

Section 1. San Juan County Code (SJCC) Chapter 18.20 (Definitions) shall be modified as follows:

Section 18.20.020. “B” Definitions.

“Best Available Science” means current scientific information used in the process to designate, protect, or restore Critical Areas, that is derived from a valid scientific process as defined by WAC 365-195-900 through 925. Examples of best available science are included in *Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas* published by the Washington State Department of Community, Trade and Economic Development.

“Best management practices (BMPs)” means systems of practices, schedules of activities, prohibitions, maintenance procedures, and management measures that prevent or minimize adverse impacts to the environment. Examples include practices that:

1. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, or sediment;
2. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
3. Protect trees, vegetation and soils designated to be retained during and following site construction and use native plant species appropriate to the site for re-vegetation of disturbed areas; and
4. Provide standards for proper use of chemical herbicides within Critical Areas.

“Bog” means a low nutrient, acidic wetland with organic soils, which is sensitive to disturbance and impossible to re-create through compensatory mitigation.

“Buffer zone, strip, or area” means an area designed to separate incompatible uses or activities; an area that is contiguous to and protects a critical area, which is necessary for the continued maintenance, functioning and/or structural stability of that critical area.

Section 18.20.030, “C” Definitions.

“Code” means the San Juan County Code.

“Critical Aquifer Recharge Area” means areas that are determined to have a critical recharging effect on aquifers used as a source for potable water, and are vulnerable to contamination from recharge.

“Critical areas” means geologically hazardous areas frequently flooded areas, critical aquifer recharge areas, wetlands, and fish and wildlife conservation areas, all as defined in this chapter and regulated in SJCC 18.30.110 through 18.30.160.

“Critical Area Report” means a report which characterizes a Critical Area and presents a plan or recommendations for protecting the area. Critical Area Reports include geotechnical reports and habitat management plans.

Section 18.20.040. “D” Definitions.

“Department” means the San Juan County Community Development and Planning Department.

“Development” means the division of a parcel into two or more parcels; the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any grading, excavation, mining, landfill; or any extension of the use of land. (See also “shoreline development.”)

“Director” means the Director of the San Juan County Community Development and Planning Department or their designee.

Section 18.20.060. “F” Definitions.

“Functions and Values” means the beneficial roles served by critical areas including, but not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance and attenuation; ground water recharge and discharge; erosion control; wave attenuation; protection from hazards; historical, archaeological, and aesthetic value protection; educational opportunities; and recreation.

Section 18.20.070. “G” Definitions.

“Growth Management Act” means RCW 36.70A and 36.70B, as amended.

Section 18.20.080. “H” Definitions.

“Hazardous Substance” means any liquid, solid, gas or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in Chapter 173-303-090 or 173-303-100 WAC.

“Hazard Tree” means . . .

Section 18.20.090. “I” Definitions.

“In-Kind Compensation” means to replace critical areas with substitute areas whose characteristics and functions closely approximate those destroyed or degraded by a regulated activity.

Section 18.20.140. “N” Definitions.

“Native Vegetation” means plant species that are indigenous to the area in question.

Section 18.20.160 “P” Definitions.

“Project Area” means all areas within fifty (50) feet of the area proposed to be disturbed, altered, or used by the proposed activity or the construction of any proposed structures. When the action binds the land, such as a subdivision, short subdivision, binding site plan, planned unit development, or rezone, the project area shall include the entire parcel, at a minimum.

“Provisional Use” means uses allowed subject to the applicable development standards (SJCC Chapter 18.60), performance standards unique to the proposed use (SJCC Chapter 18.40, and requirements for critical areas (SJCC Chapter 18.30.110-160). SJCC Chapter 18.80.080 outlines permit procedures for provisional uses.

Section 18.20.170. “Q” Definitions.

“Qualified Professional” means a person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant Critical Area subject in accordance with WAC 365-195-905. A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology, or related field, and have at least five years of related work experience.

1. A qualified professional for wetlands must be a professional wetland scientist with at least two years of full-time work experience as a wetlands professional, including delineating wetlands using the state or federal manuals, preparing wetlands reports, conducting function assessments, and developing and implementing mitigation plans.
2. A qualified professional for habitat must have a degree in biology or a related degree and professional experience related to the subject species.
3. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.
4. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.

Section 18.20.180. “R” Definitions.

“Riparian Habitat” means areas adjacent to aquatic systems that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other.

Section 18.20.190. “S” Definitions.

“Significant tree” means . . .

Section 18.20.230. “W” Definitions.

“Wetland” means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of 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 may include artificial wetlands intentionally created from non-wetland areas to mitigate the loss of wetlands.

“Wetland alteration” means any human-induced action which impacts the existing condition of a wetland or its buffer. Alterations include but are not limited to: grading; filling; dredging; draining; channelizing; installing drainage tiles; cutting, pruning, limbing or topping, clearing, relocating, planting or removing vegetation; applying herbicides or pesticides or any hazardous or toxic substance; discharging pollutants excepting stormwater; grazing domestic animals; paving, construction, application of gravel; modifying for surface water management purposes; or any other human activity that impacts the existing vegetation, hydrology, wildlife or wildlife habitat. Alteration does not include walking, passive recreation, fishing, or other similar activities.

~~**“Wetland buffer”** means the area immediately adjoining and contiguous with a wetland. See “buffer zone, strip or area”.~~

“Wetland compensation projects” means projects specifically designed to replace a loss of a wetland or its buffer induced by a development action. (See “wetlands compensatory mitigation.”)

“Wetland compensatory mitigation” means the action of replacing project-induced losses or impacts on a wetland and its buffer. (See “off-site compensation”, “on-site compensation”, “wetland, in-kind compensation” and “out-of-kind compensation, wetland.”)

“Wetland creation” means the action performed to intentionally establish a wetland or a portion of a wetland where one did not formerly exist.

“Wetland delineation” means the technical process of determining the edge of the wetland in the field.

“Wetland edge” means the boundary of a wetland as identified using the required wetland delineation procedure.

“Wetland, emergent” means a regulated wetland, or portion thereof, with at least 30 percent of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

“Wetland enhancement” means alteration of an existing wetland or habitat to improve or increase its characteristics and processes without degrading other existing functions. Enhancements are to be distinguished from wetland or habitat creation or restoration projects.

“Wetland, forested” means a regulated wetland, or portion thereof, with at least 20 percent of the surface area covered by woody vegetation greater than 20 feet in height.

~~**“Wetland functions and values”** means the beneficial roles performed by wetlands include, but are not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance and attenuation; groundwater recharge and discharge; erosion control; wave attenuation; historical and archaeological and aesthetic value; and recreation. See “functions and values”.~~

~~**“Wetland, in-kind compensation”** means the replacement of a wetland with a substitute wetland whose characteristics closely approximate those destroyed or degraded by a regulated activity. (See “off site compensation,” “on site compensation,” “wetland, compensatory mitigation” and “out of kind compensation, wetland.”) See “in-kind compensation”.~~

“Wetland, isolated” means those regulated wetlands which:

1. Are outside of and not contiguous to any 100-year floodplain of a lake, river, or stream;
2. Have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water or other wetland; and
3. Have no surface water connection to a lake, river, or stream during any part of the year.

“Wetland, maintenance and repair” means activities that change the size or scope of a use or structure beyond its original nature; or which drain, dredge, fill, flood, or otherwise alter additional regulated environmentally sensitive areas.

“Wetland Mitigation Bank” means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved expressly for the purpose of providing advance mitigation to compensate for future, permitted impacts to similar resources.

“Wetland, regulated” means a wetland that meets the criteria of SJCC 18.30.150(B) and Table 3.3 in SJCC 18.30.150. However, a wetland that does not meet the criteria in Table 3.3 may still be regulated under the federal Clean Water Act.

“Wetland restoration” means the actions performed to reestablish a wetland in an area which was historically wetland but which does not now provide or contain the necessary functional characteristics.

Section 2. Throughout SJCC Title 16 and Title 18, the term “environmentally sensitive area” and “ESA” shall be replaced with the term “Critical Area”.

Section 3. SJCC Section 18.30.110 (Critical Areas) shall be amended as follows:

18.30.110 Critical Areas.

A. Purpose. The regulations in this Chapter are adopted to protect the functions and values of ecologically sensitive and/or hazardous Critical Areas in accordance with the Best Available Science; to protect people, property and natural ecosystems; to ensure there is no net loss of protected species, habitats and in the shoreline, ecological functions and processes per WAC 173-26-221(2)(b)(iv); and to implement the goals, policies and requirements of the Comprehensive Plan and the Washington Growth Management Act.

~~**A. Purpose.** The critical areas overlay district is adopted to implement the policies of the Comprehensive Plan for the protection of critical areas. The purpose is to protect the functions and values of critical areas and to protect people, public and private property, and natural ecosystems. There are five types of critical areas as defined in SJCC 18.30.120 through 18.30.160:~~

- ~~1. Geologically hazardous areas.~~
- ~~2. Frequently flooded areas.~~
- ~~3. Critical aquifer recharge areas.~~
- ~~4. Wetlands.~~
- ~~5. Fish and wildlife habitat areas.~~

B. Applicability. There are five types of Critical Areas regulated by this chapter:

1. Geologically hazardous areas as defined in SJCC 18.30.120;
2. Frequently flooded areas as defined in SJCC 18.30.130;
3. Critical aquifer recharge areas as defined in SJCC 18.30.140;
4. Wetlands as defined in SJCC 18.30.150;
5. Fish and wildlife habitat conservation areas as defined in SJCC 18.30.160.

The Critical Area regulations (SJCC 18.30.110-160) apply to land use and development in and within 300 feet of Critical Areas as defined in this Code. All areas within the County meeting the definition of a Critical Area are hereby designated Critical Areas. The approximate location and extent of these areas are shown on maps adopted by reference or included in this chapter, however conditions in the field control because the maps do not include the location of all Critical Areas. It is the actual presence of Critical Areas meeting the definitions in this chapter that trigger the requirements of this chapter, whether or not the area is identified on a map.

These regulations apply as an overlay, in addition to other County requirements. If there is overlap between types of Critical Areas, or conflict between the requirements of this chapter and other sections of this code, the most restrictive requirement providing the most protection for Critical Areas shall apply. No permit involving a Critical Area may be approved unless it is in compliance with this chapter.

~~**B. Applicability.** This overlay district provides regulations for land use and development in and within 300 feet of critical areas.~~

~~Any land use or development activity which is subject to a development permit or approval under this code may be undertaken on land located within or containing a Critical Area or its buffer only if the provisions of this section are met. The appendices are incorporated herein by reference. A copy is on file at the auditor's office and planning department.~~

~~**C. Allowable Uses.** All uses shall be subject to requirements specified in Tables 3.1 and 3.2 in SJCC 18.30.030 and 18.30.040 for the underlying district, unless otherwise specified in this code.~~

C. General Exemptions. The following uses and activities are exempt from the provisions of the Critical Area regulations in this chapter (SJCC sections 18.30.110-160).

1. Emergencies. Those activities necessary to prevent an imminent threat to public health, safety, or the environment, or to public or private property, and that require remedial or preventive action in a time frame too short to allow for compliance with the requirements of this chapter. Within seven days of the emergency, the person or agency undertaking the action shall report the action and any impacts to Critical Areas to the Director. The Director may require submittal of a Critical Area Report to guide restoration or mitigation of these impacts. Final approval of the report, and any required restoration or mitigation, shall be in accordance with provisions of this chapter.
2. Operation, maintenance, repair or remodel of existing structures, facilities, infrastructure, utilities, sewage disposal systems, water systems, public or private roads, driveways, improved areas, vegetation, dikes, levees, or drainage systems, if the activity does not further alter or increase the impact to, or encroach further within a Critical Area or buffer, and there is no increased risk to life or property. Operation and maintenance includes removal of noxious weeds and vegetation management performed in accordance with best management practices (BMPs), provided that such management actions are part of regular and ongoing maintenance, do not expand further into the Critical Area, are not the result of an expansion of a structure or utility, and do not directly impact species or habitat protected under this chapter.
3. Forest Practices. Forest practices regulated and conducted in accordance with the provisions of RCW Chapter 76.09 and WAC Title 222 (forest practices regulations), except for conversions of land to non-forestry use regulated under SJCC 18.40.120.
4. Installation of navigation aids and boundary markers.
5. Site investigative work associated with land use applications, such as surveys, soil borings and test holes, provided that Critical Areas are protected and disturbed areas are immediately restored.

Staff note: Revisit this section after the standards for each section are developed.

D. General Exemptions. ~~The following uses and activities are exempt from the provisions of this section; provided, that they are otherwise consistent with other sections in this code:~~

- ~~1. Emergencies that threaten the public health, safety, and welfare. An emergency is an unanticipated and imminent threat to the public health or safety or to the environment which requires immediate action within a period of time too short to allow full compliance with this code.~~
- ~~2. Routine maintenance and repair of existing structures, utilities, sewage disposal systems, water systems, drainage facilities, ponds, public and private roads, and driveways.~~
- ~~3. Installation, construction, replacement, or modification of (a) electrical lines or electrical facilities; (b) telecommunication lines; or (c) water and sewer distribution lines within private or public rights of way; provided, that a prior written statement of exemption is obtained from the administrator.~~
- ~~4. Establishment and routine maintenance and repair of lawns, landscaping, gardens, orchards, and fences accessory to a single family residential use; provided, that where a regulated wetland or its buffer is present the provisions of SJCC 18.30.150, Wetlands, shall apply.~~
- ~~5. Removal of hazardous, diseased, or dead trees and vegetation and, when necessary, measures to control a fire or halt the spread of disease or damaging insects.~~
- ~~6. Land divisions exempt from the land division requirements as specified in SJCC 18.70.010(C).~~

D. Reasonable Use Exception. The provisions of this section apply only to lots legally created prior to _____ (the effective date of this ordinance) Lots created after the effective date of this ordinance are not eligible for a reasonable use exception because they should have been created with building and driveway sites that conform with Critical Area protection requirements.

For pre-existing lots, legally created lots, if the application of Critical Area regulations would deny all reasonable economic use of the property, the owner may apply for a “Reasonable Use” exception pursuant to this section.

