



By Email

June 10, 2011

San Juan County Council
350 Court St., #1
Friday Harbor, WA 98250
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RE: Public Comment on Review and Recommendations for Critical Areas Ordinance
Workshop Scheduled for June 13-14, 2011

Dear County Council:

Friends of the San Juans ("Friends") respectfully submits the following comments to address the San Juan County Community Development and Planning Department ("CDPD") Review and Recommendations for the Critical Areas Ordinance ("CAO") update. Friends appreciates the progress that San Juan County has made toward achieving its scheduled December 2005 CAO update, and its desire to complete that update as promptly as possible at this point. The scope of these comments has been constrained, however, by the limited time permitted for review of the Recommendations, and they are consequently subject to refinement as the County commences drafting the regulations to achieve Growth Management Act ("GMA") compliance. We look forward to receiving draft CAO code language for the upcoming Planning Commission Hearings with sufficient review time.

For over 30 years, Friends has been protecting and promoting the health and future of the San Juan Islands' land, water, natural and human communities through education, citizen involvement science, and advocacy. Friends is a 501(c)(3) non-profit organization representing approximately 2,000 members. Friends works with diverse stakeholders that include citizens, businesses, scientists, and land managers, and collaborates with public agencies and non-profit organizations, utilizing innovative tools to conserve the County's resources to achieve the greatest benefit for people and nature.

These comments address the staff Review and Recommendations for the following sections of the CAO update: (1) General Section; (2) Geologically Hazardous Areas; (3) Wetland Regulations; and (4) Marine Fish and Wildlife Habitat Conservation Areas. In addition, we offer several global comments that should be considered when updating the CAO development regulations.

A. Global Comments.

This section identifies several general Friends' concerns as the County moves toward adoption of its CAO update, including: (1) identification of the unabridged Best Available Science ("BAS") requirement under the GMA; (2) appropriate application of mitigation requirements; (3) offering options that respond to anticipated impacts of climate change; and (4) ensuring the adoption of regulatory mechanisms that can be accomplished within the County's existing or projected staffing capacity.

1. GMA requirements for Best Available Science.

The County must both consider and include BAS in its CAO update. Over the last year, the County has properly identified and acted upon the Best Available Science requirement established by the GMA. However, the Review and Recommendations materials make an omission where they state only the general requirement to "consider" BAS.¹ In addition, and as the County has endeavored over the past year, the County must "include" the BAS in "developing policies and development regulations to protect the functions and values of critical areas."² Thus, Friends urges the County to both consider and include BAS as it proposes and adopts the regulations that will constitute the CAO update. This will require an update to those provisions in the existing critical areas regulations that the Review and Recommendations identify as inconsistent with BAS.

2. Compensatory mitigation should not become a substitute for avoiding impacts to critical areas.

The CAO update should reflect the BAS conclusion that mitigation is difficult to achieve by limiting those circumstances in which it may be applied and by requiring the application of a rigorous site-specific analysis before applicants may leap over the avoidance prong of mitigation sequencing in favor of compensatory mitigation. As Dr. Adamus notes in his analysis of the County's existing wetlands regulations, "[t]he BAS indicates that success of mitigation is difficult to achieve."³ However, the Review and Recommendations materials suggest the expansion of the application of mitigation provisions without ensuring that they achieve the no-net-loss mandate that the GMA establishes for critical areas. In addition, the staff language that addresses mitigation in the wetlands context suggests that impacts to critical areas need not even be avoided, stating that impacts associated with reasonable use must be "avoided or minimized."⁴ Given the difficulty in achieving true mitigation for critical area impacts, the CAO update must establish both a strict mandate to avoid impacts and strict standards for assessing

¹ See Review and Recommendations on SJCC 18.30.110, at 1.

² RCW 36.70A.172(1); WAC 365-195-900(2).

³ See Analysis of Existing San Juan County Regulations Pertaining to Wetlands, at 27, section 12.3 (May 31, 2011) ("[t]he BAS indicates that success of mitigation is difficult to achieve. Monitoring of mitigation plan implementation is critical to ensuring success; if mitigation is unsuccessful, compensation is not really occurring.").

⁴ See Review and Recommendations on SJCC 18.30.110, at 3 (Option section 8—Reasonable Use) (emphasis added).

when avoidance is truly infeasible and project authorization is appropriate.

3. The Review and Recommendations should address estimated sea level rise to guide adoption of a CAO update that addresses those impacts.

