

WAC 173-26-221 General master program provisions. The provisions of this section shall be applied either generally to all shoreline areas or to shoreline areas that meet the specified criteria of the provision without regard to environment designation. These provisions address certain elements as required by RCW 90.58.100(2) and implement the principles as established in WAC 173-26-186.

(1) **Archaeological and historic resources.**

(a) **Applicability.** The following provisions apply to archaeological and historic resources that are either recorded at the state department of archaeology and historic preservation and/or by local jurisdictions or have been inadvertently uncovered. Archaeological sites located both in and outside shoreline jurisdiction are subject to chapter 27.44 RCW (Indian graves and records) and chapter 27.53 RCW (Archaeological sites and records) and development or uses that may impact such sites shall comply with chapter 25-48 WAC as well as the provisions of this chapter.

(b) **Principles.** Due to the limited and irreplaceable nature of the resource(s), prevent the destruction of or damage to any site having historic, cultural, scientific, or educational value as identified by the appropriate authorities, including affected Indian tribes, and the department of archaeology and historic preservation.

(c) **Standards.** Local shoreline master programs shall include policies and regulations to protect historic, archaeological, and cultural features and qualities of shorelines and implement the following standards. A local government may reference historic inventories or regulations. Contact the department of archaeology and historic preservation and affected Indian tribes for additional information.

(i) Require that developers and property owners immediately stop work and notify the local government, the department of archaeology and historic preservation and affected Indian tribes if archaeological resources are uncovered during excavation.

(ii) Require that permits issued in areas documented to contain archaeological resources require a site inspection or evaluation by a professional archaeologist in coordination with affected Indian tribes.

(2) **Critical areas.**

(a) **Applicability.** Pursuant to the provisions of RCW 90.58.090(4) and 36.70A.480(3) as amended by chapter 107, Laws of 2010 (EHB 1653), shoreline master programs must provide for management of critical areas designated as such pursuant to RCW 36.70A.170 (1)(d) located within the shorelines of the state with policies and regulations that:

(i) Are consistent with the specific provisions of this subsection (2) critical areas and subsection (3) of this section flood hazard reduction, and these guidelines; and

(ii) Provide a level of protection to critical areas within the shoreline area that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources.

The provisions of this section and subsection (3) of this section, flood hazard reduction, shall be applied to critical areas within the shorelines of the state. RCW 36.70A.030 defines critical areas as:

"Critical areas" include the following areas and ecosystems:

(a) Wetlands; (b) areas with a critical recharging effect on aquifers used for potable waters; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas."

The provisions of WAC 365-190-080 through 365-190-130, to the extent standards for certain types of critical areas are not provided by this section and subsection (3) of this section flood hazard reduction, and to the extent consistent with these guidelines are also applicable to and provide further definition of critical area categories and management policies.

As provided in RCW 90.58.030 (2)(f)(ii) and 36.70A.480, as amended by chapter 321, Laws of 2003 (ESHB 1933), any city or county may also include in its master program land necessary for buffers for critical areas, as defined in chapter 36.70A RCW, that occur within shorelines of the state, provided that forest practices regulated under chapter 76.09 RCW, except conversions to nonforest land use, on lands subject to the provision of WAC 173-26-241 (3)(e) are not subject to additional regulations. If a local government does not include land necessary for buffers for critical areas that occur within shorelines of the state, as authorized above, then the local jurisdiction shall continue to regulate those critical areas and required buffers pursuant to RCW 36.70A.060(2).

In addition to critical areas defined under chapter 36.70A RCW and critical saltwater and freshwater habitats as described in these guidelines, local governments should identify additional shoreline areas that warrant special protection necessary to achieve no net loss of ecological functions.

(b) **Principles.** Local master programs, when addressing critical areas, shall implement the following principles:

(i) Shoreline master programs shall adhere to the standards established in the following sections, unless it is demonstrated through scientific and technical information as provided in RCW 90.58.100(1) and as described in WAC 173-26-201 (2)(a) that an alternative approach provides better resource protection.

(ii) In addressing issues related to critical areas, use scientific and technical information, as described in WAC 173-26-201 (2)(a). The role of ecology in reviewing master program provisions for critical areas in shorelines of the state will be based on the Shoreline Management Act and these guidelines.

