

Attachment E

Critical Areas Compliance Narrative



Compliance with Grays Harbor County Chapter 18.06 Critical Areas Protection Ordinance

Prepared for
Gray's Harbor Conservation District

August 2021

Prepared by
Parametrix

Compliance with Grays Harbor County Chapter 18.06 Critical Areas Protection Ordinance

Prepared for

Grays Harbor Conservation District

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ARTICLE II GENERAL REQUIREMENTS

The project is located within the 150-foot Type S fish and wildlife habitat conservation critical buffer of the Satsop River and within mapped habitat that supports priority species (birds, bats) and habitats (waterfowl concentrations). Additionally, the project will affect in-stream priority species (fish) and habitats (riverine, wetlands, and waterfowl concentrations) and will ultimately engage with the Satsop River as bank erosion progresses and the log structures sluff onto the toe of the riverbank. A Pre-Development review occurred through collaboration with all involved agencies over several meetings conducted in July 2021, and as such an official Pre-Development review is not required (personal communication, Jane Hewitt, July 2021). The critical areas report and mitigation plan is provided as a separate attachment to the Joint Aquatic Resources Permit Application (JARPA; see Attachment E of the JARPA) and is intended for review under the shoreline substantial development and conditional use permit application.

ARTICLE III WETLANDS

A site visit was conducted by Taya K. MacLean, Parametrix Senior Scientist and certified Professional Wetland Scientist, on July 16, 2021. No wetlands were observed within the project area. Therefore, development standards of the Article III, Chapter 18.06 – Critical Areas Protection Ordinance, Wetlands do not apply to this project.

ARTICLE IV CRITICAL AQUIFER RECHARGE AREAS

Per Article IV, Chapter 18.06 – Critical Areas Protection Ordinance, critical aquifer recharge areas (CARA) are a designated critical area to protect public health and safety, prevent the degradation of ground water aquifers used for potable water, and to provide for regulations that prevent and control risks to the degradation of ground water aquifers in Grays Harbor County.

Aquifer recharge areas are those areas with geologic and hydrologic conditions that promote rapid infiltration of recharge waters to groundwater aquifers. The project area does not lie within any designated CARA protection areas.

Development standards of Article IV, Chapter 18.06 do not apply to this project activities as the project is not within a CARA and additionally, the project does not include any of the following types of new development within designated CARAs:

1. Solid waste landfills;
2. Septage application;
3. Underground storage of heating oil in excess of 1,100 gallons for consumptive use on the parcel where stored;
4. Creosote manufacturing or treatment;
5. Chemical manufacture or reprocessing of any extremely hazardous waste as defined by RCW 70.105.010(6) and listed in Chapter 173-303 WAC;
6. Mining of any type below the water table;

7. Processing, storage, and disposal of radioactive substances;
8. Dry cleaning;
9. Auto wrecking facilities;
10. Hazardous waste transfer and treatment; and
11. Hydrocarbon extraction.

ARTICLE V FREQUENTLY FLOODED AREAS

Per Article IV, Section 44 of Grays Harbor County Ordinance No. 448, frequently flooded areas are defined as those areas identified by the Federal Insurance Administration in the Flood Insurance Study for Grays Harbor County and Incorporated Areas, dated February 3, 2017, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRM). The entire study area is mapped as Flood Zone A (the 100-year floodplain).

A floodplain permit application is being submitted along with this application to address the provisions of Article V – Chapter 18.06. Specifically, Chapter 18.06.490.A.1.d requires that this proposed development action not raise the base flood elevation by more than one foot. The proposed log structures will result in minimal floodplain encroachment that is limited to a small portion of the exposed wood. It has been determined that the project will not have an adverse effect as it will cause no more than one foot of rise and is in compliance with the standards in Article V.

ARTICLE VI GEOLOGICALLY HAZARDOUS AREAS

No landslide hazards are mapped along the project area, and the project is not within the mapped extent of tsunami hazard areas. The entire project area is mapped as Moderate to High liquefaction potential, with a National Earthquake Hazards Reduction Program (NEHRP) Site Class of "stiff soil to soft soil." Therefore, the following sections may be applicable to this project:

18.06.580 - Performance standards.

