Chapter 6: Critical Areas

6.1. General Provisions

A. **Purpose**

1. To protect and restore these shoreline areas and their functions and values, while also allowing for appropriate shoreline use and development.

2. The Town finds that the beneficial functions, structures, and values of critical areas should be protected, and that public hazards or public costs associated with inappropriate use of such areas should be minimized by reasonable regulations of uses within, adjacent to, or directly affecting such areas. Pertinent and relevant science shall be used in the administration of this chapter.

B. **Relationship to Other Regulations**

1. These critical area regulations shall apply as an overlay and in addition to zoning and other regulations adopted by the Town.

2. In the event of any conflict between this chapter and any other Town regulations, the regulation that provides more protection for the critical area shall apply.

3. Compliance with the provisions of this chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required. The applicant is responsible for complying with all applicable requirements.

C. **Applicability**

1. The following provisions apply to any use or development proposed in or adjacent to critical areas or their buffers in shoreline jurisdiction whether or not a permit or other authorization is required.

2. Critical Areas Regulations do not apply to existing and ongoing “agricultural activities” on “agricultural land,” as defined in Chapter 3 of this Program.

3. The Town shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement in, over, or on a critical area or associated buffer, without first ensuring compliance with the requirements of this chapter.

D. **Critical Areas Review.** Following is a description of the general procedures for critical areas review.

1. **Review & Submittal Exemptions.** The Shoreline Administrator must first determine whether the proposed activity qualifies as exempt from some or all provisions of this chapter.
   a. **Review Exempt**. If the proposed activity meets any of the listed review exemptions below, no critical areas review is required.

b. **Submittal Exempt**. If the proposed activity meets any of the listed submittal exemptions below, no critical area checklist or critical area report is required.

2. **Checklist**. As required by the above exemption determination, the applicant shall submit a completed critical area checklist on a form provided by the Town to describe whether or not the property subject to the application is within or adjacent to any area shown as a critical area. As necessary, the following shall be considered, including, but not limited to:
   a. Indication of a critical area on the critical areas maps;
   b. Information and scientific opinions from appropriate agencies;
   c. Documentation from a scientific or other reasonable source; or
   d. A finding by a qualified professional or a reasonable belief that a critical area may exist on or adjacent to the site of the proposed activity.

3. **Site Visit.** After receipt of a project application and a complete critical area checklist, the Shoreline Administrator shall review available information and may conduct a site inspection on the potential location of critical areas on and adjacent to the site. Available information includes at a minimum the information contained in the Inventory and Characterization Report.

4. **Initial Determination**. Based on the critical areas checklist, site inspection, and other information available pertaining to the site and proposal, the Shoreline Administrator shall make an initial determination as to whether any critical areas and their associated buffers may be affected by the proposal.

5. **Review Complete.** If the Shoreline Administrator analysis indicates that the project area is not within or adjacent to a critical area or buffer and that the proposed activity is unlikely to degrade the functions or values of a critical area buffer, then the Shoreline Administrator shall conclude critical area review pursuant to this chapter and document the reasons that no further review is required in any staff report or decision on the underlying permit.

6. **Waiver**. If the Shoreline Administrator determines that there are critical areas or buffers within or adjacent to the project area, but that the proposed activity is unlikely to degrade the functions or values of the critical area or buffer, the Shoreline Administrator may waive the requirement for a critical area report. A waiver may be granted if there is substantial evidence that all of the following requirements will be met. A summary of this analysis and the findings shall be included in any staff report or decision on the underlying permit.
   a. There will be no alteration of the critical area or buffer; and,
   b. The development proposal will not impact the critical area or buffer in a manner contrary to the purposes, intent, and requirements of this chapter.

7. **Critical Area Report.** If the Shoreline Administrator determines that a critical area or buffer may be affected by the proposal, then the Shoreline Administrator shall notify the applicant that a critical area report must be submitted prior to further review of the project and indicate each of the critical area types that should be addressed in the report.

8. **Final Determination.** The Shoreline Administrator's determination regarding critical areas pursuant to this chapter shall be considered final concurrent with the final decision to approve, condition, or deny the development proposal or other activity involved.

E. **Activities Exempt from Critical Area Review.** The critical areas review process and regulatory standards of this chapter do not apply to certain shoreline use and development activities located in or near a critical area or its buffer, provided such activities shall:

1. Use all reasonable methods to avoid potential impacts to critical areas.

2. Not degrade a critical area or ignore risk from natural hazards.

3. Restore, rehabilitate, or replace, at the responsible party's expense, any incidental damage to, or alteration of, a critical area or its associated buffer, that is not a necessary outcome of the activity.

4. The following use and development activities shall be exempt from the provisions of this chapter provided they are otherwise consistent with the applicable provisions of this Program and other local, state, and federal requirements:
   a. **Emergencies**. Emergencies are those activities necessary to prevent an immediate threat to public health, safety, and welfare, or that pose an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for compliance with the requirements of this chapter.
      i. Emergency actions that create an impact to a critical area and/or its associated buffer shall use reasonable methods to address the emergency.
      ii. The person or agency undertaking such action shall notify the Shoreline Administrator within one working week following commencement of the emergency activity. Following such notification, the Shoreline Administrator shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the Shoreline Administrator determines that the action taken, or any part of the action taken, was beyond the scope of an allowed emergency action, then enforcement actions shall apply.
      iii. After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary restoration and/or mitigation for any impacts to the critical area and their associated buffers resulting from the emergency action in accordance with an approved critical area report and mitigation plan. The person or agency undertaking the action shall apply for review, and the alteration, critical area report, and mitigation plan must be reviewed by the Shoreline Administrator. Restoration and/or mitigation activities must be initiated within one year of the date of the emergency and completed in a timely manner.
   b. **Operation, Maintenance, or Repair**. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private highways and other roads, dikes, levees, drainage systems, if the activity does not alter or increase the impact to, or encroach further within, the critical area or its associated buffer, and there is not increased risk to life or property as a result of the proposed operation, maintenance, or repair. Operation and maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures, infrastructure, or utilities, provided that such management actions are part of a regular and ongoing maintenance, do not expand further into the critical area, are not the result of an expansion of the structure or utility, and do not directly impact an endangered or threatened species.

c. **Forest Practices**. Forest Practices regulated and conducted in accordance with the provisions of Chapter 76.09 RCW and forest practices regulations, Title 222 WAC, except conversions to non-forestry uses.
d. **Passive Outdoor Activities**. Recreation, education, and scientific research activities that do not degrade the critical area, such as fishing, hiking, and bird watching.

F. **Activities Allowed without Critical Areas Submittal.**

1. Some shoreline activities that are located in or near a critical area or its buffer and that are unlikely to result in a critical areas impact may be allowed subject only to the critical area regulatory standards but not the critical areas review process required by this chapter, provided:
   a. Activities allowed under this subsection are subject to shoreline review and approval by the Town, but do not require submittal of a critical area checklist or critical area report.
   b. The Shoreline Administrator may apply conditions to the underlying permit or approval to ensure consistency with the provisions of this chapter. If no underlying permit or approval is otherwise required, the Town, may issue an administrative determination.
   c. They are otherwise consistent with the applicable provisions of this Program and other local, state, and federal requirements.
   d. Activities allowed under this subsection must be conducted using the best management practices that result in the least amount of impact to the critical area or its associated buffer. Any incidental damage to, or alteration of, a critical are and its associated buffer shall be restored, rehabilitated, or replaced at the responsible party's expense.