(iii) In protecting and restoring critical areas within shoreline jurisdiction, integrate the full spectrum of planning and regulatory measures, including the comprehensive plan, interlocal watershed plans, local development regulations, and state, tribal, and federal programs.

(iv) The planning objectives of shoreline management provisions for critical areas shall be the protection of existing ecological functions and ecosystem-wide processes and restoration of degraded ecological functions and ecosystem-wide processes. The regulatory provisions for critical areas shall protect existing ecological functions and ecosystem-wide processes.

(v) Promote human uses and values that are compatible with the other objectives of this section, such as public access and aesthetic values, provided that impacts to ecological functions are first avoided, and any unavoidable impacts are mitigated.

(c) **Standards.** When preparing master program provisions for critical areas, local governments should implement the following standards and use scientific and technical information, as provided for in WAC 173-26-201 (2)(a).

Provisions for frequently flooded areas are included in WAC 173-26-221(3).

(i) **Wetlands.**

(A) **Wetland use regulations.** Local governments should consult the department's technical guidance documents on wetlands.

Regulations shall address the following uses to achieve, at a minimum, no net loss of wetland area and functions, including lost time when the wetland does not perform the function:

- The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;
- The dumping, discharging, or filling with any material, including discharges of stormwater and domestic, commercial, or industrial wastewater;
- The draining, flooding, or disturbing of the water level, duration of inundation, or water table;
- The driving of pilings;
- The placing of obstructions;
- The construction, reconstruction, demolition, or expansion of any structure;
- Significant vegetation removal, provided that these activities are not part of a forest practice governed under chapter 76.09 RCW and its rules;
- Other uses or development that results in an ecological impact to the physical, chemical, or biological characteristics of wetlands; or
- Activities reducing the functions of buffers described in (c) (i) (D) of this subsection.

(B) **Wetland rating or categorization.** Wetlands shall be categorized based on the rarity, irreplaceability, or sensitivity to disturbance of a wetland and the functions the wetland provides. Local governments should either use the Washington state wetland rating system, Eastern or Western Washington version as appropriate, or they should develop their own, regionally specific, scientifically based method for categorizing wetlands. Wetlands should be categorized to reflect differences in wetland quality and function in order to tailor protection standards appropriately. A wetland categorization method is not a substitute for a function assessment method, where detailed information on wetland functions is needed.

(C) **Alterations to wetlands.** Master program provisions addressing alterations to wetlands shall be consistent with the policy of no net loss of wetland area and functions, wetland rating, scientific and technical information, and the mitigation priority sequence defined in WAC 173-26-201 (2) (e).

(D) **Buffers.** Master programs shall contain requirements for buffer zones around wetlands. Buffer requirements shall be adequate to ensure that wetland functions are protected and maintained in the long term. Requirements for buffer zone widths 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.

(E) **Mitigation.** Master programs shall contain wetland mitigation requirements that are consistent with WAC 173-26-201 (2) (e) and which are based on the wetland rating.

(F) **Compensatory mitigation.** Compensatory mitigation shall be allowed only after mitigation sequencing is applied and higher priority means of mitigation are determined to be infeasible.

Requirements for compensatory mitigation must include provisions for:

(I) Mitigation replacement ratios or a similar method of addressing the following:

- The risk of failure of the compensatory mitigation action;
- The length of time it will take the compensatory mitigation action to adequately replace the impacted wetland functions and values;
- The gain or loss of the type, quality, and quantity of the ecological functions of the compensation wetland as compared with the impacted wetland.

(II) Establishment of performance standards for evaluating the success of compensatory mitigation actions;

(III) Establishment of long-term monitoring and reporting procedures to determine if performance standards are met; and

(IV) Establishment of long-term protection and management of compensatory mitigation sites.

Credits from a certified mitigation bank may be used to compensate for unavoidable impacts.

(ii) **Geologically hazardous areas.** Development in designated geologically hazardous areas shall be regulated in accordance with the following:

(A) Consult designation criteria for geologically hazardous areas, WAC 365-190-120.

(B) Do not allow new development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development.

(C) Do not allow new development that 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. The stabilization measures shall conform to WAC 173-26-231.

(D) Where no alternatives, including relocation or reconstruction of existing structures, are found to be feasible, and less expensive than the proposed stabilization measure, stabilization structures or measures to protect existing primary residential structures may be allowed in strict conformance with WAC 173-26-231 requirements and then only if no net loss of ecological functions will result.

