## *Appendix B: Description of Relevant Regulatory and Capital Improvement Programs*

A variety of regulatory programs exist that directly affect flood hazard management. These programs are implemented and enforced at the local, state, and federal levels. Each section will include a brief discussion of the purpose of the regulations, its mechanisms, and the responsibility of the jurisdiction. Where applicable, the relation to the Wahkiakum County's Comprehensive Flood Hazard Management Plan (CFHMP) will also be discussed.

# Local Regulations

### Wahkiakum County Building Code

Building codes regulate the safety and quality of a structure. The Uniform Building Code (UBC) is often used to set those standards. These building codes can be updated to meet higher standards for dwellings exposed to higher risk in flood prone areas.

### Wahkiakum County Comprehensive Plan

The purpose of a Comprehensive Plan is to provide goals, objectives, and policy statements relating to a series of local concerns. For instance, transportation, utilities, water resources, open space, environmentally sensitive areas, dredging, recreation opportunities, etc. The Plan also provides a detailed analysis of existing physical, economic, and social conditions. Wahkiakum County's current Comprehensive Plan was adopted in 1984. The Wahkiakum County Comprehensive Plan is a planning document that outlines a series of policies designed to serve as a guide for the County when making a variety of decisions and sets a direction for regulations. By adopting a comprehensive plan, a County is giving long-range direction and guidance for growth and development within the county.

The Wahkiakum County Comprehensive Plan does not specifically address flood hazard management. The discussion of floods is confined to a section discussing the geology, soils and natural hazards of the county. The Plan is currently being updated by the Cowlitz-Wahkiakum Council of Governments and should be completed in June of 2004. Draft Goals and Policies have been issued that can guide updates to the Critical Areas Ordinance(see below) which can potentially include frequently flooded sections of Wahkiakum's watersheds.

### Wahkiakum County Critical Areas Ordinance

The purpose of the Wahkiakum County Critical Areas Ordinance is to designate natural resource lands and critical areas and adopt development regulations to protect those areas. Wahkiakum County adopted a Critical Areas Ordinance (CAO) in December of 2000. Protected areas designated in critical areas within the floodplain can play an important role to serving as a buffer during high flow events by slowing velocities and serve as storage areas for both water and sediment.

The CAO allows for the remodeling or reconstruction of pre-existing nonconforming uses as long as they meet the standards in the Wahkiakum County Flood Control Ordinance. The CAO adopts the Flood Control Ordinance by reference to address development performance standards as they relate to frequently flooded areas.

**Wahkiakum County Flood Damage Prevention Ordinance**

The Wahkiakum County Flood Damage Prevention Ordinance, also referred to as the Wahkiakum County Flood Control Ordinance, was adopted in June of 1989. The Ordinance applies to all areas of special flood hazards within the unincorporated areas of Wahkiakum County. "Special flood hazard area" are those identified by the Federal Insurance Administration in the "Preliminary Flood Insurance Study" (March 1987), together with the FIRM maps (January 1985).

A development permit is required for construction or development within any area of special flood hazard. Variances may be granted after consideration of 11 specific criteria and provided that the proposed project meets a series of conditions.

In all areas of special flood hazards general standards are required to be met in the following areas: anchoring, construction materials and methods, utilities, subdivision proposals, and review of building and shoreline permits. Additionally, in all areas of special flood hazards where base flood elevation data has been provided, the following specific standards are required to be met in the following areas: residential construction, non-residential construction, critical facility, manufactured homes, accessory structures, bridges, culverts, and docks.

The ordinance also lays out provisions for activities in floodways and standards for shallow flooding zones.

**Wahkiakum County Shoreline Management Master Program**

The Wahkiakum County Shoreline Management Master Program (WCSMP) was adopted in the early 1970's and revised in 1980. The WCSMP provides the County with a regulatory tool which aides in the management of the effects of development on shorelines, including flood plains and use of shorelines within 200 feet along rivers, larger streams, marine waterfronts and along lakes over 20 acres.

The current WCSMP does not have many regulations specific to development in flood plains or flood plain management. The plan recognizes that none of the designated shoreline environments can be identified as an area free of flooding or landslide potential. As such, ordinances and regulations application to these natural hazards are considered part of the WCSMP by adoption and are applicable to all uses and each environment where applicable.