2. The following use and development activities shall be exempt from the critical areas checklist and critical areas report submittal requirements of this section, provided they are otherwise consistent with the applicable provisions of this Program and other local, state, and federal requirements.
   a. **Previous Critical Area Review.** Development permits and approvals that involve both discretionary land use approvals (such as subdivisions, rezones, or conditional use permits), and construction approvals (such as building permits) if all of the following conditions have been met:
      i. The regulatory standards of this section have been previously addressed as part of another approval;
      ii. There have been no material changes in the potential impact to the critical area or buffer since the prior review;
      iii. There is no new information available that is applicable to any critical area review of this site or particular critical area; and
      iv. The resultant permit or approval has not expired or, if no expiration date, no more than five years has elapsed since the issuance of the permit or approval.

   b. **Existing Structures.** Structural modification of, addition to, or replacement of an existing legally constructed structure that does not further alter or increase the impact to a critical area or buffer and there is no increased risk to life or property as a result of the proposed modification or replacement.

c. **Utilities Within Right-of-Way.** Replacement or modification of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a Town-authorized private roadway, except those activities that:
   i. alter a wetland or watercourse, such as culverts or bridges, or
   ii. result in the transport of sediment or increased stormwater runoff.

d. **Minor Utility Projects.** Utility projects that have minor or short-duration impacts to critical areas, as determined by the Shoreline Administrator in accordance with the criteria below, and which do not significantly impact the function or values of a critical area(s), provided that such projects are constructed using best management practices and additional restoration measures are provided. Minor activities must not result in the transport of sediment or increased stormwater runoff. Such allowed minor utility projects must meet the following criteria:
   i. The activity involves the placement of a utility pole, street signs, anchor, vault or other similar small component of a utility facility; and
   ii. There is no practical alternative to the proposed activity that would have less impact on a critical area or its associated buffer.

e. **Trails**. Public and private pedestrian trails, except in wetlands, fish and wildlife habitat conservation areas, or their buffers, subject to the following:
   i. Critical area and/or buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas; and
   ii. Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk of landslide or erosion and in accordance with an approved geotechnical report;
   iii. Trail construction shall include pervious surfaces whenever feasible.

f. **Vegetation Removal Activities**. The following vegetation removal activities, provided that activities comply with the Chapter 5.2.9 provisions of this Program and that no vegetation shall be removed from a critical area or its associated buffer without approval from the Shoreline Administrator:
   i. **Ongoing Maintenance.** Maintenance of existing lawn and landscaped areas.
   ii. **Noxious Weeds - Selective.** The removal of invasive and noxious weeds with hand labor and light equipment.
   iii. **Pruning**. Tree trimming and pruning activities.
   iv. **Hazard Trees.** The pruning or removal of a hazard tree.

g. **Minor Site Investigative Work**. Work necessary for land use permit submittals, such as surveys, soil logs, percolation tests, and other related activities, where such activities not require construction of new roads or significant amounts of excavation. When impacts to the critical area are likely the activity shall not be allowed under this subsection.

h. **Boundary Markers**. Construction or modification of boundary markers.

G. **Protection Standards.**

1. **Field Marking.**

a. **Temporary**. Prior to any site alteration, the boundary at the outer edge of the critical area or its associated buffer shall be identified on site with temporary stakes, flagging, signs or high-visibility construction fencing. The location of field marking must be documented with photos and shown on all site plans and final plats associated with the development proposal. Such temporary field marking shall remain in place until any required final inspections are completed and approved and shall be replaced with permanent signs and/or fencing prior to occupancy of the site.
b. **Permanent.** Prior to occupancy, the Shoreline Administrator may require permanent signs and/or fencing to identify the outer edge of the critical area or its buffer:
    i. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or use other non-toxic materials of equal durability. Signs must be posted at an interval of one per lot or every 50 feet, whichever interval is less, and must be maintained by the property owner in perpetuity. The signs shall be worded as follows or with alternative language approved by the Shoreline Administrator: "Protected Wetland Area, Do Not Disturb, Contact the Town of Cathlamet Regarding Uses, Restrictions, and Opportunities for Stewardship"
    ii. Permanent fencing shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the critical area and buffer.
c. Field marking requirements may be waived by the Administrator if an alternative method of indicating critical area locations in the field achieves the same objective.

2. **Agency access**. Reasonable access to the site shall be provided to the Town, state, and federal agency review staff for the purpose of inspections during any proposal review, restoration, emergency action, or monitoring period.

3. **Land divisions**. When new lots are created they shall meet all of the following conditions:
    a. All lots shall contain sufficient area outside of the critical area and associated buffer to accommodate the use and/or development. Buffers that have been averaged or reduced by any prior actions shall not be further averaged or reduced.

    b. Open space or conservation area lots may be established without a site that is suitable for use and/or development provided there is a note on the face of the plat, deed restriction, or other recorded document which restricts future use and development to open space and conservation.

4. The Administrator shall prohibit any shoreline use or development that will result in unmitigated impacts to ecological function.

H. **Notice on title.**

1. In order to inform subsequent purchasers of real property of the existence of critical areas, the owner of any property containing a critical area or buffer on which a development proposal is submitted shall record a notice with Wahkiakum County on the property's title. The notice shall "run with the land," and shall state:

a. the presence and location description of the critical area and buffer;
b. the applicability of this Program to the property; and
c. limitations on action in or affecting critical areas and buffers as approved by the Administrator.

2. This notice on title shall not be required for a development proposal by a public agency or public or private utility:
   a. Within a recorded easement or right-of-way;
   b. Where the agency or utility has the right to an easement or right-of-way; or
   c. On the site of a permanent public facility.

3. The applicant shall submit proof that the notice has been filed for public record before the Town approves any site development or construction for the property or, in the case of subdivisions, short plan subdivision, planned unit developments, and binding site plans, at or before recording.

I. **Critical area and buffer tracts**

1. As a condition of a binding site plan, short plat, subdivision, or planned unit development, the applicant may be required to create a separate critical area tract or tracts containing the critical areas and/or their buffers, subject to:
   a. A conservation easement for the protection of a critical area and/or its buffer dedicated to the Town or other appropriate public, nonprofit, or private entity (e.g., land trust) with a demonstrated record of land conservation and approved by the Administrator;
   b. A deed restriction on the title; and/or,
   c. Limiting conditions added to the face of the recorded plat or binding site plan.

2. Responsibility for maintaining the tracts shall be held by an entity approved by the Town, such as a homeowners' association, adjacent lot owners, the permit applicant or designee, or other appropriate entity.

3. A note substantially similar to the following shall appear on the face of all plats, short plats, planned residential developments, or other approved site plans containing separate critical area tracts, and shall be recorded on the title of all affected lots:

   "Note: The _____ is responsible for maintenance and protection of the critical area tracts. Maintenance includes ensuring that no alterations occur and that all vegetation remains undisturbed unless the express written authorization of the Town has been received."

J. **Critical area report.**

1. The critical area report must be prepared by a qualified professional. No site analysis required by this chapter will be considered complete without a detailed resume' of the principal author(s) which specifies their technical training and experience and demonstrates their stature as a qualified professional(s).

2. The critical area report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance and reference the source of science used.

3. At a minimum, the report shall contain the following, as applicable:
   a. The name and contact information of the applicant, a description of the proposal, and identification of any permits known to be required;
   b. A site plan for the development proposal including a map to scale depicting critical areas, buffers, and the development proposal, including any areas to be cleared.
   c. A description of the proposed stormwater management plans for the development and consideration of impacts to drainage alterations;
   d. The dates, names, and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site;
   e. Identification and characterization of all critical areas, wetlands, waterbodies, and buffers within or adjacent to the proposed project area;
   f. A statement specifying the accuracy of the report, and all assumptions made and relied upon;
   g. An assessment of the probable impacts to critical areas resulting from the proposed development or use activity;
   h. Any additional information required for a specific type of critical area as indicated by this chapter.

K. **Violations and enforcement**

1. When a critical area or its buffer has been altered in violation of this chapter, the Shoreline Administrator shall enforce this Program using the provisions of WAC 173-27 Part II and shall require corrective action to restore ecological functions to the condition that existed prior to the violation.

2. Restoration Plan for Corrective Action. All development work shall remain stopped until a restoration plan is prepared at the applicant's cost and approved by the Shoreline Administrator. The Shoreline Administrator may approve, reject or approve the plan with conditions. All restoration shall be consistent with the approved restoration plan unless otherwise authorized.
   a. The Restoration Plan shall be prepared by a qualified professional using the best available science.
   b. In preparing and approving the restoration plan, the applicant and the Shoreline Administrator, respectively, should consult with the Department of Fish and Wildlife, Natural Resources, and Ecology, as appropriate.
   c. The Shoreline Administrator may, at the violator's or responsible party's expense, seek expert advice in determining the adequacy of the plan upon due notice to the violator.

L. **Mitigation Requirements**

1. Proponents of new shoreline use and development, including preferred uses and uses that are exempt from permit requirements, shall employ all reasonable measures to mitigate adverse impacts to critical areas and their buffers.

2. Unavoidable adverse impacts to critical areas and their buffers resulting from a development proposal or alteration shall be mitigated using the most current, accurate, and complete scientific or technical information available in accordance with an approved critical area report, so as to result in no net loss of critical area functions and values.

3. Mitigation shall not be implemented until after approval of a critical area report and a mitigation plan, and mitigation shall be in accordance with the provisions of the approved mitigation plan.

4. Mitigation shall occur following the sequence of steps listed below in order of priority, with step 'a' being the top priority, and only using lesser priority steps when higher priority steps are infeasible:
   a. Avoiding the impact altogether by not taking a certain action or parts of an action;
   b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by adhering to the dimensional requirements, performance standards and design criteria in this Program and using other technologies or steps, as needed, to avoid or reduce impacts;
   c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
   d. Reducing or eliminating the impact over time by preservation and maintenance operations;
   e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
   f. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

5. The Administrator shall determine whether identified critical area impacts have been first avoided and second minimized. Unless otherwise stated in this Program, development proposals that do not fully conform to the dimensional requirements, performance standards, and/or design criteria in this Program shall require a variance and compensatory mitigation to ensure no net loss of ecological functions.