1. Exception Request and Review Process. An application for a reasonable use exception shall be made to the Department and shall include the applicable items listed in SJCC Section 18.80.020.C (Project Permit Applications-Forms); an appropriate Critical Area Report; a mitigation and monitoring plan; a cost estimate for required mitigation and associated monitoring prepared by a qualified professional; and any other related project documents, such as permit applications to other agencies, special studies, or environmental documents prepared pursuant to the State Environmental Policy Act. The application shall be processed as an administrative project permit in accordance with the procedures outlined in SJCC Chapter 18.80, with public notice of application and a public comment period as provided in that chapter.
2. Reasonable Use Review Criteria. The Planning Director shall approve, approve with conditions, or deny the request based on the proposal’s ability to comply with the following criteria:
 - a. The application of the normal standards of this chapter would deny all reasonable economic use of the property.
 - b. The property owner was unable to obtain a variance to the requirements of this chapter which would allow for reasonable economic use of the property.
 - c. No other reasonable economic use of the property has less impact on the Critical Area or its buffer, water quality, erosion, habitat, native vegetation and significant trees. On-site alternatives that shall be considered include:
 - i. Reduction in density, scope, scale or intensity;
 - ii. Phasing of project implementation;
 - iii. Change in timing of activities;
 - iv. Revision of layout or related site planning considerations.
 - d. All practicable measures will be employed to protect Critical Areas and to mitigate unavoidable impacts, consistent with the best available science;
 - e. The proposal will not pose a threat to public health, safety, or welfare on or off the site;
 - f. The need for the exception is not the result of action by the current or previous property owner after _____ (the effective date of this ordinance).
 - e. A reasonable use exception shall not be granted based on economic factors or the preferences of the property owner (i.e. the cost of compliance or the desire of the property owner to have a larger home).
 - f. The Director may impose conditions of approval to assure compliance with Critical Area requirements.
- Option: Add guidance on what constitutes reasonable use.*
4. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the request and to provide sufficient information on which to base a decision.

~~**E. Reasonable Use Exception.** If the application of this section would result in denial of all reasonable use of a property (i.e., denial of all economically beneficial or productive use of the land), development may be allowed which is consistent with the general purposes of this code, this section, and the public interest. “Reasonable~~

use,” for the purposes of this section, shall include improved area(s) totaling not more than 21,780 square feet or 80 percent of the parcel, whichever is less, on any parcel which constituted a legal building site prior to the adoption of these regulations. Within the improved area(s) the Critical Area may be cleared, filled, drained, excavated or otherwise altered by development. All improvements, including parking and driving areas, with the exception of a driveway for a single family residence, shall be included in the improved area(s) unless the improvements are otherwise exempt under this section. Reasonable use exceptions from the provisions of this section shall be subject to all of the following criteria:

1. The application of this section would deny all reasonable use of the property so that there is no reasonable use, other than that proposed, with a lesser impact on the critical area;
2. The proposed development does not pose an unreasonable threat to the public health, safety or welfare; and
3. Any proposed improved area shall be located in such a way as to minimize the impact to the critical area. (Ord. 15-2005, Exh. B § 2a; Ord. 2-1998 Exh. B § 3.6.4)

E. Public Agency and Utility Exceptions.

1. If the application of Critical Area regulations in this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this section.
2. Exception Request and Review Process. An application for a public agency or utility exception shall be made to the Department and shall include the applicable items listed in SJCC Section 18.80.020.C (Project Permit Applications-Forms); required Critical Area Reports including a mitigation and monitoring plan; a cost estimate for required mitigation and monitoring prepared by a qualified professional; and any other related project documents, such as permit applications to other agencies, special studies, or environmental documents prepared pursuant to the State Environmental Policy Act. The application shall be processed as an administrative project permit in accordance with the procedures outlined in SJCC Chapter 18.80, with public notice of application and a public comment period as provided in that chapter.
3. Public Agency and Utility Review Criteria. The Planning Director shall approve, approve with conditions, or deny the request based on the proposal’s ability to comply with the following criteria:
 - a. There is no other feasible alternative to the proposed project with less impact Critical Areas and their buffers, water quality, erosion, habitat, native vegetation and significant trees. On-site alternatives that shall be considered include:
 - i. Reduction in density, scope, scale or intensity;
 - ii. Phasing of project implementation;
 - iii. Change in timing of activities;
 - iv. Revision of layout or related site planning considerations.
 - b. The application of this chapter would unreasonably restrict the agencies ability to provide services to the public;
 - c. The proposal will not pose a threat to public health, safety, or welfare on or off the site;
 - d. All practicable measures will be employed to protect Critical Areas and to mitigate unavoidable impacts, consistent with the best available science; and
 - e. The need for a public agency or utility exception is not the result of actions on the property by the agency or utility;
 - f. A Public Agency or Utility exception shall not be granted based on the preference of the agency or utility.
 - g. The Director may impose conditions of approval to assure compliance with Critical Area requirements.

4. The burden of proof shall be on the applicant to bring forth evidence in support of the request and to provide sufficient information on which to base a decision.

F. Physical Separation, Functional Isolation, Static Buffer Widths. In some cases, buffers may be required to protect Critical Areas. Buffers shall not however be required in areas which are physically separated and functionally isolated from a critical area, and that will not protect the Critical Area from adverse impacts. Functional isolation can occur due to existing public roads, structures, vertical separating, or any other relevant physical characteristic. The Director may require a Biological Site Assessment to determine whether the buffer is functionally isolated.

For purposes of determining required buffer widths, wetlands and or riparian areas that are voluntarily enhanced will retain the prescriptive buffer requirements that applied prior to the enhancement activity. Additional restrictions will not be imposed based on increased functions and values resulting from voluntary enhancement.

G. Application Form and Critical Area Reports.

1. Application. Prior to consideration of an activity requiring a permit or approval, the applicant shall submit to the Department an application which includes the applicable items listed in SJCC Section 18.80.020.C (Project Permit Applications-Forms).
2. Review Process. The Department shall review the application, conduct a site inspection, review other available information, and make a determination as to whether any Critical Areas may be affected. While the existing Critical Area maps will be used as a guide, the determination of whether a Critical Area may be present shall be made based on a site inspection.

If the Department finds that a) no Critical Areas are present on or adjacent to the project, or b) that the proposal will not degrade the Critical Area or harm protected species or habitats, or c) the proposal will meet the protection standards of this chapter, they shall rule that the Critical Area review is complete. If the Department finds that a Critical Area may be affected by the proposal, they shall notify the applicant that the appropriate Critical Area Report, prepared by a qualified professional, must be submitted prior to further evaluation of the project, and indicate each of the Critical Area types to be addressed in the report. A determination regarding the absence of one or more Critical Areas is not an expert evaluation and is subject to possible reconsideration if new information is received.

3. Critical Area Report.
 - a. Detailed requirements for Critical Area Reports are identified in subsequent sections of this chapter. If mitigation is required, the Critical Area Report shall include mitigation and monitoring plans.
 - b. If the Director finds that a report does not accurately reflect site conditions, or does not incorporate appropriate protections mechanisms, the Director shall cite evidence (e.g., soil samples, well log data, etc.) that demonstrates where the report is insufficient or in error. The applicant may then either revise the report or appeal the administrative determination pursuant to this code.
 - c. Preparation of Critical Area Reports and their review by the County, which may include referral to independent qualified professionals, shall be at the applicant's expense.

H. Mitigation Sequencing. Mitigation is the act of compensating for unavoidable impacts to Critical Areas by replacing, enhancing, or providing substitute resources or environments. Because of the complexity and sensitivity of natural systems, and the difficulty of monitoring and enforcing mitigation requirements, attempts to replace lost habitat are often unsuccessful. San Juan County encourages the prevention of negative impacts, and the protection of well functioning Critical Areas, and mitigation is therefore only approved in conjunction

with Reasonable Use and Public Agency/ Utility exceptions, after the fact remediation due to emergencies, and to offset impacts from illegal activities.

Prior to consideration of a mitigation plan, an applicant must demonstrate that all reasonable options have been examined to prevent those impacts. When an unavoidable alteration to a Critical Area is proposed, the applicant shall provide proof that they considered and eliminated all of the following options:

1. Avoid the impact by not taking a certain action or parts of an action;
2. Minimize impacts by limiting the degree or magnitude of the action, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
3. Rectify the impact to Critical Areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
4. Minimize or eliminate the hazard by restoring or stabilizing the hazard area through engineered or other methods;
5. Reduce or eliminate the impact or hazard over time through preservation and maintenance operations during the life of the action;
6. Compensate for the impact to Critical Areas; and
7. Monitor the hazard or required mitigation and take remedial action when necessary.

I. Mitigation Plan Requirements. When mitigation is required the applicant shall submit a mitigation plan for approval by the Department. Preparation of the mitigation plan and its review by the County, which may include referral to independent qualified professionals, shall be at the applicant's expense. The mitigation plan shall include:

1. A report identifying the environmental goals and objectives of the compensation proposed, including:
 - a. A description of the anticipated impacts to the Critical Area and the mitigating actions proposed; mitigation goals and objectives, in relation to the functions and values of the impacted Critical Area; the site selection criteria; and beginning and completion dates for mitigation activities.
 - b. A review of the best available 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; and
 - c. An analysis of the likelihood of success of the compensation project.
 - d. A cost estimate, developed by a qualified professional, for implementing the mitigation plan and for monitoring the site for a period of five years.
2. Details of the mitigation proposed, such as:
 - a. Proposed construction methods, sequence and timing;
 - b. Grading and excavation details;
 - c. Runoff, erosion and sediment control plans;
 - d. A planting plan specifying plant species, quantities, locations, size, spacing, and density; and
 - e. 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 pre and post construction contours, and any other drawings necessary to show proposed construction techniques and anticipated outcomes.

3. A plan for monitoring the completed mitigation project and for using measurable criteria to assess the project against its goals and objectives. The plan shall include a monitoring schedule and a description of the data to be collected. Monitoring reports shall be submitted to document milestones, successes, problems, and contingency actions. The project shall be monitored for a period necessary to establish that performance standards have been met, but not for less than five (5) years. If performance standards are not met additional site work and/or monitoring may be required.

4. Identification of potential courses of action and any corrective measures to be taken if performance standards for the project are not met.

J. Financial guarantee for mitigation and monitoring.

1. Financial Guarantee Required. A financial guarantee, approved by the County, is required prior to issuance of any permit or approval that includes mitigation or restoration of Critical Areas. The purpose of this guarantee is to ensure that the mitigation or restoration plan is fully implemented and demonstrated to function. Financial guarantees shall cover 150% of the expected cost of construction and monitoring, shall remain in effect for at least five (5) years, and the expiration date of the guarantee shall be at least sixty (60) days after the expected final approval date for the project. Cost estimates shall be prepared by the design professional(s) who develop the construction plans, and shall be reviewed and approved by the County. If it is anticipated that improvements will be completed over a period of time, separate financial guarantees should be provided so they may be released as components of the project are approved. Partial releases are not permitted. Depletion, failure, or collection of a financial guarantee shall not, however, discharge the obligation of a property owner to complete required mitigation, maintenance, monitoring, or restoration.
2. Critical Area Mitigation or Restoration Completion Agreement. A mitigation or restoration completion agreement signed by the property owner and approved by the County, shall accompany each financial guarantee.
3. Types of financial guarantees. The County will accept the following types of financial guarantees:
 - a. Irrevocable letter of credit.
 - b. Cash deposit.
 - c. CD or other bank account, providing the County has exclusive access to the account.

(Note: The details on how these accounts would be handled need to be worked out with legal counsel and the County Auditor and Treasurer's offices)

4. Failure to complete construction or correct deficiencies in accordance with a mitigation or restoration completion agreement and approved plans, shall be cause for the County to take enforcement action as authorized by law, and/or to draw on the financial guarantee to stabilize the site or complete the work. In addition to direct costs for construction and monitoring, the County may withdraw funds to cover their administrative costs and attorneys fees. The County shall give the property owner written notice, by first class mail, prior to taking action. The property owner shall permit the County, or its contractor(s), access to the property to complete improvements.
5. Release of financial guarantee. Financial guarantees shall not be released until the actions included in the mitigation or restoration plan have been completed and demonstrated to function. Written approval of the project must be provided by the project design professionals and the Director prior to release of a financial guarantee. Partial releases are not permitted.

K. Alternative Protection Standards – Critical Area Stewardship Plans (CASPs)

This regulation offers landowners a choice of two methods for ensuring that wetlands and Fish and Wildlife Habitat Conservation Areas are not degraded, prescriptive requirements found in SJCC 18.30.150 & 160, or an adaptive management method whereby a site-specific Critical Area Stewardship Plan (CASP) is developed.

1. Critical Area Stewardship Plans (CASPs) – Generally

Property owners may elect to develop site-specific Critical Area Stewardship Plans (CASPs) as an alternative to the prescriptive requirements for buffers adjacent to Wetlands and Fish and Wildlife Habitat Conservation Areas (Chapters 18.30.150 and 160). At a minimum the CASP must provide equal or greater protection of the animals, plants and habitats on site. The property owner shall be responsible for developing these plans in consultation with a qualified professional. When available, qualified San Juan County staff may assist landowners with these submissions. The Director shall be responsible for reviewing and approving submitted plans and may seek technical assistance from the San Juan County Conservation District; the Washington Departments of Fish and Wildlife, Natural Resources, or Ecology; or qualified professionals.

2. Applicability and Limitations

The following provisions define the applicability and limitations of the CASP:

- a. CASPs apply to only residential development, related activities and appurtenances, including accessory dwelling units (ADUs). They are not to be used in Urban Growth Areas (UGAs) or for commercial or industrial uses or developments.

Option: Add an impervious area, clearing or structural coverage limit?

- b. They can only be applied to properties 1/4 acre or larger.
- c. CASPs are only applicable to Fish and Wildlife Habitat Conservation Areas and Wetlands.
- d. CASPs must provide equal or greater protection of animals, plants and habitats than the prescriptive standards of buffers.
- e. CASPs may not be used for activities involving fill or construction within wetlands and FWHCAs unless it is for enhancement of their functions.
- f. CASPs will be administered as a provisional permit.
- g. A CASP may be prepared by any person, but it is strongly advised that a qualified professional be consulted.

3. Performance Standards

Critical area stewardship plans (CASPs) shall identify specific performance standards focused on maintaining or enhancing the animals, plants and habitats that exist in the Critical Area.

