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Draft Gap Analysis

Clallam County Critical Areas Ordinance Update

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Prepared for:



CLALLAM COUNTY

Washington

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1. Introduction

With passage of the Growth Management Act (GMA), local jurisdictions throughout Washington State, including Clallam County (County), were required to develop policies and regulations to designate and protect critical areas. Critical areas, as defined by the GMA (Revised Code of Washington [RCW] 36.70A.030(5)), include wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas.

An ongoing requirement of the GMA is for local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations. In accordance with the GMA, the County last completed a comprehensive update of its critical areas policies and regulations in 2004. The County is now required to update its critical areas policies and regulations by December 31, 2024. This includes the requirement to include the best available science (BAS). Any deviations from science-based recommendations should be identified, assessed, and explained (Washington Administrative Code [WAC] 365-195-915). In addition, jurisdictions are to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries. A BAS document for this code update has been prepared separately (Facet 2024).

The County's critical areas policies are codified in Clallam County Code (CCC) Title 31-Comprehensive Plan, Title 27-Environment (Specifically 27.12-Critical Areas), Title 32-Floodplain Management and Title 35-Clallam County Shoreline Master Program (SMP).

This gap analysis provides a review of the current critical areas regulations, noting gaps where existing regulations may not be consistent with BAS or the GMA. It also makes recommendations for improvements to general aspects of the CAO such as clarity, consistency, ease of use etc. The primary intention of this gap analysis is to help guide the update of the County's critical areas policies and regulations.

1.1 Document Organization

Recommendations for updating the County's existing critical areas regulations are provided in Sections 2 through 7. Section 2 addresses the general provisions that are applicable to all critical areas; Sections 3 through 7 address the different types of critical areas covered by the GMA. To highlight findings of the gap analysis, a Code review summary table is provided at the beginning of each section. Where a potential gap is identified, subsections provide further discussion.

2. General Provisions

This section addresses code sections that are applicable to all types of critical areas. This includes CCC 27.12.010-27.12.070. A summary of recommended updates is provided in Table 1.

Table 1. General provisions review summary.

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.010	Statement of purpose and authority	Consider adding <i>no net loss</i> terminology.	Consistency with GMA and BAS.
27.12.015	Statement of policy	No changes required.	
27.12.020	Policy goals	No changes required.	
27.12.025	Applicability	Clarify relationship to SMP.	Clarity.
27.12.030	Regulated uses and development activities	No changes required.	
27.12.035	Activities not regulated by this chapter – exemptions	1-Recommend that exemptions be consistent with all of Chapter 27. 2-Recommend after-the-fact permit. 3-Review of emergency work. Recommend cap on area of vegetation removal.	1-Consistency. 2-Consistency with GMA. 3-Consistency with GMA and BAS.
27.12.037	Alternative standards for existing, ongoing agriculture in and adjacent to aquatic habitat conservation areas (ACHA) and wetlands	1-Ensure consistency with Chapter 27 and GMA. 2-Update rating system and buffer guidance. 3-Consider implementing Voluntary Stewardship Program (VSP).	1-Consistency. 2-Consistency with GMA and BAS. 3-Consistency with GMA and BAS.
27.12.040	Pre-existing uses	Clarify definitions for pre-existing structures and timeframes.	Clarity.
27.12.045	Review authority requirements	No changes required.	
27.12.050	Official designation of critical areas	Recommend requiring certified wetland professionals and other professional requirements for analysis.	Consistency with GMA and BAS.
27.12.055	Enforcement	No changes required.	
27.12.060	Warning and disclaimer	No changes required.	
27.12.065	Severability	No changes required.	
27.12.070	Conflict	No changes required.	

2.1 Policy goals (CCC 27.12.020)

It is recommended that the policy be updated from maintaining ecological functions to *no net loss* of ecological function for consistency with GMA language and Ecology guidance.

2.2 Applicability (CCC 27.12.025)

2.2.1 Relationship with SMP

It is recommended that this section clarify the relationship between the CAO and the shoreline master program (SMP).

