

CHAPTER 6

PLANNING AND REGULATORY SETTING

A critical component of effective flood hazard management is a system of regulations that can support the recommendations proposed by a CFHMP. As well as regulatory recommendations affecting land use, shoreline management, resource management, and floodplain management, the CFHMP recommendations may include engineered projects to protect existing developments. An understanding of existing flood regulations can prevent the waste of time and money on projects that will never be permitted. More significantly, the need for engineered projects to prevent or mitigate flood hazards can often be eliminated if complementary and future hazard orientated regulatory programs are initiated before extensive development occurs.

This chapter provides an overview of existing federal, state, and local regulatory and permitting requirements that relate to flood hazard management. This also includes surface water management, land use, water quality, environmental and wetlands protection regulations.

SUMMARY OF EXISTING REGULATIONS

The laws that directly or indirectly address flood hazard management are enacted at the federal, state, and local levels. Table 6-1 lists these laws in the categories of flood hazard management, endangered species, planning policy, sensitive areas, stormwater management, environmental and water quality; Table 6-2 provides further details on each of the laws cited.

Many federal laws are implemented at the state and local levels. For example, the Federal Clean Water Act regulates stormwater discharge, but the EPA has delegated the responsibility of administering the program for non-federal lands to the Department of Ecology within the State of Washington, which in turn requires local jurisdictions and industry to obtain permits. The Endangered Species Act may be implemented by states, as was the case with the protection of Bald Eagles in the State of Washington, but the majority of the regulatory programs, especially for salmonids, remains at the federal level. The National Flood Insurance Program, which offers affordable flood insurance to private property owners, remains a national program administered by FEMA, but requires cities and counties to adopt floodplain ordinances to restrain floodplain development and impose minimum building standards. The NFIP also restrains federal lending institutions, such as mortgage lenders.

Apart from NFIP, the laws most relevant to flood hazard management originate at the state level. Most of these begin with state legislation that enables local governments to adopt regulations promoting public health, safety, and general welfare. Environmental laws that affect flood hazard management through habitat, shoreline, and other critical-area protection measures also exist at the state level, but enforcement is increasingly becoming

the responsibility of local governments. State growth management requirements through the Growth Management Act contain additional recommendations regarding land use and development near wetlands and in frequently flooded areas, with regulatory implementation largely in the hands of local jurisdictions.

Local governments are also responsible for implementation of State flood regulations that are more stringent than the federal requirements. An important example of this is Washington State RCW 86.16.041 which prohibits residential development in floodways. Because this regulation also limits substantial improvements or repairs, the net effect is that a substantially damaged house (regardless the cause) cannot be rebuilt or repaired in the floodway. There are exemptions for existing farmhouses and for properties that have local jurisdiction approval and can meet depth, velocity and erosion risk requirements.

| Category | Federal | State | Yakima County |
|--------------------------------|--|--|--|
| Land Use | <ul style="list-style-type: none"> • National Flood Insurance Act • Flood Disaster Protection Act • Executive Order 11988 • Endangered Species Act | <ul style="list-style-type: none"> • Floodplain Management Program (RCW 86.12, 86.16, 86.26) • Shoreline Management Act (SMA) • Growth Management Act (GMA) | <ul style="list-style-type: none"> • Comprehensive Plan • Shoreline Master Program • Critical Areas Ordinance • Zoning Ordinance |
| Infrastructure | ----- | <ul style="list-style-type: none"> • Hydraulic Code (HPA) | <ul style="list-style-type: none"> • Building Code |
| Planning and Policy | <ul style="list-style-type: none"> • Endangered Species Act | <ul style="list-style-type: none"> • Growth Management Act (GMA) • Shoreline Management Act (SMA) • Flood Control by Counties | <ul style="list-style-type: none"> • Comprehensive Plan • Shoreline Master Program • Critical Areas Ordinance |
| Facilities | <ul style="list-style-type: none"> • Endangered Species Act | <ul style="list-style-type: none"> • Hydraulic Code (HPA) | <ul style="list-style-type: none"> • Comprehensive Plan • Zoning Ordinances |
| Water Quality | <ul style="list-style-type: none"> • Clean Water Act, Sections 401 and 402 | <ul style="list-style-type: none"> • Water Pollution Control Act (WQ Cert or Mod) • State program for NPDES (cities < 100,000) | <ul style="list-style-type: none"> • Stormwater Ordinance • Comprehensive Plan • Shoreline Master Program • Critical Areas Ordinance |
| Fisheries and Wildlife Habitat | <ul style="list-style-type: none"> • Endangered Species Act | <ul style="list-style-type: none"> • Hydraulic Code | <ul style="list-style-type: none"> • Comprehensive Plan • Shoreline Master Program • Critical Areas Ordinance |
| General Environmental | <ul style="list-style-type: none"> • National Environmental Policy Act (NEPA) | <ul style="list-style-type: none"> • State Environmental Policy Act (SEPA) | <ul style="list-style-type: none"> • SEPA Ordinance • Comprehensive Plan |
| Stream Corridors | <ul style="list-style-type: none"> • Clean Water Act, Sec. 404 • River and Harbor Act • Endangered Species Act | <ul style="list-style-type: none"> • Shoreline Management Act • Hydraulic Code (HPA) | <ul style="list-style-type: none"> • Comprehensive Plan • Shoreline Master Program • Critical Areas Ordinance |
| Wetlands | <ul style="list-style-type: none"> • Clean Water Act, Section 404 (dredge and fill) • Executive Order 11990 • River and Harbor Act | <ul style="list-style-type: none"> • Shoreline Management Act • Executive Order 90-04 | <ul style="list-style-type: none"> • Critical Areas Ordinance • Shoreline Master Program |

