



## San Juan County Community Development & Planning

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**To: San Juan County Planning Commission**  
**From: Janice Biletznikoff, AICP**  
**Planner III**  
**Re: September 16, 2011 Public Hearing on Wetland Critical Area Regulations**  
**Date: August 31, 2011**

### Issue

Update the existing SJCC Critical Areas Ordinance for Wetland Critical Areas by amending sections 18.30.150, as required by RCW 36.70A.130.

### Background

When it was adopted in 1990, one of the core requirements of the Washington Growth Management Act (GMA) was the requirement to protect the functions and values of Critical Areas which were formerly referred to as Environmentally Sensitive Areas. These areas include Critical Aquifer Recharge Areas, Frequently Flooded Areas, Geologically Hazardous Areas, Wetlands and Fish and Wildlife Habitat Conservation Areas. San Juan County adopted its first regulations to protect Critical Areas in 1991, and since that time there have been few changes to the regulations.

In 1995, the State legislature amended the GMA, requiring that local governments include the Best Available Science (BAS) in designating and protecting Critical Areas (RCW § 36.70A.172(1) and WAC 365-195-900 – 925). San Juan County was given a deadline of December 1, 2006 to accomplish this and make any necessary changes to bring its regulations into conformance with State law. Under the GMA, BAS means current scientific information derived from research, monitoring, inventory, survey, modeling, assessment, synthesis, and expert opinion that is:

- Logical and reasonable
- Based on quantitative analysis
- Peer reviewed
- Used in the appropriate context
- Based on accepted methods
- Well referenced

With regard to GMA requirements, there has been considerable discussion about how the 14 GMA goals relate to the requirement to protect Critical Areas. In a July 14, 2011 memo, Deputy Prosecutor Jonathan Cain provided guidance on this issue, recommending that we focus on satisfying the requirements of the GMA and consider the goals when evaluating various alternatives for meeting the requirements.

The County has been working on this update off and on since 2003, with a concerted effort to complete the update since 2007. As part of the update, over the last year a team of expert consultants were hired

to conduct a study of County wetlands, identify and summarize the scientific literature, and assist with the review and update of the regulations.

This past spring, the County Council adopted the *Best Available Science Synthesis, San Juan County, Washington, May 2011* and the underlying literature as the science that will be considered in updating the regulations. Following adoption of the BAS Synthesis, the consultants and staff analyzed the existing regulations and the County Council provided policy direction for use in preparing initial drafts of the amendments.

This portion of the amendments includes regulations that apply to Wetland Critical Areas.

### **Applicable State Laws and Regulations**

The following are state laws and regulations that are most applicable to Wetland Critical Area regulations:

#### **RCW 36.70A.020 - Planning goals.**

The following goals are adopted to guide the development and adoption of comprehensive plans and development regulations of those counties and cities that are required or choose to plan under RCW 36.70A.040. The following goals are not listed in order of priority and shall be used exclusively for the purpose of guiding the development of comprehensive plans and development regulations:

- (1) Urban growth. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
- (2) Reduce sprawl. Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.
- (3) Transportation. Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.
- (4) Housing. Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.
- (5) Economic development. Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.
- (6) Property rights. Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.
- (7) Permits. Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.
- (8) Natural resource industries. Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses.
- (9) Open space and recreation. Retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.
- (10) Environment. Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.
- (11) Citizen participation and coordination. Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.
- (12) Public facilities and services. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum

standards.

(13) Historic preservation. Identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance.

(14) For shorelines of the state, the goals and policies of the shoreline management act as set forth in RCW 90.58.020 are added as one of the goals of this chapter

**RCW 36.70A.175** - *Wetlands to be delineated in accordance with manual.*

Wetlands regulated under development regulations adopted pursuant to this chapter shall be delineated in accordance with the manual adopted by the department pursuant to RCW 90.58.380.

**WAC 173-22-35** - Wetland identification and delineation.

Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements. Review copies are available at the department of ecology headquarters and regional offices. Links to the on-line versions are accessible through the department of ecology wetlands web page. Copies of the original published manual are available through the U.S. Army Corps of Engineers National Technical Information Service (phone 703-487-4650).

**WAC 365-190-090** - Wetlands.

(1) The wetlands of Washington state are fragile ecosystems that serve a number of important beneficial functions. Wetlands assist in reducing erosion, siltation, flooding, ground and surface water pollution, and provide wildlife, plant, and fisheries habitats. Wetlands destruction or impairment may result in increased public and private costs and property losses.

(2) In designating wetlands for regulatory purposes, counties and cities must use the definition of wetlands in RCW 36.70A.030. Counties and cities are requested and encouraged to make their actions consistent with the intent and goals of "protection of wetlands," Executive Orders 89-10 and 90-04 as they existed on September 1, 1990. Additionally, counties and cities should consider wetlands protection guidance provided by the department of ecology, including the management recommendations based on the best available science, mitigation guidance, and provisions addressing the option of using wetland mitigation banks.