2.3 Activities not regulated by this chapter – Exemptions (CCC 27.12.035)

2.3.1 Consistency with Chapter

It is recommended that these exemptions be predicated on being consistent with the chapter, so such an exemption could not be used to justify use of these practices to impact critical areas in bad faith.

2.3.2 Emergency Work

It may be necessary for emergency work to occur without standard review of a permit application, but to be consistent with the GMA and BAS it should warrant after-the-fact review to ensure appropriate mitigation for critical areas impacts.

2.3.3 Clearing non-native vegetation

Removal of non-native vegetation and replacement with native vegetation is allowed in this section. We recommend that this be capped at a limit, such as the limit for requiring a clearing and grading permit. The purpose of capping the exception is because clearing may be done in bad faith and it may be difficult or impossible after-the-fact to confirm whether removed vegetation is native or not, there are no performance standards to how much native vegetation is required, and landowners may be unable to distinguish native and non-native vegetation. Capped limits should be based on BAS.

2.4 Alternate standards for existing, ongoing agriculture in and adjacent to aquatic habitat conservation areas (AHCA) and wetland (CCC 27.12.037)

2.4.1 Risk Assessment Criteria

Table 27.12.037(A) lists risk categories and buffers for rivers, streams, lakes, and marine waters. It is unclear where the guidance comes from and if it is based on BAS. It appears to be from Clallam County Conservation District and USDA Natural Resources Conservation Service; however, it is unclear. We

recommend reviewing this guidance and being certain it is consistent with BAS as well as listing the source of the justification or rationale for buffers.

2.4.2 Updating rating systems

The department of Ecology has released updated guidance regarding water quality. On Aug. 26, 2022, the Environmental Protection Agency (EPA) Region 10 issued their final approval of the 2018 Water Quality Assessment. The new assessment serves as the most current information on fresh and marine water quality health and replaces previous assessments for Clean Water Act regulatory purposes. Decisions relying on assessment information should use the new assessment results. Additional information is provided by WDFW in "Land Use Planning for Salmon, Steelhead and Trout: A land use planner's guide to salmonid habitat protection and recovery"¹ and "Riparian Management Zone Checklist for Critical Areas Ordinances"².

2.4.3 Voluntary Stewardship Program

Clallam county is currently not listed on the Washington Voluntary Stewardship Program (VSP) list of participating counties. The VSP is a non-regulatory approach to assist with GMA compliance by implementing site-specific, voluntary practices. Consider using VSP program to comply with GMA on agricultural lands if future opportunities to join VSP are available.

2.5 Pre-existing uses (CCC 27.12.040)

2.5.1 Abandoned structures and uses

This section provides an allowance for building on pre-existing structures or uses but does not specify a period in which these allowances become abandoned, and the provisions no longer apply.

2.6 Official designation of critical areas (CCC 27.12.050)

2.6.1 Qualified Professionals

The Society of Wetlands Scientists has two certification categories including professional wetland scientists (PWS) and wetland professional in training (WPIT). We recommend this be clarified to require PWS certification, or other qualifying education and experience.

3. Wetlands

This section addresses code sections that are applicable to wetland areas. This includes CCC 27.12.200-27.12.215. A summary of recommended updates is provided in Table 2.

¹ *Land Use Planning for Salmon, Steelhead and Trout: A land use planner's guide to salmonid habitat protection and recovery* | Washington Department of Fish & Wildlife

² *rmrcaochecklist.pdf* (wa.gov)

Table 2. Wetland provisions review summary.

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.200	Applicability and purpose	Recommend updating policy to reflect current Ecology definitions and adding <i>no net loss</i> verbiage.	Consistency with GMA and other regulations.
27.12.205	Regulated uses and activities	No changes required.	
27.12.210	Classification and designation	Recommend updating delineation manual to currently accepted USACE manual and regional supplements and ranking system to Washington State Wetland Rating System for Western Washington: 2014 Update, Version 2.0	Consistency with GMA and BAS.
27.12.215	Protection standards for regulated wetlands	1-Recommend modifications to buffer regulations including widths, measurement, uses and variances. 2-Recommend modifying hazard tree definition.	1-Consistency with GMA and BAS. 2-Consistency with ISA standards.