TABLE 6-2.
OVERVIEW OF MAJOR FEDERAL, STATE, AND LOCAL SURFACE WATER MANAGEMENT REGULATIONS

| Regulation | Implementing Agency | Purpose | Jurisdiction | Required Approval, Permit, or Plan | Applicability to Flood Hazard Management |
|----------------------------------|---|--|---|--|--|
| FEDERAL | | | | | |
| National Flood Insurance Act | FEMA | Offers affordable flood insurance to communities that adopt approved floodplain management regulations | Floodplains of the U.S. | Flood Insurance Study and approval letter from FEMA | Participation in NFIP requires minimum floodplain management regulations |
| Flood Disaster Protection Act | FEMA | Provides incentive to communities to join the NFIP by increasing amounts of flood insurance available and providing penalties for communities and individuals that do not join the NFIP and are subsequently flooded | Floodplains of the U.S. | Approval by FEMA | Requires purchase of flood insurance for funding by federally backed lending institutions for purchase of property in floodplains |
| Clean Water Act, Section 401 | State agencies empowered by EPA (i.e., Ecology) | Ensures that federally permitted activities comply with the Clean Water Act, state water quality laws, discharge limitations, and other state regulations | Waters of the U.S. | Water Quality Certification or Modification | Structural measures affecting surface water will require Water Quality Certification or Modification |
| Clean Water Act, Section 402 | State agencies empowered by EPA (i.e., Ecology) | Establishes permit requirements for stormwater discharges under National Pollution Discharge Elimination System Program (NPDES) | Discharges associated with industrial and construction activities and municipal (county and cities) storm sewer systems | General Permits | MS4s and construction activities disturbing more than 1 acre of soil with direct discharge to receiving waters or to storm drainage system |
| Clean Water Act, Section 404 | USACE | Regulates the discharge of dredged or fill material or excavation in rivers, streams, and wetlands | Waters of the U.S., including wetlands | Individual or Nationwide Permits | Dredging or filling in wetlands or rivers will require permit |
| River and Harbor Act, Section 10 | USACE | Preserves the navigability of the nation's waterways | U.S. navigable waters. | Section 10 permit | Regulates activities within the Ordinary High Water Mark (OHWM) on navigable waters |
| ESA, Section 7 | USFWS, NOAA | Ensures that federally permitted or funded projects provide protection for species listed as threatened or endangered | All of United States and Territories | Biological Evaluation (BE) or Biological Assessment (BA) with formal consultation and possibly EIS | Activities and work in river channel or adjacent wetlands, or that may affect those habitats, requires review of impacts and identification of mitigative measures |

| Regulation | Implementing Agency | Purpose | Jurisdiction | Required Approval, Permit, or Plan | Applicability to Flood Hazard Management |
|---|--|--|--|--|--|
| ESA, Section 9 | USFWS, NOAA | Broad protection to prevent "take" of listed species | All of United States and Territories | Biological Evaluation (BE) or Biological Assessment (BA) with formal consultation and possibly EIS | Activities and work in river channel or adjacent wetlands, or that may affect those habitats, requires review of impacts and identification of mitigative measures |
| National Environmental Policy Act | Varies (usually the federal agency issuing the permit or the action) | Requires full disclosure of potential impacts associated with proposed actions and mitigative measures | All federal actions | Environmental Assessment or EIS | Applies to any action which may adversely impact the environment |
| Executive Order 11988 | Federal Agencies | Protects floodplains from development by federal agencies | Federal projects | None | Enhances existing floodplain management regulations |
| Executive Order 11990 | Federal Agencies | Protects wetlands and evaluates impacts of proposed actions on wetlands | Federal projects, federally funded activities, or other activities licensed or regulated by fed agencies | None | Enhances existing wetland protection regulations |
| STATE | | | | | |
| Senate Bill 5411 (ESSB 5411); Flood Control by Counties (RCW 86.12) | Counties | RCW 86.12 gives county governments the power to levy taxes, exercise eminent domain, and take action to control/prevent flood damage. ESSB 5411 provides a greatly expanded role for counties in formulating and adopting drainage basin plans to address flooding and land use regs | All drainage basins located wholly or partially within the County | Comprehensive Flood Hazard Management Plan | Allows for development of CFHMPs |
| Floodplain Management Program (RCW 86.16) | Ecology | Reduces flood damages and protects human health and safety. Department oversees local implementation of floodplain regulations required for participation in the NFIP, as well as additional regs for residential development in floodways. | All floodplains within the state | State approval of floodplain management programs and regulations | Provides eligibility for national flood insurance and for state matching funds to construct flood control facilities |

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|---|--|--|--|---|--|
| STATE (cont) | | | | | |
| State Participation in Flood Control Maintenance (RCW 86.26) | Ecology | Assists local jurisdictions in comprehensive planning and flood control maintenance efforts | All flood hazard management activities of local jurisdictions as approved by Ecology | FCAAP grant application, approved CFHMP for maintenance grants | FCAAP funds available for preparation of CFHMPs, flood control maintenance projects, and emergency flood control projects |
| Floodplain management ordinances and amendments... (RCW 86.16.041) | Ecology | Review of local ordinances and floodway regulations | All flood hazard management activities of local jurisdictions as approved by Ecology | Approval of local ordinances | Assures ordinances implementing NFIP and Washington State floodplain and floodway regulations |
| GMA (RCW 36.70A) | Washington State Department of Commerce | Requires comprehensive plans to include surface water considerations and facilities (quantity and quality) Requires designation and regulation of critical areas, including wetlands and frequently flooded areas | Selected high-growth counties (including Yakima County) and their cities All Washington counties and cities. | Comprehensive Plan Critical areas and resource lands designation | Requires adoption of development regulations and comprehensive plans Requires adoption of ordinances regulating development in designated areas |
| Executive Order 90-04, Protection of Wetlands / Model Wetlands Protection Ordinance | Ecology | Provides guidance to local governments to achieve no net loss of wetland functions and values | State wetlands buffers | None | Provides voluntary technical assistance to the local jurisdiction to regulate activities that affect wetlands |
| Shoreline Management Act (RCW 90.58) | Ecology; local jurisdictions when state approved | Manages uses of the shorelines of the state for protection of public interests and natural environment | All shorelines of the state (including all marine waters, lakes > 20 acres reservoirs, streams and rivers >20 cfs mean annual flow, and associated wetlands) | State or state-approved local shoreline permit | Applies to new developments and uses within Shoreline Jurisdiction. |
| Water Pollution Control Act | Ecology | Empowers the state to develop, maintain, and administer the federal statutes and programs required by the federal Clean Water Act | All receiving waters of the state | Water Quality Certification or Modification | Regulates activities that violate state water quality standards as per the Clean Water Act |

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| STATE (cont) | | | | | |
| Forest Practice Act (RCW 76.09) | Department of Natural Resources and Forest Practices Board | Regulates forest practices on state and private lands to minimize damage to public resources | Riparian and wetland areas located within designated Riparian & Wetland Management Zones | Notification or application based on practices classification | Ensure that watersheds are managed responsibly to limit their contribution to increased flooding |
| SEPA (RCW 43.21C) | Varies (usually the local agency issuing the permit); circulation to state and federal agencies for review | Requires full disclosure of the likely significant adverse impacts associated with a proposed action and identification of mitigative measures | All proposed actions that require permits | Environmental Checklist or EIS | Requires environmental review of any project with potential adverse environmental impacts |
| LOCAL – Yakima Co. | | | | | |
| Building and Construction (Title 13) | Yakima County Building & Fire Safety | The purpose of this title is to provide minimum standards to safeguard life or limb, health, property, and general public welfare | Unincorporated Yakima County | Building Permits | Establishes minimum flood hazard area construction standards |
| Subdivisions (Title 14) | Yakima County Planning Division | Regulates the subdivision of land | Unincorporated Yakima County | Plat approval | Requires note on face of plat for short plats within flood hazard areas |
| Yakima Urban Area Zoning Ordinance (Title 15A) | Yakima County Planning Division | Implements the growth management policies of the Comp Plan by prescribing use and density requirements for land development | Unincorporated portions of Yakima County within the urban area | Land Use approval/zoning review | Flood hazard overlay district reinforces flood regulations |
| Yakima County Zoning Ordinance (Title 15) | Yakima County Planning Division | Implements the growth management policies of the Comp Plan by prescribing use and density requirements for land development | Unincorporated portions of the Yakima County, not in the urban area | Land use permits/zoning review | Establishes allowable uses in floodplains |
| Critical Areas Ordinance (Title 16C & 16A) | Yakima County Planning Division | Enacts provisions of GMA for preserving critical areas at local level. (Integrates provisions to protect special flood hazard areas identified by the Federal Emergency Management Agency.) | Designated critical areas of the state within unincorporated Yakima County. | Critical Area standard development authorization | Regulates development in critical areas, including floodplains. May be more restrictive than requirement of the National Flood Insurance Program (NFIP) if development lies within an identified critical area. |