- a. Performance standards will vary from one plan to another depending on the Critical Area being protected and the potential hazards associated with the proposed development. Chosen performance standards should be quantifiable so that they can be measured. Examples include maintenance of a stream or wetland's hydraulic capacity and retention of specific animals, plants or habitats.
- b. The CASP shall include protocols for monitoring these performance standards to include sampling and analytical methods; timing of the sampling; and determination of the statistical procedures used to define significant departures from the performance standards. Performance standards shall contain the following components:
 - i. Indicators identifying what will be monitored.
 - ii. Attributes identifying what aspect of the indicator will be monitored.
 - iii. Actions identifying the degree of compliance.
 - iv. Quantities/Status identifying the desired level the attribute should reach.
 - v. Time frame identifying when the standard should be achieved. For example, "having X area inundated at the end of July each year" or maintaining/ achieving X% total aerial cover of trees and shrubs by year Y." Performance standards should be appropriate for the monitoring period.

4. CASP Contents – Existing Conditions

Critical area stewardship plans (CASPs) shall include the following elements:

- a. A site plan of the entire parcel identifying the wetland or FWHCA being protected by the CASP; any other Critical Areas present on the site; wetlands/ FWHCAs within 3/10ths of one mile the property; and the GPS location of monuments for photo documentation stations. At least two monumented photo documentation stations are required, however the Director may require additional stations if necessary to adequately characterize the site;
- b. When wetlands are present on the property, a wetland delineation report prepared by a qualified professional in accordance with the most current edition of the Washington State Wetland Rating System for Western Washington. The report shall detail the scores for hydrologic, water quality and habitat functions, and shall ensure the most pertinent score is accorded the greatest weight in rating the wetland. The ratings forms and supplemental information required for completing those forms shall be included in the report.
- c. Stream type determined by a qualified professional.
- d. A description of the property and adjacent watershed to include:
 - i. A contour map describing land elevations within 3/10ths of one mile of the property.
 - ii. Documented or observed presence of threatened or endangered species.
 - iii. A qualitative assessment of the property's hydrology to include evidence of prolonged flooding or ponding, known significant aquifer recharge areas, observed surface water drainage patterns and stream flows.
- e. A qualitative assessment of surface waters to include stream and/or pond substrate types; presence of large woody debris, riffles or pools; potential fish spawning areas; observed fish and aquatic invertebrates, etc.
- f. A qualitative assessment of the existing landscape located within the prescriptive buffers which would otherwise be required including:
 - i. The presence of invasive and/or exotic plant species;
 - ii. The presence and condition of all layers of vegetation;
 - iii. The species composition and general age and condition of existing forests;
 - iv. Evidence of historic or existing agricultural and/or forestry activities;
 - v. A determination of the slopes and soil types adjacent to surface water including a qualitative assessment of slope and soil stability, an assessment of the value of existing vegetation for stabilizing soils and slopes, and an assessment of how proposed septic drainfields and stormwater infiltration facilities will effect slope stability.
 - vi. An assessment of existing wildlife habitat on site including areas that provide cover, protection from wind and weather, snags, logs, food sources and travel corridors.
- g. A description of existing human disturbances within the Critical Area to include roads, bridges, bulkheads, hydrologic modification including pre-existing farm ponds, excavated ditches, drain tile lines and other structures. The location of these features should be noted on the site map.
- h. A description of how the proposed development might adversely affect the Critical Area's functions and values.
 - i. A contingency plan describing how the CASP might be modified if monitoring indicates a failure to meet the stated goals or performance standards, or if the goals and performance standards need to be modified due to events outside the landowner's control (e.g., damage associated with wildlife). For instance, if one of the planted species of vegetation proves ill adapted to the environment and fails to survive to the extent needed to provide the intended function, then alternative species should be identified. In general, trees and shrubs should initially be planted at greater than 120% of the specified final density. The contingency plan should either call for supplemental planting or the planting of alternate specie(s) when target densities are not met.
- i. Photo documentation taken from the photo documentation stations.

5. Description of the Management Proposal

The overall goal of the Critical Area stewardship plan (CASP) is to maintain or enhance the functions and values of the wetland or Fish and Wildlife Habitat Conservation Area while addressing the needs and desires of the property owner. The proposed plan must include the following:

- a. A clear statement of the goals, objectives, and performance standards of the plan and how implementation of the plan will protect the Critical Area and its animals, plants and habitat. This section shall also describe the goals of the property owner, including proposed uses within the buffers that would otherwise be required.
- b. The CASP shall be supported with the site map described in SJCC 18.30.110.K.4 overlaid with the following information:
 - i. The location of the proposed development activities;
 - ii. Final contours when grading within a buffer is proposed;
 - iii. Existing vegetation that is to be preserved;
 - iv. Invasive and/or noxious vegetation that is to be controlled or eradicated including control methods;
 - v. Species and general location of vegetation to be planted;
 - vi. Location of all existing and proposed structures.
- c. The proposed buffers shall be described with an explanation of how they will prevent the loss or degradation of protected animals, plants, and habitat. This section of the report should be supported by reference to published literature or well reasoned rationales.
- d. A detailed vegetation plan describing how existing or proposed plants will function to meet the goals of the management plan and of the property owner and how the vegetation will be maintained. For trees and shrubs, this plan should describe the density (spacing) and spacing of individual species. In addition this plan must include:
 - i. A table describing the numbers and types of any plants to be introduced;
 - ii. A description of how the various vegetation layers will function to protect water quality, pre-development hydrology, slope stability, protected plants and plant communities, and the habitat needs of wildlife;
 - iii. Planting density (spacing) by species;
 - iv. A planting schedule with reference to any additional watering requirements and methods;
 - v. Short term protection methods such as protective tubes, socks, control of other vegetation that might out-compete the planted stock, mulching requirements, etc.
- e. A copy of the proposed or approved storm water and erosion control management plan as required by SJCC 18.60.060-070.
- f. The timing of proposed plan implementation, with an emphasis on how the anticipated timing will protect the Critical Area and associated species or habitats.
- h. A list of all local, state and federal permits that will be required for implementing the plan.
- g. If periodic maintenance is a component of the plan, a detailed maintenance schedule must be provided. In general, plans that do not require long-term maintenance are preferred to plans that require maintenance.

6. As Built Certification Requirement

Prior to final approval the design professional(s) must provide written verification that the approved plan has been completed.

Staff note: We need to develop a method to ensure these plans get implemented.

7. Monitoring

Sites and adjacent Critical Areas with Critical Area Stewardship Plans (CASPs) must be monitored for at least ??? years and the Director may require additional monitoring if the goals, objectives and performance standards

of the plan are not met. For shoreline properties monitoring of nearshore habitat and species may be required. As a condition of approval, the land owner must agree to periodic County inspections to determine compliance with the plan.

Staff note: Jefferson County requires submission of annual monitoring reports. Given the staff time that will likely be necessary to get property owners to submit these reports, it may be more cost effective for both the property owner and the County to have qualified County staff conduct these annual inspections with the property owner. This will also result in more consistent and comparable data that might be used to gage the effectiveness of the CASP program. Property owners who choose to participate in the CASP program would likely need to cover the cost of these inspections, but that should be less expensive than hiring a private consultant. If monitoring reports are however required, following are some items that might be included:

- a. Identification of the goals, objectives and performance standards of the plan;
- b. A qualitative comparison of the animals, plants, and habitat with those that existed prior to development;
- c. A discussion of whether the site meets the performance standards approved in the CASP; and
- d. A description of any adaptive management measures implemented on site. When observation or monitoring describes a deficiency in meeting the goals, objectives or performance standards of a plan, management of the site must be modified to rectify the deficiency.

8. Waiver

The Director may waive portions of a CASP if in his/her opinion, protected animals, plants, and habitats will not be adversely affected.

9. Notice to Title.

Prior to project approval the property owner must record a copy of the approved CASP and a Notice to Title referencing the recorded plan. If the plan is revised the new County approved plan must be recorded.

10. Non-compliance with CASP or associated monitoring requirements.

How should non-compliance be handled? Do the land uses associated with the plan become illegal? Are future permits and approval withheld until the site is brought into conformance with the plan? Other options???

L. Other Implementation Strategies

Staff note: This section needs to be completed.

1. Education

San Juan County encourages good stewardship to protect people and natural ecosystems and will seek funds to provide resource education and site-specific assistance to landowners. Specific areas of focus include:

- a. Improper use and disposal of chemicals can harm people, animals and the environment. In coordination with the existing hazardous waste reduction/ collection program, San Juan County will develop an information and education program designed to reduce the use of pesticides, fertilizer and other chemicals, and to raise awareness of proper handling and disposal methods including methods for disposal of pharmaceuticals (CD&P).

2. Best Management Practices (BMPs)

San Juan County encourages residential, commercial and agricultural land owners to use Best Management Practices that protect and enhance the County's natural resources. These BMPs include:

Residential Best Management Practices

The following BMPs are encouraged for all residential development adjacent to Critical Areas. Permits may be conditioned to require these BMPs.

- a. Storm water management to protect ground and surface water.
 - i. To the greatest extent possible, preserve native vegetation, minimize the creation of impervious areas and avoid daylighting of shallow groundwater.
 - ii. Avoid the use of lawn and garden chemicals.
 - iii. Filter runoff from impervious surfaces through vegetation prior to discharge to wetlands, riparian areas, the nearshore or their buffers.
 - iv. Direct roof runoff into biofiltration swales, drip line trenches or other infiltration/ treatment facilities to remove bacteria and atmospherically deposited contaminants.
 - v. Do not maintain vehicles or equipment in areas where contaminants will wash into wetlands, riparian areas, the nearshore or their buffers. Maintenance areas should include filter swales of sufficient width to intercept surface flows.
 - vi. Minimize the use of water for irrigation of landscaping and avoid excessive watering that results in surface flows into wetlands, riparian areas, the nearshore or their buffers.
 - vii. Avoid using salt on impervious surfaces (i.e. during freezing weather).
 - b. Management of household contaminants and waste.
 - i. In accordance with State and Federal laws, pesticides, petroleum products and hazardous chemicals must a) be used in accordance with the label directions, and b) be stored and handled in a manner that prevents them from coming in contact with the ground surface, or with ground or surface water. Use in accordance with label directions does not constitute disposal.
 - ii. Properly dispose of household hazardous waste and waste containers. Do not dispose of chemicals or pharmaceuticals by dumping on the ground or into floor drains, storm drains, drywells, septic or sewage disposal systems.
 - iii. Maintain garbage and litter in enclosed containers that exclude wildlife.
 - iv. Do not use poisons to control moles, rodents or other pests.
 - v. Do not dispose of yard waste (grass clippings, trimmings, etc.) or any other waste in wetlands, riparian areas, the nearshore or their buffers.
 - vi. Store petroleum products, fertilizer, pesticides and other chemicals in a manner that will allow clean up of spills - under cover, on an impermeable surface, away from drains and water.
 - c. Landscape management.
 - i. Do not plant invasive ornamental plants in or adjacent to wetlands, riparian areas, the nearshore or other protected habitat areas.
 - ii. Where possible, retain large trees that shade wetlands, riparian areas or the nearshore, even though they may grow outside required buffers.
 - iii. Retain snags, logs and large woody debris for wildlife.
 - iv. Shield outside lights so that they do not shine directly into wetlands and protected wildlife habitat.
3. Provide annual hazardous waste collection to populated ferry and non-ferry served islands (PW).
 4. Partner with other counties and cities and encourage the State legislature to change the focus of State grant programs to emphasize getting all Puget Sound communities up to a basic level of environmental protection and to increase the emphasis on preventing environmental degradation, which is more cost effective than after the fact remediation (Council).

5. Continue implementing the Council adopted Water Resources Management Plan and the Board of Health approved On-site Sewage System Operation and Maintenance Program Plan (H&CS).

6. Public Benefit Rating System

Buffers that are dedicated as permanent open space tracts will qualify for the maximum number of points under the Public Benefit Rating System. Qualifying applicants will be offered the opportunity to enroll in the San Juan County Open Space tax program at no cost.

7. Monitoring and Assessment

San Juan County will work with landowners and partners to develop, fund and implement a countywide monitoring and assessment program for groundwater, surface water and protected animals, plants and habitats. This will give early warning of declines in water quality, species or habitats, and will help document any improvements. If declines in water quality, species or habitats are identified, the County will implement corrective measures. This effort will include the following:

- a. Establish necessary funding. Since some impacts to water quality, species and habitats are related to stormwater contaminants and excess runoff, and a portion of this funding could be generated through the County's stormwater utility. Landowners participating in the CASP program or implementing required mitigation would likely be responsible for the cost of monitoring the water, species and habitats associated with their development. Other potential sources of revenue include State and Federal grants (CD&P, PW, H&CS, Council).
- b. Implement a groundwater monitoring network in areas where the County Water Resources Committee identifies nitrates as a contaminant of concern. Collect nitrate samples twice per year, and coordinate sampling with that conducted by public water supplies and the Conservation District. If the annual average nitrate concentration of a well exceeds 2.5 mg/l or if the County Hydrologist determines a risk of contamination exists, investigate the source of the contamination and identify the most appropriate strategy to reduce nitrate sources. If septic systems appear to be the source of the contamination, H&CS will work with property owners to identify and implement actions to reduce the contamination. If nitrate levels continue to rise and reach 5 mg/l then H&CS shall require corrective action (H&CS).
- c. Identify and map areas of current potential sea water intrusion in accordance with the criteria adopted in SJCC 8.06.160. If chloride levels in a well exceed 100 ppm or if chemical analysis confirms that sea water intrusion is occurring, H&CS will take appropriate action to protect groundwater resources by working with property owners to identify and implement actions to reduce sea water intrusion (H&CS).
- d. Work with the County Marine Resources Committee, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, Friday Harbor Labs and other partners to compile existing data and develop a monitoring and assessment program for tracking nearshore species and habitats.
- e. Work with the Washington Department of Fish and Wildlife, the Wild Fish Conservancy, and other partners to compile existing data and develop a monitoring and assessment program for tracking freshwater species and habitats.
- f. Work with the Washington Department of Fish and Wildlife, Washington Department of Natural Resources, the Land Bank, the San Juan Preservation Trust, Kwiat (sp?) and other partners to compile

existing data and develop a monitoring and assessment program for tracking terrestrial species and habitats.

8. Adaptive Management

Adaptive management relies on scientific methods to evaluate how well regulatory and nonregulatory actions achieve their objectives and makes adjustments to those programs. Management, policy, and regulatory actions are treated as experiments that are purposefully monitored and evaluated to determine whether they are effective and, if not, how they should be improved to increase their effectiveness. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. To effectively implement an adaptive management program, San Juan County, in support of its CAO will:

- (a) Develop funding and partnerships to accomplish the research component of the adaptive management program;
- (b) Change course based on the results and interpretation of new information that resolves uncertainties; and
- (c) Commit to the appropriate time frame and scale necessary to reliably evaluate regulatory and non-regulatory actions affecting Critical Areas and anadromous fisheries.