3.1 Applicability and purpose (CCC 27.12.200)

3.1.1 Critical areas policy goals

It is recommended that the policy incorporate information about wetlands be updated to be consistent with goals of the comprehensive plan and representative state agencies such as the Department of Ecology (Ecology). Specifically, wetlands are recognized for three primary functions including water quality, hydrology, and habitat. Water quality is not identified in the purpose of this section as a function or value aimed to be protected.

It is recommended that the policy be updated from maintaining ecological functions to *no net loss* of ecological function for consistency with GMA and Ecology policy.

3.2 Classification and designation (CCC 27.12.210)

3.2.1 Delineation Manual

The code refers to an outdated Washington State Wetland Delineation Manual which is no longer current with BAS nor used by any state or federal agency. Wetlands are currently determined by the 1987 Wetland Delineation Manual by the U.S. Corps of Engineers (USACE) and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0).

3.2.2 Wetland Rating (Functional Assessments)

This code section refers to an outdated wetland classification system. The current version of the wetland rating system is the Washington State Wetland Rating System for Western Washington: 2014 Update, Version 2.0 (Hruby & Yahnke, 2023). This should be updated to incorporate current BAS and include a clause to be updated as Ecology periodically updates the system, "as revised," or similar.

3.3 Protection standards for regulated wetlands (CCC 27.12.215)

3.3.1 Measurement of buffers

The code states that "*all buffers are measured from the regulated wetland edge as marked in the field.*" To clarify this statement and be consistent with State standards, we recommend this be clarified to say the buffer is measured as a planer (horizontal) distance from the wetland edge. As written, it could potentially be misunderstood as that the buffer is measured in the field, which would erroneously shorten the buffer when slopes are present.

3.3.2 Buffer Widths

Current wetland buffers are smaller in width than the three buffer width alternatives recommend by Ecology (2018). We recommend that the code adopt one of Ecology's recommended buffer width alternative options to provide adequate protection of wetland functions and values. The allowances for minor new development, which include single family residences, allow for a large buffer reduction in the most common land use type in which these measures apply. As a result, the buffers are much lower than recommendations by Ecology.

3.3.3 Increased Buffers

The buffer recommendations provided by Ecology assume that an intact native plant community is present and functioning properly. These functions can become degraded in disturbed sites such as those which have bare soils or are converted to lawn. As supported by BAS; to meet Ecology's recommendations, the code should require increased buffers or restoration of buffers in circumstances where they are degraded. The current code states that the review authority "may," increase buffer zone widths on lands where "*the adjacent land on the development proposal site has minimal vegetative cover,*" however this is poorly defined, and the term "may" could lead to inconsistencies in how the regulation is applied. Standardized increased buffers should be *required* when buffer conditions are inadequate to provide these functions. Enhancement of a buffer to restore these functions may be done in lieu of a buffer increase.

Buffer increases for lands with steep slopes should also be required and standardized to account for the reduction of water quality functions in these areas. The code also allows for buffer increases to protect against erosion and threats to endangered species. These situations are often site-specific and species-specific, and the current code provides for flexibility in this approach.

The code also provides for buffer increases for high intensity land uses. We recommend that this approach be standardized using one of the three buffer width alternatives which account for the intensity of adjacent land uses.

3.3.4 Buffer Flexibility and Reductions

Flexibility through buffer averaging and variances is provided and discussed further in CCC 27.12.730.

If the County chooses to adopt the buffer widths and Ecology recommendations, which consider land use intensity, then buffer reductions may also be considered for high intensity land uses which apply appropriate minimization measures to reduce threats to wetland buffers.

3.3.5 Hazard Trees

We recommend that hazard trees be defined consistent with the International Society of Arboriculture (ISA) standard. Tree risk includes a consideration of the likelihood of failure and impact, and consequences of failure.

Part of a tree risk assessment process is the identification of maintenance actions which can reduce the risk of a tree to acceptable levels. We recommend including a provision in the code which requires risk mitigation prior to entire tree removal as long as it will be viable following the maintenance action and risk is reduced to an acceptable level.