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| LOCAL – Yakima Co. | (cont) | | | | |
| Shoreline Master Program (Title 16D) | Yakima County Planning Division | Regulates development and land use in near Shorelines. (Integrates provisions to protect special flood hazard areas identified by the Federal Emergency Management Agency.) | All areas within the Shoreline jurisdictional limits of the SMP | Shoreline Approval (Substantial Development Permit, Conditional Use Permit, Shoreline Variance) | Regulates development in shoreline floodplains, The extent of shoreline jurisdiction is based on the location of FEMA floodplains/floodways. |
| Stormwater Ordinance (Title 12) | Yakima County Surface Water Division | Provide for the health, safety, and welfare of the citizens of Yakima County through the regulation of discharges to county stormwater control facilities and underground injection control | Yakima County Unincorporated | Stormwater project review – requirements vary depending on whether inside or outside Stormwater Utility boundary | Promotes preservation of natural drainage corridors and requires that stormwater be retained on site for certain storm frequencies |
| Comprehensive Plan (Plan 2015) | Yakima County Planning Division | Guides orderly future growth and development of county land use circulation, and other elements of interest to the community | Yakima County unincorporated areas | None | Promotes preservation of natural drainage corridors, cost-effective measures to control flooding, and limits floodway developments |
| LOCAL – Cities | | | | | |
| Floodplain Development Permits – regulations contained in Critical Areas and/or separate Floodplain Code and/or Building Codes | Cities | Maintain Cities compliance with NFIP, regulate development in floodplains to meet or exceed NFIP standards for reduction of flood hazard to structures and maintenance of flood conveyance and flood water storage. | The mapped 100-year floodplains within each local jurisdiction, and best available local information regarding frequently flooded areas. | Although in code, a separate flood hazard permit is not issued and these items are to be covered within other permits such as building, grading, critical areas. They are to be issued to maintain compliance with standards in NFIP or higher local standards. | Proposed projects are reviewed for compliance with flood hazard items within local ordinances. Union Gap has ability to condition development permits in floodplains, including reduction in scope or density. |
| LOCAL – Cities | | | | | |
| Zoning Ordinances | Cities | Implements the growth management policies of the local government's Comprehensive Plan by prescribing use and density requirements for land development | Applicable to all land uses within the city limits of each jurisdiction | Most permits reviewed for consistency with Code. Specific permits (conditional uses or rezones) may require a more extensive review process including public notice, SEPA, etc. | May be used to regulate development density in floodplains or other areas of flood hazard. |

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|--|---------------------|---|---|------------------------------------|---|
| Critical Areas Ordinance / Regulations | Cities | Enact provisions of GMA for regulating development in critical areas, including frequently flooded areas. | Designated critical areas of the state within each local jurisdiction | Critical areas development permit | Imposes development regs in frequently flooded areas, streams and geologic hazard area that preclude land uses or development that are incompatible w/critical areas function or public safety. |

National Flood Insurance Program (NFIP)

The NFIP determines floodplain boundaries, floodways, and flood hazard areas associated with the 100-year flood through a Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM). The NFIP provides federally-subsidized flood insurance and availability of federal disaster funds to all property owners in participating communities in exchange for the community's adoption of a local flood hazard ordinance that meets minimum standards. Yakima County and the cities are currently enrolled in the NFIP; Table 8-3 displays dates of entry into the NFIP. The Yakama Nation does not participate in the NFIP so flood insurance through the NFIP is not available for trust or fee land within the open portion of the Yakama Nation Reservation.

The FIRMs produced by FEMA are also used for floodplain delineation purposes in state regulations. Washington State utilizes the FIRMs to help establish regulatory boundaries for state Critical Areas and Shorelines environments. The cities and county are required to implement minimum NFIP, Critical Areas and Shorelines regulations, but each jurisdiction may choose the best approach for their community. Yakima County and the City of Yakima have both included NFIP compliance in their Critical Areas and Shorelines Regulations. Union Gap also utilizes a Floodplain Development permit separate from other building and environmental permits. NFIP compliance through the International Building Code is discussed below.

TABLE 6-3
YAKIMA COUNTY INVOLVEMENT IN THE NATIONAL FLOOD INSURANCE PROGRAM

| Community | Community Number | Initial FIRM Identified | Date of Current FIRM |
|---------------|------------------|-------------------------|----------------------|
| Yakima County | 530217 | June 5, 1985 | November 18, 2009 |
| Union Gap | 530229 | May 2, 1983 | November 18, 2009 |
| Yakima | 530311 | December 15, 1981 | November 18, 2009 |

NFIP PLANNING AND COMMUNITY DEVELOPMENT CONSIDERATIONS

The NFIP requires the 20,000 communities within the program to consider additional measures which are found in 44 CFR 60.22, Planning Considerations for Flood-prone Areas, which are summarized in Table 6-4.

Table 6-4: NFIP Planning Considerations (44 CFR 60.2)

- (a) The floodplain management regulations adopted by a community for flood-prone areas should:
- (1) Permit only that development of flood-prone areas which
 - (i) is appropriate in light of the probability of flood damage
 - (ii) is an acceptable social and economic use of the land in relation to the hazards involved
 - (iii) does not increase the danger to human life
 - (2) Prohibit nonessential or improper installation of public utilities and public facilities.
- (b) In formulating community development goals after a flood, each community shall consider:
- (1) Preservation of the flood-prone areas for open space purposes
 - (2) Relocation of occupants away from flood-prone areas
 - (3) Acquisition of land or land development rights for public purposes
 - (4) Acquisition of frequently flood-damaged structures.
- (c) In formulating community development goals and in adopting floodplain management regulations, each community shall consider at least the following factors:
- (1) Human safety
 - (2) Diversion of development to areas safe from flooding
 - (3) Full disclosure to all prospective and interested parties
 - (4) Adverse effects of floodplain development on existing development
 - (5) Encouragement of floodproofing to reduce flood damage
 - (6) Flood warning and emergency preparedness plans
 - (7) Provision for alternative vehicular access and escape routes
 - (8) Minimum retrofitting requirements for critical facilities
 - (9) Improvement of local drainage to control increased runoff
 - (10) Coordination of plans with neighboring community's floodplain management programs
 - (11) Requirements for new construction in areas subject to subsidence
 - (12) Requiring subdividers to furnish delineations for floodways
 - (13) Prohibition of any alteration or relocation of a watercourse
 - (14) Requirement of setbacks for new construction within V Zones
 - (15) Freeboard requirements
 - (16) Requirement of consistency between state, regional
 - (17) Requirement of pilings or columns rather than fill to maintain storage capacity and local comprehensive plans
 - (18) Prohibition of manufacturing plants or facilities with hazardous substances
 - (19) Requirements for evacuation plans