(3) Wetlands rating systems. Wetland functions vary widely.

(a) When designating wetlands, counties and cities should use a rating system that evaluates the existing wetland functions and values to determine what functions must be protected.

(b) In developing wetlands rating systems, counties and cities should consider using the wetland rating system developed jointly by the department of ecology and the United States Army Corps of Engineers.

(c) If a county or city chooses to use an alternative rating system, it must include the best available science.

(d) A rating system should evaluate, at a minimum, the following factors:

(i) Wetlands functions and values;

(ii) Degree of sensitivity to disturbance;

(iii) Rarity;

(iv) The degree to which a wetland contributes to functions and values of a larger ecosystem.

Rating systems should generally rate wetlands higher when they are well-connected to adjacent or nearby habitats, are part of an intact ecosystem or function in a network of critical areas; and

(v) The ability to replace the functions and values through compensatory mitigation.

(4) Counties and cities may use the National Wetlands Inventory and a landscape-scale watershed characterization as information sources for determining the approximate distribution and extent of wetlands. The National Wetlands Inventory is an inventory providing maps of wetland areas according to the definition of wetlands issued by the United States Department of Interior Fish and Wildlife Service. A landscape-scale watershed characterization may identify areas that are conducive to forming wetlands based on topography, soils and geology, and hydrology. Any potential locations of wetlands based on the National Wetlands Inventory or landscape-scale watershed characterization should be

confirmed by field visits, either before or as part of permitting activities, and identified wetlands should have their boundaries delineated for regulation consistent with the wetlands definition in RCW 36.70A.030.

(5) Counties and cities must use the methodology for regulatory delineations in the adopted state manual identified in RCW 36.70A.175.

## **San Juan County Comprehensive Plan Elements**

### **Land Use Element Section B.2.5.B: Critical Areas**

#### General Goals and Policies

*Goal 1: Protect the functions and values of Critical Areas, giving special consideration to anadromous (migratory) fish.*

*Goal 2: Allow for use of property to the greatest extent possible while protecting Critical Area functions and values.*

*Goal 3: Establish Critical Area requirements that are balanced and related to impacts.*

*Goal 4: Establish funding mechanisms to support Critical Area protection programs including funding for voluntary measures such as education, technical assistance, and cost share programs.*

- 1. In conformance with the Washington Growth Management Act, in designating and protecting critical areas establish regulations that protect Critical Areas based on consideration of the best available science.*
- 2. Adopt policies and regulations that, as of the effective date of implementing ordinances, are designed to protect functions and values of critical areas.*
- 3. In addition to regulations, develop voluntary and incentive-based programs to protect the overall functions and values of Critical Areas and other natural resources. Voluntary actions may include education, technical assistance, water conservation, stewardship programs, implementation of best management practices, and restoration activities. One purpose of these programs is to mitigate impacts resulting from authorized exemptions and exceptions.*
- 4. The impacts of land use and development preferably will be managed and mitigated on site.*
- 5. When developing Critical Area regulations, consider the positive effect of all State, Federal and local environmental protection programs.*
- 6. To the extent possible, adopt protection standards that vary based on site characteristics.*
- 7. Encourage the installation of water catchment systems.*
- 8. Implement applicable provisions of adopted Salmon Recovery and Marine Area Stewardship Plans, giving special consideration to anadromous fish.*
- 9. Monitor and enforce permit requirements and Best Management Practices designed to protect Critical Areas.*
- 10. Control or eradicate invasive and/or noxious weeds in conformance with RCW 17.10.*
- 11. Any regulation created pursuant to these policies should include provisions for reasonable use exceptions and nonconforming uses.*

#### Wetland Goals and Policies

*Goal: To protect wetlands from a net loss in functions, values, and acreage.*

- i. Designate, classify, and regulate wetlands based on wetland functions and values consistent with State guidance.*
- ii. Establish standards for wetland protection including use limitations and buffers based on the classification of the wetland and the potential impact of a proposed use on the wetland.*
- iii. Establish a mitigation sequence which includes, in order of priority, avoiding, minimizing or compensating for adverse impacts to regulated wetlands and/or their buffers.*

- iv. Define wetlands consistent with RCW 36.70A.030(21).
- v. Delineate wetlands using the Washington State Wetlands Identification and Delineation Manual, Ecology Publication 96-94, or comparable criteria consistent with state law, RCW 36.70A.175. (Staff note: this particular manual has been replaced with the U.S. Army Corps of Engineers delineation manual, whose use is required by State law.)
- vi. Establish methodologies which provide for compatible agricultural uses of wetlands and their buffers.