(iii) **Critical saltwater habitats.**

(A) **Applicability.** Critical saltwater habitats include all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association. Critical saltwater habitats require a higher level of protection due to the important ecological functions they provide. Ecological functions of marine shorelands can affect the viability of critical saltwater habitats. Therefore, effective protection and restoration of critical saltwater habitats should integrate management of shorelands as well as submerged areas.

(B) **Principles.** Master programs shall include policies and regulations to protect critical saltwater habitats and should implement planning policies and programs to restore such habitats. The inclusion of commercial aquaculture in the critical saltwater habitat definition does not limit its regulation as a use. Reserving shoreline areas for protecting and restoring ecological functions should be done prior to reserving shoreline areas for uses described in WAC 173-26-201 (2)(d)(i) through (v). Planning for critical saltwater habitats shall incorporate the participation of state resource agencies to assure consistency with other legislatively created programs in addition to local and regional government entities with an interest such as port

districts. Affected Indian tribes shall also be consulted. Local governments should review relevant comprehensive management plan policies and development regulations for shorelands and adjacent lands to achieve consistency as directed in RCW 90.58.340. Local governments should base management planning on information provided by state resource agencies and affected Indian tribes unless they demonstrate that they possess more accurate and reliable information.

The management planning should include an evaluation of current data and trends regarding the following:

- Available inventory and collection of necessary data regarding physical characteristics of the habitat, including upland conditions, and any information on species population trends;
- Terrestrial and aquatic vegetation;
- The level of human activity in such areas, including the presence of roads and level of recreational types (passive or active recreation may be appropriate for certain areas and habitats);
- Restoration potential;
- Tributaries and small streams flowing into marine waters;
- Dock and bulkhead construction, including an inventory of bulkheads serving no protective purpose;
- Conditions and ecological functions in the near-shore area;
- Uses surrounding the critical saltwater habitat areas that may negatively impact those areas, including permanent or occasional upland, beach, or over-water uses; and
- An analysis of what data gaps exist and a strategy for gaining this information.

The management planning should address the following, where applicable:

- Protecting a system of fish and wildlife habitats with connections between larger habitat blocks and open spaces and restoring such habitats and connections where they are degraded;
- Protecting existing and restoring degraded riparian and estuarine ecosystems, especially salt marsh habitats;
- Establishing adequate buffer zones around these areas to separate incompatible uses from the habitat areas;
- Protecting existing and restoring degraded near-shore habitat;
- Protecting existing and restoring degraded or lost salmonid, shorebird, waterfowl, or marine mammal habitat;
- Protecting existing and restoring degraded upland ecological functions important to critical saltwater habitats, including riparian and associated upland native plant communities;
- Improving water quality;
- Protecting existing and restoring degraded sediment inflow and transport regimens; and
- Correcting activities that cause excessive sediment input where human activity has led to mass wasting.

Local governments, in conjunction with state resource agencies and affected Indian tribes, should classify critical saltwater habitats and protect and restore seasonal ranges and habitat elements with which federal-listed and state-listed endangered, threatened, and priority species have a primary association and which, if altered, may reduce the likelihood that a species will maintain its population and reproduce over the long term.

Local governments, in conjunction with state resource agencies and affected Indian tribes, should determine which habitats and species are of local importance.

Local governments shall protect kelp and eelgrass beds, forage fish spawning and holding areas, and priority species habitat identified by the department of natural resources' aquatic resources division, the department of fish and wildlife, the department, and affected Indian tribes as critical saltwater habitats.

Comprehensive saltwater habitat management planning should identify methods for monitoring conditions and adapting management practices to new information.

(C) **Standards.** Docks, piers, bulkheads, bridges, fill, floats, jetties, utility crossings, and other human-made structures shall not intrude into or over critical saltwater habitats except when all of the conditions below are met:

- The public's need for such an action or structure is clearly demonstrated and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;

- Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible or would result in unreasonable and disproportionate cost to accomplish the same general purpose;

- The project including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.

- The project is consistent with the state's interest in resource protection and species recovery.

Private, noncommercial docks for individual residential or community use may be authorized provided that:

- Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible;

- The project including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.