- A. Alterations of geologically hazardous areas may only occur for activities that will not adversely impact or pose a threat to adjacent properties or critical areas, and are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions.

Response: With an anticipated rate of erosion of 115 feet per year over the next 2 years (June 2020 through June 2023), the bank conservation project is necessary to protect agricultural lands and to support fish habitat. The project design will protect a residential structure near the top of bank (the Willis residence). As the log structures engage with the river as erosion continues, the bank will be stabilized, ultimately resulting in an improvement to geologic conditions following construction.

- B. Uses, structures, and activities in erosion hazard areas shall meet the following performance standards:
 1. On-site stormwater and drainage development shall meet the requirements of the current edition of the Stormwater Management Manual for Western Washington.

Response: Temporary erosion and sediment control measures will be provided in compliance with NPDES Construction Stormwater Permit requirements and the current edition of the Stormwater Management Manual for Western Washington. Measures will include silt fencing around sensitive environmental areas and allowing stormwater from access roads to run off into vegetated fields, thereby eliminating the potential for untreated construction stormwater to enter the Satsop River. No new permanent impervious surfaces will be constructed, and a stormwater management plan has not been prepared for the project.

2. Minimize modification of the natural contour of slopes by conforming to the existing topography of the site.

Response: All access and staging areas will not be graded and any temporary access routes will be restored to previous conditions following the project. In areas where log structures are installed, excavated material will be backfilled, creating a rise in contours. In these areas, the surrounding ground will be regraded to even contours. As these areas erode, the new stabilized bankline will match pre-existing elevations.

3. Incorporate stabilization best management practices, such as temporary and permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, and preservation of mature vegetation.

Response: Grass seed and/or mulch will be installed upon project completion (unless another cover crop is selected for installation by farmer). Silt fence will be installed along the outer limits of the project area where needed to protect environmentally sensitive areas, including along riparian areas adjacent to the project. Mulch (hog fuel) placed for temporary construction access roads will be underlain with geotextile fabric.

4. Ensure the stabilization of all exposed and disturbed soils by appropriate and timely application of best management practices.

Response: Grass seed and/or mulch will be installed upon project completion (unless another cover crop is selected for installation by farmer). Excavated soils will be temporarily stockpiled (1 to 3 weeks) and the need for stockpile covering is not anticipated.

5. Minimize the removal of existing vegetation and undergrowth.

Response: No native vegetation will be removed as part of the project. All vegetation to be disturbed consists of crops (pasture grass, corn, and pumpkins). Limits of vegetation removal will be minimized to the extent practicable during construction.

6. Design cut and fill slopes to minimize erosion.

Response: Excavated trenches will be cut at a 1.5:1 slope and will be set 6 feet back from the edge of the bank. This will eliminate the risk of collapse within trenches and will minimize risk of bank failure.

7. Stabilize conveyance outlets and stream banks to prevent erosion.

Response: No conveyance pipes, channels, or outlets are proposed for the project. Construction will be set 6 feet back from the edge of the bank to minimize risk of bank failure.

8. Reduce clearing, grading, and impervious surfaces to the minimum amount necessary to accommodate the project permit.

Response: The project has been designed to limit areas of disturbance to the minimum amount immediately adjacent to excavation areas. Light grubbing of grasses and crops will occur in all areas planned for disturbance. No grading is planned within areas used for staging and access. Areas of temporary roads will be constructed using an underlayment of geotextile fabric to protect existing ground and will be restored to pre-existing contours following the project.

9. Uses, structures, or activities shall be located outside areas likely to be subject to coastal erosion or river and stream bank erosion during the life of the use, structure, and activities.

Response: The log structures must be placed within the area of anticipated riverbank erosion alongside the Satsop River in order to conserve the shoreline and provide long-term stability of the riverbank. The log structures must be placed within the area of anticipated riverbank erosion alongside the Satsop River in order to conserve the shoreline and provide long-term stability of the riverbank. Therefore, a 40-foot setback is not feasible for this project. No geotechnical analysis will be completed for the project since the design includes allowing soils to fail under the structures as erosion occurs, ultimately resulting in bank conservation and protection of adjacent residences and farm operations. The log structures and their role in providing bank stability was designed by Vaughn Collins, PE, with Northwest Hydraulic Consultants. No other uses, structures, or activities are planned within critical areas.