The WCSMP Use Activity Standards, makes mention in various areas that certain activities are to occur outside of the 50 or 100-year flood plain (e.g. animal feed lots, drainage fields).

*Relation to CFHMP*

The SMP can be an excellent tool to be used in consort with a flood hazard management plan because it directs land use and activities along shorelines. In December 2003, Department of Ecology adopted new shoreline guidelines that set new policies for activities in the designated shoreline. Flood hazard related "Provisions" are articulated for Critical Areas, Flood Hazard Reduction, and Shoreline Modifications. These provisions are listed below. The entire guidelines document is available on the Department of Ecology website:
http://www.ecy.wa.gov/programs/sea/SMA/index.html

> Pursuant to the provisions of RCW 90.58.090(4) as amended by Chapter 321 Laws of 2003 (ESHB 1933), shoreline master programs must provide for management of critical areas designated as such pursuant to RCW 36.70A.170(1)(d) and required to be protected pursuant to RCW 36.70A.060(2) that are located within the shorelines of the state with policies and regulations that:
>
> (i) are consistent with the specific provisions of this section (2) critical areas and section (3) flood hazard reduction, and these guidelines, and
>
> (ii) provide~~s~~ a level of protection to critical areas within the shoreline area that is at least equal to that provided by the local government's critical area regulations adopted pursuant to the Growth Management Act for comparable areas other than shorelines.
>
> When approved by Ecology pursuant to RCW 90.58.090(4), a local government's SMP becomes regulations for protection of critical areas in the shorelines of the state in the jurisdiction of the adopting local government except as noted in RCW 36.70A480(3)(b) and (6).
>
> The provisions of this section and section (3) flood hazard reduction shall be applied to critical areas:
>
> "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, to the extent standards for certain types of critical areas are not provided by this section and section (3) 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 90.58.030(2)(f)(ii) and 36.70A.480 RCW, 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 chapter 36.70A RCW, that occur within shoreline of the state, provided that forest practices regulated under chapter 76.09 RCW, except conversions to non-forest land use, on lands subject the provision of this subsection (2)(f)(ii)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).

(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 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. and a comparison with requirements in currently adopted critical area ordinances for comparable areas to ensure that the provisions are at least equal to the level of protection provided by the currently adopted critical area ordinance.

(iii) In protecting and restoring critical areas within shoreline jurisdiction, integrate the full spectrum of planning and regulatory measures, including the comprehensive plan, inter-local 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 they do not significantly adversely impact ecological functions.

(c) Standards.

When preparing master program provisions for critical areas, local governments should implement the following standards and the provisions of WAC 365-190-080 and use scientific and technical information, as provided for in WAC 173-26-201 (2)(a).

In reviewing the critical areas segment of a master program, the Department of Ecology shall first assure consistency with the~~se~~ standards of this section (Critical Areas, (WAC 173-26-221(2)) and with the Flood Hazard Reduction section (WAC 173-26-221(3)), and shall then assure that the master program also provides protection of comparable critical areas that is at least equal to the protection provided by the local governments adopted and valid critical area regulations in effect at the time of submittal of the SMP.

In conducting the review for equivalency with local regulations, the department shall not further evaluate the adequacy of the local critical area regulations. Incorporation of the adopted and valid critical area regulations in effect at the time of submittal by reference as provided in section 173-26-191(2)(b) shall be deemed to meet the requirement for equivalency. However, a finding of equivalency does not constitute a finding of compliance with the requirements of this section and section (3) flood hazard reduction, nor with the guidelines overall. Note that provisions for frequently flooded areas are includedin WAC 173-26-221(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 storm water 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 occurring 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 storm water 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 section 221(3)(C)).

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 modifications. 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 100 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 100 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):

- Storm water 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 floodplains 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 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 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 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.

(v) 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.

(vi) 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.

**Wahkiakum County Zoning Ordinance**

The purpose of a zoning ordinance is to implement the policies laid out in the County's Comprehensive Plan. Zoning gives the County the ability to direct growth and development in such a manner as to minimize the impact on flood plains. The zoning ordinance consists of a zoning map that identifies specific land use zones and regulations specific to each zone. The regulations include guidelines for the granting of conditional use or variance permits and enforcement measures for non-compliance.