Until an inventory of critical saltwater habitat has been done, shoreline master programs shall condition all over-water and near-shore developments in marine and estuarine waters with the requirement for an inventory of the site and adjacent beach sections to assess the presence of critical saltwater habitats and functions. The methods and extent of the inventory shall be consistent with accepted research methodology. At a minimum, local governments should consult with department technical assistance materials for guidance.

(iv) **Critical freshwater habitats.**

(A) **Applicability.** The following applies to master program provisions affecting critical freshwater habitats within shorelines of the state designated under chapter 36.70A RCW, including those portions of streams, rivers, wetlands, and lakes, their associated channel migration zones, and flood plains designated as such in the master program.

(B) **Principles.** Many ecological functions of lake, river and stream corridors depend both on continuity and connectivity along the length of the shoreline and on the conditions of the surrounding lands on either side of river channel and lake basin. Environmental degradation caused by development such as improper stormwater sewer or industrial outfalls, unmanaged clearing and grading, or runoff from buildings and parking lots within the watershed, can degrade ecological functions in lakes and downstream. Likewise, gradual destruction or loss of riparian and associated upland native plant communities, alteration of runoff quality and quantity along the lake basin and stream corridor resulting from incremental flood plain and lake basin development can raise water temperatures and alter hydrographic condi-

tions, degrading ecological functions. This makes the corridor inhospitable for invertebrate and vertebrate aquatic, amphibian and terrestrial wildlife species and susceptible to catastrophic flooding, droughts, landslides and channel changes. These conditions also threaten human health, safety, and property. Long stretches of lake, river and stream shorelines have been significantly altered or degraded in this manner. Therefore, effective management of lake basins and river and stream corridors depends on:

(I) Planning for protection, and restoration where appropriate, throughout the lake basin and along the entire length of the corridor from river headwaters to the mouth; and

(II) Regulating uses and development within lake basins and stream channels, associated channel migration zones, wetlands, and the flood plains, to the extent such areas are in the shoreline jurisdictional area, as necessary to assure no net loss of ecological functions, including where applicable the associated hyporheic zone, results from new development.

As part of a comprehensive approach to management of critical freshwater habitat and other lake, river and stream values, local governments should integrate master program provisions, including those for shoreline stabilization, fill, vegetation conservation, water quality, flood hazard reduction, and specific uses, to protect human health and safety and to protect and restore lake and river corridor ecological functions and ecosystem-wide processes.

Applicable master programs shall contain provisions to protect hydrologic connections between water bodies, water courses, and associated wetlands. Restoration planning should include incentives and other means to restore water connections that have been impeded by previous development.

Master program provisions for lake basins and river and stream corridors should, where appropriate, be based on the information from comprehensive watershed management planning where available.

(C) **Standards.** Master programs shall implement the following standards within shoreline jurisdiction:

(I) Provide for the protection of ecological functions associated with critical freshwater habitat as necessary to assure no net loss of ecological functions.

(II) Integrate protection of critical freshwater, riparian and associated upland habitat, protection with flood hazard reduction and other lake, wetland, river and stream management provisions.

(III) Include provisions that facilitate authorization of appropriate restoration projects.

(IV) Provide for the implementation of the principles identified in (c) (iv) (B) of this subsection.

(3) **Flood hazard reduction.**

(a) **Applicability.** The following provisions apply to actions taken to reduce flood damage or hazard and to uses, development, and shoreline modifications that may increase flood hazards. Flood hazard reduction measures may consist of nonstructural measures, such as setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures, and stormwater management programs, and of structural measures, such as dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures consistent with the National Flood Insurance Program. Additional relevant critical area provisions are in WAC 173-26-221(2).

(b) **Principles.** Flooding of rivers, streams, and other shorelines is a natural process that is affected by factors and land uses occur-

ring throughout the watershed. Past land use practices have disrupted hydrological processes and increased the rate and volume of runoff, thereby exacerbating flood hazards and reducing ecological functions. Flood hazard reduction measures are most effective when integrated into comprehensive strategies that recognize the natural hydrogeological and biological processes of water bodies. Over the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas, to manage stormwater within the flood plain, and to maintain or restore river and stream system's natural hydrological and geomorphological processes.

Structural flood hazard reduction measures, such as diking, even if effective in reducing inundation in a portion of the watershed, can intensify flooding elsewhere. Moreover, structural flood hazard reduction measures can damage ecological functions crucial to fish and wildlife species, bank stability, and water quality. Therefore, structural flood hazard reduction measures shall be avoided whenever possible. When necessary, they shall be accomplished in a manner that assures no net loss of ecological functions and ecosystem-wide processes.