- C. Uses, structures, or activities in landslide hazard areas shall meet the following performance standards:
 1. Establish and maintain a forty-foot buffer from the top and toe of a slope identified as a landslide hazard area. The administrator may allow the following modifications to the buffer:
 - a. Reduce the buffer if a critical area special study prepared by a qualified professional certifies that the reduction will adequately protect the proposed development, adjacent developments, and critical areas.
 - b. Locate on-site sewage disposal systems, including drainfields, within a buffer when a qualified professional certifies that there will be no impact to existing or proposed development.

Response: The project is not within an identified landslide hazard area and therefore, this criterion does not apply. There are no sewage disposal or drainfield systems within the project area.

2. On-site stormwater and drainage development shall meet the requirements of the current edition of the Stormwater Management Manual for Western Washington.

Response: The project is not within an identified landslide hazard area and therefore, this criterion does not apply.

3. Locate structures and improvements to avoid landslide areas and other critical areas.

Response: The project is not within an identified landslide hazard area and therefore, this criterion does not apply.

4. Minimize modification of the natural contour of slopes by conforming to the existing topography of the site.

Response: The project is not within an identified landslide hazard area and therefore, this criterion does not apply.

5. Minimize the removal of existing vegetation and undergrowth.

Response: The project is not within an identified landslide hazard area and therefore, this criterion does not apply.

6. Reduce clearing, grading, and impervious surfaces to the minimum amount necessary to accommodate the project permit.

Response: The project is not within an identified landslide hazard area and therefore, this criterion does not apply.

7. Avoid the location of utility improvements in landslide hazard areas except when no other practical alternative exists.

Response: Not applicable. There are no utility improvements associated with this project.

8. Avoid the location of utility improvements in landslide hazard areas except when no other practical alternative exists.

Response: Not applicable. There are no utility improvements associated with this project.

9. Locate new subdivision access roads outside landslide hazard areas and their buffers.

Response: Not applicable. There are no utility improvements associated with this project.

- D. Uses, structures, or activities in tsunami hazard areas shall meet the following minimum performance standards:

1. On sites large enough to develop outside a tsunami hazard, development within the tsunami hazard should be prohibited.
2. If a part of the site has a lower tsunami risk, development should be clustered on that part of the site.
3. New subdivisions, commercial uses, and recreational uses must prepare and maintain an evacuation plan including evacuation routes and provide for warnings and training for employees, residents, and those who will use the development on when and how to evacuate. These evacuation plans should be reviewed by the county for effectiveness and consistency with community evacuation plans.

Response: The project area is not mapped as occurring within areas inundated by a moderate to high runup from the modeled Cascadia subduction zone scenarios (Washington Department of Natural Resources 2000). Therefore, the performance standards of Article VI, Chapter 18.06.580.D.1-3 do not apply to this project.

- E. Project permits in seismic hazard areas shall meet the requirements of Chapter 15.04 of this code.

Response: Not applicable. No buildings will be constructed as part of this project.

- F. Clearing activities that disturb soils in erosion and landslide hazard areas are allowed during the dry season from May 1 to October 1; provided, however, that the county may extend or shorten the dry season on a case-by-case basis or upon recommendation of a qualified professional. The seasonal clearing restrictions associated with timber harvest shall be pursuant to an approved forest practices permit.

Response: Not applicable. No erosion and landslide hazards are mapped along the project area. However, soils are highly erodible. Trenching and grading will extend beyond the County's dry season allowable period for grading, which is typically regarded as beginning on May 1 and ending on October 1. Construction in October is necessary to provide bank stabilization to prevent erosion that may occur during the winter and until Phase II of the Lower Satsop Restoration and Protection Program will be constructed in summer 2022.

- G. Public facilities and essential public facilities shall not be constructed or located in geologically hazardous areas if there is a feasible alternative location outside geologically hazardous areas that would serve the intended service population. If allowed, the design and operation of the critical facility shall minimize the risk and danger to public health and safety to the maximum extent feasible.

