washington Department of Fish and Wildlife and affected tribes, the Planning Director may consider off-site and/or out-of-kind mitigation where equal or better biological functions and values are provided. Protected habitats, and habitats of protected species, may be replaced at a level greater than the impacts of the project on those habitats and species.
 - 3. Out-of-kind replacement will best meet formally identified goals, such as replacement of historically diminished wetland types.
- E. Mitigation shall be completed concurrent with or within one (1) year following the alteration. An approved certificate of occupancy shall be contingent upon completion of such mitigation. Mitigation that requires more than three (3) years to reach replacement value shall include additional habitat value (over and above replacement value) equal to the loss through time. Construction of mitigation projects shall be timed to minimize impacts to plants and animals. The Planning Director may adjust timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).
- F. Mitigation, monitoring, and adaptive management plans must be developed by a qualified professional, unless at the applicant's request, the Planning Director agrees that small scale, easily implemented compensatory mitigation can be prescribed by the Planning Director. Such small scale compensatory mitigation may be prescribed by the Planning Director, where detailed plans are unnecessary for successful project implementation, and where ongoing monitoring is unnecessary. Mitigation, monitoring, and adaptive management plans shall be reviewed and approved by the Planning Director. For projects exempt from biological site assessment requirements under section 17.02B.400.A.2., no mitigation plan shall be required.
- G. Preparation of mitigation, monitoring, and adaptive management plans, and their review by the County, shall be at the applicant's expense. If review by a third party is necessary because of the complexity of the plans or apparent error, the Planning

Director may require advance payment of fees for this review based on the estimated review time.

- H. The mitigation site shall be protected in perpetuity. This protection shall be through conservation easement, deed restriction, donation to an approved conservation organization, or other legally binding method.
- I. Mitigation plan approval criteria. Approval of mitigation plans shall be based on conformance with the following criteria:
 - 1. The application includes the applicable items listed in section 17.02B.500.
 - 2. Mitigation is authorized or required by this Code.
 - 3. Proposed development is designed and located in such a way as to avoid adversely impacting the functions and values of critical areas, considering the best available science (as defined in WAC 365-195-905). If adverse impacts cannot be avoided, then they must be fully mitigated so that there will be no net loss of critical area functions and values, considering the best available science.
 - 4. Removal of noxious weeds or invasive species as part of a mitigation plan shall be consistent with chapter 8.28, as well as chapter 17.10 RCW and chapter 16-750 WAC.
 - 5. The mitigation plan shall be a written report that includes the following information:
 - a. A description of the anticipated impacts to the critical areas and the mitigating actions proposed and the purposes of the compensation measures, including the site selection criteria; identification of compensation goals; identification of resource functions; and dates for beginning and completion of site compensation construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area;
 - b. A review of the science supporting the proposed mitigation and a description of the report author's experience to date in restoring or creating the type of critical area proposed;
 - c. An analysis of the likelihood of success of the compensation projects;
 - d. The habitat or wetland functions and value is being replaced at a greater than 1:1 ratio where necessary to account for temporal losses or differences; and
 - f. Written specifications and descriptions of the mitigations proposed, such as:
 - i. The proposed construction sequence, timing, and duration;

- ii. Grading and excavation details;
- iii. Erosion and sediment control features;
- iv. A planting plan specifying plant species, quantities, locations, size, spacing, and density; and
- v. Measures to protect and maintain plants until established.

These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome.

- J. Recording of approved plan and notice to title. The County shall require the applicant to record a copy of the approved mitigation plan, along with a notice to title referencing the plan. The recorded notice shall describe the type of critical areas found on the property and any restrictions or conditions imposed by the Planning Director.
- K. In order to prevent a loss of critical area functions and values due to the failure of a mitigation plan, the Planning Director shall require monitoring for a period necessary to establish that performance standards have been met. The mitigation plan shall include monitoring elements to ensure certainty of success for the project's critical area functions and values. In the event of failure of a mitigation plan, the Planning Director may require the following additional actions or monitoring including:
 - 1. Contingency plan. A plan which complies with the requirements of section 17.03.260.I.1. shall be required by the Planning Director to outline restorative measures to be taken should the mitigation fail or only partially succeed and may require additional monitoring.
 - 2. Bonding. A performance bond or other security, if approved by the Planning Director, shall be required in an amount sufficient to enable the County to carry out the mitigation plan should the applicant fail to do so.

(Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017)

Editor's note— Ord. No. C-86-17 [PLG-009-17], Exh. A, adopted Aug. 15, 2017, repealed former § 17.02B.500 in its entirety and enacted new provisions to read as herein set out. Former § 17.02B.500 pertained to habitats and species of local importance nomination process, and derived from Ord. No. C-75-14 [PLG-006-14], Exh. B, adopted Sept. 22, 2014.

17.02B.510 - Wetlands.

A. Wetland mitigation standards.

1. **Wetland alterations.** No alteration of a Category A wetland is permitted unless the activity or use is covered by section 17.02B.300 and section 17.02B.310. Alteration of Category B, C, D and E wetlands may be permitted only after applying the review criteria set forth in section 17.02B.460.
2. **Mitigation.** Mitigation for approved wetland alterations that cannot be restored shall occur in the following order of preference:
 - a. Re-establishing wetlands on sites that were formerly wetlands. These sites commonly exist on soils classified as hydric by the NRCS;
 - b. Rehabilitating wetlands by restoring natural and/or historic wetland functions;
 - c. Creating or establishing wetlands on upland sites such as those consisting primarily of non-native, invasive plant species or to expand an existing wetland;
 - d. Enhancing degraded wetlands;
 - e. Providing a fee established by the County in lieu of on-site or off-site mitigation; or
 - f. Preserving, protecting or maintaining Category A, B, C or D wetlands that are under imminent threat of significant and undesirable ecological change. Provided that, preservation shall only be allowed on sites in the altered wetland's watershed; and when the Planning Director determines that the overall mitigation plan replaces the wetland functions lost due to the development proposal with improved wetland functions.
3. **Monitoring.** Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for a period less than five (5) years. The mitigation plan shall include monitoring elements to ensure certainty of success for the project's wetland area functions and values.
4. **Buffer alteration.** Compensatory mitigation for any approved wetland buffer alteration that cannot be restored as required by section 17.02B.460 shall be determined by the Planning Director on a case-by-case basis. Buffer mitigation may include any action that can achieve equal or improved wetland functions. When enhancement of the altered buffer is not practical or reasonable, mitigation preferences will otherwise be the same as for wetland mitigation.
5. Mitigation by re-establishing, rehabilitating, creating, enhancing or preserving wetlands or wetland buffers should be completed in advance of activities that will disturb wetlands whenever practical and reasonable and must be based on a mitigation plan approved by the Planning Director. If mitigation is not completed in advance, then it should be completed before completion of the approved

development proposal. Otherwise, mitigation shall be completed within one (1) year of the decision to require mitigation.

B. Wetland mitigation ratios.

1. Compensatory mitigation for approved wetland alterations shall be based on the wetland category, the type of mitigation activity proposed, and the magnitude of the alteration. Mitigation shall be determined according to the ratios provided in Table 5 below.

Table 5: Wetland Mitigation Ratios			
	Standard Mitigation Ratio*		
Wetland Category	Re-establishment or Creation	Rehabilitation	Enhancement
A**	6:1	10:1	20:1
B	3:1	6:1	12:1
C and D	2:1	4:1	8:1
E	1.5:1	2:1	4:1
* Ratio is the mitigation area: area of alteration			
** Alteration of a Category A wetland is allowed only for development proposals for activities or uses covered by section 17.02B.300 and section 17.02B.310C.			

2. Mitigation ratios for wetland preservation shall be determined by the Planning Director on a case-by-case basis. Generally, the mitigation ratio for preservation will be greater than 20:1 because preservation is the last priority mitigation option. However, preservation of a higher category wetland would allow the mitigation ratio to be reduced. A lower ratio may also be allowed when preservation is combined with other types of mitigation.
3. Unless the activity is voluntary, a site for a wetland that is re-established, rehabilitated, created, enhanced, or preserved shall have adequate room for the buffer required under this chapter.
4. The Planning Director shall have the authority to reduce the wetland mitigation ratios by up to forty (40) percent when the proposed mitigation:
 - a. Has a very high likelihood of success based on experience with similar mitigation projects; or
 - b. Will provide more significant wetland functions than the functions of the wetland being altered as documented in a wetland report.
5. Mitigation ratios for approved wetland buffer alterations shall be determined by the Planning Director on a case-by-case basis. Generally, the mitigation ratio

shall be at a 1:1 ratio but shall be established based on the nature and extent of the buffer intrusion and the wetland type and wetland functions. Mitigation ratios shall be greater than 1:1 in spatial extent (area) when necessary to compensate for temporal losses, uncertainty of performance, and differences in functions and values.