The CAO update offers an excellent opportunity to incorporate climate change estimates and establish development regulations that protect critical areas against development that will respond to climate change impacts such as sea level rise. However, the Review and Recommendations are stunningly flawed in their failure to incorporate much more than the broad recognition that climate change impacts may occur, and that they may lead to an increased likelihood for shoreline armoring.⁵ For example, the Review of marine fish and wildlife habitat conservation areas omits an acknowledgement of potential impacts to shoreline critical areas, instead stating only that the “need” for shoreline armoring may increase with sea level rise.⁶ In addition, the Review of geologically hazardous area regulations suggests meekly that because sea level rise will occur over decades, geohazard regulations should refrain from addressing climate change and sea level rise impacts.⁷ Instead, that section of the analysis would defer to the frequently flooded and fish and wildlife habitat conservation area sections of the code for climate change and sea level rise impacts.⁸ Yet neither the frequently flooded area recommendations nor the fish and wildlife habitat conservation area sections, as noted above, propose to address sea level rise impacts. For frequently flooded areas, the recommendation merely proposes to “provide applicants with information on predicted sea level rise so that they may consider it in their development.”⁹

For consistency with the BAS, the Council must direct staff to draft a CAO that addresses the potential impacts from development that occurs in response to climate change and sea level rise. Chapter 5 of San Juan County’s BAS synthesis identified significant impacts from climate change. That Chapter stated that “[o]n a global scale, it is widely accepted throughout the scientific community that global climate change is occurring. Climate change has been shown to increase stream temperatures, compromise habitat restoration success, increase wave energy and increase sea level.¹⁰ The BAS synthesis noted that the Intergovernmental Panel on Climate Change projected sea level rise estimates between 7.1 inches and 23.2 inches by 2100, and more local estimates identify a high estimate of approximately 50 to 68 inches.¹¹ Given the potential for substantial sea level rise, the GMA requirement to protect critical areas both in the short term and well into the future, and the significant length of time that residences can be anticipated to last on shorelines in the San Juans, the failure to adopt regulations that

⁵ See Analysis of Existing San Juan County Regulations Marine FWHCAs, at 45 (May 31, 2011) (“A need for shoreline protection may become more frequent with increased wave energy (predicted for some portions of the County), and sea level rise that are anticipated as a result of global climate change”).

⁶ *Id.*

⁷ See Review and Recommendations on Regulations for Geologically Hazardous Areas, at 10.

⁸ *Id.*

⁹ See Review and Recommendations on Regulations for Frequently Flooded Areas, at 4.

¹⁰ Chapter 5—Best Available Science for Frequently Flooded Areas, at 7 (citations omitted).

¹¹ *Id.* at 9-11.

address impacts associated with sea level rise development does not meet BAS.

4. To the extent that the CAO update offers the application of variable buffers, the County must increase its staffing capacity so that it can adequately guide that process.

The Review and Recommendations suggest that applicants for development within critical area buffers might seek variable buffer sizes. At present, Friends understands that the County does not have the expertise or staffing capacity to review and implement a variable buffer program. In the event that the County deems it appropriate to implement a variable buffer option in the CAO update, it must create a sustainable source of income to support staffing capacity to facilitate review and approval of applications for variable buffers to ensure that critical area protections with variable buffers are not merely illusory.

B. Comments That Address Recommendations for Individual Critical Areas.

1. Review and Recommendations on SJCC 18.30.110-- General Regulations Applicable to All Critical Area Types.

With the exception of the proposed general regulations' omission of the requirement to include BAS in the CAO update, in addition to considering it, Friends supports many of the proposed options for general regulations' update. Friends supports the following portions of the general regulation recommendations:

- Paragraphs 1-6 of the Analysis of Existing Regulations. In particular, Friends appreciates the clarification that the critical areas regulations apply to activities in critical areas in the absence of a permitting mechanism for those activities.
- The following "options for addressing problems":
 1. Purpose → Option C
 2. Applicability – Distance from Critical Area → Option B
 3. Applicability – Land Uses Where Permit is Not required → Option A.
 4. General Exemptions – Establishment of new lawns, gardens and orchards → Option B
 5. General Exemptions – Removal of Vegetation → None of the options justify whether or how they comply with BAS. They must do so for adoption into the CAO update.
 6. General Exemptions – Exempt Land Divisions → Option A.
 8. Reasonable Use → Option D.
 10. Critical Area Stewardship Plan → Option B.

C. Geologically Hazardous Areas.

Friends' primary concern with the recommendations for geologically hazardous areas is that they do not adequately address sea level rise and the likely impacts that would occur with the associated requests for shoreline armoring. Friends supports the documents that the County has identified as the most significant BAS.¹² However, all appropriate options in the geohazard section of the CAO update must address climate change and sea level rise.