Response: Not applicable. The project is not associated with a public facility.

ARTICLE VII FISH AND WILDLIFE HABITAT CONSERVATION AREAS

The project area is located in agricultural fields. The in-stream habitat of the perennial Satsop River is adjacent to the project area along the eastern project boundary, and riparian woodland occupies riverbanks and gravel bars adjacent to and near the project area. The ordinary high water mark (OHWM) of Satsop River was delineated at elevation 20.1 feet (NAVD88; Natural Systems Design 2021). Per Chapter 18.06, Article VII, streams are considered a water of the state, and thus the Satsop River is regulated by the County as a critical area, specifically as a Fish and Wildlife Habitat Conservation Area. Additionally, priority habitats and species may utilize habitats within the project area or adjacent lands as documented in the critical areas report prepared for the project.

18.06.620 Performance standards for fish and wildlife habitat conservation areas.

- A. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this ordinance.

Response: The majority of construction activities will occur within fish and wildlife habitat conservation areas associated with the Satsop River protective buffer and upland habitat. This is a bank conservation project designed to meet the goals of bank conservation and ensuring no adverse effects to the environment, including the use of log structures that were designed to meet these goals. The project has been designed to be self-mitigating as log structures will engage with the river as erosion occurs, thereby conserving the bank and also providing valuable fish habitat once engaged. Adaptive management measures will ensure that the structures perform as intended and that bioengineering be incorporated where feasible as structures sluff into position. Ultimately, the project will not result in significant adverse effects to the shoreline environment.

- B. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.

Response: The project does not involve invasive species introductions. Only native plant material, including willows (*Salix* spp.), will be used for bioengineering purposes. Additionally, all imported logs will be inspected and should be free of weed seeds.

- C. Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.

Response: The project is self-mitigating. All temporary impacts will be restored to previous conditions and seeded with pasture grass or other crop seed (as determined by the farmer). Adaptive management will ensure that the project performs as intended, including maintenance of structures to ensure they do not migrate into the channel and downstream. Therefore, migratory pathways for fish and wildlife will be preserved. Refer to the critical areas mitigation plan prepared for the project for details (see Attachment G in the JARPA).

- D. The administrator shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:

1. Establishment of buffer zones;

Response: The majority of construction activities will occur within fish and wildlife habitat conservation areas associated with the Satsop River protective buffer and upland habitat. This is a bank conservation project designed to meet the goals of bank conservation and ensuring no adverse effects to the environment. Ultimately, the project will not result in significant adverse effects to the shoreline environment.

2. Preservation of critically important vegetation and/or habitat features such as snags and downed wood;

Response: Only farmed fields will be impacted by the project. Disturbance to the limited riparian vegetation adjacent to the project area will be avoided by placing continuous log rows on more stable land above the top of bank beyond the limits of riparian vegetation and by designating temporary access routes and staging areas away from riparian vegetation.

3. Limitation of access to the habitat area, including fencing to deter unauthorized access;

Response: During construction, construction areas will be clearly marked in the field with silt fence or other marking to limit access. Permanent fencing and signage is not feasible as the entire project area is on privately farmed fields that are regularly tilled and planted.

4. Seasonal restriction of construction activities;

Response: The project will avoid construction-related impacts by not proposing in-water construction outside of the WDFW-designated work window (July 15 to August 31) for the Satsop River. Trenching and grading will extend beyond the County's dry season allowable period for grading, which is typically regarded as beginning on May 1 and ending on October 1. Construction in October is necessary to provide bank stabilization to prevent erosion that may occur during the winter and until Phase II of the Lower Satsop Restoration and Protection Program will be constructed in summer 2022.

5. Establishment of a duration and timetable for periodic review of mitigation activities; and

Response: Adaptive management measures will be conducted over a 3-year period following construction as the bank line erodes and structures engage with the river. Monitoring to better inform adaptive management measures will be conducted throughout the year by installation of a web camera, coordination with WDFW and the County (including site visits as needed), and annual monitoring site visits. The applicant will provide an annual report summarizing adaptive management activities to WDFW and the County in Years 1 to 3 following construction.