6. The Planning Director shall also determine, on a case-by-case basis, mitigation ratios for temporary alterations of wetlands or wetland buffers and the conversion of a wetland from one (1) wetland type to another. Generally, these ratios will be one-quarter ($\frac{1}{4}$) (temporary alteration) to one-half ($\frac{1}{2}$) (conversion to another wetland type) of the ratios for permanent alterations.

C. **Wetland mitigation plan.** Unless a fee in-lieu of mitigation is allowed, wetland mitigation shall be based on a specific plan. If requested by an applicant, the County shall prepare the mitigation plan for a single family dwelling or accessory structure including development proposals reviewed under section 17.02B.310. Otherwise, the mitigation plan shall be prepared by the County or a wetland professional. Typically, a wetland mitigation plan shall include the following:

1. The plan shall be based on applicable portions of the Wetland Mitigation in Washington State - Part 2: Developing Mitigation Plans (Version 1) (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised) or other appropriate guidance document.
2. Typically, if a wetland report is prepared, and an alteration is proposed or buffer modification requested, then the mitigation plan shall be included with the wetland report. The plan shall contain sufficient information to demonstrate that the proposed activities are practical and reasonable, ecologically sustainable and likely to succeed. Unless the Planning Director establishes the scope and content of a mitigation plan, the plan shall include:
 - a. A detailed description of the proposed mitigation and the rationale for the selection of the mitigation site. If off-site mitigation is proposed, an explanation of why on-site mitigation is not practical and reasonable;
 - b. An assessment of existing site conditions for the mitigation site including vegetation type, structure and composition; topography, hydrology and soil conditions; existing wetland functions if any; and for off-site mitigation, an estimate of future conditions of the site should mitigation not occur;
 - c. A grading and planting plan showing proposed post-construction topography hydrologic patterns, spacing and distribution of plants, species, actions to provide or improve habitat, size and type of proposed plant stock, irrigation and other information that is relevant to the proposed mitigation;

- d. A management plan that includes mitigation goals, benchmarks and review criteria; site treatment measures for the maintenance of the mitigation; and legal documents to be recorded by the County after approval of the plan;
 - e. A monitoring plan that specifies the standards and time period that will be used to monitor whether the mitigation is successful; and
 - f. A contingency plan that establishes the actions that will be taken should monitoring identify that the mitigation is not achieving the established benchmarks.
3. All mitigation projects shall be monitored, typically by the applicant, for a time period necessary to establish that mitigation goals and benchmarks have been met. The monitoring time period shall be established based on the type, complexity and uncertainty of the proposed mitigation. Five (5) years of monitoring will usually be the minimum required to establish whether mitigation has successfully achieved equal or improved wetland functions. Ten (10) years may be typical for re-establishment, rehabilitation or creation.
4. Reports shall be submitted at a frequency established by the Planning Director for the monitoring time period to document the achievement of mitigation goals and benchmarks and recommended actions relating to the mitigation.

D. Off-site Mitigation. When off-site mitigation for the alteration of a wetland is authorized, the Planning Director shall give first priority to locations within the same contributing area and second priority to locations within the same watershed. The Watershed Characterization Maps priority areas for restoration and protection (produced as a part of the Existing Conditions Report for the 2016 Periodic Update) will be considered as a part of evaluating priority areas for off-site mitigation. Locations outside the watershed may be considered only if the Planning Director determines that first and second priority locations are not practical and reasonable for off-site mitigation. Mitigation banks may also be established to allow off-site mitigation to compensate for alteration of a wetland or wetland buffers. Specific standards and procedures for establishing a wetland mitigation bank are in subsection F.

E. The Department may also develop a program for wetlands and streams to allow payment of a fee in lieu of providing on-site or off-site mitigation. The fee program should be available for use when on-site or off-site mitigation is not practical and reasonable. A fee in lieu of on-site or off-site mitigation is also appropriate when greater ecological benefits can be achieved through the use of fees. The mitigation fee program shall include:

- 1. The specific circumstances when payment of a mitigation fee will be permitted;
- 2. The structure or method for calculating the amount of the mitigation fee; and
- 3. The specific procedures for establishing locations and wetland categories or types where or for which mitigation fees may be used.