International Building Code and NFIP

Local officials administer building codes for their community. These codes regulate the items most commonly audited for compliance with the NFIP – elevation certificates, flood hazard development permits, and floodway encroachments. Land use, Critical Areas and subdivision regulations also apply to development in floodplains. Some jurisdictions have included all or portions of their building codes pertaining to floodplains into their Critical Areas code. More details about Critical Areas ordinances are found in that section of this chapter. The remainder of this section describes the building codes and engineering standards adopted by jurisdictions in our area.

Cooperative work between FEMA, SEI (Structural Engineering Institute) and ASCE (American Society of Civil Engineers) beginning in 1991 was the origin of the flood resistant provisions for the International Codes, which apply to buildings. These flood loads became part of ASCE 7 in 1995 and were amended and expanded to become the current edition, ASCE/SEI 7-02. These cooperative efforts continued with ASCE 24-98 which has been updated to the current version, ASCE/SEI 24-05. These ASCE standards are incorporated or referenced in the I-Codes (International Codes).

The IBC (International Building Code) was adopted by Washington State (RCW 19.27) in 2003 and became effective in 2004. The IRC (International Residential Code) is adopted by reference unless a community specifically excludes it. None of the jurisdictions in the CFHMP area excluded the IRC when they adopted the state required codes. The Yakama Nation has an automatic code adoption process that updates their regulations to the most recent edition of all the International Codes, including the IBC and IRC. Additional International Codes for specific categories have also been adopted by the State of Washington, including the International Mechanical Code and International Fire Code. For Plumbing regulations, Washington adopted the Uniform Plumbing Code. The current state-adopted version for these codes is the 2009 edition for each.

In addition to flood resistant codes in the IBC and IRC, the IBC also contains two optional appendices that are relevant for floodplain management: Appendix G Flood Resistant Construction, and Appendix J Grading. Both appendices were adopted by Yakima County and the City of Yakima. Union Gap has not adopted either appendix.

Appendix J contains two sections that apply directly to flooding. The first states the requirements in this appendix do not apply to designated floodways unless analysis has been performed to show there will be no increase in the base flood elevation. The second section applicable to floodplain management is a drainage requirement that drainage across property lines shall not be greater than existed before the grading.

The overarching purpose of Appendix G (of the IBC) is to provide comprehensive floodplain management regulations that cover all floodplain development since the IBC and IRC pertain specifically to building construction. Appendix G requirements include that no ground disturbing activity is allowed in floodways unless it is demonstrated there is no rise in the flood elevation. Appendix G includes:

G102.1 General

This appendix, in conjunction with the International Building Code, provides minimum requirements for development located in flood hazard areas, including the subdivision of land; installation of utilities; placement and replacement of manufactured homes; new construction and repair, reconstruction, rehabilitation or additions to new construction; substantial improvement of existing buildings and structures, including restoration after damage; and certain building work exempt from permit under Section 105.2.”

G103.2 Other Permits

It shall be the responsibility of the building official to assure that approval of a proposed development shall not be given until proof that necessary permits have been granted by federal or state agencies having jurisdiction over such development.

Note that this is the responsibility of the building official, this is duplicative of other portions in the CAO that have the same requirements of the Planning Administrator or designee.

G103.5.1 Floodway Revisions

A floodway encroachment that increases the level of the base flood is authorized if the applicant has applied for a conditional Flood Insurance Rate Map (FIRM) revision and has received the approval of the Federal Emergency Management Agency (FEMA).

G301.1 General.

Any subdivision proposal, including proposals for manufactured home parks and subdivisions, or other proposed new development in a flood hazard area shall be reviewed to assure that:

- 1. All such proposals are consistent with the need to minimize flood damage;
- 2. All public utilities and facilities, such as sewer, gas, electric and water systems are located and constructed to minimize or eliminate flood damage; and
- 3. Adequate drainage is provided to reduce exposure to flood hazards.

G301.2 Subdivision Requirements

The following requirements shall apply in the case of any proposed subdivision, including proposals for manufactured home parks and subdivisions, any portion of which lies within a flood hazard area:

- 1. The flood hazard area, including floodways and areas subject to high velocity wave action, as appropriate, shall be delineated on tentative and final subdivision plats;
- 2. Design flood elevations shall be shown on tentative and final subdivision plats;
- 3. Residential building lots shall be provided with adequate buildable area outside the floodway; and

- 4. The design criteria for utilities and facilities set forth in this appendix and appropriate International Codes shall be met.

These requirements may duplicate or conflict with, or exceed (delineation of floodplain and floodway on the final plat) applicable code enforcement and permit process codes in the local jurisdictions.

Appendix G also contains permitting process requirements, timing, permit suspension, appeals and records retention. Sections are included for sewers, water supply, storm water, streets, sidewalks, manufactured homes, recreational vehicles, tanks, accessory structures, fences, sidewalks and driveways. Some of the requirements refer back to other codes or standards in ASCE/SEI 24-05 or the IBC.

ASCE/SEI 24-05 is referenced in this appendix primarily for engineering standards for buildings and utilities in flood hazard areas. The non-building elements listed in Appendix G are mentioned in *Reducing Flood Losses through the International Codes, 2008*:

Because Appendix G covers some development activities other than buildings and structures, it may be most appropriately administered by a planning or zoning office.

ASCE/SEI 24-05 provides standards for Flood Resistant Design and Construction and is referenced in several sections of the IBC (such as 1612.4) and Appendix G, but is not reference in the IRC. These engineering standards apply to all new and substantial improvement in floodplains for buildings and utilities. This document classifies structures by type of occupancy and then provides standards for elements including building elevation, fill, and foundation and footing requirements. Specifics for materials, connectors, flood proofing, building utilities and building access are also identified. The “Miscellaneous Construction” section includes decks, garages, chimneys, pools and storage tanks.

In ASCE/SEI 24-05 most structures fall into Category II or III and are required to be elevated at or above the BFE (Base Flood Elevation) + 1 foot. However, residential buildings only need to be elevated at or above the BFE since the IRC does not refer to the ASCE/SEI 24-05 for flood elevations. If a community chose to rely on the I-Codes for compliance with the NFIP they would need to adopt all of the I-Codes including Appendix G.).