6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

Response: The applicant, Grays Harbor Conservation District, is a public entity and the project will receive state capital funds. Therefore, a performance bond is not required for the project.

- E. Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

Response: By incorporating best available science and review of successful implementation of past projects having similar project elements, the self-mitigating design and adaptive management measures are anticipated to result in successful achievement of project goals, including (1) minimizing bank erosion and the associated sedimentation of downstream waters (2) providing a functional uplift of in-stream habitat and structural complexity, and (3) providing riparian vegetation and in-stream habitat cover through incorporating willow plantings into the project as the structures stabilize on the bank.

- F. Any approval of alterations or impacts to a habitat conservation area shall be supported by the best available science.

Response: The project's mitigation plan was developed by qualified Parametrix scientists and by incorporating feedback received from local, state, and federal agencies during early coordination meetings for the project. A review of the best available science supporting the proposed mitigation was conducted and findings were integrated into this plan, including available hydraulic design analysis conducted by Northwest Hydraulic Consultants, published guidance from WDFW, and as outlined in Grays Harbor County's critical areas ordinance.

- G. The administrator shall require the establishment of buffer areas for activities adjacent to habitat conservation areas when needed to protect habitat conservation areas. 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 state department of fish and wildlife. Habitat conservation areas and their buffers shall be preserved in perpetuity and recorded in accordance with Section 18.06.630.

Response: The existing riparian buffer of the Type S Satsop River is under cultivation with no riparian vegetation present. The project goals will ensure that the project provides protection of the land adjacent to the river's edge by (1) minimizing bank erosion and the associated sedimentation of downstream waters (2) providing a functional uplift of in-stream habitat and structural complexity, and

(3) providing riparian vegetation and in-stream habitat cover through incorporating willow plantings into the project as the structures stabilize on the bank. As the bank stabilizes, upland areas will remain under cultivation and the log structures will otherwise remain protected as critical areas.

- H. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.

Response: The project will avoid construction-related impacts by not proposing in-water construction outside of the WDFW-designated work window (July 15 to August 31) intended to protect fish and their habitat within the lower Satsop River.

- I. If a fish and wildlife habitat conservation area is in a frequently flooded area, the county shall notify the state department of ecology, the state department of fish and wildlife, the Quinault Indian Nation, and the Confederated Tribes of the Chehalis Indian Reservation of any alteration plans prior to initiating any alteration.

Response: The County has been in coordination with Washington Department of Ecology and Washington Department of Fish and Wildlife in early coordination meetings hosted by the applicant in July 2021. Additionally, prior to construction, these agencies and the Tribes will be notified for comment on various project permit applications, including Executive Order 21-02 (cultural resources) and shoreline processes.

18.06.630 Buffer requirements for fish and wildlife habitat conservation areas.

- A. Riparian buffers shall be required for type S, F, Np, and Ns waters and shall extend landward perpendicularly from the ordinary high water mark as follows:
 - 1. Type S waters: one hundred fifty feet.
 - 2. Type F waters: one hundred fifty feet.
 - 3. Type Np waters: sixty feet.
 - 4. Type Ns waters: fifty feet.
 - 5. Undifferentiated type N waters shall be considered as type Np waters unless verified otherwise by a qualified professional.

Response: The project is a Type S water and has been assigned a 150-foot fish and wildlife habitat conservation critical area buffer.

- B. When the ordinary high water mark (OHWM) of any type S, F, Np or Ns waters is located within seventeen feet of the bottom of a slope that is greater than forty percent the following minimum buffers shall be provided:
 - 1. Where the horizontal length of the slope, including small benches and terraces, extends into the buffer, the required buffer width shall extend an additional seventeen feet onto the sloped area.

2. The county may permit buffer averaging in instances where it will provide additional resource protection, provided that the total area on-site contained in buffer remains the same.