F. **Wetland mitigation banks.** The County may approve mitigation in advance of development proposals through an approved mitigation bank. Mitigation banks may be approved by the County when:

1. The bank is certified by the Washington State Department of Ecology;
2. The Planning Director determines that the wetland mitigation bank provides appropriate compensation for the authorized alteration;
3. The proposed use of credits is consistent with the terms and conditions of the bank's certification;
4. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification; and
5. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, the service area of the bank may include portions of more than one (1) adjacent drainage basin for specific wetland functions.
6. The Watershed Characterization Maps (produced as a part of the Existing Conditions Report for the 2016 Periodic Update) priority areas for restoration and protection will be considered as a part of evaluating and identifying priority areas for mitigation bank.

(Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017)

Editor's note— Ord. No. C-86-17 [PLG-009-17], Exh. A, adopted Aug. 15, 2017, repealed former § 17.02B.510 in its entirety and enacted new provisions to read as herein set out. Former § 17.02B.510 pertained to designated habitats and species of local importance, and derived from Ord. No. C-75-14 [PLG-006-14], Exh. B, adopted Sept. 22, 2014; Ord. No. C-71-16 [PLG-008-16], § II(Exh. A), adopted June 23, 2016.

Monitoring and Adaptive Management

17.02B.520 - Surface Water Quality.

A. **General.** Monitoring surface water quality is important for determining whether exemptions and uses permitted under this chapter, including existing and on-going agricultural activities, are adversely affecting critical areas as evidenced by exceedances in water quality standards. Commencing in 2006, the Planning Director shall implement an interdepartmental surface water quality monitoring program and shall report on monitoring to the public, state agencies and the Board of Island

County Commissioners (BOCC) as part of the annual comprehensive plan review process. The foundation of the monitoring program is based upon the DRAFT Water Quality Data Synthesis and Recommendations for a Surface Freshwater Monitoring Program, dated January 18, 2006 by Dr. Paul Adamus and Island County (the Adamus Report). Baseline monitoring, as recommended in the Adamus Report, was conducted between 2006 and 2016. Thus having collected sufficient baseline monitoring data, the water quality monitoring program shall shift to trend monitoring and source identification as recommended in the Adamus Report.

- B. **Purpose.** The primary focus of the County's surface water quality monitoring program is to detect and respond to potential sources of contamination of surface water that are adversely affecting critical areas as evidenced by exceedances in water quality standards. The sources of concern include, but are not limited to, non-point source contaminants from uses allowed in the rural area of the County.
- C. **Guiding principles.** The following principles shall be used to guide implementation of the surface water quality monitoring program and adaptive management actions that are used by the County to address adverse effects to designated critical areas as evidenced by exceedances in water quality standards.
 1. The County will carry out a surface water quality monitoring plan that focuses on trend monitoring and source identification. The plan will contain a detailed description of program goals, monitoring, and reporting methods.
 2. The County will annually review the monitoring plan, revise as needed, and reprioritize monitored watersheds.
 3. Water quality results will be reported interdepartmentally to inform applicable adaptive management decisions. Water quality data will also be reported to the public, BOCC and state and federal agencies as needed.
 4. Water quality data may trigger compliance assessment and/or source identification when data reliably documents ongoing exceedances of surface water standards.
 5. Monitoring shall utilize the best available "peer reviewed" protocols for sampling, generally including those recommended by the Washington State Department of Ecology and the United States Environmental Protection Agency.
 6. Except when authorized pursuant to chapter 17.03.260.A., access to private property to conduct baseline monitoring and source identification shall only occur if the property owner voluntarily consents in writing to such access.
 7. All property owners must comply with state water quality standards and the Washington State Department of Ecology is charged with the responsibility to

initiate enforcement actions when such actions are required under state law. The County will use adopted water quality standards to identify exceedances in accordance with WAC 173-201A and is responsible for addressing adaptive management actions that may be required under this chapter to ensure that agricultural best management practices are effective.

8. The monitoring program shall be conducted in a manner that encourages the involvement of property owners and voluntary compliance.

D. **Baseline monitoring.** The goal of the County is to establish baseline surface water quality conditions Countywide within five (5) years of the commencement of the water quality monitoring program has been completed. The County will continue to monitor baseline sites, to assist in identifying areas of exceedances of state water quality standards. 1. Monitored parameters may be changed by the BOCC based on data from baseline monitoring; changed standards of state or federal agencies; or the need to assess the potential adverse effect of unlisted parameters on critical areas.