The Wahkiakum County Zoning Ordinance includes the following zones:

*Specific Forest Use* (SFU) – Includes forest lands for the growing and harvesting of trees and those uses which are directly related to timber management or recreational uses which do conflict with tree production and/or harvesting.

*Specific Agricultural Use* (SAU) – Includes agricultural land that produces crops and supports livestock.

*Urban Development Area* (UDA) – Includes those areas on the fringes of Cathlamet which are either in the process of evolving from rural to urban, or soon will be. Within the UDA, a series of uses are identified:

*Industrial* – Include activities such as heavy to light manufacturing, heavy equipment repair, log and lumber handling, and storage and shipping facilities.

*Commercial* – Activities include retail services, mini-shopping centers, cafes and restaurants, auto service stations and other similar uses.

*Low Density Residential* – Single family, mobile homes and duplexes. Recommended density is two units per acre.

*High Density Residential* – Triplexes and larger units, mobile home parks and subdivisions. Small neighborhood commercial establishments are also permitted.

*Planned Unit Development* (PUD) – PUD's can be permitted if they provide certain amenities.

*Rural Service Area* (RSA) – Includes those areas in and around the unincorporated communities of Wahkiakum County.

*Rural Residential* (RR) – Small lot, single-family units located adjacent to active agricultural and/or forestry management areas.

# State Regulations

**Washington Department of Natural Resources**

The Department of Natural Resources (DNR) manages the state's aquatic lands as a public trust. DNR aims to protect the native species and offer access for all people for commerce, navigation, study and recreation. Aquatic lands include beaches, tidelands, and beds of marine waters, navigable lakes, and rivers. In Wahkiakum County, DNR manages these areas along the Columbia River and several of its tributaries including:

- Deep River
- The Elochoman River
- Malone Creek
- Grays River

Use Authorization issued by DNR is required for activities that take place on state-owned aquatic lands, DNR needs to be involved in the planning and discussions leading up to a proposal. The following examples are activities that require some form of authorization from DNR before they can be implemented on state-owned aquatic land:

- ✓ Activities related to flood control, such as dredging and filling
- ✓ Bank Stabilization
- ✓ Mitigation projects
- ✓ Gravel Removal
- ✓ Crossings, such as for bridges or utilities

These are the types of use authorizations that DNR issues, depending on the proposal to use or modify state-owned aquatic lands:

- Right of Entry-for short term access to the property
- License-for short-term use of the property
- Easement-for a nonexclusive longterm use of the property, such as a bridge or utility line

- Lease-for long-term encumbrance of the property that precludes the property being used for other purposes, such as a mitigation project
- Material Sales Agreement-specifies the terms under which material (such as gravel or dredge spoils) may be removed from state-owned aquatic lands, including what restrictions apply to the future sale or use of those materials.

**Washington State Environmental Policy Act**

The Washington State Environmental Policy Act (SEPA), adopted in 1971, is intended to ensure that state and local agencies consider environmental values during decision-making. It provides a process to analyze the environmental impacts of development. SEPA is a process of gathering information for the purpose of helping agency decision-makers and the general public understand how the project is likely to affect the environment. The environmental review process in SEPA works with other regulations to provide a comprehensive review of a proposal.

SEPA environmental review is required for any proposal which involves a government "action," as defined in the SEPA Rules (WAC 197-11-704), and is not categorically exempt (a type of government action that is specifically exempt from SEPA compliance because it is unlikely to have a significant adverse environmental impact). Project actions involve an agency decision on a specific project; non-project actions involve decisions on policies, plans, or programs, such as the adoption of a comprehensive plan or development regulations, or a six-year road plan.

Hydraulic Project Approvals, Shoreline Substantial Development permits and other local permits can only be issued after the SEPA process has been completed. Funds are available through FCAAP to assist in the EIS process

**Washington State Flood Plain Management Act**

The Washington State Flood Plain Management Act forms the basis of the state's flood program. The purpose of the Act is to alleviate recurring flood damages to public and private property and to address public health and safety issues related to flooding.

The Washington State Flood Plain Management Act mandates that the statewide flood plain management regulations be implemented in the following ways:

(1) Local governments' administration of the national flood insurance program regulation requirements

(2) Establishment of minimum state requirements for flood plain management that equal the minimum federal requirements for the national flood insurance program

(3) Issuance of regulatory orders.