The dynamic physical processes of rivers, including the movement of water, sediment and wood, cause the river channel in some areas to move laterally, or "migrate," over time. This is a natural process in response to gravity and topography and allows the river to release energy and distribute its sediment load. The area within which a river channel is likely to move over a period of time is referred to as the channel migration zone (CMZ) or the meander belt. Scientific examination as well as experience has demonstrated that interference with this natural process often has unintended consequences for human users of the river and its valley such as increased or changed flood, sedimentation and erosion patterns. It also has adverse effects on fish and wildlife through loss of critical habitat for river and riparian dependent species. Failing to recognize the process often leads to damage to, or loss of, structures and threats to life safety.

Applicable shoreline master programs should include provisions to limit development and shoreline modifications that would result in interference with the process of channel migration that may cause significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions associated with the rivers and streams. (See also (c) of this subsection.)

The channel migration zone should be established to identify those areas with a high probability of being subject to channel movement based on the historic record, geologic character and evidence of past migration. It should also be recognized that past action is not a perfect predictor of the future and that human and natural changes may alter migration patterns. Consideration should be given to such changes that may have occurred and their effect on future migration patterns.

For management purposes, the extent of likely migration along a stream reach can be identified using evidence of active stream channel movement over the past one hundred years. Evidence of active movement can be provided from historic and current aerial photos and maps and may require field analysis of specific channel and valley bottom characteristics in some cases. A time frame of one hundred years was chosen because aerial photos, maps and field evidence can be used to evaluate movement in this time frame.

In some cases, river channels are prevented from normal or historic migration by human-made structures or other shoreline modifica-

tions. The definition of channel migration zone indicates that in defining the extent of a CMZ, local governments should take into account the river's characteristics and its surroundings. Unless otherwise demonstrated through scientific and technical information, the following characteristics should be considered when establishing the extent of the CMZ for management purposes:

- Within incorporated municipalities and urban growth areas, areas separated from the active river channel by legally existing artificial channel constraints that limit channel movement should not be considered within the channel migration zone.

- All areas separated from the active channel by a legally existing artificial structure(s) that is likely to restrain channel migration, including transportation facilities, built above or constructed to remain intact through the one hundred-year flood, should not be considered to be in the channel migration zone.

- In areas outside incorporated municipalities and urban growth areas, channel constraints and flood control structures built below the one hundred-year flood elevation do not necessarily restrict channel migration and should not be considered to limit the channel migration zone unless demonstrated otherwise using scientific and technical information.

Master programs shall implement the following principles:

(i) Where feasible, give preference to nonstructural flood hazard reduction measures over structural measures.

(ii) Base shoreline master program flood hazard reduction provisions on applicable watershed management plans, comprehensive flood hazard management plans, and other comprehensive planning efforts, provided those measures are consistent with the Shoreline Management Act and this chapter.

(iii) Consider integrating master program flood hazard reduction provisions with other regulations and programs, including (if applicable):

- Stormwater management plans;
- Flood plain regulations, as provided for in chapter 86.16 RCW;
- Critical area ordinances and comprehensive plans, as provided in chapter 36.70A RCW; and
- The National Flood Insurance Program.

(iv) Assure that flood hazard protection measures do not result in a net loss of ecological functions associated with the rivers and streams.

(v) Plan for and facilitate returning river and stream corridors to more natural hydrological conditions. Recognize that seasonal flooding is an essential natural process.

(vi) When evaluating alternate flood control measures, consider the removal or relocation of structures in flood-prone areas.

(vii) Local governments are encouraged to plan for and facilitate removal of artificial restrictions to natural channel migration, restoration of off channel hydrological connections and return river processes to a more natural state where feasible and appropriate.