We recommend that when it can be reasonably and safely accommodated, the preservation of wildlife snags and logs be required, with the prioritization of snags over logs.

A 1:1 tree replacement ratio result in a net loss of critical areas function because installed trees often fail or die, and temporal loss during the establishment period is never replaced. Therefore, the GMA policy of *no net loss* is not achieved by this provision. We recommend establishing a 2:1 replacement ratio or greater or similar policy of replacing trees that do not survive.

We recommend that hazard tree assessments be completed by qualified professional such as arborists certified by the International Society of Arboriculture (ISA) and American Society of Consulting Arborists (ASCA) that are trained and qualified in tree risk assessment such as through the Tree Risk Assessment Qualification (TRAQ) or equivalent.

3.3.6 Fencing

Consistent with the recommendations of Ecology, we recommend that a permanent wildlife passable fence be established at the wetland buffer for projects which have the potential to threaten wetland buffers, such as by people and pets which may utilize the space.

3.3.7 Stormwater

Stormwater infrastructure is allowed in a wetland buffer if minimized, although it may be beneficial to specify that minimization includes locating discharge points as far from the wetland as feasible and potentially ensuring a minimum distance to avoid direct discharge.

3.3.8 Trails and Trail-Related Facilities

We recommend that trail regulations conform to the recommendations of Ecology (2022): *Walkways and trails, provided that they are limited to minor crossings having no adverse impact on water quality. They should be generally parallel to the perimeter of the wetland, located only in the outer twenty-five percent (25%) of the wetland buffer area, and located to avoid removal of significant [as defined in ordinance], old growth, or mature trees. They should be limited to pervious surfaces to no more than five (5) feet in width and designed for pedestrian use only. Raised boardwalks utilizing nontreated pilings may be acceptable.* Trails are currently allowed up to 14 feet and have no stated restrictions or prioritization to the orientation of trails.

Interpretive centers vary in definition and size, so we recommend that they be defined for the purpose of this section. Interpretive centers may have a similar impact as other types of developments.

3.3.9 Utilities

We recommend a provision be added that utilities are located to minimize impacts to the wetland and wetland buffer, such as by crossing through the narrowest point and/or locating utilities in the outer portion of the buffer.

4. Aquatic and Wildlife Habitat Conservation Areas

This section addresses code sections that are applicable to aquatic and wildlife habitat conservation areas (Fish and Wildlife Habitat Conservations Areas). This includes CCC 27.12.300-27.12.325. A summary of recommended updates is provided in Table 3.

Table 3. Aquatic and Wildlife Habitat Conservation Areas (AWHCAs) provisions review summary.

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.300	Applicability and purpose	No changes required.	
27.12.305	Regulated uses and activities	1-Recommend standardized stream classifications per DNR. 2-Modify designation of Class I WHCA.	1-Consistency with BAS and GMA. 2-Clarity and consistency with GMA.
27.12.310	Classification and designation	No changes required.	

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.315	Protection standards for aquatic habitat conservation areas	1-Recommend further defining OHWM. 2-Recommend considering riparian management zones per WDFW guidelines.	1-Clarity. 2-Consistency with GMA and BAS.
27.12.320	Protection standards for Class I wildlife habitat conservation areas	No changes required.	
27.12.325	Protection standards for Class II wildlife habitat conservation areas	No changes required.	

4.1 Classification and designation (CCC 27.12.305)

4.1.1 Stream Types

To standardize stream classifications across the State, the Department of Natural Resources (DNR) recommends adopting the Permanent Water Typing System (WAC 222-16-030). The current definitions section utilizes the Interim Water Typing System in WAC 222-16-031. The Permanent Water Typing System is similar to interim system with some notable differences including combining Type 2 and Type 3 streams into Type F.

4.1.2 Wildlife Habitat Conservation Area Designation

Class I and Class II wildlife habitat conservation areas (WHCAs) require a resource to be mapped, however, not all suitable habitats for these species are currently inventoried. We recommend that this section be updated to remove the clause requiring mapping to allow resources identified by County staff, consulting biologists, or other resources to be considered in such designation.