Section 4. SJCC Section 18.30.120 (Geologically Hazardous Areas) shall be amended as follows:

18.30.120 Geologically Hazardous Areas. *Add when completed.*

Section 5. SJCC Section 18.30.130 (Frequently Flooded Areas) shall be amended as follows:

18.30.130 Frequently flooded areas. *Add when completed.*

Section 6. SJCC Section 18.30.140 (Critical Aquifer Recharge Areas) shall be amended as follows:

18.30.140 Critical Aquifer Recharge Areas.

A. Purpose. The purpose of the Critical Aquifer Recharge Regulations is to ensure a clean and sustainable supply of ground water for San Juan County, while supporting agricultural production and a healthy economy.

BA. Classification. Critical Aquifer Recharge Areas (CARAs) are those areas with a high susceptibility to contamination, areas within 600 feet of a Group A public water supply well, and areas designated by the County Board of Health as a Critical Water Resource Area. Critical Aquifer Recharge Areas are depicted in Figure 3.1. ~~Potential critical aquifer recharge areas are divided into three classes, identified by soil types specified in the USDA NRCS Soil Survey:~~

- ~~1. **High.** Areas with high potential for aquifer recharge include the San Juan, Everett, and Indianola series soil types.~~
- ~~2. **Medium.** Areas with medium potential include the Alderwood series and the Indianola Roche complex soil types.~~
- ~~3. **Low.** All remaining areas in the County are placed in the low category.~~

~~Because the combined effects of their soil types and hydrogeology create conditions which are more susceptible to contamination, potential critical aquifer recharge areas include only high and medium classes.~~

CB. Protection Standards within CARAs for High and Medium Classes.

1. In addition to the general groundwater protection requirements adopted in SJCC Chapters 8.06 and 18.60, some commercial, industrial, public and institutional facilities that are located within designated CARAs, shall be subject to periodic inspection by the Department to ensure conformance with the groundwater

protection requirements of this Code. Inspections shall be performed by a registered Environmental Health Specialist or other professional with appropriate training and experience. The following types of facilities shall be subject to inspection:

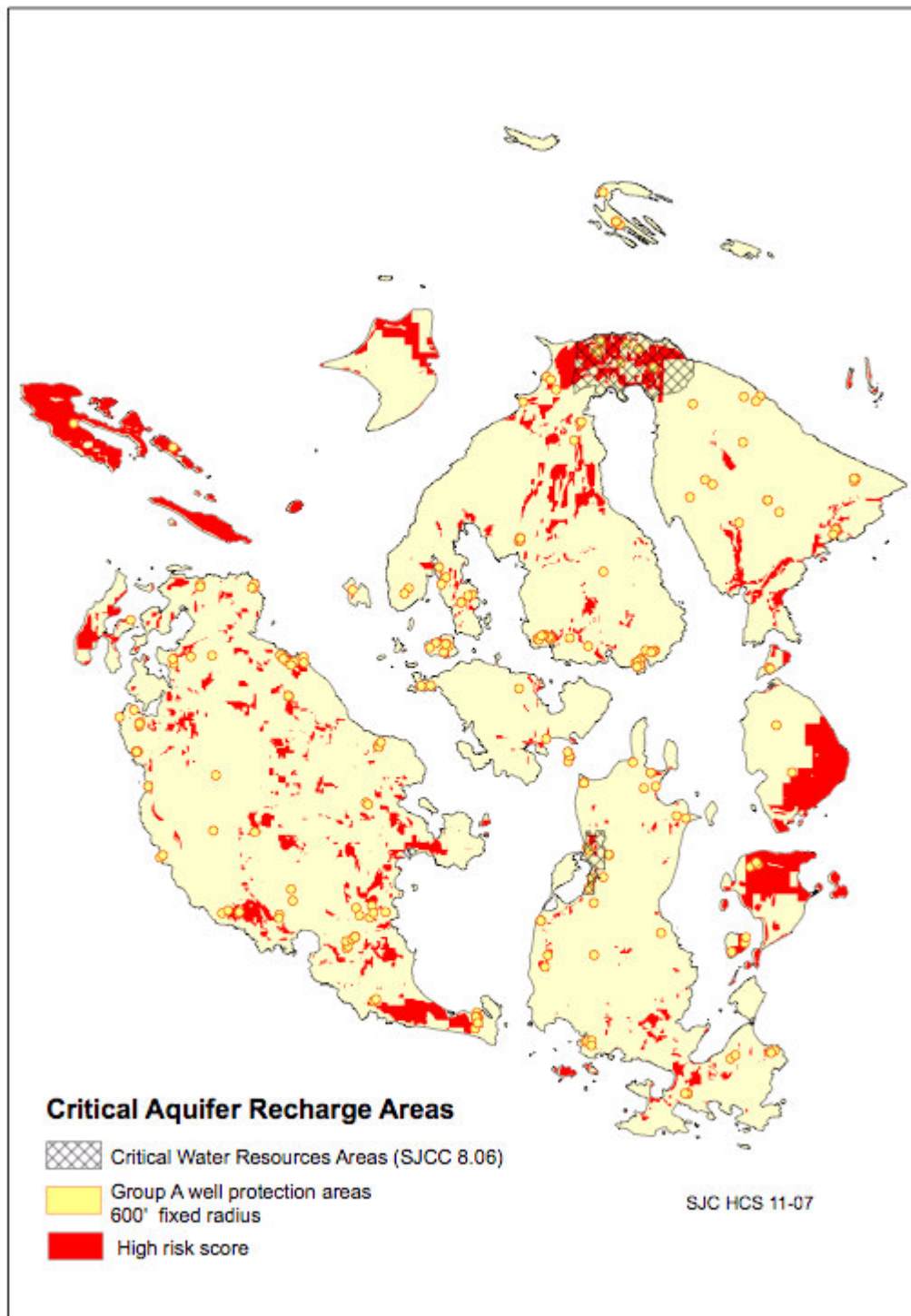
- a. Chemical manufacturing, reprocessing off other facilities with chemical storage tanks (other than liquefied gas);
 - b. Pesticide applicators;
 - c. Hardware, farm, garden and marine stores;
 - d. Golf courses;
 - e. Landscaping businesses;
 - f. Hazardous waste generators;
 - g. Junk and salvage yards;
 - h. Recycling facilities;
 - i. Solid waste facilities;
 - j. Auto, boat, aircraft and equipment repair facilities;
 - k. Auto and aircraft fueling facilities;
 - l. Equipment rental facilities;
 - m. Paint stores and paint contractors;
 - n. Woodworking, cabinet and furniture refinishing facilities;
 - o. Asphalt manufacturing plants or facilities;
 - p. Facilities that store, process or reprocess electrical batteries.
 - q. Dry cleaners;
 - r. Printing and photo processing facilities;
 - s. Machine shops; and
 - t. Laboratories, medical and veterinary facilities;
- ~~1. Applications for new development in potential critical aquifer recharge areas must demonstrate compliance with Chapter 13.04 SJCC, Sewer Service Systems, as amended.~~
 - ~~2. The following uses are prohibited in potential critical aquifer recharge areas, unless any significant adverse impacts can be mitigated by conditions of approval. Hydrogeologic testing and site evaluation performed pursuant to subsection (C) of this section, may be required to demonstrate that the proposed land use will not degrade ground water, and that hydrogeologic conditions do not facilitate degradation:~~
 - ~~a. Underground hazardous material storage tanks;~~
 - ~~b. Commercial, industrial, institutional, or other facilities which store, use, handle, or produce hazardous substances or waste products;~~
 - ~~e. Petroleum pipelines for other than single family residential use;~~
 - ~~d. Surface mining operations which are subject to a Washington Department of Natural Resources permit;~~
 - ~~e. Solid waste landfills;~~
 - ~~f. Land application of sewage sludge from sewage treatment works which combine industrial waste and commercial waste with domestic waste, or any sewage sludge operation exceeding two acres in size;~~
 - ~~g. Development activities which require withdrawal of groundwater located in known areas of groundwater contamination, as evidenced by depletion of fresh water quality and quantity, for example by salt water intrusion;~~
 - ~~h. All uses where repetitive pesticide and fertilizer applications are required or where any toxic substance is disseminated; and, Stormwater facilities and discharge points.~~
 - ~~3. Application for any County permit for a commercial, industrial, or recreational use or development shall identify and inventory specific quantities and materials of a toxic or hazardous nature which may be used, stored, or produced on site, along with their location and special handling requirements.~~
 - ~~24. Agricultural uses shall follow the label directions for employ best management practices in the application, storage, and disposal of pesticides, herbicides, and fertilizers, including livestock wastes.~~

Staff note: The following section has been revised and moved to a new section on County wide groundwater protection standards.

~~C. **Hydrogeologic Testing and Site Evaluation.** When required, hydrogeologic testing and site evaluation shall be conducted by a qualified engineer or geologist with appropriate hydrological background and experience who shall characterize the site and its relationship to the aquifer. The scope of the hydrogeologic study shall be in direct relationship to the scope of the proposed development. Such testing shall include, but not be limited to, an analysis of:~~

- ~~1. Depth to groundwater and impermeable soil layer;~~
- ~~2. Aquifer properties such as hydraulic conductivity and gradients;~~
- ~~3. Soil texture, permeability, and contaminant attenuation properties;~~
- ~~4. Characteristics of the vadose zone (the unsaturated top layer of soil and geologic material) including permeability and attenuation properties, and other relevant facts; and~~
- ~~5. The degree to which the aquifer is usable as a potable water source; the feasibility of protective measures to preclude further degradation; the practicability of treatment measures to maintain potability; and the availability of alternative potable water sources. (Ord. 2-1998 Exh. B § 3.6.7)~~

Figure 3.1
Critical Aquifer Recharge Areas



Section 7. SJCC Section 18.30.150 (Wetlands) shall be amended as follows: *Add when completed.*

Section 8 . SJCC Section 18.30.160 (Fish & Wildlife Habitat Conservation Areas) shall be amended as follows:

18.30.160 Fish and Wildlife Habitat Conservation Areas (FWHCAs)

A. Purpose and Coordination with Shoreline Master Program.

As one of the five types of “Critical Areas” identified in the Growth Management Act (GMA), San Juan County is required to protect the functions and values of “Fish and Wildlife Habitat Conservation Areas” in accordance with the best available science. These areas include both general habitats necessary to the survival of many species (e.g. stream and shoreline riparian areas), as well as habitats needed by a particular species. To protect species and habitats in conformance with the GMA, land must be managed in a way that will maintain priority species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created thereby increasing the risk of extinction (WAC 365-190-080(5). To achieve this, land uses and development will be regulated to ensure there is no net loss of protected species or habitats after December 1, 2006 (the date San Juan County was required to adopt these protections).

Pursuant to RCW 36.70A.480, protection of Critical Areas within the shoreline will be provided by this section until San Juan County updates its Shoreline Master Program in conformance with current state requirements. SJCC 18.50 remains in effect, but where its provisions and those of this chapter conflict, the section providing the most protection for Critical Areas will prevail.

B. Compliance Alternatives.

This section sets forth prescriptive requirements. In lieu of these prescriptive requirements, applicants for development permits or approvals subject to this section may elect to comply with the Critical Area Stewardship Plan (CASP) provisions set forth in SJCC 18.30.110.K.

C. Designation

Fish and Wildlife Habitat Conservation Areas (FWHCAs) are those areas identified as being of critical importance to priority species and habitats. These areas may be point locations of a specific species (such as a nest or den) or more general habitat areas important to multiple species. The approximate location and extent of identified FWHCAs are shown on the County’s Critical Area maps found at the end of this chapter. These maps are to be used as a guide and do not provide a definitive Critical Area determination.

All areas within the County meeting the definition of a FWHCA are subject to the requirements of this chapter. The Washington Administrative Code lists the following as FWHCAs (WAC 365-190-080(5) and 173-26-221(2)(iii)(A)).:

1. Areas with which endangered, threatened and sensitive species have a primary association including areas of rare plant species identified by the Washington State Department of Natural Resources Natural Heritage Program under RCW 79.70, and land essential for preserving connections between habitat blocks and open space.
2. Habitats and species of local importance.
3. Subsistence, commercial and recreational shellfish beds.
4. Critical saltwater habitats including kelp and eelgrass beds; spawning and holding areas for forage fish including herring, smelt and sand lance; intertidal habitats with vascular plants; and mudflats.

5. Naturally occurring ponds under twenty acres and associated aquatic beds that provide fish or wildlife habitat.
6. Waters of the state, including lakes, ponds, streams, inland waters, salt waters, groundwater and watercourses within state jurisdiction as classified in WAC 222-16-030 or WAC 222-16-031.
7. Lakes, ponds, streams, and rivers planted with game fish by a government or tribal entity.
8. State natural area preserves and natural resource conservation areas.