Response: Projected rates of erosion are up to 115 feet of bank loss per year from June 2021 to June 2022 (4.39 acres) and from June 2022 to June 2023 (5.06 acres). The riverbank is actively eroding and, at the time of Parametrix's survey and critical areas site visit (June and July 2021, respectively), consisted of near vertical banks at the water's edge ranging from 10 to 20 feet tall and fully void of riparian vegetation. Because of this projected loss, the project has been designed to provide bank stability for land within the next year's projected bank loss limits (i.e., up to 115 feet back from the surveyed bank limits) which would include the majority of the existing fish and wildlife critical habitat buffer. Therefore, instead of proposing a reduced buffer or buffer enhancements, it is assumed that critical area protections apply within 150 feet of the surveyed OHWM. Within this area, the project itself will be self-mitigating and will serve to protect and enhance the bankline and conserve shoreline and critical areas. Over the long term, conditions in the fish and wildlife habitat conservation area buffer resulting once the log structures have engaged with the river and stabilized will consist of the log structures and willow plantings along the bank and upland areas will continue to be used for agricultural crop production.

- C. Any restored, relocated, replaced, or enhanced type S, F, Np or Ns waters shall include a buffer in accordance with subsection A. of this section.

Response: Refer to the response for 18.06.630.B.

- D. Where any type S, F, Np or Ns waters abut or intersect a critical area that also has a required buffer, the buffer width will be whichever of the two is greater.

Response: There are no other critical area buffers intersecting the Type S stream buffer.

- E. Buffers for all other fish and wildlife habitat conservation areas not covered under subsection A. of this section shall be established to protect the ecological integrity, structure and functions of the resource from development induced impacts. Buffer widths shall reflect the sensitivity of the species or habitat present and the type and intensity of the proposed adjacent human use or activity, consistent with the following guidance.

Response: There are no other critical area buffers intersecting the Type S stream buffer. However, in-stream and agricultural uplands may support waterfowl concentrations. There is not a specific buffer assigned to these areas; instead, preventing future erosion and implementation of measures proposed for the project to improve in-stream habitat and to restore uplands to pre-existing conditions (pasture and/or crop) will endure protection of waterfowl concentration priority habitat.

- F. The administrator may allow a required buffer width to be reduced in accordance with a critical area report if:
 1. The width reduction will not reduce stream or habitat functions, including those of nonfish habitat;
 2. The width reduction will not degrade the habitat, including habitat for anadromous fish;
 3. The proposal will provide additional habitat protection;
 4. The total area contained in the riparian habitat area of each stream on the development proposal site is not decreased;

5. The recommended riparian habitat area width is not reduced by more than twenty-five percent in any one location;
6. The width reduction will not be located within another critical area or associated buffer; and
7. The reduced riparian habitat area width is supported by the best available science.

Response: Refer to the response for 18.06.630.B. The project meets Criteria 1 through 7; therefore, a reduced buffer width is allowable. However, because erosion is occurring at rapid rates and the location of the OHWM (and its associated critical area buffer) following deployment and stabilization of structures may shift significantly, it is assumed that project activities occurring within the current 150-foot fish and wildlife habitat conservation area buffer require critical area review by the County and a buffer reduction is not requested.

- G. The administrator may allow a required buffer width to be reduced by twenty-five percent as compensation for riparian enhancement when a critical area report demonstrates that:
 1. Nonnative and/or invasive plant species cover more than forty percent of the buffer area;
 2. Native tree and/or shrub vegetation covers less than twenty-five percent of the buffer area;
 3. The stream buffer has slopes of less than twenty-five percent; and
 4. Includes an enhancement plan for the reduced buffer.
 - a. Includes planting or appropriate native tree and shrub species at a minimum planting density of ten feet on-center for trees and five feet on-center for shrubs;
 - b. Compares how the proposed enhancement will benefit the value and functions of the subject area as opposed to retaining the required buffer without enhancement; and
 - c. Provides a monitoring and maintenance plan for the enhanced buffer for five years from the date of completing the enhancement.

Response: Refer to the response for 18.06.630.B. The stream buffer has slopes greater than 25 percent and this reduction is not being requested.

- H. Subsection G. and H. within this section cannot be used in combination.

Response: Subsection G is not used in combination with other sections for reducing the buffer width.

- I. The administrator may allow a required buffer to be reduced in accordance with when the buffer is divided by roads and highways when:
 1. An existing private road serving four or more houses, a county road, or a state highway divides a standard buffer;
 2. There is no net loss of function or value to the adjacent water body; and
 3. The reduction is limited to the area from the road shoulder to the landward standard buffer boundary.