E. **Source identification.**

1. Generally, source identification will be initiated after monitoring has identified parameters that exceed County adopted water quality standards.
2. Types of source identification shall include in order of typical use:
 - a. Increase the compilation and analysis of existing data;
 - b. Increase the number and changing the location of monitoring sites;
 - c. Increase the frequency and changing the timing of monitoring; and
 - d. When the above actions prove insufficient, utilize new monitoring methods such as DNA analysis, optical brighteners, tracing, or other specialized methods.

F. **Water quality standards, and trends.**

1. Water quality standards are specific measures for a monitoring parameter that, if exceeded, will require immediate action by the County to identify the source of the contaminant. Compliance assessment will typically be the first step taken after an exceedance is identified. Source identification will usually be the second step.
2. Water quality trends are established through monitoring a parameter over time. Typically, data are assessed to determine whether a trend exists in a particular watershed after baseline monitoring in that watershed has been completed. Not all monitoring parameters will have adopted trends. A worsening or improving

trend may serve as a basis for initiating source identification and/or adaptive management actions, while an improving trend may serve as a basis to reduce regulations.

3. The water quality standards for perennial streams set forth by the Washington State Department of Ecology in WAC 173-201A, as amended, shall be used to guide implementation of the water quality monitoring program.

G. **Adaptive management.** Monitoring provides information used by the County to assist in determining the effectiveness of the County's critical area regulations and BMPs applicable to existing and ongoing agriculture. The adaptive actions that may be triggered could be to make County regulations and BMPs more stringent, less stringent or leave them unchanged. All three (3) outcomes are possible. Adaptive management actions to address adverse effects to designated critical areas as evidenced by exceedances of water quality standards shall conform to these guiding principles:

1. Adaptive actions initiated by the County to address adverse effects to designated critical areas as evidenced by exceedances of water quality standards when the source of the contamination cannot be identified shall usually be through legislative changes in critical area regulations typically applied county-wide and applicable to new and not existing uses.
2. When specifically authorized by this chapter, the Planning Director may order a property owner(s) to modify BMPs being used by existing and ongoing agriculture only when it has been determined through source identification that site- or area- specific management practices need to be modified to address adverse effects to designated critical areas as evidenced by water quality exceedances.
3. Any order directing that BMPs be modified may be appealed to the hearing examiner by a property owner that is required to modify management practices. Appeals will be governed by this chapter and chapter 16.19.
4. Enhancement or restoration projects initiated by the County to address adverse effects to designated critical areas as evidenced by water quality contamination from existing uses shall conform to the conditions established in the multi-species salmon recovery plan adopted by the Board of Commissioners in May 2005.
5. Adaptive management shall follow the steps set forth below:
 - a. Step 1—Compliance assessment/source identification. Compliance assessment is the first adaptive management action the County will initiate after water quality monitoring indicates exceedance(s) of a standard(s). The

- purpose of the assessment is to determine whether there is compliance with applicable critical area regulations and/or BMPs are being used. When compliance assessment shows that required BMPs have been implemented and are in conformance with critical area requirements, then source identification monitoring may also be initiated to determine the source(s) of the exceedance(s).
- b. Step 2—Education. If the County determines that an exceedance in a water quality standard is, at least in part, attributable to non-compliance with applicable critical area regulations or failure to implement BMPs, the County will initiate actions to secure voluntary compliance.
 - c. Step 3—Enforcement. If reasonable efforts to achieve voluntary compliance are not successful, then the County will initiate enforcement actions under sections 17.02B.110 and 17.03.260.
 - d. Step 4—Site specific change in BMPs. If specifically authorized by section 17.02B.400-490, the Planning Director may require a property owner or owners to modify BMPs applicable to existing and ongoing agriculture, to on-site septic systems and other residential uses.
 - i. This step may be taken when the County determines that specific site conditions on a specific property require a change in BMPs.
 - ii. This step shall be taken only when adverse effects to designated critical areas are evidenced by exceedances of adopted water quality standards. Any action to initiate site or area specific modification of Ag BMPs will be based on recommendations from conservation districts, NRCS and/or a certified farm planner.
 - iii. This step shall be limited to modifications of BMPs that have been required by this chapter.
 - iv. An order of the Planning Director to modify BMPs may be appealed to the hearing examiner by the affected party and, if appealed, the County shall have the burden of demonstrating that the change(s) in BMP(s) is needed to address the exceedance in adopted water quality standards. Appeals will be governed by chapter 16.19.
 - e. Step 5—Modification of critical area regulations. This step shall be initiated when monitoring indicates adverse effects to designated critical areas as evidenced by water quality standards and/or thresholds are being exceeded and a change in regulations that are applicable County-wide is needed to address the exceedance. Modifications may also be made if monitoring

indicates that less stringent standards are appropriate. Any modification of critical area regulations will be based on best available science.