(c) **Standards.** Master programs shall implement the following standards within shoreline jurisdiction:

(i) Development in flood plains should not significantly or cumulatively increase flood hazard or be inconsistent with a comprehensive flood hazard management plan adopted pursuant to chapter 86.12 RCW, provided the plan has been adopted after 1994 and approved by the department. New development or new uses in shoreline jurisdiction, including the subdivision of land, should not be established when it

would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway. The following uses and activities may be appropriate and/or necessary within the channel migration zone or floodway:

- Actions that protect or restore the ecosystem-wide processes or ecological functions.
- Forest practices in compliance with the Washington State Forest Practices Act and its implementing rules.
- Existing and ongoing agricultural practices, provided that no new restrictions to channel movement occur.
- Mining when conducted in a manner consistent with the environment designation and with the provisions of WAC 173-26-241 (3)(h).
- Bridges, utility lines, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and disproportionate cost. Where such structures are allowed, mitigation shall address impacted functions and processes in the affected section of watershed or drift cell.
- Repair and maintenance of an existing legal use, provided that such actions do not cause significant ecological impacts or increase flood hazards to other uses.
- Development with a primary purpose of protecting or restoring ecological functions and ecosystem-wide processes.
- Modifications or additions to an existing nonagricultural legal use, provided that channel migration is not further limited and that the new development includes appropriate protection of ecological functions.
- Development in incorporated municipalities and designated urban growth areas, as defined in chapter 36.70A RCW, where existing structures prevent active channel movement and flooding.
- Measures to reduce shoreline erosion, provided that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, that the measure does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions, and that the measure includes appropriate mitigation of impacts to ecological functions associated with the river or stream.

(ii) Allow new structural flood hazard reduction measures in shoreline jurisdiction only when it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development, that nonstructural measures are not feasible, that impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, and that appropriate vegetation conservation actions are undertaken consistent with WAC 173-26-221(5).

Structural flood hazard reduction measures shall be consistent with an adopted comprehensive flood hazard management plan approved by the department that evaluates cumulative impacts to the watershed system.

(iii) Place new structural flood hazard reduction measures landward of the associated wetlands, and designated vegetation conservation areas, except for actions that increase ecological functions, such as wetland restoration, or as noted below. Provided that such flood hazard reduction projects be authorized if it is determined that no other alternative to reduce flood hazard to existing development is feasible. The need for, and analysis of feasible alternatives to,

structural improvements shall be documented through a geotechnical analysis.

(iv) Require that new structural public flood hazard reduction measures, such as dikes and levees, dedicate and improve public access pathways unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and unmitigable significant ecological impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.

(v) Require that the removal of gravel for flood management purposes be consistent with an adopted flood hazard reduction plan and with this chapter and allowed only after a biological and geomorphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of ecological functions, and is part of a comprehensive flood management solution.

(4) **Public access.**

(a) **Applicability.** Public access includes the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline from adjacent locations. Public access provisions below apply to all shorelines of the state unless stated otherwise.

(b) **Principles.** Local master programs shall:

(i) Promote and enhance the public interest with regard to rights to access waters held in public trust by the state while protecting private property rights and public safety.

(ii) Protect the rights of navigation and space necessary for water-dependent uses.

(iii) To the greatest extent feasible consistent with the overall best interest of the state and the people generally, protect the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state, including views of the water.

(iv) Regulate the design, construction, and operation of permitted uses in the shorelines of the state to minimize, insofar as practical, interference with the public's use of the water.

(c) **Planning process to address public access.** Local governments should plan for an integrated shoreline area public access system that identifies specific public needs and opportunities to provide public access. Such a system can often be more effective and economical than applying uniform public access requirements to all development. This planning should be integrated with other relevant comprehensive plan elements, especially transportation and recreation. The planning process shall also comply with all relevant constitutional and other legal limitations that protect private property rights.

Where a port district or other public entity has incorporated public access planning into its master plan through an open public process, that plan may serve as a portion of the local government's public access planning, provided it meets the provisions of this chapter. The planning may also justify more flexible off-site or special area public access provisions in the master program. Public participation requirements in WAC 173-26-201 (3)(b)(i) apply to public access planning.

At a minimum, the public access planning should result in public access requirements for shoreline permits, recommended projects, port master plans, and/or actions to be taken to develop public shoreline access to shorelines on public property. The planning should identify a variety of shoreline access opportunities and circulation for pedes-

trians (including disabled persons), bicycles, and vehicles between shoreline access points, consistent with other comprehensive plan elements.

(d) **Standards.** Shoreline master programs should implement the following standards:

(i) Based on the public access planning described in (c) of this subsection, establish policies and regulations that protect and enhance both physical and visual public access. The master program shall address public access on public lands. The master program should seek to increase the amount and diversity of public access to the state's shorelines consistent with the natural shoreline character, property rights, public rights under the Public Trust Doctrine, and public safety.