6. Compensatory mitigation measures shall be in-kind and on-site, whenever possible, occur in the vicinity of the impact or at an alternative location within the same watershed that provides greater and more sustainable ecological benefits. When determining whether offsite mitigation provides greater and more sustainable benefits, the Administrator shall consider limiting factors, critical habitat needs, and other factors identified by the locally adopted shoreline restoration plan, or an approved watershed or comprehensive resource management plan. The Administrator may also approve use of alternative mitigation practices such as in-lieu fee programs, mitigation banks, and other similar approaches provided they have been approved and certified by the appropriate state, federal, and local authorities.

7. When critical area compensatory mitigation is required, the mitigation and mitigation plan shall adhere to the following standards:
   a. The quality and quantity of the replaced, enhanced, or substituted resources shall be the same or better than the affected resources;

b. The mitigation site and associated vegetative planting shall be monitored and maintained to ensure that healthy native plant communities grow and mature over time to provide the intended ecological functions and values;
c. The mitigation shall be informed by pertinent scientific and technical studies, when required by size and scope as determined by administrator, including, but not limited to, the Shoreline Inventory and Characterization Report, and the Shoreline Restoration Plan;
d. The mitigation shall replace the functions concurrently with, or as quickly as possible following, the impacts;
e. The applicant/proponent shall post a bond or provide other financial surety equal to one hundred and fifty percent (150%) of the estimated cost of the mitigation to ensure the mitigation is carried out successfully. The bond/surety shall be refunded to the applicant/proponent upon completion of the mitigation activity and any required monitoring. In the event that the applicant/proponent does not provide adequate security for the mitigation required as a condition of its approval, then the Shoreline Administrator shall have the discretion of requiring that the mitigation be completed prior to the issuance of the final approval; and,
f. Mitigation areas shall be protected in perpetuity and the protection shall run with the land and be recorded via a legal instrument such as an easement, or as a dedication on the face of a plat or short plat. Such legal instruments shall be recorded with the Wahkiakum County Auditor's Office prior to the time of building permit approval, occupancy or plat approval, whichever comes first (RCW 58.17.110). Future actions by the applicant's successors in interest or other parties shall not diminish the usefulness or value of mitigation areas.

8. Compensatory mitigation plans shall be prepared by qualified professionals with education, training and experience in the applicable field, as follows:
   a. **Wetlands** - Mitigation plans shall be prepared by a qualified wetland professional, as defined by this Program, who is educated/ trained in wetland biology or a closely related field, and has demonstrated experience in mitigation plan design, implementation, and monitoring. The overall goal of any such mitigation plan shall be no net loss of wetland functions, acreage, and values.
   b. **Fish and Wildlife Habitat Conservation Areas** - Mitigation plans, and habitat management plans, shall be prepared by a qualified professional with education/training in wildlife biology or a closely related field, and professional experience in habitat mitigation design, implementation, and monitoring. WDFW PHS management recommendations or equivalent federal recommendations shall serve as guidance for such mitigation plans.
   c. **Geologically Hazardous Areas** - Mitigation plans shall be prepared by a qualified professional who is either a geologist or a geotechnical engineer, or a civil engineer licensed in the State of Washington, who is knowledgeable of regional geologic conditions and who has professional experience in landslide and erosion hazard evaluation, mitigation plan design, implementation, and monitoring.
   d. **Frequently Flooded Areas** - Mitigation plans shall be prepared by a civil engineer licensed in Washington and experienced with hydrology, hydraulics, and fluvial geomorphology.

9. **Mitigation banking and in-lieu fee (ILF) mitigation:** Once such programs are established and certified in accordance with applicable federal and state mitigation

rules, the Town may approve mitigation banking and/or in-lieu fee mitigation as a form of compensatory mitigation for wetland and habitat conservation area impacts when the provisions of this Program require mitigation and when the use of a bank/ILF program will provide equivalent or greater replacement of critical area functions and values when compared to conventional permittee responsible mitigation. Banks and ILF programs shall be used only when they provide significant ecological benefits including long-term conservation of critical areas, important species, habitats and/or habitat linkages, and when they are consistent with the Town's comprehensive plan and create a viable alternative to the piecemeal mitigation for individual project impacts to achieve ecosystem-based conservation goals. Banks and ILF programs shall be established and certified in accordance with applicable federal and state mitigation rules.

M. **Mitigation Plan Contents**

1. In addition to the general requirements of Chapter 5.2.B, compensatory mitigation plans for all critical area types shall include a written assessment and accompanying maps, and include discussion of the following information:
   a. Anticipated impacts to critical areas and/or their required buffers, including, at a minimum, existing wetland/stream dimensions and acreage; vegetative, fish, wildlife and hydrologic characteristics; soil and substrate conditions, and topographic elevations,
   b. Mitigation sequence analysis of which measures are being applied, and how applying the mitigation sequence will result in no net loss of ecological functions.
   c. Mitigation site information, if different from the impacted site, including at a minimum: existing wetland/ stream acreage; vegetative, fish, wildlife and hydrologic conditions; relationship within watershed and to existing water bodies; soil and substrate conditions topographic elevations; existing and proposed adjacent site conditions; buffers; and ownership.
   d. The mitigation plan shall identify goals and objectives and include:
      i. The purposes of the compensation measures including a description of site selection criteria, identification of compensation goals, identification of target evaluation species and resource functions, dates for beginning and completion of site compensation construction activities, and a complete description of the intended ecological structure and ecological functions upon project completion. The goals and objectives shall be related to the functions and values of the original critical area or, if out-of-kind, the type of critical area to be emulated.
   e. A review of the available literature and experience of the mitigation plan author in restoring or creating the type of critical area proposed. This review should include:
      i. An analysis of the likelihood of success of the compensation project at compensating for the impacted resource based on the experience of the author in designing and implementing comparable projects, if any.
      ii. An analysis of the likelihood of persistence of the created or restored resources.
   f. Performance standards: Specific and measurable criteria for evaluating whether or not the goals and objectives of the mitigation plan are being achieved at various stages in the project and for beginning remedial action or contingency measures. Such criteria may include water quality standards, survival rates of

planted vegetation, vegetative cover and/or density standards, in-stream habitat conditions, species abundance and diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.

g. Detailed construction plans: Written specifications and descriptions of compensation techniques, including the proposed construction sequence; grading and excavation details; erosion and sediment control features needed for construction and long-term operation; a planting plan specifying plant species, quantities, locations, size, spacing, and density; source of plant materials, propagules, or seeds; water and nutrient requirements for planting; where appropriate, measures to protect plants from predation; substrate stockpiling techniques; planting instructions; descriptions of water control structures and water-level maintenance practices needed to achieve the necessary hydroperiod characteristics; etc. These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome. The plan shall provide for elevations that are appropriate for the desired habitat type(s).
h. Monitoring program: A program outlining the approach for monitoring construction, performance, and progression of the compensation project and for assessing a completed project. Monitoring may include, but is not limited to:
    i. Establishing vegetation plots to track plant establishment/survival, and changes in plant species composition and density over time;
    ii. Using photo stations to evaluate vegetation community development;
    iii. Measuring physical parameters such as wetland size, stream dimensions, channel characteristics, buffer width;
    iv. Monitoring shallow groundwater levels to document hydrologic regimes/ hydroperiods;
    v. Sampling surface and subsurface waters to determine pollutant loading and changes from the natural variability of background conditions (e.g. pH, nutrients, heavy metals);
    vi. Measuring base flow rates and stormwater runoff to model and evaluate water quality predictions, if appropriate;
    vii. Measuring sedimentation rates, if applicable; and
    viii. Sampling fish and wildlife populations to determine habitat utilization, species abundance, and diversity.
i. Monitoring and reporting: A monitoring report shall be submitted annually, at a minimum, or as specified in the permit approval, documenting milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than five (5) years. For compensation projects intended to establish forest or scrub-shrub species/communities, the monitoring period shall be a minimum ten (10) years, with monitoring reports required at years 1, 2, 3, 5, 7, and 10, or until all goals, objectives, and performance standards have been met.
j. Contingency plan: Identification of potential courses of action, and any corrective measures to be taken when monitoring or evaluation indicates project performance standards are not being met.

k. Summary of the financial guarantees, if required, to ensure that the mitigation plan is fully implemented.
l. Additional applicable information specified elsewhere in this program.