H. **Reporting.** The County will produce annual reports and make them available to the public and state agencies. These reports will include all baseline monitoring data, summary statistics, an assessment of the accuracy and completeness of the data, and a description of data collection issues, if any, identified during the reporting period as well as the following additional information:

1. A description of all compliance assessments and source identification actions taken during the reporting period.
2. A description of educational outreach actions as well as enforcement actions taken during the reporting period.
3. A description of any actions taken to modify BMPs on a site or area specific basis.
4. A discussion of watershed monitoring priorities for the next reporting period.

(Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017; Ord. No. C-55-18 [PLG-002-18], Exh. A, 5-8-2018)

17.02B.530 - Wetlands.

Monitoring is an important assessment of the County's CAO ability in achieving the goals and policies set forth in the Island County Comprehensive Plan for Critical Areas. In 2006, the County initiated a comprehensive water quality monitoring program focused on lakes and streams. This program is set forth in this chapter.

In addition to monitoring water quality for surface waters, the County has a parallel monitoring program for wetlands. The wetlands monitoring program has two (2) forms. First, a multi-year, science-based monitoring program to measure water quality in the County's wetlands. In addition to measuring water quality, the County monitors changes in wetland vegetation. Together, water quality and wetland vegetation is used to track changes in the health of wetlands located in Island County. These data will augment and expand on the work completed in 2006 by Dr. Paul Adamus and be documented in *Wetlands of Island County, Washington - Profile of Characteristics, Functions and Health* published by the County in August, 2006.

A. **Purpose.** The primary purpose of the County's wetland monitoring program is to determine the overall health of a wetland. To do so, the County tracks both chemical indicators through measuring water quality and biological indicators by

sampling wetland vegetation. These measures are used to evaluate the effectiveness of County regulations.

- B. Guiding principles.** The following principles are used to guide the implementation of the wetland monitoring program and any adaptive management actions that are used by the County to address a decline in wetland health, should a decline, which is per se evidence of adverse effects to wetland health, be identified through the monitoring program.
1. Vegetation monitoring as well as water quality monitoring shall be conducted in wetlands to which the County has been granted access, and which represent a range of surrounding land uses and buffer widths. Wetland vegetation monitoring will focus on measuring changes in the species composition and the surface area of herbaceous vegetation. Water quality monitoring will track change in water quality parameters. For a given wetland, change will be analyzed at five-year intervals. Changes in overall cover of woody vegetation will be interpreted from aerial imagery.
 2. The identification of the source or sources of the decline in wetland health shall generally follow after commencing monitoring. However, existing data may trigger compliance assessment and/or source identification when the existing data reliably documents an on-going decline.
 3. Both water quality and vegetation monitoring shall utilize the best available "peer reviewed" protocols for sampling and measuring contaminants and changes in wetland vegetation.
 4. Except when authorized pursuant to chapter 17.03.260.A, access to private property to conduct baseline monitoring or source identification shall only occur if the property owner voluntarily consents in writing to such access.
 5. If baseline monitoring identifies a significant elevation of water quality contaminants or more than a ten-percent increase in the percent cover of non-native herbaceous vegetation or more than a ten-percent change in species richness, the first step initiated by the County will typically be compliance assessment to determine whether a source or sources of the contamination or plant community change can be readily identified. Subsequently, the County may initiate source identification.
 6. The monitoring program shall be conducted in a manner that encourages the involvement of property owners and voluntary compliance. Educational outreach will be the first action taken by the County after compliance assessment or source identification determines that an exceedance is attributable to a specific source or sources.

7. Adaptive actions initiated by the County to address unidentifiable sources of contamination and spread of non-native plants, which is per se evidence of adverse effects to wetland health, shall usually be through legislative changes in critical area regulations typically applied County-wide and applicable to new and not existing uses.

C. **Baseline monitoring.** The goal of the County is to establish baseline conditions County-wide within five (5) years of the commencement of the wetland monitoring program.