Response: On-site buffers are not divided by roads. This section is not applicable.

- J. A project permit application for a single-family dwelling unit on a nonconforming lot that is unable to meet the standard buffer width requirements under this section may request a buffer reduction under the following conditions:
1. There is no opportunity to consolidate adjacent lots under common ownership to alleviate the nonconformity;
 2. The proposed building area, excluding the on-site sewage disposal system and driveway, does not exceed two thousand five hundred square feet;
 3. The proposed location of the building area is within the area that has the least impact to the value and function of the habitat adjacent water body; and
 4. The proposed building area is as far landward as is possible and not closer than fifty feet from the ordinary high water mark.

Response: Not applicable. The project does not involve construction of buildings, including single family dwellings.

- K. The county shall not issue a certificate of occupancy for a project until such time that all buffer requirements are satisfied.

Response: Not applicable. The project does not involve construction of buildings, including single family dwellings.

- L. Any structure legally existing as of the effective date of these regulations, and is located within a standard buffer width required under this section, may undergo normal maintenance and repair, or replacements; provided, however, that such action does not increase the degree of nonconformity.

Response: Not applicable. The project does not involve maintenance or repair of existing structures.

- M. The administrator may approve a project permit application to expand any structure legally existing as of the effective date of these regulations that is located within a standard buffer width required under this section provided that:
1. There is no expansion of the structure towards the ordinary high water mark at grade level; and
 2. The expansion does not result in a total building area greater than two thousand five hundred square feet at grade level.

Response: Not applicable. The project does not expansion of existing structures.

18.06.640 Permitted activities within fish and wildlife habitat conservation areas and buffers.

- A. Limited public park or public recreational access; provided, that all of the following are satisfied:
1. The access is part of a public park that is dependent on the access for its location and recreational function;

2. The access is limited to the minimum necessary to accomplish the recreational function; and
3. The removal of trees and native vegetation is minimized.

Response: Not applicable. The project area does not provide public access.

- B. Low impact uses and activities that are consistent with the purpose and function of the buffer when such improvements are limited to the minimum amount necessary and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat involved; provided, that such activity shall not result in a decrease in the functions and values and shall not prevent or inhibit the buffer's recovery to at least pre-altered condition or function.

Response: The project includes the use of hard armoring for streambank protection and is therefore not a low impact use. This section is not applicable.

- C. The following modifications may be permitted within a critical area or its buffer in accordance with an approved critical area report that demonstrates that proposed measures follow mitigation sequencing and will not degrade fish or wildlife habitat conservation areas functions or processes on-site or in the surrounding area.

1. New, replacement, or substantially improved erosion control measures.

Response: The project will provide new erosion control measures via engineered log and boulder structures (hard armoring). The critical areas report prepared for this project provides a detailed discussion of mitigation sequencing. The bank stability project has been designed to protect and improve fish and wildlife habitat to the greatest extent practicable.

2. Streambank stabilization through bioengineering or soft armoring techniques.

Response: Not applicable. The County does not consider log and ballast rock structures to be a soft armoring technique. However, willow plantings will provide bank stability and are a form of bioengineering.

3. Watershed restoration, fish and wildlife habitat, and fish passage projects.

Response: Multiple projects have recently been completed along the Lower Satsop River, focusing on flood protection and restoration. In 2019 and 2020, WDFW completed substantial restoration projects in the floodplain to remove dikes and revetments and to return river flows to floodplain areas previously inaccessible for decades. In 2020, Grays Harbor County constructed the Keys Road Flood Protection Project (i.e., Phase I of the Lower Satsop Restoration and Protection Program) that involved installation of engineered log jams and setback log structure revetments to protect Keys Road and associated infrastructure. Phase II of the Lower Satsop Restoration and Protection Program is currently in design and will be constructed in summer 2022. The Phase I and Phase II Lower Satsop Restoration and Protection Program projects are part of the Chehalis Basin Strategy that aims for flood protection and habitat restoration. The Chehalis Basin Strategy is a 10-year partnership of agency, tribal, and independent scientists; private landowners; utility managers; fishers, farmers, and foresters; and local leaders. Cumulatively, the proposed project will work in concert with the other structural projects along the Satsop River within the Chehalis Basin to provide flood protection and habitat restoration with ultimately overall beneficial effects. Though the project is focused on bank conservation and stability, the proposed project is meant to slow erosion and be forward compatible with the Phase II project. The

project's adaptive management measures may also be integrated into Phase II of the Lower Satsop Restoration and Protection Program.