Where non-building and non-utility elements are included in Appendix G, specific standards are frequently not identified. For example, G401.6 requires that street and sidewalk designs minimize the potential to increase or aggravate flood levels, but there are no standards or thresholds listed. The identification of specific requirements or methodology to determine compliance for these items falls back to the community to determine.

There is no connective piece to guide how the jurisdictions integrate land use and non-building requirements of Appendix G into their permitting processes. How the multiple standards and permit requirements are setup and administered, and coordination between

different administrators, will determine whether gaps arise and how easily the permitting process is tracked and how easily violations are identified and addressed.

Biological Opinion & NFIP

FEMA was successfully sued for NFIP non-compliance with the Endangered Species Act (ESA) consultation process regarding floodplain development in Puget Sound communities. The requirements were clarified in the Biological Opinion issued by the National Marine Fisheries Service on September 22, 2008. Any actions that could affect the habitat of listed species, or result in a “take” of a listed species is regulated by the ESA. The ESA requires “consultation” for federal projects, which include projects which receive federal funding, or are regulated by federal programs such as the Corps of Engineers regulatory program or Clean Water Act programs. This requirement also applies to NFIP communities in Puget Sound.

FEMA has developed a response to the lawsuit that includes three options that communities may use to demonstrate ESA compliance to FEMA: adoption of a model ordinance; enforcing the same requirements in other ordinances; or documenting compliance on a permit by permit basis. FEMA has indicated these regulations will eventually apply to all communities in Washington State that have applicable ESA listed species. The listed species in Yakima County which have the greatest potential effect are Mid-Columbia Steelhead and Bull Trout.

While the requirement to demonstrate ESA compliance for projects in or along rivers is nothing new, the need to provide this documentation for all projects in the regulatory floodplain is a substantial change. FEMA Procedure Memorandum 64 (August 18, 2010) clarifying the nation-wide requirement to demonstrate ESA compliance for CLOMCS (Conditional Letters of Map Change) is likely only the first sign of ESA-related requirements in our area.

Washington State Floodway Regulations and the NFIP

Washington State Floodplain Management Law (RCW 86.16) has contained a prohibition of residences in FEMA floodways since 1969 for major rivers. This was expanded to all FEMA floodways within the State in 1989. In 1999 a Farmhouse exception was added to allow certain substantially damaged residences in the FEMA floodway to be repaired. The State floodway regulation prohibits residential construction and substantial improvements or repairs that exceed 50% of market value or that increase the ground floor area, requirements that are more stringent than NFIP minimum requirements.

The 1999 Farmhouse exception allows repairs and reconstruction if the house is located on agricultural lands of long-term significance (RCW 36.70A.170), does not exceed total square footage of encroachment, repairs or replaces farmhouse on same site, and must be elevated 1 foot above BFE.

There is also a non-farmhouse exception that applies only to substantially damaged residences. The exception is triggered if a local government requests Ecology perform a floodway assessment of a residence. The assessment is based on thresholds for flood depths,

velocities and erosion hazard. The assessment is provided to the local government which then decides whether or not to allow rebuilding. If construction is allowed there must be no potential site outside floodway, replacement must be of equivalent size and use, and lowest floor must be 1 foot above BFE.

WASHINGTON STATE GROWTH MANAGEMENT ACT

The Growth Management Act (GMA) was first passed by the Washington State Legislature in 1990, and has been amended several times. GMA has largely superseded the voluntary preparation of Comprehensive Plans by jurisdictions under the Planning Enabling Act (RCW 36.70) which was adopted in 1963. In the Ahtanum and Wide Hollow basins the County and both Cities had a long history of oftentimes collaborative planning since the late 1960s, and many of the elements and initiatives in the pre-GMA comprehensive plans are similar to current comprehensive plans.

The rationale for development of the GMA was stated as “The legislature finds that uncoordinated and unplanned growth, together with a lack of common goals expressing the public's interest in the conservation and the wise use of our lands, pose a threat to the environment, sustainable economic development, and the health, safety, and high quality of life enjoyed by residents of this state.” Many elements of GMA have a strong relationship to flood hazard reduction. GMA requires periodic assessment and update of all GMA components, usually on a frequency of every 7-10 years, or as expressly required by the legislature.

County-Wide Planning Policies and Urban Growth Areas

GMA prescribes a process for counties and cities to develop comprehensive plans and regulations to implement those plans. The first step in the planning process (whether initially developing a plan or updating a comprehensive plan) is the development of County-wide Planning Policies. These policies are jointly agreed to by the cities and county and improve consistency between city and county Comprehensive Plans. The central element of these Planning policies is agreement among the jurisdictions for expansion of Cities and the urban services they provide into what GMA terms “Urban Growth Areas” (UGAs). The intent of UGAs is to allow the orderly development of areas adjacent to existing cities. In relation to future flood hazard reduction the manner in which UGA’s are defined, expanded and converted to urban land uses is arguably the single most important element of the GMA.

In recognition of this strong relationship of economic losses encountered in floodplains GMA recently prohibited the expansion of UGAs into designated floodplains in Counties west of the Cascade Crest, unless certain conditions are met. These conditions may be applied in future to Yakima County and only allow expansion of the UGA into floodplains only where:

1. Urban growth areas are fully contained within a floodplain and lack adjacent buildable areas outside the floodplain; or

2. Urban growth areas where expansions are precluded outside floodplains because:
 - (A) Urban governmental services cannot be physically provided to serve areas outside the floodplain; or
 - (B) Expansions outside the floodplain would require a river or estuary crossing to access the expansion; or
3. Urban growth area expansions where:
 - (A) Public facilities already exist within the floodplain and the expansion of an existing public facility is only possible on the land to be included in the urban growth area and located within the floodplain; or
 - (B) Urban development already exists within a floodplain as of July 26, 2009, and is adjacent to, but outside of, the urban growth area, and the expansion of the urban growth area is necessary to include such urban development within the urban growth area; or
 - (C) The land is owned by a jurisdiction planning under this chapter or the rights to the development of the land have been permanently extinguished, and the following criteria are met:
 - (I) The permissible use of the land is limited to one of the following: Outdoor recreation; environmentally beneficial projects, including but not limited to habitat enhancement or environmental restoration; storm water facilities; flood control facilities; or underground conveyances; and
 - (II) The development and use of such facilities or projects will not decrease flood storage, increase storm water runoff, discharge pollutants to fresh or salt waters during normal operations or floods, or increase hazards to people and property.

Yakima County is the most flood-prone County east of the Cascades and may eventually be subject to this ruling, although such potential losses should be considered in current planning.

The Yakima County Planning Policies do not contain similar language or standards for UGA expansion in floodplains. UGA expansion in floodplains may indeed be necessary in some cases, usually where a city lies adjacent to a river and has limited options for expansions outside the floodplain.

If UGA expansion into a floodplain was not allowed, “islands” of county jurisdiction would develop which would preclude provisions of urban services, most notably police and fire protection by a city, in those “islands”. As discussed in the end of Chapter 5, expansions of a UGA, or annexations of designated floodplains can increase flood hazard (increased development density or uses incompatible with floodplains) if the city does not have Comprehensive Plan land use designations or zoning districts that will retain low density development in these floodplain areas.