Class I WHCAs also include *"Habitats targeted for preservation by federal, State and/or local government which provide fish and wildlife habitat benefits, such as important waterfowl areas identified by the U.S. Fish and Wildlife Service."* This is a very broad category of habitats and potential government agency maps which can be used to justify Class I WHCA determination. It is recommended that this section be specified to reduce ambiguity in what may be considered in the category.

Class II WHCAs include *"priority habitats not classified as Class I for State listed candidate and monitor species."* Suitable habitats for state listed species are not formally designated as *priority habitats*, rather *priority habitats* are a habitat type with unique or significant value to many species. Based on the imprecise use of terminology, it is unclear what is being designated as a Class II WHCA. We recommend that this be updated to specify habitats suitable for candidate species. *"Monitor species"* is an outdated term and can be removed from the designation language.

4.1.3 Mapping Resources

A list of resources available to the County for assisting in the determination of AWHCAs is available in this code section and can be revised to include the most current resource maps.

4.2 Protection standards for aquatic habitat conservation areas (CCC 27.12.315)

4.2.1 Top of Bank

Top of bank is identified in the code as the location a buffer originates from when the ordinary high water mark (OHWM) cannot be located. The term *top of bank* is not defined in this chapter and is subject to interpretation. A clear definition should be provided to reduce ambiguity.

4.2.2 WDFW Riparian Management Zone Guidance

In 2020, the Washington Department of Fish and Wildlife published new guidance for the protection of riparian areas (Quinn et al. 2020). The guidance emphasizes a shift in terminology from the concept of “stream buffers” to “riparian management zones” (RMZs). An RMZ is defined as “...a scientifically based description of the area adjacent to rivers and streams that has the potential to provide full function based on the SPTH [site potential tree height] conceptual framework.” Further, an RMZ is recommended to be regulated as a fish and wildlife habitat conservation area itself to protect its fundamental value, rather than as a buffer for rivers and streams (Quinn et al. 2020). Stream buffers are established in local critical areas ordinances based on the best available science and are intended to protect streams, but may or may not provide full riparian function, or a close approximation of it. To achieve full riparian function, the guidance recommends that RMZs be considered a delineable, regulatory critical area and that the guidance be applied to all streams and rivers, regardless of size and type.

Washington Department of Fish and Wildlife’s current recommendations for establishing RMZ widths are based primarily on a SPTH framework. The SPTH is defined as “...the average maximum height of the tallest dominant trees (200 years or more) for a given site class.” Exceptions may occur where the SPTH is less than 100 feet, in which case the agency recommends assigning an RMZ width of 100 feet at a minimum to provide adequate biofiltration and infiltration of runoff for water quality protection from most pollutants, but also in consideration of other habitat-related factors including shade and wood recruitment. A 100-foot-wide buffer is estimated to achieve 95% pollution removal and approximately 85% surface nitrogen (Rentz et al. 2020). Washington Department of Fish and Wildlife recommends measuring RMZ widths from the outer edge of the channel migration zone (CMZ), where present, or from the ordinary high-water mark where a channel migration zone is not present.

RMZs or buffers that vary by location may present practical challenges for implementation and have considerations in equity. To analyze the potential range of SPTH in Clallam County, we conducted a review of the data available from the WDFW Site Potential Tree Height Mapping Tool, as described below. The WDFW dataset is not inclusive of all lands in Clallam County but is believed to be representative. When multiple SPTH for various species were provided, only the highest SPTH was used

in this calculation. The average SPTH in Clallam County is 190 ft; with a minimum of 100 ft, a first quartile of 177 ft, a median of 198 ft, a third quartile of 210 ft, and a maximum of 227 (Figure 1).