Table 3. Fish and Animal Species Requiring Protection in San Juan County (as of December 2007)

<u>Species</u>	<u>Priority Area/ Habitat Requiring Protection♣</u>
<u>Alcids</u>	<u>Concentrated breeding sites.</u>
<u>Bald eagle</u>	<u>Breeding areas, communal roosts, regular and regular large concentrations, regularly used perch trees in breeding areas. Numerous nest territories and foraging areas along marine shorelines.</u>
<u>Band-tailed pigeon</u>	<u>Breeding areas, regular concentrations, occupied mineral springs. Game.</u>
<u>Bats (all species)</u> <u>Roosting Concentrations</u> <u>-Big brown bat</u> <u>-Long eared bat</u> <u>-Long legged bat</u> <u>-Yuma bat</u> <u>-Townsend's big-eared bat</u>	<u>Regular large concentrations in naturally occurring breeding areas and other communal roosts.</u> <u>Any occurrence. A year-round resident that inhabits caves and abandoned mines and buildings. Extremely sensitive to human disturbance.</u>
<u>Black crowned night heron</u>	<u>Breeding areas. Occasional visitors in winter. Not known to breed in SJ County.</u>
<u>Black oystercatcher</u>	<u>Breeding areas</u>
<u>Brandt's cormorant</u> <u>Other cormorants</u>	<u>Breeding areas, regular and regular large concentrations. Winter resident seabird of inland marine waters. Breeds on outer coast (no known breeding areas in SJ County).</u> <u>Large concentrations.</u>
<u>Brant</u>	<u>Regular large concentrations in foraging and resting areas, migratory stopovers. Game.</u>
<u>Butterflies♣</u> <u>Great Arctic</u> <u>Island Marble</u>	<u>Any occurrence. Rare, only known US population recorded from Orcas Island. Dependent on forest openings and balds.</u> <u>Any occurrence. Extremely rare, only populations remain on San Juan (American Camp) and Lopez Islands. Dependent on Puget Sound Peppergrass</u>

<u>Johnson's Hairstreak</u>	<u>and other native mustards (e.g. Tower Mustard).</u>
<u>Oregon Branded Skipper</u>	<u>Any occurrence.</u>
<u>Butterflies (cont)</u>	
<u>Propertius Duskywing</u>	<u>Declining throughout western WA. Few, isolated populations. Dependent on rare and declining native grassland habitat. San Juan & Orcas Islands, possible where native grasslands extant.</u>
<u>Puget Blue</u>	<u>Declining throughout western WA. Few, isolated populations. Dependent on Oregon White (Garry Oak) for larval food plant. San Juan and Waldron Islands.</u>
<u>Sand Verbena Moth</u>	<u>Any occurrence. Dependent on broadleaf, native and other lupine species.</u>
<u>Taylor's Checkerspot</u>	<u>Rare, only known US populations recorded from San Juan Island and Clallam Counties. Dependent on native sandy coastal habitat and Sand Verbena (<i>Abronia</i>) for larval food plant.</u>
<u>Valley silverspot</u>	<u>Any occurrence. Extremely rare and declining throughout range. Associated with maritime prairies and shorelines along the Strait of Juan De Fuca, the post-glacial gravelly outwash and mounded prairies of the Puget Trough, and open island prairies with a dominance of original vegetation. Host plants include the native seaside plantain (<i>Plantago maritima macrocarpa</i>) and the nonnative English plantain (<i>P. major lanceolata</i>). Concentrations in San Juan County (recorded from Long Island). Current status unknown.</u>
<u>Zerene Fritillary</u>	<u>Any occurrence. Dependent on Western Blue Violet (<i>Viola adunca</i>). Declining populations in San Juan Islands, Extinct in many locations.</u>
<u>Cavity-nesting ducks - non-breeding (Barrow's goldeneye, common goldeneye, bufflehead)</u>	<u>Declining throughout range. Few, isolated populations. Dependent on grassland habitat and native violet (<i>Viola</i>) for larval food plant. San Juan and Orcas Islands.</u>
<u>Cavity-nesting ducks - breeding (wood duck, hooded merganser)</u>	<u>Regular large concentrations. Game.</u>
<u>Cods</u> <u>Pacific cod</u> <u>Pacific hake</u> <u>Walleye Pollock</u>	<u>Breeding areas. Game.</u>
<u>Common loon</u>	<u>Breeding areas, regular and regular large concentrations. Food fish.</u>
<u>Common murre</u>	<u>Breeding sites, regular and regular large concentrations. Nests on secluded shorelines of lakes larger than 30 acres; winters on lakes and marine waters. No known breeding areas in SJ County.</u>
	<u>Breeding areas, regular and regular large concentrations. Winter resident seabird of inland marine waters. Breeds on outer coast. No known breeding areas in SJ</u>

	<u>County.</u>
<u>Golden eagle</u>	<u>Breeding and foraging areas. Uncommon western Washington raptor associated with open country. Nests on cliffs or large trees.</u>
<u>Dall's porpoise</u>	<u>Regular concentrations in foraging areas and migration routes.</u>
<u>Gray whale (other whales?)</u>	<u>Any occurrence, migration routes. Migratory marine mammal found in coastal waters in spring and summer. Often forages on or near bottom, ingesting sediment.</u>
<u>Great blue heron</u>	<u>Breeding areas.</u>
<u>Greenlings - Ling cod</u>	<u>Any occurrence. Food fish.</u>
<u>Killer whale (orca)</u>	<u>Regular concentrations in feeding areas or migration routes. Resident marine mammal of coastal waters, including Strait of Georgia. Salmon principal prey in Puget Sound.</u>
<u>Harbor seal</u>	<u>Haulout areas</u>
<u>Harlequin duck</u>	<u>Breeding areas, regular and regular large concentrations in saltwater. Game.</u>
<u>Larch mountain salamander</u>	<u>Any occurrence. Found on Lopez Island.</u>
<u>Marbled murrelet</u>	<u>Any occurrence in suitable habitat during breeding season, regular and regular large concentrations. Uncommon seabird that nests in late-successional conifer forests within 50 miles of marine shoreline. Winters in nearshore marine waters.</u>
<u>Merlin</u>	<u>Occur in winter, occupying old crow nests in urban settings.</u>
<u>Mink</u>	<u>Regular occurrences. Game.</u>
<u>Northern Abalone</u>	<u>Any occurrence. Shellfish found in subtidal rock reefs, low abundance, harvest closed.</u>
<u>Northern goshawk</u>	<u>Breeding areas including alternate nest sites, post fledging foraging areas. Raptor that nests in relatively dense mature conifer and mixed forests. Sensitive to clear-cut timber harvest in nest and foraging stands.</u>
<u>Olympia oyster</u>	<u>Shellfish found in intertidal gravel.</u>
<u>Oregon vesper sparrow</u>	<u>Any occurrence.</u>
<u>Pacific harbor porpoise</u>	<u>Regular concentrations in foraging areas and migration routes. Relatively shy marine mammal of inland marine waters.</u>
<u>Pacific herring</u>	<u>Breeding areas, regular large concentrations.</u>
<u>Pacific sand lance</u>	<u>Breeding areas, regular large concentrations. Food fish.</u>
<u>Peregrine falcon</u>	<u>Breeding areas. . Year-round resident, nests in cliffs (> 150 ft in height) and</u>

	<u>feeds on birds, especially shorebirds and waterfowl.</u>
<u>Pileated woodpecker</u>	<u>Breeding sites. Large resident woodpecker of mature forests requiring trees > 17-inch diameter for nesting and roosting and up to 300 acres of surrounding territory. Important primary excavator providing cavities for a number of species.</u>
<u>Plovers & Phalaropes</u>	<u>Regular, large concentrations. Found during migration. Protect shorebird migration habitat.</u>
<u>Purple martin</u>	<u>Breeding areas including used artificial nest features, feeding areas. A migratory, cavity-nesting songbird that nests over or near water. Will use artificial nest boxes.</u>
<u>Rainbow trout</u>	<u>Any occurrence. Game.</u>
<u>Red legged frog</u>	<u>Found from sea level to 2,800 ft elevation in western Washington. Breeds in freshwater wetlands and slow-moving streams.</u>
<u>Red urchin</u>	<u>Regular and regular large concentrations.</u>
<u>Right eye flounders</u> <u>English sole</u> <u>Rock sole</u>	<u>Breeding site. Food fish.</u> <u>Breeding areas, regular large concentrations. Food fish.</u>
<u>Rockfish</u> <u>Black rockfish</u> <u>Bacaccio rockfish</u> <u>Brown rockfish</u> <u>Canary rockfish</u> <u>China rockfish</u> <u>Copper rockfish</u> <u>Greenstriped rockfish</u> <u>Quillback rockfish</u> <u>Redstripe rockfish</u> <u>Tiger rockfish</u> <u>Widow rockfish</u> <u>Yelloweye rockfish</u> <u>Yellowtail rockfish</u>	<u>Regular and regular large concentrations. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Any occurrence. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Any occurrence. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u> <u>Any occurrence. Food fish.</u> <u>Regular and regular large concentrations. Food fish.</u>
<u>Salmon</u> <u>Chinook</u> <u>Chum</u> <u>Coho</u> <u>Pink</u> <u>Sockeye</u>	<u>Any occurrence. Food fish.</u> <u>Any occurrence. Food fish.</u> <u>Any occurrence. Food fish.</u> <u>Any occurrence. Food fish.</u> <u>Any occurrence. Food fish.</u>
<u>Sharp tailed snake</u>	<u>Any occurrence. Found on Turtleback Mt.</u>

<u>Shellfish</u> <u>Geoduck clam</u> <u>Dungeness crab</u> <u>Hardshell clams (Butter, Littleneck, Japanese littleneck).</u> <u>Manila clam</u> <u>Pacific oyster</u> <u>Pandalid shrimp</u>	<u>Regular and regular large concentrations.</u> <u>Breeding areas, regular and regular large concentrations.</u> <u>Regular and regular large concentrations.</u> <u>Regular and regular large concentrations.</u> <u>Regular and regular large concentrations.</u> <u>Regular and regular large concentrations.</u>
<u>Sea lion, California</u>	<u>Haulout areas.</u>
<u>Sea lion, Stellar</u>	<u>Haulout areas. A sea lion that breeds in the northern Pacific and winters as far south as California. Seen on Washington's inland waters occasionally in winter.</u>
<u>Searun cutthroat</u>	<u>Any occurrence. Game.</u>
<u>Smelt</u> <u>Eulachon</u> <u>Longfin smelt</u> <u>Surfsmelt</u>	<u>Regular concentrations. Food fish.</u> <u>Breeding areas, regular large concentrations. Food fish.</u> <u>Breeding areas, regular large concentrations. Food fish.</u>
<u>Streaked horned lark</u>	<u>Any occurrence.</u>
<u>Tufted puffin</u>	<u>Regular concentrations, breeding areas.</u>
<u>Tailed frog</u>	<u>Stream-dwelling frog of cold, rock substrate streams up to 5,250 ft elevation.</u>
<u>Trumpeter and tundra swans</u>	<u>Regular and regular large concentrations. Game.</u>
<u>Vaux's swift</u>	<u>Breeding areas, communal roosts. A summer resident and breeder of western Washington closely associated with late-successional conifer forests. Requires hollow, large-diameter snags for nesting and roosting.</u>
<u>Westslope cutthroat</u>	<u>Any occurrence. Game.</u>
<u>Western grebe</u>	<u>A winter resident on inland lakes and marine waters.</u>
<u>Western pond turtle</u>	<u>Any occurrence. Sightings in SJ County reported but not confirmed.</u>
<u>Western toad</u>	<u>Any occurrence. Found near emergent wetlands and small lakes from 0 to 6,530 ft elevation.</u>
<u>Waterfowl concentrations</u>	<u>Significant breeding areas and regular large concentrations in winter. Game.</u>
<u>West. Washington nonbreeding concentrations:</u> <u>Loons</u>	<u>Regular large concentrations</u>

<u>Grebes</u> <u>Cormorants</u> <u>Phalaropes</u> <u>Plovers</u> <u>Sandpipers</u> <u>Alcids</u>	
<u>West. Washington breeding concentrations:</u> <u>Cormorants</u> <u>Storm-petrels</u> <u>Terns</u> <u>Alcids</u>	<u>Breeding areas.</u>

♣ Current knowledge of distribution within San Juan County is incomplete for most butterflies and moths.

♠ Definitions:

Breeding site: The immediate area and features associated with producing and rearing young (e.g. nest tree, den).

Breeding area: The area necessary to support reproduction and the rearing of young. Includes breeding sites and adjacent foraging habitat, and may include a disturbance buffer.

Communal roosts: Habitat features (e.g. trees, caves, cliffs) that are regularly or traditionally used by a group of animals for resting, hibernation, breeding or young rearing.

Foraging Area: Feeding areas that are regularly used by individuals or groups of animals.

Haulouts: Areas where marine mammals regularly remove themselves from the water for resting.

Occurrence: Fish and wildlife observation from a source deemed reliable by WDFW biologists. Occurrences may represent an observation of an individual animal or a group of animals.

Regular occurrence: Areas or features (e.g. trees, cliffs) that are commonly or traditionally used on a seasonal or year round basis by species that do not typically occur in groups.

Regular concentration: Areas that are commonly or traditionally used by a group of animals on a seasonal or year round basis.

Regular large concentration: Areas that are commonly or traditionally used by significantly large aggregations of animals, relative to what is expected for a particular species or geographic area.

Regularly used perches: Habitat features (e.g. cliffs, trees) that are regularly or traditionally used by one or more birds for perching.

Table 3.

Rare Plants Requiring Protection in San Juan County as of December 2007

From Washington DNR Natural Heritage Program (<http://www.dnr.wa.gov/nhp/refdesk/index.html>)

Scientific Name

Common Name

Scientific Name

Common Name

<u>Carex pauciflora</u>	<u>Few-flowered Sedge</u>	<u>Microseris bigelovii</u>	<u>Coast Microseris</u>
<u>Castilleja levisecta</u>	<u>Golden Paintbrush</u>	<u>Ophioglossum pusillum</u>	<u>Adder's-tongue</u>
<u>Crassula connata</u>	<u>Erect Pygmy-weed</u>	<u>Orthocarpus bracteosus</u>	<u>Rosy Owl-clover</u>
<u>Eurybia merita</u>	<u>Arctic Aster</u>	<u>Potamogeton obtusifolius</u>	<u>Blunt-leaved Pondweed</u>
<u>Isoetes nuttallii</u>	<u>Nuttall's Quillwort</u>	<u>Puccinellia nutkaensis</u>	<u>Alaska Alkaligrass</u>
<u>Lepidium oxycarpum</u>	<u>Sharpruited Peppergrass</u>	<u>Ranunculus californicus</u>	<u>California Buttercup</u>
<u>Liparis loeselii</u>	<u>Twayblade</u>	<u>Sericocarpus rigidus</u>	<u>White-top Aster</u>
<u>Lobelia dortmanna</u>	<u>Water Lobelia</u>	<u>Symphyotrichum boreale</u>	<u>Rush Aster</u>
<u>Meconella oregana</u>	<u>White Meconella</u>	<u>Utricularia minor</u>	<u>Lesser Bladderwort</u>

Table 3. lists wetland, high quality and/or rare plant communities that must be protected as Fish and Wildlife Habitat Conservation areas. This is an extensive list of common habitats in San Juan County, however not all of them must be protected. Following are the criteria used by the Washington Department of Natural Resources Natural Heritage Program to determine which plant communities require protection:

Criteria for Designating Freshwater Wetlands as FWHCAs

1. A native wetland ecosystem type considered important for preservation within the state.
2. Little or no human-caused changes to wetland topography or soils.
3. No human caused changes to hydrology of the wetland, or the wetland appears to have recovered from any changes.
4. Few or no exotic plant species.
5. Little human-caused disturbance of native vegetation, or vegetation has recovered from past disturbance.
6. No major water quality problems.