(ii) Require that shoreline development by public entities, including local governments, port districts, state agencies, and public utility districts, include public access measures as part of each development project, unless such access is shown to be incompatible due to reasons of safety, security, or impact to the shoreline environment. Where public access planning as described in WAC 173-26-221 (4)(c) demonstrates that a more effective public access system can be achieved through alternate means, such as focusing public access at the most desirable locations, local governments may institute master program provisions for public access based on that approach in lieu of uniform site-by-site public access requirements.

(iii) Provide standards for the dedication and improvement of public access in developments for water-enjoyment, water-related, and nonwater-dependent uses and for the subdivision of land into more than four parcels. In these cases, public access should be required except:

(A) Where the local government provides more effective public access through a public access planning process described in WAC 173-26-221 (4)(c).

(B) Where it is demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the shoreline environment or due to constitutional or other legal limitations that may be applicable.

In determining the infeasibility, undesirability, or incompatibility of public access in a given situation, local governments shall consider alternate methods of providing public access, such as off-site improvements, viewing platforms, separation of uses through site planning and design, and restricting hours of public access.

(C) For individual single-family residences not part of a development planned for more than four parcels.

(iv) Adopt provisions, such as maximum height limits, setbacks, and view corridors, to minimize the impacts to existing views from public property or substantial numbers of residences. Where there is an irreconcilable conflict between water-dependent shoreline uses or physical public access and maintenance of views from adjacent properties, the water-dependent uses and physical public access shall have priority, unless there is a compelling reason to the contrary.

(v) Assure that public access improvements do not result in a net loss of shoreline ecological functions.

(5) **Shoreline vegetation conservation.**

(a) **Applicability.** Vegetation conservation includes activities to protect and restore vegetation along or near marine and freshwater shorelines that contribute to the ecological functions of shoreline areas. Vegetation conservation provisions include the prevention or

restriction of plant clearing and earth grading, vegetation restoration, and the control of invasive weeds and nonnative species.

Unless otherwise stated, vegetation conservation does not include those activities covered under the Washington State Forest Practices Act, except for conversion to other uses and those other forest practice activities over which local governments have authority. As with all master program provisions, vegetation conservation provisions apply even to those shoreline uses and developments that are exempt from the requirement to obtain a permit. Like other master program provisions, vegetation conservation standards do not apply retroactively to existing uses and structures, such as existing agricultural practices.

(b) **Principles.** The intent of vegetation conservation is to protect and restore the ecological functions and ecosystem-wide processes performed by vegetation along shorelines. Vegetation conservation should also be undertaken to protect human safety and property, to increase the stability of river banks and coastal bluffs, to reduce the need for structural shoreline stabilization measures, to improve the visual and aesthetic qualities of the shoreline, to protect plant and animal species and their habitats, and to enhance shoreline uses.

Master programs shall include: Planning provisions that address vegetation conservation and restoration, and regulatory provisions that address conservation of vegetation; as necessary to assure no net loss of shoreline ecological functions and ecosystem-wide processes, to avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion.

Local governments should address ecological functions and ecosystem-wide processes provided by vegetation as described in WAC 173-26-201 (3) (d) (i).

Local governments may implement these objectives through a variety of measures, where consistent with Shoreline Management Act policy, including clearing and grading regulations, setback and buffer standards, critical area regulations, conditional use requirements for specific uses or areas, mitigation requirements, incentives and nonregulatory programs.

In establishing vegetation conservation regulations, local governments must use available scientific and technical information, as described in WAC 173-26-201 (2) (a). At a minimum, local governments should consult shoreline management assistance materials provided by the department and *Management Recommendations for Washington's Priority Habitats*, prepared by the Washington state department of fish and wildlife where applicable.

Current scientific evidence indicates that the length, width, and species composition of a shoreline vegetation community contribute substantively to the aquatic ecological functions. Likewise, the biota within the aquatic environment is essential to ecological functions of the adjacent upland vegetation. The ability of vegetated areas to provide critical ecological functions diminishes as the length and width of the vegetated area along shorelines is reduced. When shoreline vegetation is removed, the narrower the area of remaining vegetation, the greater the risk that the functions will not be performed.