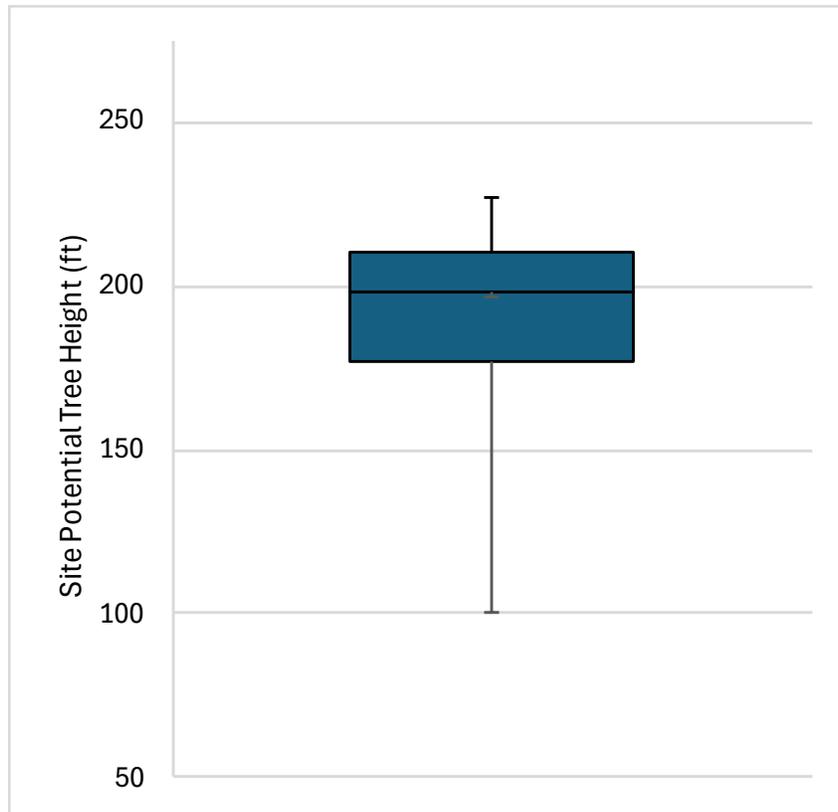


Figure 1. Box plot of SPTH distribution in Clallam County using data from the WDFW Site Potential Tree Height Mapping Tool. Upper and lower fences are Q3 and Q1 respectively with the median in the center, and whiskers are minimum and maximum; raw data was downloaded on 6/18/24.

The 150-foot buffer associated with Type 1 waters (Type S equivalent) is lower than recommended RMZ widths based on the SPTH framework. A buffer of 150 feet would be in the 9th percentile of SPTH options, meaning that a buffer of 150 feet is lower than SPTH in 91% of all riparian zones. The RMZ framework does not differentiate by stream type, so the buffers of Type 2-5 with buffers which range between 50-100 feet are well below the dimensions that are recommended by WDFW and BAS (Rentz et al. 2020).

As a part of the CAO update, we recommend that Clallam County consider buffer widths to align more closely with the RMZ width recommendations. The County may also consider extending the buffer from the edge of CMZ or OHWM, whichever is greater, to align with the RMZ buffer recommendations in Rentz et al. (2020).

5. Geologically Hazardous Areas

This section addresses code sections that are applicable to Geologically Hazardous Areas (GHAs). This includes CCC 27.12.400-27.12.855. A summary of recommended updates is provided in Table 4.

Table 4. Geologically hazardous areas review summary

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.400	Applicability and purpose	No changes required.	
27.12.405	Regulated uses and activities	No changes required.	
27.12.410	Classification and designation	Expand classification and designation to include mines and minerals. Reference DNR GIS portal.	Consistency with DNR guidelines.
27.12.415	Landslide hazard protection	Clarify buffer vs. critical area distance related to new development.	Clarity. Consistency with DNR guidelines.
27.12.420	Erosion hazard protection standards	Expand protection measures.	Consistency with DNR guidelines.
27.12.425	Seismic hazard protection standards	No changes required	
27.12.855	Geologic hazardous areas-Special requirements.	No changes required.	