Criteria 2-6 are weighted based on the amount of disturbance present in all known examples of a given wetland type. Thus a disturbed wetland may be included in the WNHP Information System if it has one of the highest quality examples remaining of a particular wetland type. On the other hand, an equally disturbed site may not be included in the WNHP Information System if it contains a wetland type which has many other undisturbed examples. A severe degree of disturbance would exclude a site from being entered into the WNHP Information System, even if no better examples of that wetland type exist.

Criteria for Designating High-Quality Terrestrial Ecosystems as FWHCAs

Occurrences of terrestrial ecosystem types are determined by the characteristics of each individual ecosystem type. Ecological quality refers to both the ecological condition and the ecological viability of a particular community. Condition is determined by relative importance of native versus non-native species, extent and nature of human-caused disturbance, and how well the occurrence represents the ecosystem type definition. Viability is determined by size of the area and landscape setting.

Minimum criteria for an occurrence of a terrestrial ecosystem are:

1. Native plants dominate the site. Tree layers are composed of only native species and at least 80 percent of the shrub and herbaceous layers are composed of native plants. Non-native plants are generally insignificant.
2. Little or insignificant disturbance to vegetation by logging, conversion to agriculture, heavy grazing, residential development, or other recent human extractive activities that alter the ecosystem processes.
3. Large enough for minimal viability and ecological function: at least 20 acres for forest in the Puget Lowlands and at least 10 acres for native grasslands.

The degree to which these criteria are applied to a site depends on characteristics of the particular ecosystem types present. Some ecosystem types are found almost exclusively as small patches, perhaps in areas smaller than criterion 3. In this case, meeting criteria 1 and 2 would be sufficient. Large but moderately disturbed ecosystems representative of types that have been altered throughout their range because of various land uses may need only meet criteria 1 and 3.

Table 3.
High Quality or Rare Plant Communities and Wetland Ecosystems Requiring Protection
(Identified by the Washington Department of Natural Resources
Natural Heritage Program, December 2007)

<u>Scientific Name</u>	<u>Common Name</u>
<u>Alnus rubra / Rubus spectabilis Forest</u>	<u>Red Alder / Salmonberry</u>
<u>Carex aquatilis var. dives Herbaceous Vegetation</u>	<u>Sitka Sedge</u>
<u>Carex cusickii - (Carex aquatilis var. dives) / Sphagnum spp. herbaceous vegetation</u>	<u>Cusick's Sedge - (Sitka Sedge) / Sphagnum Spp.</u>
<u>Carex macrocephala Herbaceous Vegetation</u>	<u>Bighead Sedge</u>
<u>Carex obnupta Herbaceous Vegetation</u>	<u>Slough Sedge</u>
<u>Coastal spit with native vegetation PTN</u>	<u>Coastal Spit with Native Vegetation PTN</u>
<u>Danthonia californica Valley Grassland Herbaceous Vegetation</u>	<u>California Oatgrass Valley Grassland</u>
<u>Distichlis spicata - (Salicornia virginica) Herbaceous Vegetation</u>	<u>Saltgrass - (Pickleweed)</u>
<u>Festuca roemeri - Cerastium arvense - Koeleria macrantha Herbaceous Vegetation</u>	<u>Roemer's Fescue - Field Chickweed - Prairie Junegrass</u>
<u>Festuca rubra - (Camassia leichtlinii, Grindelia stricta var. stricta) Herbaceous Vegetation</u>	<u>Red Fescue - Great Camas - Oregon Gumweed</u>
<u>Festuca rubra - Ambrosia chamissonis Herbaceous Vegetation</u>	<u>Red Fescue – Silver Burweed</u>
<u>High salinity lagoon PTN</u>	<u>Sand or Mixed Fine: Lagoon, Hyperhaline and Euhaline PTN</u>
<u>Hippuris vulgaris Herbaceous Vegetation</u>	<u>Common Maretail</u>
<u>Ledum groenlandicum - Kalmia microphylla / Sphagnum spp. Shrubland</u>	<u>Bog Labrador-tea - Bog-laurel / Sphagnum Spp.</u>
<u>Low elevation freshwater wetland PTN</u>	<u>Low Elevation Freshwater Wetland PTN</u>
<u>Low elevation sphagnum bog PTN</u>	<u>Low Elevation Sphagnum Bog PTN</u>
<u>Low salinity lagoon PTN</u>	<u>Mixed Fine: Lagoon, Mesohaline and Oligohaline PTN</u>
<u>North Pacific Herbaceous Bald and Bluff</u>	
<u>Nuphar lutea ssp. polysepala Herbaceous Vegetation</u>	<u>Yellow Pond-lily</u>

<u>Pinus contorta - Pseudotsuga menziesii cover type</u>	<u>Lodgepole Pine - Douglas-fir Forest</u>
<u>Pinus contorta cover type</u>	<u>Lodgepole Pine Forest</u>
<u>Pinus contorta var. contorta / Gaultheria shallon Forest</u>	<u>Shore Pine - Douglas-fir / Salal</u>
<u>Pinus contorta var. contorta / Ledum groenlandicum / Sphagnum spp. Woodland</u>	<u>Shore Pine / Bog Labrador-tea / Sphagnum Spp.</u>
<u>Pseudotsuga menziesii - Abies grandis cover type</u>	<u>Douglas-fir - Grand Fir Forest</u>
<u>Pseudotsuga menziesii - Arbutus menziesii / Gaultheria shallon Forest</u>	<u>Douglas-fir – Pacific Madrone / Salal</u>
<u>Pseudotsuga menziesii - Arbutus menziesii / Vicia americana Forest</u>	<u>Douglas-fir - Pacific Madrone / Hairy Honeysuckle</u>
<u>Pseudotsuga menziesii - Quercus garryana / Symphoricarpos albus Woodland</u>	<u>Douglas-fir - Oregon White Oak / Common Snowberry</u>
<u>Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon / Polystichum munitum forest</u>	<u>Douglas-fir - Western Hemlock / Salal / Swordfern</u>
<u>Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon Forest</u>	<u>Douglas-fir - Western Hemlock / Salal</u>
<u>Pseudotsuga menziesii - Tsuga heterophylla / Holodiscus discolor / Polystichum munitum forest</u>	<u>Douglas-fir - Western Hemlock / Oceanspray / Swordfern</u>
<u>Pseudotsuga menziesii - Tsuga heterophylla / Mahonia nervosa Forest</u>	<u>Douglas-fir - Western Hemlock / Dwarf Oregongrape</u>
<u>Pseudotsuga menziesii / Gaultheria shallon - Holodiscus discolor Forest</u>	<u>Douglas-fir / Salal - Oceanspray</u>
<u>Pseudotsuga menziesii / Rosa gymnocarpa - Holodiscus discolor Forest</u>	<u>Douglas-fir / Baldhip Rose - Oceanspray</u>
<u>Pseudotsuga menziesii / Symphoricarpos albus - Holodiscus discolor Forest</u>	<u>Douglas-fir / Common Snowberry - Oceanspray</u>
<u>Quercus garryana / Carex inops - Camassia quamash Woodland</u>	<u>Oregon White Oak / Long-stolon Sedge - Common Camas</u>
<u>Salicornia virginica Herbaceous Vegetation</u>	<u>Pickleweed</u>
<u>Sandy, high salinity, low marsh PTN</u>	<u>Sand: Partly Enclosed, Eulittoral, Euhaline (Marsh) PTN</u>
<u>Schoenoplectus acutus Herbaceous Vegetation</u>	<u>Hard-stem Bulrush</u>
<u>Spiraea douglasii / Sphagnum spp. Shrubland</u>	<u>Douglas' Spirea / Sphagnum Spp.</u>
<u>Thuja plicata - Abies grandis / Polystichum munitum Forest</u>	<u>Western Redcedar - Grand Fir / Swordfern</u>
<u>Thuja plicata / Gaultheria shallon Forest</u>	<u>Douglas-fir - Western Redcedar / Salal</u>
<u>Typha (latifolia, angustifolia) Western Herbaceous Vegetation</u>	<u>Broad-leaf Cattail</u>

Staff note: If we are going to include Species and Habitats of Local Concern, this would be a good place. Those that have been suggested include the Brittle prickly pear cactus (which was at one time designated a species of concern), Northern flying squirrel, Northwestern salamander, Long toed salamander, Alligator lizard, Stellar's Jay, and Western bluebird.

D. Nomination of Species of Local Concern.

San Juan County has the option of protecting species and habitats of local concern. If not included in the adoption of a Critical Areas Ordinance, these species or habitats may be added by nominating the species and amending the ordinance.

1. Habitats and species to be designated shall exhibit at least one of the criteria listed in subsections C.1.a. through D.1.c. and shall meet all criteria in subsections D.1.d. through D.1f.
 - a. Local populations of native species are vulnerable or declining or are likely to become threatened or endangered based on existing or predictable threats;
 - b. The species or habitat has recreational, commercial, game, tribal, or other special value;
 - c. Long-term persistence of a species within San Juan County is dependent on the protection, maintenance and/or restoration of the nominated habitat;
 - d. Protection by other county, state, or federal policies, laws, regulations, or non-regulatory tools is not adequate to prevent degradation of the species or habitat;
 - e. Without protection, there is likelihood that the species or habitat will decline over the long term; and
 - f. Nominated habitat areas must either represent i) high-quality native habitat, ii) habitat that is of limited availability and has a high potential to recover to a suitable condition, or iii) habitat that provides landscape connectivity contributing to conservation of a designated species or habitat.
2. A petition to nominate an area or a species to this category shall contain all of the following, using best available science:
 - a. A statement demonstrating that the nomination criteria are met;
 - b. An explanation of whether specific habitat features are being nominated for protection (for example, nest sites, breeding areas, and nurseries), or whether a habitat or ecosystem is being nominated in its entirety;
 - c. Proposed management strategies for the species or habitats which will be effective and are within the scope of this code. Where restoration of habitat is proposed, a conceptual plan for restoration must be provided;
 - d. Signatures of all petitioners.
3. The Director shall determine whether the nomination proposal is complete, and if complete, shall evaluate it according to the characteristics enumerated in subsection D.1 and make a recommendation to the Planning Commission.
4. The Planning Commission shall hold a public hearing for nominations found to be complete and make a recommendation to the County Council.
5. Following the recommendation of the Planning Commission, the County Council shall hold an additional public hearing and if approved shall adopt an ordinance adding the species or habitat to those protected under this section of the County Code. Approved nominations shall be subject to the provisions of Critical Area regulations in this Chapter.
6. Removal of Species or Habitats of Local Concern. The County Council may remove species or habitats of local concern by amending the Critical Areas Ordinance.

E. Fish and Wildlife Habitat Conservation Area (FWHCA) Maps

Maps identifying known FWHCAs are included at the end of this Chapter. Other sources of information include the Washington State Department of Ecology Coastal Zone Atlas. These maps have been produced for informational purposes only. They do not identify the location of all species and habitats requiring protection, and at best are incomplete particularly with regard to wildlife and habitat on private property. Determination of whether an area meets the definition of a Fish and Wildlife Habitat Conservation Area must be made in the field by a qualified professional.

F. Habitat Management Plans – When Required

Habitat management plans, prepared by a qualified professional and approved by the Director (or in the case of Bald eagle management plans the Washington Dept. of Fish and Wildlife), are required when specified in this section (SJCC 18.30.160) and when development is proposed:

1. Within one quarter mile (1,320 feet) of a bald eagle nesting site;
2. Within three thousand feet of a Great blue heron colony; or
3. On lands in or within 300 feet of a site meeting the definition of a Fish and Wildlife Habitat Conservation Area, except that a plan shall not be required for proposed developments located outside the buffers prescribed by this section (SJCC 18.30.160).

Other exemptions from the requirements for a plan?

G. Requirements for Habitat Management Plans.

1. General. This report must characterize Fish and Wildlife Habitat Conservation Areas on or within 300 feet of a proposed development site, and identify the actions that will be taken to prevent negative impacts to protected species and habitats. When available, the Washington Department of Fish and Wildlife Priority Habitat and Species Management Recommendations shall be the basis for the recommendations in this report.
2. Qualifications of the Preparer. Habitat management plans shall be prepared by a qualified professional with a bachelor's degree in wildlife or fisheries biology, or a related biology degree and at least four years experience as a practicing fish or wildlife biologist. The education and experience of the professional must be related to the type of species or habitat being evaluated.
3. Content of the Report. At a minimum the report must contain:
 - a. The name and contact information for the applicant;
 - b. The name, contact information and qualifications of the professional preparing the report;
 - c. The date the report was prepared;
 - d. A description of the development proposal and the permits requested;
 - e. A site plan for the parcel that is the site of the proposed development, drawn to scale, depicting all areas meeting the definition of a FWHCA, wetlands, geologically hazardous areas, prescriptive buffers required by this Chapter, and proposed structures, roads, sewage systems, stormwater systems, and areas to be cleared or graded;
 - f. A copy of the proposed stormwater management plan for the development and a description of proposed alterations to surface and subsurface drainage (including proposed curtain drains and driveways that are anticipated to intercept shallow groundwater);
 - g. An assessment of habitats including the following:
 - i. A detailed description of vegetation throughout the areas included in the report. Eelgrass beds within FWHCAs must be surveyed between _____ and _____ (summer months);
 - ii. Identification of any protected animals, plants or habitats;

- iii. A discussion of any applicable federal, state, or local management recommendations for protected species or habitats;
 - iv. A discussion of the direct and indirect impacts the proposed development will have on species or habitat, including potential impacts to water quality and cumulative impacts that would result if other properties in the vicinity engaged in similar actions;
 - v. A discussion of the actions recommended to prevent adverse impacts to species and habitats which may include establishing buffer zones; preserving important plants and trees; limiting access to habitat areas; seasonal restriction of construction activities; and timetables for periodic evaluation of the site and adaption of the plan to changing circumstances;
 - vi. A description of field work performed; the methodologies used to conduct habitat assessments and analyses; references; and all assumptions made or relied upon;
 - vii. An analysis of site development alternatives;
 - viii. For applications for a Reasonable Use or Public Agency/ Utility Exception, a discussion of proposed mitigation and a mitigation plan as required by SJCC 18.30.110; and
 - ix. A discussion of ongoing management practices that will protect habitat after the site has been developed, including proposed monitoring and maintenance programs.
- h. Photos of existing structures and habitat areas.
4. The Director may require that a report be approved by the Washington Department of Fish and Wildlife, the Washington Department of Natural Resources, or other appropriate agency, before final approval by the County.