In the Pacific Northwest, aquatic environments, as well as their associated upland vegetation and wetlands, provide significant habitat for a myriad of fish and wildlife species. Healthy environments for aquatic species are inseparably linked with the ecological integrity of the surrounding terrestrial ecosystem. For example, a nearly continuous corridor of mature forest characterizes the natural riparian conditions of the Pacific Northwest. Riparian corridors along marine

shorelines provide many of the same functions as their freshwater counterparts. The most commonly recognized functions of the shoreline vegetation include, but are not limited to:

- Providing shade necessary to maintain the cool temperatures required by salmonids, spawning forage fish, and other aquatic biota.
- Providing organic inputs critical for aquatic life.
- Providing food in the form of various insects and other benthic macroinvertebrates.
- Stabilizing banks, minimizing erosion, and reducing the occurrence of landslides. The roots of trees and other riparian vegetation provide the bulk of this function.
- Reducing fine sediment input into the aquatic environment through stormwater retention and vegetative filtering.
- Filtering and vegetative uptake of nutrients and pollutants from ground water and surface runoff.
- Providing a source of large woody debris into the aquatic system. Large woody debris is the primary structural element that functions as a hydraulic roughness element to moderate flows. Large woody debris also serves a pool-forming function, providing critical salmonid rearing and refuge habitat. Abundant large woody debris increases aquatic diversity and stabilization.
- Regulation of microclimate in the stream-riparian and intertidal corridors.
- Providing critical wildlife habitat, including migration corridors and feeding, watering, rearing, and refugia areas.

Sustaining different individual functions requires different widths, compositions and densities of vegetation. The importance of the different functions, in turn, varies with the type of shoreline setting. For example, in forested shoreline settings, periodic recruitment of fallen trees, especially conifers, into the stream channel is an important attribute, critical to natural stream channel maintenance. Therefore, vegetated areas along streams which once supported or could in the future support mature trees should be wide enough to accomplish this periodic recruitment process.

Woody vegetation normally classed as trees may not be a natural component of plant communities in some environments, such as in arid climates and on coastal dunes. In these instances, the width of a vegetated area necessary to achieve the full suite of vegetation-related shoreline functions may not be related to vegetation height.

Local governments should identify which ecological processes and functions are important to the local aquatic and terrestrial ecology and conserve sufficient vegetation to maintain them. Such vegetation conservation areas are not necessarily intended to be closed to use and development but should provide for management of vegetation in a manner adequate to assure no net loss of shoreline ecological functions.

(c) **Standards.** Master programs shall implement the following requirements in shoreline jurisdiction.

Establish vegetation conservation standards that implement the principles in WAC 173-26-221 (5)(b). Methods to do this may include setback or buffer requirements, clearing and grading standards, regulatory incentives, environment designation standards, or other master program provisions. Selective pruning of trees for safety and view protection may be allowed and the removal of noxious weeds should be authorized.

Additional vegetation conservation standards for specific uses are included in WAC 173-26-241(3).

(6) **Water quality, stormwater, and nonpoint pollution.**

(a) **Applicability.** The following section applies to all development and uses in shorelines of the state, as defined in WAC 173-26-020, that affect water quality.

(b) **Principles.** Shoreline master programs shall, as stated in RCW 90.58.020, protect against adverse impacts to the public health, to the land and its vegetation and wildlife, and to the waters of the state and their aquatic life, through implementation of the following principles:

(i) Prevent impacts to water quality and stormwater quantity that would result in a net loss of shoreline ecological functions, or a significant impact to aesthetic qualities, or recreational opportunities.

(ii) Ensure mutual consistency between shoreline management provisions and other regulations that address water quality and stormwater quantity, including public health, stormwater, and water discharge standards. The regulations that are most protective of ecological functions shall apply.

(c) **Standards.** Shoreline master programs shall include provisions to implement the principles of this section.

[Statutory Authority: Chapter 90.58 RCW. WSR 17-17-016 (Order 15-06), § 173-26-221, filed 8/7/17, effective 9/7/17. Statutory Authority: RCW 90.58.120, 90.58.200, 90.58.060 and 43.21A.681. WSR 11-05-064 (Order 10-07), § 173-26-221, filed 2/11/11, effective 3/14/11. Statutory Authority: RCW 90.58.060 and 90.58.200. WSR 04-01-117 (Order 03-02), § 173-26-221, filed 12/17/03, effective 1/17/04.]