1. Monitoring parameters used by the County to establish baseline conditions shall include:
 - a. Dissolved oxygen;
 - b. Fecal coliform;
 - c. Nitrate;
 - d. pH;
 - e. Phosphorus;
 - f. Temperature;
 - g. Turbidity;
 - h. Conductivity;
 - i. Hardness; and
 - j. Wetland vegetation.
2. The parameters listed above may be changed by the Board of Island County Commissioners from time to time based on: data from baseline monitoring; changed standards of state or federal agencies; or the need to assess the potential adverse effect of unlisted parameters on wetlands.

D. **Source identification.**

1. Generally, source identification is initiated only after baseline monitoring has identified contaminants that exceed County adopted water quality standards or thresholds or wetland vegetation monitoring shows signs of significantly diminished health of a wetland.
2. Before baseline monitoring is completed, the County may initiate source identification in some watersheds, based on existing data.
3. Types of source identification shall include in order of typical use:

- a. Increase the compilation and analysis of existing data;
 - b. Increase the number of monitoring sites including wetland vegetation monitoring sites and/or change the location of monitoring sites;
 - c. Increase the frequency of water quality monitoring or change the frequency of wetland vegetation monitoring; and
 - d. When the above actions prove insufficient, implement different monitoring methods such as analysis of DNA, optical brighteners or other specialized tracing methods.
- E. **Monitoring trends.** Unlike surface water quality in lakes and streams, there is no general concurrence on appropriate standards or thresholds for wetlands. Therefore, the County's monitoring focus is on establishing a baseline and trends. These trends in both water quality and vegetation are established through monitoring a parameter over time.
- F. **Adaptive management.** Baseline monitoring and source identification provide information used by the County to assist in determining the effectiveness of the County's wetland regulations. The adaptive actions that may be triggered could be to make County regulations more stringent, less stringent or leave them unchanged. All three (3) outcomes are possible. Adaptive management actions to address worsening trends, which is per se evidence of adverse effects to wetland health shall conform to the guiding principles set forth in subsection B. above and shall follow the steps set forth below:
- 1. Step 1—Compliance assessment/source identification. Compliance assessment is the first adaptive management action the County will initiate after a decline in wetland health has been detected. The purpose of the assessment is to determine whether there is compliance with applicable critical area regulations. When compliance assessment shows conformance with critical area requirements, then source identification will be initiated to determine the source or sources of the worsening trend.
 - 2. Step 2—Education. If the County determines that decline in wetland health is, at least in part, attributable to non-compliance with applicable critical area regulations, the County will initiate actions to secure voluntary compliance.
 - 3. Step 3—Enforcement. If reasonable efforts to achieve voluntary compliance are not successful, then the County will initiate enforcement actions under chapter 17.03.
 - 4. Step 4—Modification of critical area regulations. This step shall be initiated when monitoring shows signs of declining wetland health attributable to County

regulation; and, a change in regulations that are applicable County-wide is needed to address the decline in wetland health. Any modification of critical area regulations will be made after considering best available science.

G. Wetland monitoring reports. The County shall produce annual reports on wetland monitoring as well as on activities and decisions relating to wetlands. The wetland monitoring reports will be similar in format to the water quality monitoring reports and be made available to state agencies and the public. These reports will include all baseline monitoring data, summary statistics, an assessment of the accuracy and completeness of the data, and a description of data collection issues, if any, identified during the reporting period as well as the following additional information:

1. A description of any identified trends and all compliance assessments and source identification actions taken during the reporting period.
2. A description of educational outreach actions as well as enforcement actions taken during the reporting period.
3. A discussion of wetland monitoring priorities for the next reporting period.
4. A description of approved development proposals that required a wetland alteration, including a description of wetland type, category, buffer, mitigation and monitoring.
5. A review of the application of permitted alterations contained in section 17.02B.310.
6. A review of activities and uses that are exempt under section 17.02B.300.
7. A review of land use intensity determinations.
8. A description of enforcement actions relating to wetlands.
9. A description of any buffer modification decisions.
10. A description of requested alterations, the action taken on the request and the reasons that support the action.
11. A summary characterization of wetland health and the effectiveness of CAO regulations in implementing comprehensive plan goals and policies for wetlands.

(Ord. No. C-86-17 [PLG-009-17], Exh. A, 8-15-2017; Ord. No. C-55-18 [PLG-002-18], Exh. A, 5-8-2018)