Regulations apply to the planning, construction, operation and maintenance of any works, structures and improvements, private or public, which might, if improperly planned, constructed, operated and maintained, adversely influence the regimen of a stream or

body of water or might adversely affect the security of life, health and property against damage by flood water (RCW 86.16.020).

Any new floodplain ordinances or amendments to existing ordinances must be submitted to the Department of Ecology for review and must include the restriction of land uses within designated floodways, the minimum requirements of the national flood insurance program and the minimum state requirements.

**Washington State Growth Management Act**

The Growth Management Act (GMA), 1990, was developed in response to the uncoordinated and unplanned growth that was occurring in the State. The GMA aims to reduce the threats to the environment, sustainable economic development and the quality of life in Washington by this unplanned and uncoordinated growth.

Under the GMA, cities and counties adopt policies, plans, and regulations to manage land use, environmental resources, and other aspects of growth within their own jurisdictions, and in a coordinated way with other jurisdictions. State and local governments are required to manage growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, and preparing comprehensive plans.

**Washington State Hydraulic Code**

The purpose of the Washington State Hydraulic Code (RCW 75.20.100-103) is to preserve fish and wildlife habitat by regulating activities within the state's salt and fresh waters. Hydraulic Project Approval (HPA) permits are required for any activity that will use, divert, obstruct, or change the natural flow or bedding of any of the state's waters, including many wetlands. The Washington State Department of Fish and Wildlife is responsible for implementing the Hydraulic Code.

The technical provisions of the Code (WAC 220-110-040 through 338) represent common provisions for the protection of fish life for typical projects. Implementation of these provisions is necessary to minimize project specific and cumulative impacts to fish life and they reflect the best available science and practices related to protection of fish life. The department will incorporate new information as it becomes available, and to allow for alternative practices that provide equal or greater protection for fish life.

Examples of activities that require an HPA include in freshwater include: streambank protection; channel change or realignment; bridges; piers; docks; pile driving; culvert installation; dredging; gravel removal; pond construction; placement of outfalls; debris removal; and, maintenance of water diversions. Examples of activities that require an HPA include in saltwater include: bulkheads; fills; boat launches; piers; docks; marinas; dredging; and, pile driving.

The Hydraulic Code applies waterward of the "ordinary high water" line. Through the Hydraulic Code, Wahkiakum County has a tool to ensure that fish and wildlife habitat will not be harmed during the construction of any structural or bioengineering modification of shorelines.

### Washington State Shoreline Management Act

(see Wahkiakum County Shoreline Management Master Program above)
The goal of the SMA is to protect valuable shoreline resources, plan for and manage uses, increase public access to state shorelines, and assure public involvement in decisions about shoreline resources. The Washington State Shoreline Management Act (SMA) protects the public's interests in preserving natural resources (e.g. water, fish, wildlife, and habitat) through the regulation of public and private development in shoreline areas. The SMA regulatory documents define shoreline designations, and provide guidance for developing rules for shoreline uses, activities, and modifications.

The SMA requires permits for any substantial development within the 200-foot shoreline jurisdiction. Substantial development is defined as any development with a cost equal to or greater than $2,500, or any development that interferes with normal public use of the water and/or shorelines of the state.

Shorelines of the state are defined as (RCW90.58.030(2)): all marine waters; streams with greater than 20 cubic feet per second mean annual flow; lakes 20 acres or larger; shorelands that extend 200-feet landward from the edge of these waters; and, associated wetlands, river deltas, and the 100-year floodplain. Shorelines of Statewide Significance include rivers flowing at 1,000 cfs or greater (the Columbia River) and associated wetlands.

Local governments are given the primary responsibility for administration and enforcement of the SMA through local Shoreline Management Master Programs (SMMPs). The Department of Ecology acts in a supportive and review capacity with primary emphasis on providing assistance to local governments and ensuring compliance with the SMP and SMA.

Local jurisdictions develop a Shoreline Master Program (SMP), as mandated by the SMA, to protect the public's shoreline resources. The local regulations guide future development within the flood plain and associated water bodies.

Local governments are required, by the SMA, to define their shoreline jurisdictions in one of two ways:

1. The area 200' from the ordinary high water mark (OHWM) or floodway, whichever is greater, plus all wetlands in the 100-year flood plain associated with them; or
2. All or any portion of the 100-year flood plain as long as it includes all of those areas falling within the area described in option 1 above.