5.1 Classification and designation (27.12.410)

5.1.1 Classification of mines and minerals

Clallam county classifies and designates landslide, erosion and seismic hazards in detail and is consistent with state and Department of Natural Resources (DNR) policies and guidelines. As mentioned above the classification and designation should be expanded to include mining and mineral hazards. The DNR portal is not listed as a resource for finding mapped locations of geologically hazardous areas. Consider adding a link or reference to DNR GIS portal. The designation and classification should be expanded to match DNR and Washington State Department of Commerce descriptions of geologically hazardous areas.

5.2 Landslide hazard protection areas (27.12.415)

5.2.1 Buffer vs. Critical Area Distance

A minimum buffer of 50 feet is set for major or minor new construction from the toe or edges of landslide hazard areas, however the general provisions (27.12.025 Table 1) describe this critical area being within 200 feet of a landslide, erosion, or seismic hazard area. It appears that construction would then be restricted to 250 feet of a landslide (200 feet of critical area with an additional 50-foot buffer), however it is unclear. The code further indicates that buffer reductions of less than 20 feet or development within landslide hazard areas are permissible with a geotechnical report. Other protection standards including critical facilities, forest practices, utilities, stormwater, and land disturbing activities are comprehensive.

5.3 Erosion hazard protection areas (27.12.420)

5.3.1 Expanded protection measures

This section addresses forest practices, land disturbing activities and zoning amendments, but is brief in comparison to other sections. Recommend expanding guidelines for erosion hazard protection areas.

6. Frequently Flooded Areas (FFAs)

This section addresses code sections that are applicable to Frequently Flooded Areas (FFAs). This includes CCC 27.12.500-27.12.515. The CCC is consistent with BAS and therefore, no changes are recommended at this time.

Table 5. Frequently flooded areas review summary

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.500	Applicability and purpose	No changes required.	
27.12.505	Regulated uses and activities	No changes required.	
27.12.510	Classification and designation	No changes required.	
27.12.515	Protection standards for certain development proposals	No changes required.	

7. Critical Aquifer Recharge Areas (CCC 27.12.600-615)

This section addresses code sections that are applicable to Critical Aquifer Recharge Areas (CARAs). This includes CCC 27.12.600-27.12.615. A summary of recommended updates is provided in Table 6.

Table 6. CARAs provisions review summary.

Code Section	Title	Review Comment / Recommendations	Reason for Recommendation
27.12.600	Applicability and purpose	No changes required. Section addresses potable water and surface water/recharge areas.	
27.12.605	Regulated uses and activities	BAS and GMA referenced in 27.10.101. Clear links to performance standards and permitting. Recommend adding table of regulated activities for clarity.	Clarity.
27.12.610	Classification and designation	Classification and designation align with WAC and Ecology Guidance. Edit to say, "maps available through Clallam County GIS Portal" and provide link and instructions to see layer. Provide rating of CARA on GIS layer.	Clarity. Consistency with Ecology and GMA guidelines.
27.12.615	Performance standards for certain development activities	Add table and clearer language regarding permitted and exempt activities and uses.	Clarity. Consistency with SMP.

7.1 Regulated Uses and Activities (27.12.605)

7.1.1 Clarify and consolidate regulated activities

CCC 27.12.605 refers to other sections of code with links including the General Provisions (Part 1), Performance standards for certain development activities (27.12.615), regulated uses and development activities (27.12.030) and permit application requirements (27.12.700). The regulated activities section is brief and internal links work; however, it is difficult to look at the regulated activities and code pages. Regulated uses and development activities (CCC 27.12.035) and activities not regulated by this chapter-exemptions (CCC 27.12.035) are clearly defined, however the difference between these and the regulated activities in CARAs is somewhat confusing. Consider rewriting regulated activities section to

include all activities regulated concerning CARAs with set performance standards to ensure protection of CARAs. Consider adding a table similar to Table 5 for further clarification of regulated activities.

Table 7. Regulated activities.