Consequently, the options related to bulkhead protection standards and building setbacks fail to meet BAS because they would allow the construction of structures in proximity to shorelines without assessing sea level rise impacts to those structures. The potential for shoreline armoring to gradually cause the loss of protective spits and other land barriers can lead to significant hazards to life and safety for people and loss of habitat for wildlife. The geology, topography, bathymetry and sediment transport mechanisms associated with each property and each armoring project are unique and cannot be adequately addressed by uniform, standard regulations. The existing code does not address the safety hazards that can be caused by shoreline armoring. The addition of a requirement for a geotechnical review of proposed shoreline bulkheads to identify and mitigate any potential negative impacts is insufficient to fully cure those concerns, particularly given that feederbluff mitigation is in its infancy.

Similarly, mitigation for marine habitat areas is tenuous at best, and impossible in cases such as forage fish spawning grounds. Many forage fish exhibit high site fidelity, such as the Pacific herring that spawn in only 5 locations in the County and eschew the remaining 140 miles of eelgrass. Such high site fidelity for spawning or nesting renders mitigation an insufficient tool for protecting against the loss of functions and values of such forage fish. At most, the CAO update should limit available mitigation for impacts to marine habitat areas to those public projects with a clear public benefit, such as ferry landings.

Thus, the CAO update must ensure the protection of the functions and values of geologically hazardous areas and allowing the bulkheading and disruption of natural processes that may occur in those areas in the absence of the analysis of sea level rise impacts is not consistent with BAS.

D. Analysis of Existing San Juan County Regulations Pertaining to Wetlands.

The *Analysis of Existing San Juan County Regulations Pertaining to Wetlands* by Dr. Paul Adamus thoroughly covers the options for updating the CAO. In each case the choices are clearly drawn between those that are supported by the Best Available Science and those that would ignore the BAS. As noted above, the difficulty in achieving successful mitigation calls for strict standards that limit the use of compensatory mitigation in favor of avoiding impacts in the first instance. The remainder of this section addresses threshold parcel size for application of wetland regulations and buffer regulations.

¹² Review and Recommendations on Regulations for Geologically Hazardous Areas, at 1.

Friends supports the conclusion that parcel size cannot dictate whether wetland regulations apply, either under BAS or the law. As Dr. Adamus found in his analysis of existing wetlands regulations, the exclusion of parcels less than one acre in size from wetlands regulation is not supported by BAS or by Federal laws.¹³

In addition, the choice between buffer widths that would result in minimal or moderate risk to functions should be the Minimal Risk Option.¹⁴ The Moderate Risk Option assumes **no surface water flow**. This is unrealistic, as the current wet year in the San Juans clearly demonstrates. Once the soil is saturated, surface water will flow downhill. Heavy rain usually results in surface flow. Steep slopes have less capacity for stormwater infiltration. Impervious surfaces, such as roads, roofs, and rocky areas result in surface flow. Aside from the transport of toxins and excess nutrients, the increased surface water flow from improperly sited development results in increased erosion. The topic of erosion and its consequences to Critical Area Habitats is not emphasized enough in the Wetlands section or in the BAS in general. Erosion is not only a concern for the stability of man-made structures sited on rapidly eroding bluffs, it is a general concern for all Critical Areas.

E. Analysis of Existing San Juan County Regulations Marine FWHCAs.

Friends offers the following comments on each section within the analysis of the existing regulations for marine fish and wildlife habitat conservation areas:

- 1. Definitions:** Friends supports the inclusion of definitions for marine FWHCAs and saltwater habitats of special concern, options B and C.
- 2. Classifications:** Friends supports option B, expanding the definition to be consistent with state classifications.
- 3. Maps:** Friends supports Option B.
- 4. Buffers (Section 4.1):** Friends supports the use of a standard buffer width for marine shorelines. The proposed minimum width of 80 feet is based heavily on water quality data and does not take into account habitat, vegetation, soils, or habitat forming processes such as erosion. In addition, to be successfully implemented, Option C would require qualified county staff with technical expertise. This is unlikely to occur given current County funding, staffing, and expertise levels. Buffer encroachment over time is also a very common situation. To ensure long term protection, either of option B or C would require some level of monitoring and oversight and commensurate funding that are unlikely. Friends also agrees with the conclusion that buffer reduction based on

¹³ See Analysis of Existing San Juan County Regulations Pertaining to Wetlands, at 23-24.

¹⁴ See Analysis of Existing San Juan County Regulations Pertaining to Wetlands, at 32-34.

location of houses on adjacent properties is not supported by BAS.¹⁵ We support clear standards for buffer reductions; however, some areas of highest conservation and or aesthetic value may not qualify for buffer reductions.