6.2 Wetlands

A. General Regulations

1. **Designating wetlands.** Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the currently approved Federal Wetland Delineation Manual and applicable regional supplement, all areas within shoreline jurisdiction meeting the wetland definition, identification and designation criteria, regardless of presence or absence of formal documented identification, are hereby designated critical areas and are subject to the provisions of this Program.

2. **Wetland ratings.** Wetlands shall be rated according to the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Ecology Publication #14-06-029), or as revised. This document contains the definitions, methods, and criteria for classifying/rating wetlands.

3. **Illegal modifications** to wetlands shall not result in changes to wetland rating categories.

4. **Regulated activities.** The following activities are regulated by this Program if they occur in a wetland or its buffer:
   a. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind.
   b. The dumping of, discharging of, or filling with any material.
   c. The draining, flooding, or disturbing of the water level or water table.
   d. Pile driving.
   e. The placing of obstructions.
   f. The construction, reconstruction, demolition, or expansion of any structure.
   g. The destruction or alteration of wetland vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland.
   h. "Class IV - General Forest Practices" under the authority of the "1992 Washington State Forest Practices Act Rules and Regulations," WAC 222-12-030, or as thereafter amended.
   i. Activities that result in:
      i. A significant change of water temperature.
      ii. A significant change of physical or chemical characteristics of the sources of water to the wetland.
      iii. A significant change in the quantity, timing, or duration of the water entering the wetland.
      iv. The introduction of pollutants.

5. **Subdivisions**. The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:
   a. Land that is located wholly within a wetland or its buffer may not be subdivided.

b. Land that is located partially within a wetland or its buffer may be subdivided provided that an accessible and contiguous portion of each new lot is:
   i. Located outside of the wetland and its buffer; and
   ii. Meets the minimum lot size requirements of CMC.

B. Initial Project Review

1. **Site visit.** A site visit shall be conducted by the Administrator or qualified designee to determine whether a wetland or wetland buffer area are within three hundred feet of a proposed project or activity. A confirmation that a wetland is present or that the proposed project may impact a wetland, or its buffer will then require a professional site assessment. The Administrator shall use the following map references to assist in making a determination: (1) National Wetland Inventory Map; and (2) any records of previously mapped or delineated wetlands.

2. **Critical areas report for wetlands.** If it is determined that a wetland exists within 300 feet of the site of a proposed development activity, a wetland report prepared by a qualified professional shall be required. The expense of preparing the wetland report shall be borne by the applicant. In addition to the general critical area report requirements of this chapter, critical area reports for wetlands shall also meet the following requirements:
   a. **Area addressed in wetland critical area report.** The following areas shall be addressed in a wetland critical area report:
      i. The project area of the proposed activity;
      ii. All wetlands and recommended buffers within three hundred (300) feet of the project area; and,
      iii. All shoreline areas, water features, floodplains, and other critical areas and related buffers within two hundred feet of the project area.
   b. **Narrative.** The report narrative must include each of the following:
      i. Location information (legal description, parcel number and address);
      ii. List of all property owners;
      iii. Site characteristics, including topography, total acreage, delineated wetland acreage, other water bodies, vegetation, soil types, etc., and distances to and sizes of other off-site wetlands and water bodies within 300’ of the proposed development;
      iv. Identification of the wetland's rating as defined in these regulations;
      v. Analysis of functions and values of existing wetlands, including flood control, water quality, aquifer recharge, fish and wildlife habitat, and hydrologic characteristics;
      vi. A complete description of the proposed project and its potential impacts to wetlands and buffers and, if applicable, adjacent off-site wetlands and buffers;
      vii. Discussion of project alternatives, including total avoidance of impacts to wetland areas;
      viii. If mitigation for wetland impacts is proposed, a description and analysis of that mitigation;
      ix. A wetland buffer recommendation and rationale for the buffer size determination;

xi. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.; and
xii. A list of management practices that will be used to protect and maintain the quality of the wetland and/or covenants and restrictions that will be used in managing the wetland.

c. **Vicinity map** drawn to scale and including a north arrow, public roads, and other known landmarks in the vicinity.
d. **National Wetlands Inventory map** (U.S. Fish and Wildlife Service) and/or an adopted Town of Cathlamet wetland inventory map identifying wetlands on or adjacent to the site.
e. **Site map.** This map must be drawn to a usable scale, one-inch equals one hundred feet or better, and must include a north arrow and all of the following requirements:
   i. Site boundary/property lines and dimensions;
   ii. Wetland boundaries based upon a wetland professional's delineation.
   iii. The hydrogeomorphic classification and category of each wetland;
   iv. Recommended wetland buffer boundary;
   v. Buffers for off-site critical areas within three hundred (300) feet of the project area;
   vi. Internal property lines such as rights-of-way, easements, etc.;
   vii. Existing physical features of the site, including buildings and other structures, fences, roads, utilities, parking lots, water bodies, etc.;
   viii. The development proposal, including grading and clearing limits;
   ix. Topographic contours at five-foot intervals.
   x. All shoreline areas, water features, floodplains, and other critical areas and related buffers within two hundred feet of the project area.
f. **Documented staking and flagging**. The wetland buffer boundaries shall be staked and flagged. The report shall include photos documenting that the wetland buffer boundaries have been staked and flagged.
g. **Additional information.** When appropriate, the Administrator may also require the critical area report to include an evaluation by the State Department of Ecology or an independent qualified expert regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, and to include any recommendations as appropriate.

C. **Activities in Wetlands and Buffers**

1. Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided for below.
2. **Category I wetlands.**
   a. Alteration of Category I wetlands and their buffers is prohibited except by a variance approved under this Program, or if the alteration would improve habitat for priority species that use the wetland and/or its buffer. This improvement of both functions and values shall be demonstrated within the critical area assessment and mitigation plan.
   b. Activities and uses that result in unavoidable and necessary impacts may be permitted in Category I wetlands buffers in accordance with an approved critical area report and mitigation plan, and only if the proposed activity is the only feasible alternative that will accomplish the applicant's objectives.

3. **Category II and III wetlands.** Activities and uses that result in unavoidable and necessary impacts may be permitted in Category II and III wetlands and their associated buffers in accordance with an approved critical area assessment and mitigation plan, and only if the proposed activity is the only feasible alternative that will accomplish the applicant's objectives.
4. **Category IV wetlands.** Activities and uses that result in unavoidable and necessary impacts may be permitted in Category IV wetlands and their associated buffers in accordance with an approved critical area assessment and mitigation plan, and only if the proposed activity is the only feasible alternative that will accomplish the applicant's objectives.
5. Full mitigation for the acreage and loss of functions will be provided under the terms established by this Program.

D. **Wetland Buffers**

1. **Buffers required.** Wetland buffers are required and shall be adequate to ensure that wetland functions are protected and maintained in the long term. Buffer width and management shall take into account the ecological functions of the wetland, the characteristics and setting of the buffer, the potential impacts associated with the adjacent land use, and other relevant factors.

2. **Measurement of wetland buffers.** All buffers shall be measured from the wetland boundary as surveyed or flagged in the field. Buffer widths shall be determined according to wetland category, habitat score and/or water quality score, and intensity of the proposed land use adjacent to the wetland. The buffer of a created, restored, or enhanced wetland shall be in conformance with the expected category of the wetland upon maturity.

3. **Buffers width determinations** are partially based on the impact of the proposed land use. Impact of the proposed land use shall be determined as follows:

Table 2: Level of Wetland Impact from Proposed Land Use

Level of Impact	Types of Land Use	
High	• Commercial • Urban • Industrial • Institutional • Retail sales • Residential (more than 1 unit/acre) • Hobby farms	• Conversion to high-intensity agriculture (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual tilling and raising and maintaining animals, etc.) • High-intensity recreation (golf courses, ball fields, etc.)
Moderate	• Residential (1 unit/acre or less) • Moderate-intensity open space (parks with biking, jogging, etc.) • Conversion to moderate-intensity agriculture (orchards, hay fields, etc.)	• Paved trails • Building of logging roads • Utility corridor or right-of-way shared by several utilities and including access/maintenance road

Low	• Forestry (cutting of trees only) • Low-intensity open space (hiking, bird-watching, preservation of natural resources, etc.)	• Unpaved trails • Utility corridor without a maintenance road and little or no vegetation management.

4. **Standard Buffer Widths.** Required buffer widths and additional requirements are provided in the table below. If the wetland meets more than one of the characteristics used to determine buffer width, the widest applicable buffer is required.

Table 3: Standard Wetland Buffer Widths

Wetland Category	Low Impact Land Use	Moderate Impact Land Use	Hi Impact Land Use
IV	25 ft.	40 ft.	50 ft.
III	75 ft.	110 ft.	150 ft.
II	150 ft.	225 ft.	300 ft.
I	150 ft.	225 ft.	300 ft.