Development of Comprehensive Plans

GMA Comprehensive Land Use Management Plans for Cities and Counties must contain the following elements: land use, housing, capital facilities, utilities, rural element, transportation, economic development, and a park and recreation element. Jurisdictions

may include additional optional elements, items or studies dealing with other subjects related to physical development within the jurisdiction.

The land use element lays out the location of the broad categories of urban, rural and resources (agriculture, forestry and mining) lands and compatible uses. This element also recognizes areas of urban density that preceded the passage of GMA. In the Ahtanum and Wide Hollow watersheds these areas include the towns of Ahtanum and Wiley City which lie in Yakima County jurisdiction. The housing element seeks to provide appropriate mixes of residential types (low income, multi-family, single-family, etc). The capital facilities, utilities, and transportation elements forecast needed schools, utilities and utility corridors, roads and highways, and other infrastructure, and the capital facilities element specifically addresses the coordinated development and management of infrastructure over time to meet the overall goals of the plan. The rural element guides the mix of uses and facilities that allow economic development but maintain the rural character (i.e. low levels of urban services and development density) of areas of the County. The Parks and Recreation element examines the current levels of recreational facilities, the future demand for such facilities, and recommends policies or actions to meet demand.

Each of these elements has a relationship to flood hazards. The strongest relationship to flood hazard reduction is in the land use element which guides land use in floodplains. The capital facilities elements which control development of public facilities that serve or more often, cross floodplains have a large impact on access issues for public safety and on infrastructure damages and income losses incurred during flood events. For example, road closures during a flood event can cause large economic disruptions such as when Interstate 82 was damaged during the 1996 flood, causing an estimated \$2.6 million daily impact on the statewide economy for each day of reduced traffic flow. In the Ahtanum and Wide Hollow watersheds, severe economic damage was inflicted in 1996 and 1974 due to road closures during and after the flood, even though direct damage to economic facilities such as factories, food processing facilities, government buildings was minor or negligible.

The Parks and Recreation element also has a strong relationship due to many recreational facilities also serving as open space, flood water storage areas, or simply being located along existing waterways. The Comprehensive Plan is essentially the implementing regulation for the Parks and Recreation Element since there are no dedicated funding or implementation sources for acquisition and management of open space or park lands. Private organizations such as land trusts, trail and water recreation clubs or organizations can provide some structure or capacity for open space and Parks acquisition, but the Comprehensive Plans of both the City of Yakima and Yakima County recognize that acquiring and maintaining these types of facilities or features on the landscape is has historically been very difficult and remains so today.

An optional Natural Hazard Reduction element, as described by CFHMPs and by other hazard identification plans, can be added as described in the "Optional Comprehensive Plan Element for Natural Hazard Reduction", Washington State, June 1999. This is particularly useful in hazardous or flood-prone areas, such as these two basins. Generic natural hazard reduction goals from this report are provided in Table 1-1. None of the jurisdictions in the

Ahtanum and Wide Hollow watersheds currently include a Natural Hazard Reduction element in their comprehensive plans, although this option is available.

The June 1999 Natural Hazard Reduction document also indicates further comprehensive plan connections and opportunities:

- Page 3-19: [referring to CFHMPs] “The overlap and possible coordination of such a document and the flood hazard portions of a Natural Hazards Reduction Element are obvious. In addition, the community and property owners may reap benefits under the community rating system. Typically local hazard mitigation plans contain more specific language than the comprehensive plan, but the comprehensive plan is an excellent vehicle for bridging the gap between general policies and the on-the-ground implementation of the FCAAP plan. The flood hazard management plans may address flood hazards through a variety of techniques, including:
 - Non-structural flood damage reduction techniques, such as wetland restoration;
 - Prioritized home acquisition and structural elevations; and
 - Land use controls which prohibit or condition development in flood-prone areas.”
- Page 4-2: [referring to Chapter 4] “This chapter describes some methods that can be used to examine and revise comprehensive plan policies, with a new focus on addressing hazard concerns within the plan, while respecting its existing character.”

Planning Considerations for NFIP communities are listed in Table 6-4. The City of Yakima’s Comprehensive Plan 2025 contains policy goals specific to flood hazard reduction and floodplains. These include:

10.9.1 Protect natural drainage system associated with floodways and floodplains.

10.9.2 Ensure that new development will not affect the flood elevations in surrounding areas.

10.9.3 Ensure adequate protection of life and property from flood events.

10.9.4 Limit development located within the 100-year floodplain unless it is possible to mitigate and restrict development within the floodway.

10.9.5 Emphasize non-structural methods in planning for flood prevention and damage reduction.

10.9.6 Encourage compliance with stormwater regulations for onsite retention of stormwater.

10.9.7 Preserve natural drainage courses.

10.9.8 Minimize adverse storm water impacts generated by the removal of vegetation and alteration of landforms.

10.9.9 Minimize the extent of parking lots and impervious surfaces near or along river and stream corridors.

10.9.10 Encourage new development to adopt best management practices such as reduction of impervious surfaces and provisions for filtering pollutants.

10.9.11 Encourage and support the retention of natural open spaces or land uses that maintain hydrologic function and are at low risk to property damage from floodwaters within frequently flooded areas.”

Washington State law RCW 86.12.200 establishes minimum requirements for a CFHMP and also mentions an optional connection to county comprehensive plans: “When a county plans under chapter 36.70A RCW, it may incorporate the portion of its comprehensive flood control management plan relating to land use restrictions in its comprehensive plan and development regulations adopted pursuant to chapter 36.70A RCW.” None of the jurisdictions in Yakima County with adopted CFHMPs have utilized this option to date.

Once a Comprehensive Plan is created or updated, implementing regulations for the plan are formulated. Each jurisdiction will develop a:

- **Zoning Code** – these regulations define specific areas and land uses that are preferred within them. Zoning has a strong influence on flood hazard through controlling development density, levels of service for capital facilities, and in some cases, special zones or overlay zones where floodplains exist in the jurisdiction. As mentioned above, city zoning codes may or may not contain zoning districts which are dedicated for low intensity uses such as open space or agriculture. Thus when areas of floodplain are annexed they may receive a zoning designation that allows for inappropriate amounts of development density or use in high hazard floodplains.
- **Subdivision Code** – These regulations define standards (size, dimensions, road and road access) for creation of new building lots in the jurisdiction. Some jurisdictions have specific requirements for new lots in the floodplain relating to size, road access, depiction of floodplains on the plat etc.
- **Critical Areas Code** – GMA requires that each jurisdiction develop regulations to protect critical areas and the functions (habitat, clean water, open space) that critical areas provide to the citizens of the state. Critical Areas include: fish and wildlife habitats (streams, migration corridors and habitat for specific species); geologically hazardous areas (steep slopes, landslide hazard, earthquake hazard, erosion hazard); critical aquifer recharge areas; A goal of GMA is to have these regulations consistent or concurrent with regulations developed under the Shoreline Management Act (SMA), often jurisdictions will have a combined code that implements SMA and GMA.