5. **Shoreline Armoring (Section 4.2):** 1. New stabilization. Friends does not support shoreline armoring for new structures constructed after adoption of the CAO update where that armoring would lie over or adjacent to potential or documented forage fish spawning habitat or a feeder bluff. Unless no alternative upland location exists, new construction must be sited to avoid the need for armoring. The CAO update should also emphasize that bulkhead exemptions must meet the substantive requirements of the CAO even if they are exempt from the procedural requirement to obtain a shoreline substantial development permit. 2. hard versus soft, support option B, with definitions.
6. **General armoring comments:** The Recommendations do not adequately address the repair or replacement of existing bulkheads. The current exemption, and associated lack of public review, as well as lack of any pre/post on site monitoring, is a current problem, identified by county staff in discussion with the San Juan County Marine Resources Committee in 2006 CAO comments, as well as by the San Juan Initiative (2009). Improved oversight of repair/replacement bulkhead permits in critical area is needed, as well as promotion of soft alternatives where appropriate is also needed.
7. **Overwater structures (Section 4.3):** The BAS supports *avoidance* of docks and piers from submerged aquatic vegetation (eelgrass and kelps).
8. **Mitigation sequencing (Section 4.4):** Mitigation for marine habitat areas is tenuous at best, and impossible in some cases, such as the forage fish spawning example offered above. **In addition, the current practice of allowing the removal of existing shoreline modifications (such as mooring buoys), including those that are unauthorized in the first instance, to serve as mitigation for a new structure does not meet BAS or no-net-loss. The CAO update must prohibit the use of such actions as mitigation for new, additional impacts.**
9. **Desalination (Section 4.5):** 1. Discharge. Friends supports option B, with additional permit information as described in the BAS. 2. New systems. Friends supports option B, prohibiting RO systems for new subdivisions. Friends also does not support RO systems in shallow, low tidal exchange embayments, due to the increased dissolved oxygen.

¹⁵ The Western Washington Growth Management Hearings Board also concluded in *ICCGMC v. Island County* that “[a] provision that allows reduction of shoreline buffer areas through buffer averaging of existing residential setbacks, even with a requirement for a HMP, does not include BAS and does not comply with the [GMA].” *ICCGMC v. Island County WWGMHB No. 98-2-0023* (March 6, 2000) (Compliance Order).

10. **Species of local concern:** Friends supports option B, listing species and habitats of local importance.
11. **Buffer alternatives:** As noted above, the minimum width of 80 feet is overly reliant on water quality BAS and not inclusive enough of BAS related to erosion, protection of property, habitat and habitat forming processes. In addition, the Ordinary High Water Mark demarcation requires expertise that is currently lacking in San Juan County; a more clear indicator should be employed, such as top of bank. In addition, the existing buffer discussion omits sea level rise and climate change-induced wave events; an omission that must be rectified. Currents and mixing of water cannot be sole reason for buffer reduction—factors such as shore type, geology, aspect/orientation, and fetch all play a critical role in wave erosion. Minimization of future demand for hard armoring must be applied to address long-term habitat protection and cumulative impact requirements. Buffer reductions will require monitoring and increased staff resources and thus additional mechanisms and resources.
12. **Table 1:** The rating for buffer intensity must clearly define critical saltwater habitats.
13. **Table 3 (Buffer width specifications):** The table must clearly define poor flushing areas to correct for a deficiency in the current code language. The medium and low intensity development buffers appear low and do not indicate that they factor in background erosion rates or sea level rise. Lastly, the paragraph following table 3 in the buffer alternatives section identifies the following major oversight (page 43): “The example buffer scenarios shown do not include setbacks and vegetation management measures that may be necessary to maintain bank stability.” These factors are significant contributors to ongoing habitat loss and degradation in San Juan County. The CAO update must address those issues to comply with BAS, particularly as additional properties are built out and the impacts of climate change and sea level rise occur.
14. **Table 4 (New activities allowed in buffers):** The BAS demonstrates that trails should be limited in overall area and intent (minimum necessary to safely access beach etc.) and the 5-foot wide trail systems indicated. In addition, new gardens within 35 feet of the shore could cause major drainage and erosion issues, in addition to removing shoreline habitat. These inadequacies in the Recommendation analysis suggest that the buffer analysis has overemphasized the water quality justification for smaller buffers at the expense of other rationales, such as slope stability, coastal processes, and habitat protection, that warrant larger buffers. Such an emphasis places both private property and habitat at risk. The shoreline buffer discussion should also address County infrastructure, such as roads.

Thank you for your consideration of these comments.

Sincerely,

Friends of the San Juans

Cc: Shireene Hale, San Juan County Community Development and Planning Department
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