5. **Increased wetland buffer widths**. The Administrator shall require increased buffer widths when recommendations by a qualified professional biologist and the most current, accurate, and complete scientific and technical information available indicate that increased buffer widths are necessary to protect the wetland. An increase in buffer width per the following criteria and specifications shall be required.
   a. Where the buffer or adjacent uplands have a slope greater than thirty percent the buffer width shall be increased not less than fifty percent
   b. Where the buffer or wetlands are used by or adjacent to areas used by state or federally listed threatened or endangered species, the buffer width shall be increased to a width recommended by WDFW or recommended in *Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands* (Ecology publication #05-06-008) and its most current appendices.
   c. Where the existing buffer is unvegetated, sparsely vegetated, or vegetated with non-native species that do not provide the needed functions, the buffer shall be planted to create the appropriate plant community, or if that is not feasible the buffer shall be widened to ensure that adequate functions of the buffer are provided. If the buffer is to be planted rather than increased in width, a vegetation planting plan is required and shall include measures for monitoring and maintenance of the vegetated area.

6. **Reduced Width Based on Modification of Land Use Intensity.** The buffer widths for proposed land uses with high-intensity impacts to wetlands can be reduced to the widths required for moderate-intensity impacts under the following conditions, and only after the applicant submits a critical areas report prepared by a qualified professional that provides clear justification for the reduced buffer: The justification shall provide detailed specifications for how the impact reduction measures will be implemented, identify the impacts addressed by the measures, characterize the impacts that would occur without the measures, and comparatively characterize the impacts that will occur with the measures.

   a. For wetlands that score moderate or high for habitat (6 points or more for the habitat functions), the width of the buffer can be reduced if both of the following criteria are met:

i. A relatively undisturbed, vegetated corridor at least one hundred feet wide is protected between the wetland and any other priority habitats as defined by the Washington Department of Fish and Wildlife ("relatively undisturbed" and "vegetated corridor" are defined in questions H 2.1 and H 2.2.1 of the *Washington State Wetland Rating System for Western Washington 2014 Update*). The corridor must be continuous with both the wetland and the priority habitat and be protected for the entire distance between the wetland and the priority habitat by some type of legal protection such as a conservation easement.
ii. All applicable measures to minimize the impacts of adjacent land uses on wetlands, including but not limited to those summarized in Table 5 are applied.
iii. The administrator shall determine whether additional impact reduction measures are applicable after reviewing the proponent's justification and shall require the applicant to implement such additional applicable measures.

b. For wetlands that score fewer than 6 points for habitat, the buffer width can be reduced to that required for moderate land-use impacts by applying all applicable measures to minimize the impacts of the proposed land uses (see examples in Table 5).

Table 4: Potential Measures to Minimize Adjacent Land Use Impacts on Wetlands

	Activities and Uses that Cause Disturbances	Potential Measures to Minimize Impacts
Lights	• Parking lots • Warehouses • Manufacturing • Residential	• Direct lights away from wetland
Noise	• Manufacturing • Residential	• Locate activity that generates noise away from wetland
Toxic runoff*	• Parking lots • Roads • Manufacturing • Residential areas • Application of agricultural pesticides • Landscaping	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 ft. of wetland • Apply integrated pest management
Stormwater runoff	• Parking lots • Roads • Manufacturing • Residential areas • Commercial • Landscaping	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer
Change in water regime	• Impermeable surfaces • Lawns • Tilling	• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns

Pets and human disturbance	• Residential areas	• Use privacy fencing; • Plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion; • Place wetland and its buffer in a separate tract
Dust	• Tilled fields	• Use best management practices to control dust
** These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.*		

7. **Functionally isolated buffer areas.** Areas that are functionally separated from a wetland and do not protect the wetland from adverse impacts due to preexisting roads, structures, or vertical separation shall be excluded from buffers otherwise required by this Program on a case-by-case basis subject to a critical area report and review as determined by the Administrator.

8. **Buffer averaging**
   a. Buffer averaging is a site-specific 'give and take' approach to configuring the buffer area. Averaging may not be used in conjunction with any of the provisions for reductions in buffers.
   b. Averaging to improve wetland protection may be permitted when all of the following conditions are met:
      i. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a "dual-rated" wetland with a Category I area adjacent to a lower rated area.
      ii. The buffer width is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower-functioning or less sensitive portion.
      iii. The total area of the buffer after averaging is equal to the area required without averaging.
      iv. The buffer at its narrowest point is never less than 3/4 of the required width.
   c. Averaging to allow reasonable use of a parcel may be permitted when all of the following are met:
      i. There are no feasible alternatives to the site design that could be accomplished without buffer averaging.
      ii. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated by a report from a qualified wetland professional.
      iii. The total buffer area after averaging is equal to or greater than the area required without averaging.
      iv. The buffer at its narrowest point is never less than 3/4 of the required width.

9. **Buffer condition maintenance.** Wetland buffers in their natural state shall not be altered and shall be maintained in an undisturbed condition except as allowed in this Program. Planting of native plants and control of non-native invasive plants using hand tools is allowed.

10. **Buffers for mitigation wetlands.** Any wetland that is created, restored, or enhanced as compensation for approved regulated wetland alterations shall have the standard buffer required for the category of the created, restored, or enhanced wetland.

11. **Uses permitted in buffer areas.** The following uses may be permitted within a required wetland buffer, provided impacts are minimized, trees and other significant native vegetation are avoided, the use does not negatively affect the buffer, and unless otherwise prohibited:
    a. Conservation and Restoration Activities. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
    b. Non-motorized use trails in accordance with an approved critical area report.
        i. Non-motorized use trails shall, be placed on existing road grades, or utility corridors if it is demonstrated that no other feasible location outside of the buffer exists.
        ii. If there is no feasible location on existing road grades or utility corridors a non – motorized trail may be placed in the outer 25% of the buffer.
        iii. Trails in the buffer shall be located, designed, and built to minimize removal of vegetation (trees, shrubs, etc.) and important wildlife habitat.
        iv. Trail widths shall not be wider than three (3) feet for private trail and ten (10) feet for public use or publicly owned trails. Trail surfaces shall be pervious, composed of natural materials (e.g., gravel, rock, bark).
        v. Permanent surfacing materials (asphalt or concrete) shall require a variance. No construction or surfacing materials shall significantly alter the existing drainage or negatively affect the wetland or buffer area.
    c. Public access fishing areas , wildlife viewing structures, platforms, interpretive areas, picnic areas, benches, and associated activities shall be designed and located to minimize disturbance to wildlife habitat and/or wetland and/or buffer values, or functions;
    d. Stormwater Management Facilities. Stormwater management facilities such as bioswales or retention ponds may be allowed within the outer twenty-five (25) percent of the required buffer area only for Category III and IV wetlands with a habitat score of 5 or less and that do not contain a breeding population of any native amphibian species, provided that:
        i. No other location is feasible;
        ii. Locating such facilities within the buffer area will not degrade the wetland values or functions or alter the hydroperiod of the wetland or adversely affect water quality;
        iii. Compensatory mitigation shall be included for all losses of wetland function as a result of the stormwater management facility;
        iv. The stormwater facility meets applicable stormwater management standards, and the discharge water meets state water quality standards, including total maximum daily load (TMDL) standards;
        v. The discharge is located in a manner that minimizes disturbance of soils and vegetation;
        vi. The discharge outlet is designed to prevent erosion and promote infiltration; and,
        vii. The facility is located, designed, and constructed per the specifications of the "*2012 Stormwater Management Manual for Western Washington, as Amended in December 2014 - Appendix 1-D Guidelines for Wetlands when Managing Stormwater*." (Ecology, 2014. Publication Numbers 14-10-055)
    e. Stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted within a critical area or shoreline buffer on a case-by-case basis when all of the following criteria are met:
        i. Due to topographic or other physical constraints, there are no feasible locations for these facilities in the outer 25% of the buffer area or outside the buffer.

ii. The discharge is located in a manner that minimizes disturbance of soils and vegetation.
iii. The discharge outlet is designed to prevent erosion and promote infiltration.

