

# Jefferson County SMP Update CWD SMP Review

## Chapter 7 - Shoreline Modifications

### Shoreline Modifications - Generally:

1. What does the WAC say?
  - Allow structural shoreline modifications only where they are demonstrated to be necessary to support or protect an allowed primary structure or a legally existing shoreline use that is in danger of loss or substantial damage or are necessary for reconfiguration of the shoreline for mitigation or enhancement purposes.
  - Reduce the adverse effects of shoreline modifications and, as much as possible, limit shoreline modifications in number and extent.
  - Allow only shoreline modifications that are appropriate to the specific type of shoreline and environmental conditions for which they are proposed.
  - Assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions. This is to be achieved by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions and requiring mitigation of identified impacts resulting from shoreline modifications.
  - Where applicable, base provisions on scientific and technical information and a comprehensive analysis of drift cells for marine waters or reach conditions for river and stream systems. Contact the department for available drift cell characterizations.
  - Plan for the enhancement of impaired ecological functions where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, incorporate all feasible measures to protect ecological shoreline functions and ecosystem-wide processes.
  - Avoid and reduce significant ecological impacts according to the mitigation sequence in WAC 173-26-201(2)(e).

### Pedestrian Beach Access Structures

1. What does the WAC say?
  - Not specifically addressed, but the general shore modifications provisions noted above would apply along with general provisions for ecological protection, public access, etc.

### Shore Stabilization/Shore Defense:

1. What does the WAC say?
  - New development should be located and designed to avoid the need for future shoreline stabilization to the extent feasible. Subdivision must be regulated to assure that the lots created will not require shoreline stabilization.
  - New development on steep slopes or bluffs shall be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis.
  - New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas should not be allowed.
  - New structural stabilization measures shall not be allowed except:

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- To protect existing primary structures –only there is conclusive evidence, documented by a geotechnical analysis that the structure is in danger from shoreline erosion caused by tidal action, currents, or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization.
- In support of new non-water-dependent development, including single-family residences, when the erosion is not being caused by upland conditions, such as the loss of vegetation and drainage; the erosion control structure will not result in a net loss of shoreline ecological functions and nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
- Replacement walls or bulkheads shall not encroach waterward of the ordinary high-water mark or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.
- Where a net loss of ecological functions associated with critical saltwater habitats would occur by leaving the existing structure, remove it as part of the replacement measure.
- Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.
- As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts on ecological functions. Thus, where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.
- When any structural shoreline stabilization measures are demonstrated to be necessary, pursuant to above provisions, limit the size of stabilization measures to the minimum necessary. Use measures designed to assure no net loss of shoreline ecological functions. Soft approaches shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.
- Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions.
- An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents, tidal action, or waves.
- Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not

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possible, to minimize adverse impacts to sediment conveyance systems. Where sediment conveyance systems cross jurisdictional boundaries, local governments should coordinate shoreline management efforts. If beach erosion is threatening existing development, local governments should adopt master program provisions for a beach management district or other institutional mechanism to provide comprehensive mitigation for the adverse impacts of erosion control measures.

### **Flood Control and Instream Structures:**

#### 1. What does the WAC say?

- Flood hazard reduction includes nonstructural measures (setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures, and storm water management programs), and structural measures (dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures).
- SMPs should limit development and shoreline modifications that would interfere 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.
- Where feasible, give preference to nonstructural flood hazard reduction measures over structural measures.
- Integrate master program flood hazard reduction provisions with other regulations and programs.
- Assure that flood hazard protection measures do not result in a net loss of ecological functions associated with the rivers and streams.
- Plan for and facilitate returning river and stream corridors to more natural hydrological conditions. Recognize that seasonal flooding is an essential natural process.
- When evaluating alternate flood control measures, consider the removal or relocation of structures in flood-prone areas.
- Plan for and facilitate removal of artificial restrictions to natural channel migration, & restoration of off channel hydrological connections.
- Development in floodplains should not significantly or cumulatively increase flood hazard.
- New development/use, 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 in the CMZ or floodway.
- The following uses and activities may be appropriate and or necessary within the channel migration zone or floodway:
  - Restoration actions
  - Forest practices in compliance with the FPA
  - Existing and ongoing agricultural, provided that no new restrictions to channel movement occur
  - Mining when conducted in a manner consistent with the environment designation
  - Bridges, utility lines, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and

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disproportionate cost and when they include mitigation to 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 non-agricultural 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 UGAs 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.
- Allow new structural flood hazard reduction measures 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 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.
- 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. 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.
- 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 un-mitigable 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.
- 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.

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### Piers and Docks:

#### 1. What does the WAC say?

- New piers and docks shall be allowed only for water-dependent uses or public access. As used in the guidelines, a dock associated with a single family residence is a water dependent use provided that it is designed and intended as a facility for access to watercraft and otherwise complies with the provisions of this section.
- Pier and dock construction shall be restricted to the minimum size necessary to meet the needs of the proposed water-dependent use.
- Water-related and water-enjoyment uses may be allowed as part of mixed-use development on over-water structures where they are clearly auxiliary to and in support of water-dependent uses, provided the minimum size requirement needed to meet the water-dependent use is not violated.
- New pier or dock construction, excluding docks accessory to single-family residences, should be permitted only when the applicant has demonstrated that a specific need exists to support the intended water-dependent uses.
- If a port district or other public or commercial entity involving water-dependent uses has performed a needs analysis or comprehensive master plan projecting the future needs for pier or dock space, and if the plan or analysis is approved by the local government and consistent with these guidelines, it may serve as the necessary justification for pier design, size, and construction.
- Where new piers or docks are allowed, master programs should contain provisions to require new residential development of two or more dwellings to provide joint use or community dock facilities, when feasible, rather than allow individual docks for each residence.
- Piers and docks, including those accessory to single-family residences, shall be designed and constructed to avoid or, if that is not possible, to minimize and mitigate the impacts to ecological functions, critical areas resources such as eelgrass beds and fish habitats and processes such as currents and littoral drift.