Regulated Activity	Applicable Regulations	Additional Comments
Aboveground/Underground Storage Tanks or Vaults	WAC 173-303, WAC 360	Regulated activities in CARAs
Agriculture		Regulated activities in CARAs
Land Divisions	CCC Title 29	Regulated activities in CARAs
Land Disturbing Activities	Stormwater Management Manual for Puget Sound Basin	Regulated activities in CARAs
Solid or Hazardous Waste Disposal Facilities	CCC Title 33 and 35	Regulated activities in CARAs
Parks, Schools, and Recreation Facilities	CCC Title 33 and 35	Regulated activities in CARAs
Storm Water Standards for Commercial and Industrial Uses	WAC 173-303, Stormwater Management Manual for Puget Sound Basin	Regulated activities in CARAs
Utility Transmission Facilities	WAC 173-303	Regulated activities in CARAs
Sewage Effluent and Sludge Disposal	WAC 246-272	Regulated activities in CARAs and in Part 1 General Provisions
Zoning and Comprehensive Plan Amendment	SEPA	Regulated activities in CARAs and in Part 1 General Provisions
Building permits	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions
Public water system permit	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions
Zoning conditional use or variance	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions
Shoreline permit	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions
Land divisions and related actions under CCC Title 29	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions
Road approach permit	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions
Stormwater and/or clearing grading	CCC Title 33 and 35	Regulated activities in Part 1 General Provisions

7.2 Classification and designation (27.12.610)

7.2.1 Refine CARA mapping

CCC 27.12.610 (2) references “maps available at the Clallam County Department of Community Development” however such a map could not be located online. The County delineated all lands and shorelines classified as high aquifer recharge potential and aquifer susceptibility as critical recharge areas. The GIS portal is available through the Planning Division “Multipurpose Map³.” A layer is available under “Critical_Areas_CCC_27_12” that shows polygons of mapped CARAs, however there is no additional information. The County should clarify this and update the mapping reference. We suggest renaming the mapping reference to Clallam County GIS Portal or a similar generic title, which could include the GIS data available online. A separate critical areas map or CARA map could be added under the Planning Interactive Maps. It would be beneficial to add metadata or a description how CARAs were mapped and differentiate between low, moderate, and high susceptibility.

7.3 Performance standards for certain development activities (CCC 27.12.615)

7.3.1 Consider prohibiting or strictly regulating specific hazardous uses.

We recommend that the County specify activities in detail and identify those activities that are allowed without permit, allowed with permit, or prohibited and that buffer zones or variances be clearly described.

Ecology recommends including lists of allowed, permitted with conditions, and prohibited uses in the CARA regulations. The County should consider adding such lists to the code. Public education on best management practices (BMPs) for spills and leaks can also be improved.

7.3.2 Consider reviewing regulations for reclaimed water use and temporary dewatering

As a strategy to mitigate climate change impacts, it is recommended to review regulatory requirements for reclaimed water use and temporary dewatering during construction to ensure adequate protections are in place. Ecology recommends that jurisdictions conduct a county-specific multi-year infiltration study (ECY, 2021a).

7.3.3 Consider reducing or eliminated sewage and sludge disposal in CARAs

The Sewage Effluent and Sludge Disposal section currently reads:

“Sewage and sludge disposal, except on-site sewage disposal systems releasing less than 14,000 gallons per day and approved consistent with Chapter 246-272 WAC and local health codes must meet Class A

³ <https://clallam-county-portal-clallam.hub.arcgis.com/apps/babce258adf844ac9288f4088aa2e700/explore>

reclaimed water and Class B biosolid requirements, shall be prohibited on lands designated as high or moderate susceptibility."

Consider re-writing this section for clarity and further restrict sewage disposal to smaller quantities on lands designated as moderate to high susceptibility.

To mitigate climate change impacts, it is recommended to include regulations to manage stormwater as a way to maintain groundwater recharge in CARAs. Increased winter flooding increases the likelihood of overwhelming stormwater treatment facilities and flooding roads, thereby transporting contaminants into surface water, including local streams and wetlands. The County should consider utilizing its 20-year planning horizon to manage supply and demand given climate trends and projections when reviewing stormwater management regulations (Asinas et al 2022). Regulations could include promoting and incentivizing low impact development (LID), specifically infiltration of clean runoff to support aquifer recharge.

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