12. **Stormwater management near wetlands.** The following stormwater management standards are required for development in or near wetlands:
    a. New developments shall utilize best management practices to minimize stormwater quantity and quality impacts to wetlands during and following construction.
    b. Stormwater runoff from new development shall not significantly change the rate of flow or the hydroperiod, which is the seasonal period and duration of water saturation or inundation, nor decrease the water quality of wetlands.
    c. Authorized modifications of wetlands or buffer areas for construction of, or discharge from drainage facilities shall not adversely affect wetland hydrologic functions.
    d. Dangerous Substances**.** Developments that handle, store, dispose of, transport, or generate substances or wastes defined as "dangerous" or "extremely dangerous" wastes under WAC 173-303 (regardless of quantity) shall not allow direct precipitation or stormwater runoff to contact such substances where stored on-site.
    e. Referenced Standard**.** The "*2012 Stormwater Management Manual for Western Washington, as Amended in December 2014 - Appendix 1-D Guidelines for Wetlands when Managing Stormwater*." (Ecology Publication Number 14-10-055) shall be the standard reference when implementing a stormwater management plan unless the Administrator authorizes an alternative approach.

E. Mitigation for Wetland Impacts

1. **Mitigation Sequencing.** Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas, as required by this Program. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for using the mitigation sequence of this Program. As a condition of any shoreline permit allowing for wetland impacts, the applicant must provide compensatory mitigation in the form of restoration, creation, or enhancement wetlands to offset the impacts. An appropriate mitigation plan shall be developed by a qualified professional and approved by the Administrator.

2. **Mitigation Approach Options.** As consistent with the general mitigation requirements of this Program, the use of wetland mitigation replacement ratios or any similar method shall be demonstrated to address the following:
    a. The risk of failure of the compensatory mitigation action;
    b. The length of time it will take the compensatory mitigation action to adequately replace the impacted wetland functions and values;
    c. The gain or loss of the type, quality, and quantity of the ecological functions of the compensation wetland as compared with the impacted wetland.
    d. Performance standards for evaluating the success of compensatory mitigation actions;
    e. Long-term monitoring and reporting procedures to determine if performance standards are met; and
    f. Long-term protection and management of compensatory mitigation sites.

3. Credits from a certified mitigation bank may be used to compensate for unavoidable impacts when such a certified program is available. Mitigation shall adhere to one of the following two approaches:
   a. The Credit/Debit Method, as described in *Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report*. (Ecology, March 2012, Publication #10-06-011).
   b. The following mitigation ratios unless otherwise provided for by this Program.

Table 5: Wetland Mitigation Ratios

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only[1]	Re-establishment or Creation (R/C) and Rehabilitation (RH)[1]	Re-establishment or Creation (R/C) and Enhancement (E)[1]	Enhancement Only[1]
All Category IV	1.5:1	3:1	1:1 R/C and 1:1RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II Estuarine	Case-by-case	4:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case
All other Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I based on function score	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Wetland of High Conservation Value	Not considered possible[2]	6:1 Rehabilitation Wetland of High Conservation Value	R/C Not considered possible [2]	R/C Not considered possible [2]	Case-by-case
Category I Bog	Not considered possible [2]	6:1 Rehabilitation of a bog	R/C Not considered possible [2]	R/C Not considered possible [2]	Case-by-case
Category I Estuarine	Case-by-case	6:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case

NOTES: Preservation is discussed in the following section. Ratios are from *Washington State Wetland Rating System for Western Washington*: 2014 Updated 2014 (Ecology Publication #14-06-029). As written these figures represent ratios and should be read as mitigation: impact, indicating the amount of mitigation required based on the amount of impact.

1 These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.

2 Wetlands of High Conservation Value, coastal lagoons, and bogs are considered irreplaceable wetlands because they perform some special functions that cannot be replaced through compensatory mitigation. Impacts to such wetlands would therefore result in a net loss of some functions no matter what kind of compensation is proposed.

4. **Increasing replacement ratios.** The administrator shall require increased replacement ratios under the following circumstances:
   a. Success of the proposed restoration or creation is uncertain.
   b. A long time will elapse between impact and establishment of wetland functions at the mitigation site.
   c. Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted.
   d. The impact was unauthorized.

5. **Replacement ratio reduction for temporary impacts.** The administrator may decrease the ratio to 25% of the otherwise required ratio if the wetland critical areas report demonstrates that:
   a. The impacts will be temporary.
   b. Hydric soil, including deep organic soil, will be handled, stored, and replaced to achieve pre-project ecological function.
   c. Surface and groundwater flow patterns will be maintained or restored immediately following construction.
   d. A 10-year monitoring and maintenance plan is developed and implemented for the restored forest and scrub-shrub wetlands.
   e. Disturbed buffers are re-vegetated and monitored.
   f. Where appropriate, the hydroseed mix to be applied on re-establishment areas is identified.

6. **Replacement ratio reduction for conversions.** The administrator may decrease the ratio to 50% of the otherwise required ratio for wetlands that are converted to other types of wetlands.

7. **In-kind/out-of-kind mitigation.** In-kind mitigation shall be provided except where the applicant can demonstrate that either:
   a. The wetland system was already degraded prior to any activity, and out-of-kind replacement will result in a wetland with greater functions and values; or
   b. Technical problems such as exotic vegetation and changes in watershed hydrology make implementation of in-kind mitigation infeasible.

8. **On-site/off-site mitigation.** On-site mitigation shall be provided except where the applicant can demonstrate that:
   a. On-site mitigation is not scientifically feasible due to problems with hydrology, soils, or factors such as other potentially adverse impacts from surrounding land uses or on-site mitigation would require elimination of or result in adverse impacts to high-quality upland habitat; and,
   b. Existing or potential functions and values at the site of the proposed off-site mitigation are significantly greater than the lost on-site wetland functions and values; and
   c. One of the following applies:
      i. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established and strongly justify location of mitigation at another site; or,
      ii. Credits from a state-certified wetland mitigation bank are used as mitigation, and the use of credits is consistent with the terms of the bank's certification under Chapter 173-700 WAC.

9. **Timing of mitigation.** Mitigation shall be completed prior to activities that will impact wetlands where feasible. A bond or other financial guarantee is required if mitigation projects cannot be completed prior to initiation of the activities that will cause the wetland impacts. Mitigation projects shall be timed to reduce impacts to existing wildlife or vegetation. If wetland mitigation is not completed within one year of wetland impacts, mitigation ratios will be increased to offset temporal losses.

10. **Components of mitigation plans.** All wetland restoration, creation and/or enhancement projects required pursuant to this Program either as a permit condition or as the result of an enforcement action shall follow a mitigation plan approved by the Town as applicable and shall be consistent with *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1*, (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised) and *Selecting Wetland Mitigation Sites Using a Watershed Approach* (Western Washington)(Publication #09-06-32, Olympia, WA, December 2009). The applicant or violator must receive written approval by the Administrator for the mitigation plan prior to the commencement of any wetland restoration, creation, or enhancement activity. In addition to those components required in section 1.3 above, the mitigation plan shall contain at least the following components:
    a. Baseline Information. A written assessment and accompanying maps of the impacted wetland, including, at a minimum, wetland delineation; wetland rating, existing wetland acreage; proposed or unauthorized wetland impacts; vegetative, faunal, and hydrologic characteristics; soil and substrate conditions; and topographic elevations. If off-site mitigation is proposed, baseline information should also include surface hydrology, existing and proposed adjacent land uses, proposed buffers, and a list of all property owners within five hundred feet of the edge of the wetland.
    b. Timing and Objectives. The following shall be submitted in writing: proposed timing of the mitigation and a complete description of the functions and values intended to be created or enhanced.
    c. Monitoring. Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for less than five years. If a scrub-shrub or forested vegetation community is proposed, monitoring may be required for ten years or more. The mitigation plan shall include monitoring elements that ensure certainty of success for the project's natural resource values and functions. If the mitigation goals are not attained within the initial monitoring period, the applicant remains responsible for restoration of the natural resource values and functions until the mitigation goals in the mitigation plan are achieved.
    d. The information and components recommended in *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1*, (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised).

6.3 Frequently Flooded Areas

A. **Classification**. All frequently flooded areas shall be the areas of special flood hazard identified in the scientific and engineering report entitled the *Flood Insurance Study for Wahkiakum County*, dated September 28, 1990 (1990 FIS), with accompanying Flood Insurance Rate Maps (FIRMs) prepared, or as updated, by the Federal Emergency Management Agency (FEMA), and all areas identified within Town's Flood Damage Prevention ordinance (Title 14.10 Cathlamet Municipal Code; CMC 14.10) . The flood insurance study and maps are on file at the Town Public Works Department.

B. **Mapping**. All flood hazard areas a r e identified by the effective FIRMs.

C. **Development performance standards**. Floodplains perform important hydrologic functions and may present risk to persons and property. In reviewing project proposals, the Town will consider the effects of flooding on human health and safety, public facilities and services, future flow floodplain necessary to contain and discharge the base flow at full buildout, the potential effects of extreme weather events, and greater surface runoff caused by increasing impervious surfaces. In addition to other applicable provisions of this Program, the flood damage prevention provisions of CMC 14.10.180 to .320 are incorporated by reference and shall regulate shoreline development within frequently flooded areas as classified and designated herein.