### **Discussion of the Proposed Amendments**

The existing Code is in need of updating where the current regulations do not adequately protect the functions and values of wetlands. This proposal includes amendments to address these deficiencies, and clarifies existing terms and procedures. These amendments should improve consistency and predictability for both the County and property owners.

For Wetland Critical Areas, the proposed ordinance:

1. Adds, changes, and removes definitions of terms;
2. Adds to the list of official maps;
3. Includes options for the minimum size of regulated wetlands;
4. Clarifies the activities allowed within wetlands and their buffers;
5. Classifies wetlands based on their type and assigns importance ratings;
6. Removes the list of regulated activities;
7. Removes the standard buffer width protocol and establishes a site-specific procedure for determining any required buffer widths;
8. Removes sections on buffer averaging; decreasing, and increasing;
9. Consolidates and revises the process, requirements, and criteria for noncompensatory enhancement projects;
10. Adds reference to the official manual to be used for wetland delineations (for greater consistency with the WAC);
11. Clarifies the required contents for wetland critical area reports;
12. Revises the regulation of ponds;
13. Removes the sections regarding compensatory mitigation (this was relocated to the general section); and
14. Repeals Appendices A (San Juan County Wetlands Rating System), B (Mitigation/Enhancement Plan Contents), and C (Bonding).

### ***Process and Approach***

The proposed Wetlands ordinance began with the Policy and Recommendations document presented at the workshop with County Council on July 13-14, 2011. Following the workshop, staff and the County's consultants began with the existing Code and went through an iterative process to produce a well-founded, practical, and accessible ordinance. It became evident that the original site-specific buffer procedure that had been proposed - although quite detailed and effective - was difficult to understand, complicated to implement, and would likely require a consultant to determine even the most basic information about the wetland. Additionally, potential combinations of reductions, exemptions, and exceptions (especially if the required buffer width was already narrow) did not adequately protect the wetlands. Throughout this process of revision, the scientific literature was referred to again as needed in order to verify the connections between protections and impacts to resources. It also became apparent that some sections of the existing Code would be unnecessary and obsolete in light of the comprehensiveness of the new site-specific buffer procedure.

The approach of the current proposal is to protect wetland functions and values and keep impacts out of the buffers except where expressly allowed. Additionally, reliance is placed on the Reasonable Use

Exception, Public Agency and Utility Exception, and other exemptions, to be robust enough to provide for situations where additional flexibility is needed.

### ***Elements of Note***

#### ***Site-Specific Buffer Procedure***

Throughout the CAO update process, County staff has been directed to design an ordinance based on site-specific conditions and features rather than setting prescriptive buffer requirements which can, in some cases, overprotect or under-protect. The two approaches have distinct benefits and drawbacks, and many factors must be considered. First and foremost, State law requires that the regulations effectively protect the functions and values of critical areas. On a local level, the wetland policies found in the San Juan County Comprehensive Plan direct staff to create regulations that consider both the characteristics of the specific wetland and the intensity of the proposed development, and allow the use of private property to the greatest extent possible (i.e., does not over-regulate).

The custom-designed buffer procedure proposed here is an attempt to balance the variables of protection and use. It provides precision in determining buffer requirements for a given property, based on the intensity of the proposed development, sensitivity of the wetland itself, capacity for transport of pollutants, and the importance of the wetland (by type). This will avoid the risk of under- or overprotection of resources. The detailed review of on-site conditions eliminates the need for the existing provisions for buffer decreasing, averaging, and increasing (although some reductions may be allowed in downsloping areas that do not contribute runoff to the subject wetland). Additionally, the buffers are not dictated by only the natural characteristics of the property; the landowner can reduce the intensity of the proposed development if he or she wishes to reduce the required buffers.

#### ***Minimum Size of a Regulated Wetland***

The proposed ordinance includes two options for a minimum size under which San Juan County critical area regulations do not apply to a wetland. The first is based on both the Importance Rating of the wetland as well as its size. The second option is based solely on size.

Please note that neither option is supported by the Best Available Science (BAS). That is, the BAS does not specify any size under which wetlands cease to provide important functions and values. The County's wetland consultant, Dr. Adamus, states that the lowest minimum sizes of other jurisdictions are in the 2,000-2,500 sf range. Since 1,000 sf is the threshold under which the 2010 San Juan County wetlands study excluded wetlands based on mapping data, this is the threshold proposed in the second option as a conservative minimum size. The first option (considering both importance and size) is better founded in the scientific literature, with varying sizes based on the functional value and characteristics of different wetland types.

### **Environmental Risk Analysis**

WAC 365-195-915(1)(c)(i-iii) requires that the review and update of critical areas regulations include consideration of the Best Available Science (BAS), and a risk analysis of any departure of the regulations from the minimum thresholds identified in the science for the protection of functions and values of critical areas. The following is a description of some areas of potential departure in the proposed ordinance.