4. Public or private docks.

Response: Not applicable. The project is not associated with a public dock facility.

5. New, expanded, or reconfigured roads, railroads, trails, bridges, and rights-of-way, provided:

- a. There is no other feasible alternative route with less impact on the environment;
- b. Crossings minimize interruption of downstream movement of wood and gravel;
- c. Roads shall not run parallel to the water body;
- d. Trails shall be located on the outer edge of the riparian area or buffer, except for limited viewing platforms and crossings;
- e. Crossings, where necessary, shall only occur as near to perpendicular with the water body as possible; and
- f. Piers or abutments shall not be placed within a Federal Insurance Administration (FIA) designated floodways.

Response: Not applicable. The project does not include construction of new, expanded, or reconfigured roads, railroads, trails, bridges, or rights-of-way,

6. New, expanded, or reconfigured utility facilities, including utility lines, facilities, and stormwater conveyance, provided:

- a. Fish and wildlife habitat conservation areas shall be avoided to the maximum extent possible;
- b. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the water body and channel migration zone, where feasible;
- c. The utilities shall cross at an angle greater than sixty degrees to the centerline of the channel in streams or perpendicular to the channel centerline whenever boring under the channel is not feasible;
- d. Crossings shall be contained within the footprint of an existing road or utility crossing where possible;
- e. The utility route shall avoid paralleling the stream or following a down-valley course near the channel; and
- f. The utility installation shall not increase or decrease the natural rate of shore migration or channel migration.

Response: Not applicable. The project does not include construction of New, expanded, or reconfigured utility facilities, including utility lines, facilities, or stormwater conveyance.

7. Clearing and grading as part of an authorized activity, or as otherwise allowed in these standards, when the following standards are applied:

- a. Grading is allowed only during the dry season, which is typically regarded as beginning on May 1 and ending on October 1. The administrator may extend or shorten the dry season on a case-by-case basis, determined on actual weather conditions.

Response: Trenching and grading will extend beyond the County's dry season allowable period for grading, which is typically regarded as beginning on May 1 and ending on October 1. Construction in October is necessary to provide bank stabilization to prevent erosion that may occur during the winter and until Phase II of the Lower Satsop Restoration and Protection Program will be constructed in summer 2022.

- b. The soil duff layer remains undisturbed to the maximum extent possible. Where feasible, any soil disturbed shall be redistributed to other areas of the project area.

Response: Only farmed soils will be disturbed during construction. All excavated material will be used to re-bury log structures or will be graded out to match contours within the project area.

- c. The moisture-holding capacity of the topsoil layer is maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.

Response: Soil compaction across the site will be minimized by utilization of a temporary access road which will help to consolidate areas compacted by machinery use. Aside from the graveled construction entrance, no gravel placement is planned. The temporary access road will be built using geotextile fabric and wood chips (hog fuel), thereby eliminating the need for grading and importing of material that may degrade topsoil (such as gravel or rock). Following construction, topsoil may be stockpiled and graded out onto the site and the farmer may till soil to improve conditions in any areas compacted by construction (staging, stockpiling, machine operation).

- d. Erosion and sediment control meets or exceeds county standards.

Response: The project will provide temporary erosion and sediment control measures in compliance with the NPDES Construction Stormwater Permit and the current edition of the Stormwater Management Manual for Western Washington, thereby meeting or exceeding County standards. Measures will include silt fencing around sensitive environmental areas and allowing stormwater from access roads to runoff into vegetated fields, thereby eliminating the potential for untreated construction stormwater to enter the Satsop River. No new permanent impervious surfaces will be generated and a stormwater management plan has not been prepared for the project.