6.4 Geological Hazard Areas

A. **Classification.** Per the designation criteria of WAC 365-190-120, geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological event. They pose a threat to the health, and safety of the public. The following definitions shall be used in classifying geologically hazardous areas:

1. **Erosion Hazard Area.** Erosion is a common occurrence that can result from hydrologic and geologic characteristics, vegetative conditions and human land use. Erosion hazard areas include:
   a. Areas likely to become unstable, such as bluffs, steep slopes, and areas with unconsolidated soils;
   b. Areas containing highly erodible soils or having the potential to become highly erodible due to disturbance of ground cover.
   c. Coastal erosion areas based on information provided by the Washington Coastal Atlas (Ecology); and
   d. Areas impacted by shoreline and/or stream bank erosion, and those areas within a river's channel migration zone, including but not limited to areas identified in the 2017 ICR;
   e. The Town may consider data provided by the USDA Natural Resource Conservation Service (NRCS)

2. **Seismic Hazard Areas.** Seismic hazard areas are areas subject to a severe risk of earthquake induced ground shaking, slope failure, settlement or subsidence, soil liquefaction, surface faulting or tsunamis. For purposes of this classification, seismic hazardous areas are those areas that are underlain by cohesionless soils of low density, typically in association with a shallow groundwater table, and areas underlain by alluvium or faults as identified by United States Geologic Survey (USGS) or the Washington Geological Survey (DNR) .

3. **Landslide Hazard Areas.** Landslide hazard areas are determined by a combination of geologic, topographic and hydrological factors and include areas susceptible to landslide because of any combination of unstable bedrock, soil, slope (gradient), slope aspect, structure, hydrology (springs and seeps), or other factors. These areas include:

a. Areas identified by the Town of Cathlamet Comprehensive Plan,
b. 2002 (Figure 4-9, page 4-27).
c. Areas of historic failures or potentially unstable slopes, including bluffs, quaternary slumps, earthflows, mudflows, or landslides on maps published by the United States Geological Survey or WA Department of Natural Resources Division of Geology and provisions of the Uniform Building Code (UBC) as adopted by the Town of Cathlamet.
d. Hazard areas are identified on Sheet No. 163 of the Soil Survey of Wahkiakum County prepared by the Natural Resource Conservation Service (NRCS), 1986. See also the 2017 Inventory & Characterization Appendix E Map Folio, Map #20.

B. **Designation.** Areas of the Town meeting the classification criteria for geologically hazardous areas are hereby designated as such.

C. **Development performance standards.** All development within geological hazard areas shall adhere to the following standards:

1. New development, including land division, shall be prohibited when:
   a. It will cause foreseeable risk from geological conditions to people or improvements during the life of the development;
   b. It would require structural shoreline stabilization over the life of the development. Exceptions may be made for the limited instances where stabilization is necessary to protect allowed uses where no alternative locations are available, and no net loss of ecological functions will result, per the standards of this Program.

2. Development, including appurtenant structures and uses, shall be sufficiently set back from steep slopes and shorelines vulnerable to erosion so that structural improvements, including bluff walls and other stabilization structures, are not required to protect such structures and uses during the life of the development.

3. An erosion control plan shall be submitted to the administrator for approval prior to any clearing, construction or other development in an erosion hazard area. The erosion control plan shall be designed so that the hazard is or mitigated such that the site is rendered as safe as an area without erosion hazards.

4. For landslide hazard areas with a slope of thirty (30) percent or steeper and with a vertical relief of ten or more feet except areas of consolidated rock, a geological analysis and landslide control plan shall be submitted to the Administrator for approval prior to activity which would change the hydrologic characteristics of the site, such as filling, building, clearing construction, or other development in said area. The geological analysis shall indicate that:
   a. There is not significant risk to the development proposal or adjacent properties; or
   b. That the proposal is designed so that the hazard is significantly eliminated or mitigated such that the site and adjacent property are rendered as safe as an area without geologic hazards.

5. All proposed development on slopes greater than fifty percent over a vertical height of a least ten feet shall be avoided if possible. Proposals for development shall include technical studies that evaluate the subsurface conditions and offer engineering solutions, including increased slope stabilization methods.

6.5 Aquifer Recharge Areas

A. **None Present.** Municipal water is pumped directly from the Elochoman River and adjacent groundwater. There are no identified and mapped critical aquifer recharge areas within the Town's shoreline areas.

6.6 Fish and Wildlife Habitat Conservation Areas

A. **Classification.** Fish and wildlife habitat conservation areas (FWHCA) shall include all areas consistent with WAC 365-190-130, as classified according to Table 6 below:

Table 6: Fish & Wildlife Habitat Conservation Area Classifications

Classification	Criteria
Areas with which state or federal designated endangered, threatened, or sensitive species have a primary association.	Areas which, if significantly altered, may reduce the likelihood that the species will reproduce over the long term. Habitats associated with these species are those identified by Washington Department of Fish and Wildlife's current system for mapping species of concern. These habitats are designated as critical areas, where endangered, threatened, and sensitive species are verified to have a primary association and include all Type S waters, other waters used by salmon, and other areas necessary to ensure all habitat associated with a listed species is included.
Species and habitats of local importance.	Habitat: All priority habitats occurring in the Town of Cathlamet as identified in the most current edition of the Washington State Department of Fish and Wildlife's Priority Habitats and Species (PHS) List. Species: All priority species occurring in the Town of Cathlamet as identified in the most current edition of the Washington State Department of Fish and Wildlife's Priority Habitats and Species (PHS) List.
Surf smelt spawning areas.	Information from the Washington Department of Fish and Wildlife is used to identify smelt spawning areas.
Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat.	Naturally occurring ponds are waters with a surface area of less than 20 acres but greater than one acre and manmade ponds developed as mitigation as part of a permitting process or mitigation agreement. Naturally occurring ponds do not include ponds deliberately created such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds (of less than three years duration), and landscape amenities.
Waters of the state.	Waters of the state include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses based on stream types, and shall be those defined in WAC 222- 16-030, Forest Practices Board, Definitions
Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.	Water bodies which regularly have game fish introduced, including those planted under the auspices of a federal, state, local, or tribal program or which supports priority fish species as identified by the WDFW.
State natural area preserves and natural resource conservation areas.	None currently established in the Town

Areas of Rare Plant Species and High-Quality Ecosystems.	Areas of rare plant species and high-quality ecosystems are identified by the Washington State Department of Natural Resources through the Natural Heritage Program.

B. **Designation.** Lands and water bodies fulfilling the classification criteria for FWHCA set forth in Table 6 above are hereby designated as such.

C. **Maps**. The approximate locations or extents of FWHCA may be shown on, but shall not be limited to, the following list of maps. The maps are for reference only and do not provide a final critical area designation.

1. Washington Department of Fish and Wildlife Priority Habitat and Species maps.

2. Washington State Department of Natural Resources Official Water Type Reference Maps, as amended.

3. Washington State Department of Natural Resources Natural Heritage Program maps.

4. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors reports published by the Washington Conservation Commission.

5. Washington State Department of Natural Resources State Natural Area Preserves and Natural Resource Conservation Area maps.

6. Washington State Department of Natural Resources Shore zone Inventory.

D. **FWHCA Report**

1. **When required**. In addition to the general critical area report requirements of this chapter, FWHCA reports must meet the requirements of this section, and are required in the following circumstances:
   a. When the project area is located within 150 feet of the OHWM of Type S, F, Np, and Ns waters of the state
   b. When the project area is in the, Aquatic or Town Conservancy SED.
   c. When the project area is within one thousand feet of a point location (nests, dens, etc.) for any FWHCA.
   d. When any FWHCA may be impacted by the project.
   e. When this Program requires mitigation sequencing.
   f. When SEPA review is required, the FWHCA Report will also be sent to WDFW and other appropriate state and federal agencies for comment along with the Environmental Checklist.

2. **Preparation by a qualified professional.** FWHCA reports shall be prepared by a qualified professional, as defined in Chapter 3 and consistent with the description of such professionals at Section 6.1(L)(5) of this chapter, with experience preparing reports for the relevant type of habitat.

3. **Areas addressed**. The following areas shall be addressed in a FWHCA report:
   a. The project area of the proposed activity;
   b. Areas subject to WDFW PHS management recommendations that are in or adjacent to the project area;
   c. Riparian areas and their buffers applicable to the project area; and
   d. All FWHCA identified in Table 6, shoreline areas, floodplains, other critical areas, and related buffers within 150 feet of the project area.