#### ***Development Proposals Exempted from County's Wetland Delineation Requirement***

The proposed regulations specify that the County's requirement for a wetlands delineation and critical area report may be waived if there are no wetlands within a certain distance from the proposed development (based on Development Intensity), and if neither the property owner nor County staff has noticed the presence of standing surface water in the Development Area or area between the Development Area and the wetland for any length of time exceeding 14 days. Allowance for waivers under these conditions poses a small to medium risk that some regulated wetlands associated with developments whose intensity is low will not be discovered and therefore will be adversely impacted. That is partly because the County maps of Possible Wetlands and soils have not been

comprehensively field-verified, and the temporary presence of surface water may go unnoticed if landowners and County staff are frequently absent or unavailable. The risk of unknowingly allowing development in or near wetlands could be reduced to negligible if such waivers were disallowed.

### ***Size Thresholds for Regulation***

Option One of the proposed ordinance specifies that wetlands with an Importance rating of Low will be subject to the County's wetland regulations only if larger than 5000 square feet, and those with an Importance rating of Medium are subject to regulations only if they encompass more than 2500 square feet. It is believed that a majority of the County's wetlands have an Importance rating of Low. Although some functions of wetlands vary with wetland size, BAS does not indicate there is a threshold size below which major functions are absent. Thus, there is a medium risk some major functions will be impacted in the majority of the smallest wetlands by new development occurring near them. This risk could be reduced to low if smaller wetland size thresholds were used.

### ***Methods of Determining Buffer Widths***

The proposed amendments use Development Intensity and Pollution Transport/ Wetland Sensitivity as two factors for guiding the determination of buffer widths appropriate for each development proposal. Development Intensity (Table 3.3 of the proposed Code) is evaluated using vegetation cover removal and hydrologic alteration. Pollution Transport/ Wetland Sensitivity (Table 3.5) specifies the evaluation of land slope, locations of streams and drainageways relative to the Development Area, extent of impervious surface, and (in the wetland), the cover of invasive plants, presence of an outlet, and general wetland type. Although this approach and these evaluation factors are consistent with BAS, more sophisticated procedures for measuring these factors are available. For example, more accurate ratings for Development Intensity could be determined by measuring concentrations of all potentially harmful chemical constituents leaving a Development Area in groundwater and surface water, changes in their travel patterns and timing, changes in microclimate and supply of organic material to wetlands as a result of development-related vegetation removal, and changes in the viability of populations of all species as a result of noise and other disturbances associated with human presence in the proposed development. More accurate ratings for Pollution Transport/ Wetland Sensitivity might also be obtained by first conducting detailed investigations of subsurface geohydrology and surveys of all flora and fauna, and then applying (for each permit application) peer-reviewed mechanistic models of pollutant transport and population viability for local species. These models would first need to be field-calibrated with local data.

Because the Code does not require that such sophisticated methods be used in each permit application, there is a medium risk that some wetland functions will be inadequately protected in some cases. This risk could be reduced to low (but not negligible) by requiring permit applicants to conduct more complex and costly measurement and modeling before the County decides how to rate the Development Intensity and Pollution Transport/Wetland Sensitivity for a project and site. The principles behind the simpler approach that is being recommended reflect BAS while still being practical for landowners and the County to implement.

### **Findings**

- As required by the GMA, the Best Available Science was identified and included in reviewing the regulations. The science that was used in the review is summarized in the Best Available Science Synthesis, San Juan County, May 2011 which was adopted by the San Juan County Council in Resolution 22-2011.
- The existing regulations were reviewed and proposed amendments will better protect wetlands as well as improve consistency with the applicable goals of the Growth Management Act. The proposed amendments will satisfy the requirements of the Growth Management Act.

## **Enclosures:**

- Draft ordinance dated August 30, 2011 – In this draft, the existing code is shown with strikethroughs to indicate text that is to be removed and underlines to indicate amendatory text that is to be added. Where multiple options are presented, the option recommended by staff is shown in bold.
- SEPA checklist
- Booth, D.B., D. Hartley, and R. Jackson. 2002. Forest cover, impervious-surface area, and the mitigation of stormwater impacts. *Journal of American Water Resources Association* 38:835-845.
- Mayer, P.M.; Reynolds, S.K.; McCutcheon, M.D.; Canfield, T.J. 2007. Meta-analysis of nitrogen removal in riparian buffers. *Journal of Environmental Quality* 36 (4): 1172-1180.
- Semlitsch, R.D., S.M. Blomquist, A.J.K. Calhoun, J.W. Gibbons, J.P. Gibbs, G.J. Graeter, E.B. Harper, D.J. Hocking, M.L. Hunter, Jr., D.A. Patrick, T.A.G. Rittenhouse, B.B. Rothermel, and B.D. Todd. 2009. Effects of timber management on amphibian populations: understanding mechanisms from forest experiments. *Bioscience* 59:853–862.