H. Prohibited Uses in FWHCAs and their Buffers

- 1. Chemical Application and Storage. Chemical applications are not permitted within FWHCAs or their buffers unless expressly approved as part of a farm plan, forest practices application, or for the control of invasive or noxious plant species. Chemicals shall not be stored within a FWHCA or its buffer.
- 2. Accessory structures including swimming pools, tennis courts and detached patios.

I. Allowed Uses and Associated Protection Standards

- 1. Land uses and development in and within 300 feet of a FWHCA must be conducted in a manner that prevents negative impacts to protected species, habitat or water quality, and that conforms to the requirements set forth in this section (SJCC 18.30.160). Impacts are to be prevented by identifying protected wildlife and habitat prior to the start of site planning, locating development outside buffer areas, preserving snags and significant trees, limiting impervious area to a maximum of 10%, implementing Low Impact Development practices, preserving predevelopment surface and groundwater hydrology, and designing site specific plans that are compatible with the wildlife and natural features found in San Juan County.
- 2. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife are allowed uses.
- 3. Passive recreation and education facilities, such as wildlife viewing structures and trails are allowed providing:
 - a. They are consistent with an approved habitat management plan;
 - b. They are constructed to prevent adverse impacts on water quality, fish, wildlife and habitat, and to avoid removal of snags, significant trees.
 - c. Trails and other facilities shall, to the extent feasible, be placed on existing road grades, utility corridors, or other previously disturbed areas;

- d. Trails may not be more than 5 feet in width. Trails shall be constructed with pervious surfaces when feasible and shall be designed to direct runoff into vegetated areas to prevent erosion of the trail.
 - e. Trails within FWHCAs may not be used by motorized vehicles.
4. Agricultural uses existing as of December 1, 2006 are allowed uses.
5. Road Repair and Construction. Road expansion or construction may be allowed in a FWHCA or its buffer providing:
- a. An alternative location is not available;
 - b. The proposed road will serve as many parcels as possible;
 - c. A general utility easement will be provided for utilities serving other parcels in the vicinity. Easements for trails and viewing points are encouraged;
 - d. Construction will be the minimum necessary to conform to the requirements of this code; and
 - e. In order to protect species and habitat, construction time limits shall be established in consultation with the Washington Department of Fish and Wildlife.
7. Utilities. Placement of utilities within FWHCAs and their buffers may be allowed pursuant to the following standards:
- a. An alternative location is not available. Utilities are encouraged to follow existing or permitted roads and to co-locate with other utilities where possible.
 - b. An easement will be provided for utilities serving other parcels in the vicinity. Easements for trails and viewing points are encouraged;
 - c. On-site sewage drainfields must be designed to avoid existing trees to the greatest extent practicable.
 - d. Stormwater dispersion devices and bioswales may be allowed within the outer twenty-five (25) percent of required buffers providing:
 - i. No other location with less impact is feasible;
 - ii. The stormwater discharge will not increase the risk of landslides or erosion;
 - iii. The site complies with the residential BMPs outlined in SJCC Chapter 18.30.110.
 - e. Utility construction and maintenance must protect fish and wildlife habitat areas and their buffers.
 - i. New utilities and utility corridors shall be aligned to avoid cutting trees greater than 12 inches in diameter at breast height (four and one-half feet measured on the uphill side).
 - ii. New utilities and utility corridors shall be revegetated with appropriate native vegetation at not less than preconstruction densities or greater, immediately upon completion of construction or as soon thereafter as weather permits. The utility shall ensure that such vegetation survives for a three-year period.
 - iii. In order to protect species and habitat, construction time limits shall be established in consultation with the Washington Department of Fish and Wildlife.
 - f. Utility structures cannot be sand blasted and may not be painted with lead-base paint.
8. Stormwater pipes may be allowed to cross a shoreline buffer and discharge at the shoreline providing:
- a. The pipes are necessary to protect against the threat of landslide or erosion from a geologically hazardous area;
 - b. No other method of stormwater discharge with less ecological impact is feasible;
 - c. Native vegetation is preserved or used for landscaping and irrigation of landscaping will be minimal;
 - d. The contributing impervious area is limited to _____ sq. ft.;
 - e. Lawn and garden chemicals and deicing salt will not be used;
 - f. Runoff from impervious surfaces including roof runoff is treated in biofiltration swales or other vegetative treatment systems to remove bacteria, sediment and other contaminants;

Note: Roof runoff needs to be treated to remove atmospherically deposited contaminants, zinc (e.g. from gutters, downspouts and moss deterrent products), bird droppings and organic material.

- g. An analysis by a qualified professional determines there will be no negative effects on water quality or protected habitat from either the proposed discharge, or cumulatively from multiple discharges if they were approved for other properties in the area.
9. Desalination plants may be allowed if an approved habitat management plan demonstrates the following:
 - a. The plant is located and constructed to prevent negative impacts to the shoreline and buffer;
 - b. Brine will be discharged into currents where it will mix rapidly to prevent negative impacts on marine life; and
 - c. Impacts on the buffer and shoreline are fully mitigated.
 10. Stream crossings are allowed when necessary to provide access to property. Construction on roads and driveways that cross fish bearing streams must comply with the following:
 - a. Fish passage shall be provided and the design of the stream crossing shall meet the requirements of the Washington Department of Fish and Wildlife.
 - b. Crossings shall not occur in salmonid spawning areas unless no other reasonable crossing site exists. For new development proposals using existing crossings that adversely impact salmon, new or upgraded crossings conforming to Washington Department of Fish and Wildlife standards may be required;
 - c. Bridge piers or abutments shall not be placed either within floodways or between the ordinary, high water marks unless no other reasonable alternative placement exists;
 - d. All stream crossings shall be designed based on the 100-year projected flood flows, even in non-fish bearing Type Np and Ns streams. In addition, crossings for Type S and F streams should allow for downstream transport of large woody debris;
 - e. Crossings shall serve multiple properties whenever possible; and
 - f. Where there is no reasonable alternative to providing a culvert, the culvert shall be the minimum length necessary to accommodate the permitted activity.

The following sections on shoreline armoring, docks, and ponds need to be completed after discussion with the CAO Committee.

10. Bank and Shoreline Armoring

Structural armoring of shorelines is discouraged because of the negative impacts it has on neighboring properties, nearshore areas, fish and nearshore habitat.

- a. Residential Development. In accordance with current Department of Ecology shoreline guidance, future residential development must be located and designed to avoid the need for shoreline armoring.
- b. New or expanded stabilization measures for existing homes are not allowed unless there is conclusive evidence, documented by a geo-technical analysis, that the structure is in danger from shoreline erosion caused by tidal action, currents, or waves (WAC 173-26-231 (3)(a)(iii). Stabilization measures for existing homes will not be allowed unless all the following apply:
 - i. The erosion is not being caused by upland conditions, such as the loss of vegetation or changes in surface or subsurface drainage.
 - ii. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
 - iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report. The damage must be caused by natural processes, such as tidal action, currents or waves.
 - iv. The erosion control structure will not result in a net loss of shoreline ecological functions.

- c. Repair and Replacement of Existing Stabilization Structures Without Expansion. In conformance with WAC 173-27-040, normal maintenance and repair of bulkheads and shoreline armoring cannot adversely effect the shoreline or environment (also see WAC 173-27-080 on non-conforming shoreline uses). Replacement of existing structures may be permitted, consistent with all necessary state and federal permits, providing a report prepared by a qualified professional geologist and a biologist demonstrates the following:
 - i. No feasible alternative, including non-structural measures such as planting vegetation or drainage improvements, would provide adequate protection to upland property;
 - ii. Bioengineering or soft armoring shall be employed to the greatest extent feasible, with hard armoring allowed only if other options will not adequately protect an existing, permanent structure that is in danger from shoreline erosion caused by wave action;
 - iii. Natural shoreline processes are maintained, with no alteration of the size or distribution of shoreline substrate, including no reduction in sediment supply from feeder bluffs;
 - iv. Mitigation measures shall be required if there will be a net loss of the functions or values of intertidal or riparian habitat.
- d. Bank and shoreline armoring shall be designed by a professional engineer licensed in the state of Washington with demonstrated expertise in hydraulic actions of shorelines. For bank stabilization projects within FWHCAs, the applicant must provide a geotechnical report that demonstrates that bioengineering solutions (vegetation) are infeasible. The report must document the engineering rationale why bioengineering solutions are infeasible in a manner that can be confirmed through review by other engineering professionals. Bank stabilization projects may also require a hydraulic project approval from the Washington Department of Fish and Wildlife.

11. Boating Facilities.

- a. Repair and maintenance of an existing dock, pier, float or other moorage structure may be permitted if the applicant demonstrates the following:
 - i. There is no increase in the use of materials creating shade for predator species or eelgrass;
 - ii. There is no expansion in overwater coverage;
 - iii. There is no new spanning of waters between three (3) and thirteen (13) feet deep;
 - iv. There is no increase in the size and number of pilings; and
 - v. There is no use of toxic materials, such as creosote.
- b. New or expanded docks, piers, floats or other moorage structures may be permitted with an approved habitat management plan, subject to the following:
 - i. The habitat management plan must include a survey of the presence and location of forage fish spawning areas and important marine vegetation, such as eelgrass, kelp, macroalgae, and intertidal wetland vascular plants, within _____ feet of the proposed structure;
 - ii. Overwater structures shall not be placed over or within 25 feet of forage fish spawning areas or eelgrass beds; (are there any other areas that should be included here?)
 - iii. Boathouses, houseboats, and floats shall be located offshore of fifteen (15) feet below the mean lower low water contour to prevent shading, prop scour, and the need for dredging;
 - iv. Structures shall be designed to prevent reductions in ambient light levels by maximizing height above the water, minimizing structure width, incorporating grating or light transmissible materials, minimizing the number of piles, and orienting the structure in a north-south alignment where possible;
 - v. Existing boating facilities that are made unnecessary by a new or expanded facility shall be removed;
 - vi. Cumulative impacts considered in the habitat management plan shall include, but not be limited to, shading, toxic discharges, breakwater effects of floats, prop wash, and changes to species interactions;

- vii. To reduce overall shading and contamination it may be necessary to remove treated wood structures and degraded or derelict docks, on or off the site;
- viii. Structures shall comply with requirements of SJCC 18.50.190.

Require that mooring buoys be anchored to prevent damage to nearshore vegetation? Require eelgrass survey if less than 30 feet deep?

- c. Launching ramps and marine railways may be permitted if an approved habitat management plan demonstrates the following:
 - i. The project will not result in increased beach erosion or alterations to, or loss of, shoreline substrate within one-quarter (1/4) mile of the site;
 - ii. The ramp will not adversely affect critical fish or wildlife habitat areas or associated wetlands;
 - iii. Adequate measures are taken to ensure there is no net loss of the functions or values of intertidal habitat or riparian habitat as a result of the ramp; and
 - iv. No alteration of intertidal migration corridors will occur as a result of the ramp.

12. Buffers – Standard Requirements. Buffers are required from the edges of all FWHCAs in accordance with the following:

a. Buffers generally.

- i. Buffers shall be established adjacent to FWHCAs to protect the integrity, functions and values of the resource, consistent with the requirements set forth in Tables 3. _____ and 3. _____ of this section.
- ii. A building setback line of five feet is required from the edge of any buffer area, however, nonstructural improvements such as septic drain fields may be located within setback areas.
- iii. Buffers shall be retained in their natural condition, however, minor pruning of vegetation to allow access or to provide views from residential or commercial structures may be permitted in conjunction with an approved Habitat Management Plan.
- iv. Fallen trees shall not be removed from required buffers except where they pose a safety hazard or where they interfere with normal activities associated with approved land uses (such as a tree that falls across a driveway).
- v. Mature snags, greater than eighteen (18) inches in diameter at breast height, shall receive extra priority for protection.
- vi. Lighting shall be directed away from the FWHCA.

b. Prescriptive Buffers for Streams and Shorelines

- i. The standard buffer widths required by this article are considered to be the minimum required to protect the functions and values of stream and shoreline riparian areas. When a buffer lacks adequate vegetation to protect these areas, the Director may deny a proposal for buffer reduction or buffer averaging.
- ii. The standard buffer shall be measured landward horizontally from the ordinary high water mark (OHWM) or the top of the bank as identified in the field. The required buffer shall include any adjacent regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not extended across paved roads or other lawfully established structures or hardened surfaces. The following standard buffer width requirements are established for streams, provided that portions of streams that flow underground may be exempt from these buffer standards at the Director's discretion when it can be demonstrated there will be no adverse effects on aquatic species.

Staff note: The guidance from WDFW based on BAS specifies 250 foot buffers for Type S streams (shorelines of the State) and 200 feet for Type F (fish bearing) streams. I do not yet know how Jefferson County justified these reduced buffers - perhaps because they are establishing a monitoring program, or perhaps they were not challenged on this issue and did not have to defend their decisions before the Growth Board. To adopt buffers less

than BAS it will be necessary to develop and fund a monitoring and assessment program to track impacts to species and habitats. Another option might be to specify a 200 - 250 foot shoreline management zone where some clearing and structures are allowed in the outer 100 feet if significant trees, snags, logs and native vegetation are retained, noise and light are kept to a minimum, LID practices are used, and structures/ impervious areas are limited (Steward and Associates recommended a limit of 3,000 sq. ft.).

TABLE 3. STREAM BUFFERS*	
STREAM TYPE	BUFFER REQUIREMENT
<u>Type "S" - Shoreline Streams</u>	<u>150 feet</u>
<u>Type "F" – Fish Bearing Streams</u>	<u>150 feet</u>
<u>Type "Np"- Non-Fish Bearing Perennial Streams</u>	<u>75 feet</u>
<u>Type "Ns" – Non-Fish Bearing Seasonal Streams greater than or equal to 20% grade</u>	<u>75 feet</u>
<u>Type "Ns" – Non-Fish Bearing Seasonal Streams less than 20% grade</u>	<u>50 feet</u>

* Stream type shall be determined using the criteria set forth in WAC 222-16-030.

(iii) Buffers for other FWHCAs. Buffer widths for non-stream habitat conservation areas shall be as follows:

These buffers which were adopted by Jefferson County also do not appear to conform to the best available science. The current nearshore science released by the State in October 2007 specifies averages and/or minimums of 285 to 335 feet. Again, perhaps some development could be permitted in the outer extent of these areas, providing it is small in scale and designed to be compatible with wildlife and habitat.