4. **Habitat assessment**. A FWHCA report shall contain a habitat assessment including, at a minimum, the following information:
   a. Detailed description of vegetation and habitat characteristics within and adjacent to the site;
   b. Identification of any endangered, threatened, sensitive, or candidate species that have a primary association with habitat on the site, and assessment of potential project impacts to use of the site by the species;
   c. A map drawn to scale or survey showing the location of the project site and resulting activities and showing the critical habitat areas.

5. **Habitat plan.** A FWHCA report shall contain a habitat plan including, at a minimum, the following information:
   a. Discussion of any federal, state, or local special management recommendations, including WDFW habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project site.
   b. Discussion of recommendations developed in consultation with WDFW if management recommendations have not been created.
   c. Discussion of the potential direct and indirect impacts of the project and proposed use and activities.
   d. Discussion of the impacts that will not be avoided.
   e. Discussion of the methods and measures that will be used to avoid, minimize and/or compensate for adverse impacts associated with the proposed development and associated use and activities, including but not limited to the standards of Critical Areas Regulation.

6. **FWHCA compensatory mitigation plan.** The FWHCA report shall include a compensatory mitigation plan if the project and resulting activities will create unavoidable habitat impacts. The compensatory mitigation plan shall:
   a. Demonstrate, when implemented, that there shall be no net loss of ecological function of habitat; and
   b. Identify how impacts from the proposed project shall be mitigated, as well as the necessary monitoring and contingency actions for the continued maintenance of the FWHCA and its associated buffer.

7. **Additional information required.** When appropriate due to the type of habitat, species present, or project area conditions; the Administrator may require the FWHCA report to include:

a. An independent qualified professional's evaluation of the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate; or,
b. Consultation with the WDFW or other appropriate agency or tribe.

E. **Development Performance Standards**

1. **No net loss standard.** No net loss of shoreline ecological functions shall result from a shoreline use, development, or modification of critical freshwater fish and wildlife habitat, including associated hyporheic zones. Measures to achieve no net loss of habitat function include meeting other standards of the Program, and may also include:
   a. Prohibition or limitation of development activities within the critical habitat area, or within a riparian buffer surrounding the critical habitat area.
   b. Locating buildings and other structures and uses to avoid and if that is not possible to minimize habitat impacts.
   c. Clustering development to protect or enhance habitat in a connected system or corridor that provides connections to neighboring habitat areas.
   d. Retention of native vegetation and/or revegetation of areas using native species appropriate for site specific conditions and habitat functions.
   e. Removing and/or controlling any noxious, or undesirable species of plants as identified by the Wahkiakum County Noxious Weed Control Board.
   f. Preserving trees, preferably in consolidated areas.
   g. Preserving and introducing native plant species which serve as food, shelter from climatic extremes and predators, and structure and cover for wildlife reproduction and rearing.
   h. Special construction techniques or seasonal restrictions on construction.
   i. Habitat enhancement (i.e., fish passage barrier removal).
   j. Preserving the natural hydraulic and ecological functions of drainage systems.
   k. Maintaining stable channels, adequate stream flows, and managing stormwater runoff, erosion and sedimentation.
   l. Managing access to fish and wildlife habitat conservation areas to protect species which are sensitive to human disturbance.

2. **Protection Standards.** For all FWHCAs classified and designated by this chapter, the following protection standards shall apply, as appropriate:
   a. Riparian buffers and all other applicable provisions of this Program;
   b. WDFW PHS management recommendations, or protections as otherwise developed in consultation with WDFW if PHS management recommendations have not been created.;
   c. WDNR protections for state natural area preserves and state natural resource conservation areas;
   d. The state Hydraulic Code;
   e. The federal Clean Water Act; and/or
   f. Other best management practices.

F. Riparian Buffers

1. **Riparian buffers required.** Riparian buffers shall be required for all FWHCAs. All riparian buffers shall be measured outward in each direction, on the horizontal plane from the OHWM.
2. **Riparian buffer conditions.** Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby and shall be consistent with the management recommendations issued by the WDFW. FWHCAs and riparian buffers shall be preserved in perpetuity through the use of notices on title, the vegetation conservation, fill, excavation and grading, water quality and other applicable provisions of this Program.

3. **Activities in FWHCAs and riparian buffers.** Unless otherwise allowed by this Program, all structures and activities must be located outside of a FWHCA and riparian buffer. Use and development activities located in a FWHCA or riparian buffer may be allowed only if demonstrated that it will not degrade the functions and values of the habitat. Activities that result in alteration of FWHCAs and their riparian buffers are prohibited, with the following exceptions:
    a. **Water-dependent** use and development shall be allowed when demonstrated to require a location in the FWHCA or riparian buffer;
    b. **Water-related and water-enjoyment** use, and development activities may be allowed when no practical alternatives having a less adverse impact on the FWHCA or riparian buffer are available and appropriate mitigation measures are used;
    c. **Non-water-oriented** commercial and residential use and development may only be allowed as part of mixed-use development where the primary use is water-dependent, and the other accessory uses are subordinate with respect to their cumulative size and intensity;
    d. **Other non-water-oriented** activities are prohibited unless the criteria for a shoreline variance are met, all alternative designs of the proposed project to avoid adverse impacts to the riparian area are not feasible and appropriate mitigation measures are used. In such cases the activity shall be permitted only through a shoreline variance; and,
    e. The following activities may be allowed consistent with the use and modification regulations, provided that impacts are minimized and when appropriate mitigation measures are used:
        i. Public access facilities
        ii. Docks serving residences, and a trail providing access to the dock.
        iii. Essential public facilities, utilities and transportation facilities.
    f. For legal existing development, the non-conforming provisions of this Program apply for expansion/enlargement, relocation, and replacement.

4. **Standard riparian buffer widths.** Riparian buffers on FWHCAs shall be in accordance with Table 7 below unless otherwise provided by this section.

Table 7: Standard Riparian Buffers by Shoreline Environment Designation

Environment Designation	Location Qualifier	Buffer Width (ft.)
Town Conservancy	All	200
Town Residential	On Elochoman Slough	50
Town Residential	On Cathlamet Channel	80
Mixed Waterfront	All	50

5. **Expanded riparian buffers.** If the Critical Areas Report identifies existing, on site riparian functions that are not adequately protected by the standard riparian buffers provided in this section, the riparian buffer shall be expanded to either the width recommended in the Critical Areas Report, the width recommended by a third party reviewer of the Critical Areas Report, the width recommended by WDFW, or a width consistent with WDFW priority habitats and species management recommendations, in order to protect those existing on site riparian functions.

6. **Termination at dike or road.** Where an existing public road, or dike maintained by a public entity is within the riparian buffer, the buffer shall instead terminate at the road or dike.

7. **Riparian buffer adjustment options**
   a. Administrative buffer adjustment options (i.e. averaging and reduction methods) shall not be combined; only one may be used for any given site or project.
   b. Buffer adjustment options shall not result in:
      i. any portion of the buffer width being less than 50 ft. or 75% of the standard buffer width, whichever is greater; or,
      ii. any unmitigated impacts or a net loss of ecological functions.
   c. Buffer adjustment options shall only be permitted when recommended in the critical areas report after scientific analysis of associated ecological function impacts and benefits.

8. **Riparian buffer averaging.** Buffer averaging is a site-specific 'give and take' approach to configuring the buffer area. A riparian buffer may be averaged as follows:
   a. One portion of the riparian buffer width can be reduced from the standard width if another portion of the same riparian buffer is correspondingly increased, such that the total buffer area and function of the riparian buffer are maintained. The whole buffer area must remain on the same parcel as the proposed project.

9. **Riparian buffer reduction**. The standard riparian buffer width may be reduced to accommodate shoreline views for a single-family residence upon the applicant's demonstration that the standard buffer width would result in a substantial view blockage. This buffer reduction may be allowed as follows:
   a. **Common Line reduction**. When only one existing primary structure is adjacent to the proposed single-family residence, the standard buffer width may be reduced to the same distance as the adjacent primary structure so that both are located at a 'common line' distance from OHWM; or
   b. **Calculated reduction.** When more than one existing primary structure is adjacent to the proposed single-family residence, the standard buffer width may be reduced to a width established by calculating the average of 1) the standard buffer width required for the proposed residence plus 2) the established distance of all adjacent existing primary structures. To be considered in the calculation, adjacent existing primary structures:

i. must have been built prior to the adoption of this Program;
ii. must be located within one hundred fifty (150) feet of the proposed single-family residence's foundation; and
iii. may not be separated from the project area by an SMA waterbody.

c. For the purposes of calculating a reduced buffer, undeveloped neighboring property within one hundred fifty feet (150') shall be included in the calculation using the standard riparian buffer width.