## Federal Regulations

### Clean Water Act – Section 401

The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters so they can support "the protection and propagation of

fish, shellfish, and wildlife and recreation in and on the water." The CWA employs a variety of regulatory and non-regulatory tools to reduce direct and indirect pollutant discharges into waterways.

Section 401 of the Clean Water Act (CWA) requires that before issuing a license or permit that may result in any discharge to waters of the United States, a certification that the discharge is consistent with the CWA must be obtained from the state agency responsible for administering the CWA in the State. In Washington, the Department of Ecology (DOE) issues the certification. Essentially, DOE certifies that the materials discharged into the water comply with discharge limitations, state water quality standards, and any other applicable conditions of state law. Federal permits are not valid unless DOE has certified them. Flood hazard management measures may require a "modification" to the stream, for instance, stream bank protection or in-stream gravel removal. These types of activities have the potential to affect water quality due to their proximity to the shoreline.

**Clean Water Act – Section 404**

The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters so they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water." The CWA employs a variety of regulatory and non-regulatory tools to reduce direct and indirect pollutant discharges into waterways.

Section 404 of the Clean Water Act regulates the placement of fill and the discharges of dredged material into all waters of the United States (including all wetlands). The regulatory limit for non-tidal waters is the "ordinary high water mark", for tidal waters it is the "mean high water" mark. The Corps of Engineers is the regulatory authority for Section 404 of the Clean Water Act.

Section 404 requires a Corps permit for any project that will alter or degrade the waters of the United States, including wetlands and tributaries adjacent to navigable waters. Various types of permits are available from the Corps under Section 404. *General Permits* are "pre-issued" nationwide or regional permits that have been issued by the Corps for categories of activities that will have no more than a minimal effect on the environment. Applicants may be required to obtain verification from the Corps that their project is authorized under a general permit. *Individual Permits* are issued as either *Letter of Permission* or a *Standard Individual Permit*. A *Letter of Permission* is used to authorize very small projects that are completely within navigable waters of the United States. *Standard Individual Permits* are the most common permit sought from the Corps. These permits are issued following a full public interest review, coordination with federal, state and local resource agencies, and Tribes.

## Endangered Species Act

The purpose of the Endangered Species Act is to conserve and restore endangered and threatened species and the ecosystems upon which they depend. The Endangered Species Act (ESA), 1973 provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The U.S. Fish & Wildlife Service and the U.S. Department of the Interior maintain the list of federally endangered and threatened species. National Oceanic and Atmospheric Administration (NOAA) Fisheries, Office of Protected Resources is responsible for the implementation of the ESA for marine and anadromous species. The U.S. Fish and Wildlife Service is responsible for the implementation of the ESA for freshwater and terrestrial species.

Under the ESA a species can be listed under one of the following statuses:

> Endangered – any plant or animal species that is in danger of extinction throughout all or a significant portion of its range.
> Threatened – any plant or animal species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range if factors contributing to their population decline or habitat degradation or loss continue.
> Candidate – any plant or animal species where there are indications that their populations are not stable. Species that can be thought of as under review.
> Species of Concern – any plant or animal species that are believed to have declining population and/or habitat, yet there is a lack of scientific information to list them.

For a species to be listed there is a status review of the species population and habitat. For every listed species a recovery plan must be implemented. The species is then monitored for improvement or decline. It is illegal to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct" with regard to a threatened or endangered species. These actions are known as "take", and apply to both the species and their habitat.

Section 7 of the ESA requires federal agencies to consult with the appropriate ESA-agency to ensure that the actions they authorize, fund, or carry out will not jeopardize listed species. Section 7 applies to any action that is permitted, licensed, funded or other authorized by a Federal Agency. The consultation is initiated by the Corps of Engineers after receipt of a permit application.

Section 10 of the ESA discusses Habitat Conservation Plans (HCP). An HCP is designed to relieve restrictions on private landowners who want to develop land inhabited by endangered species. They have the option of developing a habitat conservation plan that provides for the conservation of the species. If the plan is approved the landowner will be given an "incidental take permit". The incidental take permit allows for the loss of life or habitat of an endangered species without penalty or liability, provided that development proceeds according to the provisions in the HCP.