Table 3. Buffers for Other FWHCAs	
FWHCA Type	Buffer Requirement
<u>Areas with which federally listed species have a primary association</u>	<u>Buffers shall be 150 feet provided that local and site specific factors shall be taken into consideration and the buffer width based on the best available science concerning the species/habitat(s) in question and/or the opinions and recommendations of a qualified professional with appropriate expertise.</u>
<u>Commercial and recreational shellfish areas</u>	<u>Buffers shall extend one hundred-fifty (150) feet landward from ordinary high water mark of the marine shore.</u>
<u>Kelp and Eelgrass Beds</u>	<u>Buffers shall extend one hundred-fifty (150) feet landward from ordinary high water mark of the marine shore.</u>
<u>Surf Smelt, Pacific Herring, and Pacific Sand Lance Spawning Areas</u>	<u>Buffers shall extend one hundred-fifty (150) feet landward from ordinary high water mark of the marine shore.</u>
<u>Natural Pond and Lakes</u>	<u>Ponds under 20 acres - buffers shall extend 50 feet from the ordinary high water mark.</u>

	<u>Lakes 20 acres and larger - buffers shall extend 100 feet from the ordinary high water mark, provided that where vegetated wetlands are associated with the shoreline, the buffer shall be based on the wetland buffer requirements.</u>
<u>Natural Area Preserves and Natural Resource Conservation Areas</u>	<u>Buffers shall not be required adjacent to these areas. These areas are assumed to encompass the land required for species preservation.</u>
<u>Locally Important Habitat Areas</u>	<u>The buffer for marine nearshore habitats shall extend landward 150 feet from the ordinary high water mark. The need for and dimensions of buffers for other locally important species or habitats shall be determined on a case-by-case basis, according to the needs of specific species or habitats of concern. Buffers shall not be required adjacent to wildlife corridors. The Director shall coordinate with the WA Department of Fish and Wildlife and other state, federal or Tribal experts in these instances, and may use WDFW PHS management recommendations when available and applicable.</u>

13. The Director shall have the authority to reduce buffer widths on a case-by case basis when the applicant demonstrates that the following criteria are met:
- a. The buffer reduction will not adversely affect the functions and values of the adjacent FWHCA.
 - b. The buffer shall not be reduced to less than seventy-five (75) percent of the standard buffer.
 - c. The slopes within the buffer are stable and the gradient does not exceed thirty percent (30%).
 - d. Impervious area on the parcel will not exceed 10%.
 - e. Significant trees and native vegetation are retained or used for landscaping the parcel.
 - f. Noise and light are directed away from the buffer.
 - g. To the greatest extent practicable the development utilizes the Low Impact Development techniques outlined in the Puget Sound Action Team 2005 Low Impact Development Manual.
14. The Director shall have the authority to average buffer widths on a case-by case basis, provided that the applicant demonstrates to the satisfaction of the Director that the following criteria are met:
- a. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer and all increases in buffer dimension are parallel to the FWHCA.
 - b. The buffer averaging does not reduce the functions or values of the FWHCA or riparian habitat, or the buffer averaging, in conjunction with vegetation enhancement, increases the habitat function.
 - c. The buffer averaging is necessary due to site constraints caused by existing physical characteristics such as slope, soils, or vegetation.
 - d. The buffer width is not reduced to less than seventy-five percent (75%) of the standard width.
 - e. The slopes adjacent to the FWHCA within the buffer area are stable and the gradient does not exceed thirty percent (30%).
 - f. Buffer averaging shall not be allowed if FWHCA buffers are reduced pursuant to above subsection 6.

15. Buffer Marking. The location of the outer extent of required buffers shall be marked in the field as follows:

During Construction: Buffer perimeters shall be marked with temporary signs at an interval of one per parcel or every 100 feet, whichever is less. Signs shall remain in place prior to and during construction activities. The signs shall contain the following statement: “Wildlife and Habitat Buffer – Do Not Remove or Alter Existing Snags, Logs or Native Vegetation.”

16. For recorded plats, binding site plans and similar documents pertaining to the property, the applicant shall either show the boundary of the FWHCA and buffer on the face of the plat or record a deed restriction for the FWHCA and buffer.

J. Conditions of Approval

1. General. In granting approval for a project application, the Director may require mitigating conditions to ensure compliance with the objectives and requirements of this section.

2. Basis for Conditions. All conditions of approval required pursuant to this section shall be based on either the substantive requirements of this section or the recommendations of a qualified professional utilizing best available science, contained within a report required under this chapter.

Section 9. SJCC Section 18.60.030 (Wastewater Disposal) shall be amended as follows:

18.60.030 WastewaterSewage disposal.

All development must conform to the standards set by SJCC Title 8 SJCC, Health and Safety. Applicants for subdivision and binding site plan approvals shall demonstrate conformance for both the preliminary and final approvals.

Commercial, industrial, public, and institutional facilities that generate non-domestic wastewater (that is wastewater produced inside structures which is not from showers, restrooms or kitchens) must be served by an appropriate wastewater treatment system or facility approved by the agency with jurisdiction.

A determination by a non-County concurrency facility and service provider that there is adequate capacity available (*see* SJCC 18.60.200) does not necessarily reserve that capacity or guarantee that sewage disposal service will be provided. Such reservations and guarantees may require the purchase of a membership or other action as defined by the service provider. Short and long subdivisions must demonstrate actual connections and guarantees of service before final approval. Maintenance, ~~and~~ operation and repair of on-site sewage disposal systems are governed by SJCC ~~Chapter 8.16.160, as amended. Repair of failing systems is addressed by SJCC 8.16.170, as amended~~ (Ord. 15-2005 Exh. B; Ord. 12–2001 § 6; Ord. 2–1998 Exh. B § 6.3)

Section 10. SJCC Section 18.60.070 (Storm Drainage Standards) shall be amended as follows:

18.60.070 Storm drainage standards. All new development and redevelopment must conform to the standards and minimum requirements set by the Washington Department of Ecology *Stormwater Management Manual for Western Washington*, Publication Nos. 05-10-029 through 05-10-033 ~~*Stormwater Management Manual for the Puget Sound Basin (SMM)*~~, as amended. In addition, the Best Management Practices identified in the January 2005 *Low Impact Development Technical Guidance Manual for Puget Sound*, produced by the Puget Sound Action Team, are acceptable alternatives for managing runoff and controlling soil erosion. The Director may require additional measures as indicated by the environmental review or other administrative review.

Staff note: This section of the UDC needs to be modified to ensure runoff will be infiltrated whenever possible, to integrate Low Impact Development incentives and requirements, and to prevent stormwater from adversely

affecting critical areas. When proposed modifications to this section are developed, the Critical Areas Committee will review them for consistency with Critical Area protection requirements.

Section 11. SJCC Section 18.60.250 (Extension of Urban Level Capital Facilities and Services into Rural Areas) shall be amended as follows:

18.60.250 Extension of urban-level capital facilities and services into rural areas.

- A. Applicability.** The Director shall not approve a development permit application unless it conforms with the standards in this section.
- B. Purpose.** To limit the extension of urban-level capital facilities and services outside of urban growth areas and master planned resorts, while providing a mechanism to allow certain necessary exceptions.
- C. Urban-Level Facilities and Services.** The following are identified as urban-level capital facilities and services:
1. Sewerage treatment systems, sanitary and wastewater sewer systems;
 2. Pressurized, piped fire-suppression flow, as characterized by the presence of hydrants.
- D.** No new urban level facilities and services shall be provided outside of urban growth areas or master planned resorts, or outside of areas of more intensive rural development (AMIRDs), except as allowed in paragraph F of this section.
1. Urban-level services, connections, and contractual commitments to service outside of urban growth areas, master planned resorts and AMIRDs that were completed, were being constructed, or had completed planning and budgeting as of January 1, 2001, are recognized as pre-existing and conforming and may continue.
 2. After January 1, 2001, no new urban-level services, connections, and contractual commitments to service may be made to new or existing development outside of urban growth areas, master planned resorts, and AMIRDs, or within AMIRDs where the urban-level facility or service had not already been established by January 1, 2001.
 3. A rural level of service for water supply and fire protection may include a piped system capable of delivering a pressurized fire-flow, and hydrants, if required by the fire marshal or by the fire hydrant code, Chapter 13.08 SJCC, and if the service is provided at levels that do not exceed those approved by the fire marshal or required by this code.
- E.** Schools and essential public facilities that are located in rural or resource lands are exempted from the service and connection limitations of subsection (D) of this section. Both of the following conditions must be met:
1. The urban-level facilities and services shall be designed and sized specifically to meet and serve the school or essential public facility; and
 2. The urban-level facilities and services shall not be extended to other areas, other facilities, or other users/customers.
- F.** Exceptions to the requirements of subsection (D) of this section may be made ~~through the variance procedures of SJCC 18.80.100. In addition to the criteria for approval of variances,~~ when all of the following conditions are met:
1. Extension of services ~~The variance~~ is necessary in order to protect basic public health and safety and the environment, and it conforms to the requirements of RCW 36.70A.110(4);
 2. ~~Other alternatives to the extension of urban level services have first been considered, and it has been determined that none of the alternatives would adequately and satisfactorily address the problem;~~
 3. The facilities and services are financially supportable at rural densities;
 4. The facilities and services do not permit or support urban development;
 5. ~~The facilities and services are designed and sized specifically to meet and serve the specific and narrowly defined problem; and~~
 6. ~~The facilities and services are expressly prohibited from being extended to other areas, other facilities, or other users/customers.~~
 4. The State Department of Health and/or the County Health and Community Services Department declare that extension of services is necessary to protect public health, safety and the environment. (Ord. 11-2000 § 5; Ord. 2-1998 Exh. B § 6.23)

Section 12. A new section 18.60.270 (Groundwater Protection Standards) shall be adopted:

18.60.270 Groundwater Protection Standards. All land use and development in San Juan County shall meet the requirements of this section.

A. Prohibited Land Uses. The following land uses are prohibited:

1. New landfills except those designed for inert waste such as brick and concrete.
2. Wood preserving and treatment facilities.
3. Electroplating and other metal plating facilities.
4. Facilities that process, treat or dispose of hazardous or radioactive waste on-site.
5. Petroleum product refinement and reprocessing.

B. In accordance with State and Federal laws, the use of pesticides, petroleum products and other chemicals that could be a health hazard in drinking water must:

1. Be used in accordance with the manufacturers directions;
2. Be stored, handled and disposed of in a manner that prevents them from coming in contact with the ground surface, or with ground or surface water; and
3. Not be disposed of in floor drains, injection or drywells, septic or sewage disposal systems.
4. Use of a product in accordance with the manufacturers directions does not constitute disposal.
5. Guidance on acceptable management practices can be found in the Washington Department of Ecology 2005 Stormwater Management Manual for Western Washington: Volume IV, Source Control BMPs (Publication 05-10-032).

C. Plan review. Prior to approval the County shall review plans for commercial, industrial, public and institutional facilities for conformance with the requirements of this section. To facilitate this review the applicant shall provide a list of the chemicals (including approximate quantities) that will be used, proposed spill containment plans, and a plan for disposal of waste chemicals.

D. Hydrogeologic Evaluation. When required by paragraph 3 below, a hydrogeologic evaluation shall be conducted by a qualified engineer, geologist or other professional with appropriate hydrological education and experience. The County may engage an independent professional or the County Hydrologist to review the evaluation at the applicant's expense. The scope of the hydrogeologic evaluation shall be sufficient to determine compliance with this Code, as determined by the Director, and may include but not be limited to an analysis of:

1. Hydrogeologic Setting:

- a. Description of the geologic setting of the site, illustrated with geologic and soil maps;
- b. Discussion of geologic features which may influence groundwater movement, such as faults and landforms.;
- c. Description of the occurrence and movement of groundwater in the area, including a general discussion of aquifer recharge and discharge, depth of groundwater and groundwater flow patterns; and
- d. General discussion of groundwater quality in the area.

2. Site-Specific Hydrogeologic Data:

- a. Scaled map showing the location of wells (in use or inactive) and springs within one thousand (1,000) feet of the site or as required by the Director;
- bi. Depth to groundwater layer in the immediate vicinity;
- c. Hydrogeological cross-sections through the site and immediate vicinity with references to information used to prepare the cross-sections;
- d. Description of groundwater movement beneath the site with considerations for the following:
 - i. Areal distribution, stratification and hydraulic conductivity of the water-bearing formations;
 - ii. Probable migration pathways for contaminants;

- iii. An estimate of the probable times of travel through the soil horizontally and vertically from a potential contaminant source;
 - e. Description of how contaminants of concern will be attenuated within the saturated zone; and
 - f. Estimate of the quantity and/or quality of water recharged to the saturated zone under anticipated operation.
3. The Director may require a hydrogeologic evaluation for the following:

Staff note: The County Water Resources Committee and H&CS Dept. will make a recommendation on when this analysis should be required

E. Groundwater Monitoring and Action Triggers.

Staff note: These regulations would be more appropriate in Chapters 8.06 and/or 8.16 of the County Code.

1. All new wells in the County shall submit to the San Juan County Health and Community Services Department (H&CS) a copy of their well log, along with water quality analysis for coliform bacteria, arsenic, barium, fluoride, nitrate, sodium, chloride and conductivity.
2. H&CS shall develop and implement a monitoring network in areas where the County Water Resources Committee identifies nitrates as a contaminant of concern. H&CS shall collect nitrate samples twice per year, and will coordinate sampling with that conducted by public water supplies and the Conservation District. If the annual average nitrate concentration of a well exceeds 2.5 mg/l or if the County Hydrologist determines a risk of contamination exists, H&CS will investigate the source of the contamination and identify the most appropriate strategy to reduce nitrate sources. If septic systems appear to be the source of the contamination, H&CS will work with property owners to identify and implement actions to reduce the contamination. If nitrate levels continue to rise and reach 5 mg/l then H&CS shall require corrective action.
3. H&CS shall identify and map areas of current potential sea water intrusion in accordance with the criteria adopted in SJCC 8.06.160.
4. If chloride levels in a well exceed 100 ppm or if chemical analysis confirms that sea water intrusion is occurring, H&CS will take appropriate action to protect groundwater resources by working with property owners to identify and implement actions to reduce sea water intrusion. (Ord. 2-1998 Exh. B § 3.6.7).

Section 13. SJCC Chapter 18.070 (Land Divisions) shall be amended as follows: *Add when completed*

Section 14. SJCC Chapter 18.100 (Enforcement) shall be amended as follows: *Add when completed*