A significant issue in Ahtanum and Wide Hollow Creeks and in Yakima County in general, is the management or regulation of the spectrum of channels that exist in the County and Cities. These range from entirely man made irrigation and drainage systems with convey only irrigation or drain water; to similar systems which convey some natural flow; to highly modified natural channels that convey irrigation, drain water, and natural flow; to natural channels which convey irrigation, irrigation return flows, drain water, and natural flows. This mix of natural and artificial channels, and natural and artificial flows, results in modified drainage characteristics which can increase or decrease the conveyance of flood waters, route floodwaters to areas that would otherwise not receive flood waters, or in a few cases, prevent floodwaters from being routed through the natural drainage system.

Many of these channels, especially Wide Hollow Creek, Bachelor and Hatton Creeks, were maintained as irrigation systems for many decades, and with the advent of new environmental laws, this maintenance has ceased. With the cessation of maintenance, these channels have generally become less efficient in conveyance of floodwater than they were when maintained or less efficient than natural drainage systems due to invasive weeds or their relocation to high points on the landscape to facilitate irrigation of bottomlands. The Critical Areas and State Hydraulic Code regulations discourage regular maintenance of channels which support fish life, which is normally an appropriate approach for natural channels. But where streams have been relocated or have flow patterns that facilitate the establishment of non-native species, some type of long-term and thoughtful maintenance program is probably appropriate, especially in circumstances where adjacent development has fixed the location of the channel in place, or will in the near future. Development of a program for management of these systems that is consistent with the goals of the Critical Areas provisions and case law related to GMA and the Hydraulic Code is a significant regulatory hurdle to cross.

Yakima Urban Area Comprehensive Plan

This regional planning effort pre-dated GMA regulations and applied to the urban Yakima area, including some unincorporated county, and the cities of Yakima and Union Gap. The plan was initiated to allow funding assistance for the Yakima Regional Wastewater Treatment Facility. Though Union Gap provided a representative to participate in the process, they did not adopt the final Comprehensive Plan.

One goal of the Yakima Urban Area Comprehensive Plan was to establish zoning in the urbanizing portion of the unincorporated County that would be compatible with eventual annexation into the cities. The Yakima UAZO (Urban Area Zoning Ordinance) was developed which applies within the City of Yakima and unincorporated Yakima County including the Terrace Heights Sewer District and other urban areas around Yakima and Union Gap. Even though Union Gap does not participate in the Yakima Urban Area Comprehensive Plan, a remnant of the Yakima UAZO exists in the Union Gap UGA since the UAZO boundary was created when it was anticipated that Union Gap would also adopt the Comprehensive Plan. Zoning within the City of Union Gap has no connection to the UAZO.

In 2009 Yakima County withdrew from the Regional Planning Agreement with the City of Yakima. The unincorporated Yakima County and City of Yakima UAZO's are both still in effect at the time of this CFHMP, but they are being updated and modified independently by each jurisdiction. It is currently unknown whether Yakima County will continue the UAZO as a separate ordinance from the rest of the County's zoning into the future.

In the current post-Regional Planning Agreement setting, the urban emphasis for Yakima County and the City of Yakima is to review and update the existing Interlocal Planning Agreements through the Intergovernmental Committee. The Intergovernmental Committee is composed of elected officials from both jurisdictions.

LOCAL FLOOD HAZARD REDUCTION ADMINISTRATION TOOLS

While the GMA process has a large influence on local development patterns and individual developments, other laws that pre-existed GMA also have a large influence on land use and on how local regulations are administered. The Planning Enabling Act was passed by the legislature in 1963, which means that jurisdictions in this watershed already had a planning department and planning commission prior to GMA. Beginning in the 1970s, these planning departments also were charged with implementation of new environmental laws such as the State Environmental Policy Act (SEPA) in 1971, the Shoreline Management Act (SMA) in 1973, both these laws required the designation of a responsible official, usually the planning or development director. "Building permits" issued by cities or counties prior to the mid-1970's were a means of tax assessments on new structures, ensuring conformance with local nuisance laws, and ensuring that buildings were located on a legal lot. In the mid 1970s, all the local jurisdictions began to participate in the National Flood Insurance Program and developed a floodplain ordinance, and also had a formal zoning code, which also necessitated the issuance of building permits pursuant to a Building Code. These laws also required the designation of a responsible official, initially the County or City Engineer, or later Building Official to implement the building codes.

The above four pre-GMA laws – SEPA, Shorelines, UAZO, Floodplain Code and Building Code – still have a strong influence on flood hazard reduction. In Yakima County and the City of Yakima, SEPA, Shorelines, UAZO, Floodplain and Building Code were implemented by the Planning Departments prior to GMA, and Building Code and Floodplain Code were administered by Building Departments. In Union Gap, due to its relatively small size, all of these regulations were and remain administered by a single department. The UAZO described above is administered by Planning Departments in the City of Yakima and Yakima County.

SEPA – The State Environmental Policy Act requires the state and each local government to:

- "Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment;" and
- Ensure that "...environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations...."

The environmental review process in SEPA is designed to work with other regulations to provide a comprehensive review of a proposal. Most regulations focus on particular aspects of a proposal, while SEPA requires the identification and evaluation of probable impacts for all elements of the environment. Flooding and flood hazard is an environmental element that can be examined in the SEPA process, especially where conditions of a site or region are unique or specific, such as the unusual topography and flood paths that occur in the Ahtanum and Wide Hollow Basins. Each jurisdiction has its own SEPA ordinance and

policy, and similar to Shoreline Management above, the state and local jurisdictions have endeavored to integrate SEPA and GMA regulatory environment.

Local Administration of Flood Hazard Reduction

Prior to GMA, the Floodplain Codes of the jurisdictions were designed to set standards for building construction in the floodplain and include planning considerations listed in table 6-4 to meet standards for inclusion in NFIP. Over time, the Building codes were updated and became increasingly specific in regards to the actual materials, standards, and engineering data needed to meet the minimum requirements of the National Flood Insurance Program, not only for the construction of buildings but also for site design to insure that there would be limited off site flood impacts. When GMA was enacted, the Act required regulations for the protection of Frequently Flooded Areas. These regulations largely replaced prior floodplain codes, but often these codes did not fit the structure of separate planning and building departments which had developed prior to GMA. In many cases, the responsible official for floodplain management shifted from the building official to the designated planning official, or as is the case in Yakima and Yakima County, the frequently flooded area regulations are the only portion of GMA regulations where the Building Official is the responsible official for the majority of the regulations. This segregation of responsibility between differing officials and departments can lead to inconsistencies in the processing of floodplain development permits. For smaller jurisdictions such as Union Gap, there is no segregation of responsibility, and administration of the various floodplain codes should be more straightforward.