The ESA Section 4(d) rules provide protections for species listed as "threatened." These 4(d) rules put take prohibitions in place except for specific categories of activities that contribute to conserving listed salmon and steelhead.

The following species are listed as threatened or endangered in Wahkiakum County. Any project related to the CFHMP will need to address the presence of ESA-listed species within the project area.

## National Environmental Policy Act (NEPA)

The purpose of the National Environmental Policy Act (NEPA) is to ensure that information on the environmental impacts of any Federal, or federally funded, action is available to public officials and citizens before decisions are made and before actions are taken. NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. Under the NEPA, for every "major federal action significantly affecting the quality of the human environment", the agency involved must prepare an environmental impact statement (EIS). The EIS is a detailed discussion of the environmental consequences of a proposed action. The EIS includes, among other things, a discussion of the following: the environmental impact(s) of the proposed action; any adverse environmental effects (long-term and short-term) that cannot be avoided under the proposed action; and, alternatives to the proposed action, including the no-action alternative. Any flood control projects that are federally funded must comply with NEPA requirements.

## National Flood Insurance Program

The purpose of the National Flood was to relieve the national Treasury and local jurisdictions from the burden of disaster relief. The focus of the program is to make affordable flood insurance available to communities. The National Flood Insurance Program (NFIP) was established in 1968 with the passage of the National Flood Insurance Act. The NFIP enables property owners in participating communities to purchase insurance to protect against flood losses in exchange for State and community floodplain management regulations that will reduce future flood damages. The Federal Insurance and Mitigation Administration within FEMA administer the NFIP.

The NFIP administers two separate programs. The Emergency Program identifies flood prone communities and preliminarily delineates flood hazard areas on a Flood Hazard Boundary Map (FHBM). Based on the FHBM, the community must adopt minimum flood plain management regulations. The Regular Program provides full flood insurance to communities that have adopted a local flood plain management ordinance that has been approved by FEMA. The basis of the ordinance is a detailed flood insurance study resulting in the Flood Insurance Rate Map (FIRM) and a report.

*Flood Insurance Rate Map (FIRM)* - The Flood Insurance Rate Maps display the results of a community's Flood Insurance Study (FIS). The FIS's use detailed hydrologic and hydraulic

analyses to develop base flood elevations and to designate floodways and risk zones for developed areas of the floodplain. The FIS usually generates the following information:

- Base Flood Elevations: presented as either water-surface elevations or average depths of flow above the ground surface
- Water Surface Elevations: presented for the 10-year (10% annual chance); 50-year (2% annual chance); 100-year (1% annual chance); and, 500-year (0.2% annual chance) floods
- Boundaries of the regulatory 100-year floodway
- Boundaries of the 100- and 500-year floodplains (the 100-year floodplain is referred to as the Special Flood Hazard Area)

**Community Rating System (CRS)** The Community Rating System (CRS) provides discounts on flood insurance premiums in those communities that establish floodplain management programs that go beyond NFIP minimum requirements. The CRS provides credits to communities for more restrictive regulations, acquisition, relocation, flood proofing, preservation of open space, and other measures that reduce flood damages or protect the natural resources and functions of floodplains.

The CRS adjusts flood insurance premium rates to reflect the reduced flood risk result from community activities that meet the three goals of the CRS. These goals are: 1) reduce flood losses; 2) facilitate accurate insurance rating; and, 3) promote awareness of flood insurance. Activities that can receive credits include the implementation of local mitigation, outreach, and educational activities. All communities in Washington that participate in the National Flood Insurance Program (NFIP) must adopt and enforce floodplain management regulations of the NFIP and of Washington's Floodplain Management Law at RCW 86.16. Wahkiakum County participates in the NFIP. The County's *Flood Damage Prevention Ordinance* is the local ordinance which satisfies FEMA's requirements for participation in the NFIP.

## Rivers and Harbors Act – Section 10

The purpose of the Rivers and Harbors Act is to allow the Secretary of the Army to maintain freedom of navigation and prevent obstructions in waters of the United States. Section 10 of the Rivers and Harbors Act regulates activities in or over "navigable waters" of the United States. Approval is required prior to any work in or over navigable waters or which affects the course, location, condition or capacity of those waters. The regulatory limit for non-tidal waters is the "ordinary high water mark", for tidal waters it is the high tide line. A permit is required before any work can be completed.