Each jurisdiction also has a separate permit process code, which are applicable to planning permits (rezones, conditional use, subdivisions, etc.) that also include Critical Area-related permits. Critical Area Permits, in turn, normally include standards for frequently flooded areas and reference building codes, which have their own permit processing requirements within the adopted Building Codes. This creates a conflict in processing and responsible decision makers, appeal processes, notice, etc. For example, a developer may propose a land division within the floodplain to the planning department, the planning department reviews the land division for consistency with zoning, subdivision, and Critical Areas regulations, which can be approved in most cases without detailed engineering drawings for quantities of fill, road elevations, building envelopes or building standards, especially for small developments. Then either the developer or subsequent purchaser goes to build access roads, bridges or buildings on the property and the standards for these features in either Appendix G or Appendix J are applied to the subject property or properties by the Building Official through the International Codes, which may alter or prevent the layout of infrastructure or buildings as shown in the original plat. This then would require amendment or alteration of the plat, and associated delays and costs.

Jurisdictions may choose in their permit administration codes or other codes to raise the level of administrative review – requiring greater levels of public and agency notice, removing exemptions from SEPA or Critical Areas Ordinances, requiring a higher level decision maker to finalize a development proposal – in an effort to better coordinate these multiple development standards in the jurisdictions own ordinances and other relevant

regulations such as the Washington State Hydraulic Code or Department of Ecology regulations.

Jurisdictions may also choose among several options for enforcement of their codes which relate to development in floodplains or stormwater management. Ordinances specific to enforcement can be found within a standalone floodplain development ordinance; or a separate enforcement ordinance for all ordinances in the jurisdiction; in the critical areas code; or in the building code ordinance.

Flood Hazard Management Regulatory Tools Administered by Yakima County

The County has developed a Comprehensive Plan, Plan 2015, which implements many surface water related goals and policies primarily through the administration of the County Codes including the Critical Areas Ordinance (CAO) (YCC Title 16C and 16A), the Shoreline Master Program (SMP) (YCC Title 16D), the Zoning Ordinances (YCC Titles 15 and 15A) and Subdivision Code (YCC Title 14). The CAO was updated in 2009 and the SMP was updated in 2010. Regulations and programs affecting flood hazard management, requirements for participation in the NFIP, are integrated into both the Critical Areas Ordinance and the Shoreline Master Program. These minimum standards and regulations for development in Flood Hazard Areas are administered by the Building Official, while stream corridors, along with their associated floodplains and floodways are regulated as critical areas by the same ordinances, and are administered by the Planning Official.

- Section 16C.03.12 table 3-1 requires a Flood Hazard Permit for activities within floodplains “It is different in that it has special administrative provisions, and may include many of the specific permit types noted above within it, which are described in Chapters 16C.05.20 through 16C.05.72. It is focused mainly on construction methods, but may include site design to minimize impacts to adjacent properties or resources, or to locate the proposed development in areas where depth and velocity of floodwaters during the base flood do not exceed the current standards for construction of human occupied structures or safe access.” At this it is the specific permit types noted above are used instead of a flood hazard permit.
- **Yakima County Building Code**—is currently using the International Building and Residential Building Codes and Appendices G and J plus related ASCE standards. County ordinances do not currently contain a requirement for residential elevations above the minimum established by the NFIP and State of Washington, of at or above the BFE. However, the County interpretation of this minimum level is the support level for the floor joist in order to match requirements in the I-code for services required, so that it effectively results in the floor surface location at approximately one foot above BFE.
- **Yakima County Critical Areas Ordinance**—Relevant portions of the CAO to flood hazard reduction are – “Structures within 100 feet of the floodway, or the ordinary high water mark if no floodway has been established, shall be elevated to a height equal to or greater than the base flood elevation using zero-rise methods such as piers, posts, columns, or other methods, unless it

can be demonstrated that nonzero-rise construction methods will not impede the movement of floodwater or displace a significant volume of water.” In addition, portions of the Frequently Flooded Areas regulations require location of utilities, roadways and other structures outside of the “zone of maximum channel migration”. These standards exceed the minimum NFIP standards and can significantly reduce flood hazards. Regarding subdivisions, the most recent CAO update applies a one acre minimum lot size for subdivisions entirely within the floodplain. The update also requires new lots partially within the floodplain provide a usable building envelope outside the floodplain.

- **Yakima County Shoreline Master Program**— Implements the policies of the Washington's Shoreline Management Act at the local level, regulating land use and development of shorelines. The Yakima County SMP includes policies and a regulation based on state laws and rules, but is tailored to Yakima County's unique landscape. “Shorelines” are the larger rivers and lakes along with their associated shorelands, wetlands, and floodplains. The extent of shoreline jurisdiction in Yakima County is intrinsically tied to FEMA's established floodway and floodplain. The County's Shoreline Master Program has also been adopted by the Cities. A major component of the Master Program is the designation of Shoreline Environments (Urban, Rural, Conservancy, Natural) and a Floodway/Channel Migration Zone Environment. The Floodway/Channel Migration Zone regulates uses to maintain floodplain function in this zone.
- **Yakima County Zoning Ordinance**— Both the Yakima County Urban Areas Zoning Ordinance (UAZO) and the Yakima County Zoning Ordinance implement land use recommendations from the comprehensive plan for areas within the unincorporated County. The zoning ordinances establish allowable uses in different zones. The UAZO contains a floodplain overlay zone that reinforces floodplain development requirements and requires a minimum Type 2 review. Since this overlay zone is limited to the urban area, it means Type 2 reviews are not automatic outside the UAZO. Type 2 reviews include greater public and affected agency notice, and increase the ability of the Planning Department to condition development on the site to address concerns. The requirement for one acre minimum lot size for residential subdivisions in the UAZO was incorporated into the most recent CAO update; however the CAO applies to all zones.
- **County Open Space Tax Program**— Defines floodplains as a high-priority open space resource. The Tax Program reclassifies land as open space through the approval of the Planning Commission and County Commission. Once reclassified, assessed value of the property usually falls, based on realistic use and results in reduced property taxes to the landowner.

Code Enforcement

Yakima County has a code enforcement officer under the Building Official. This officer has authority over a broad range of ordinances for both the building and planning department. Ordinances to vest this authority under the Building Official are found in the Building Code Amendments, the Zoning Code, and Critical Areas Code.

Currently, each of the cities in the planning area has its own environmental regulations. These environmental regulations are briefly outlined below.

Flood Hazard Management Regulatory Tools Administered by City of Yakima

The City of Yakima has floodplain development and protection standards in the Zoning Code, which also contains the Critical Areas Code, in their adopted Building Codes, and in their Building Code Ordinance which has a chapter on Flood Damage Prevention.

Yakima Urban Area Zoning Ordinance

Section 15.27.309 table 27.3-1 of the requires a Flood Hazard Permit for activities within floodplains “It may include many of the specific permit types noted above, which are described in Part Four, YMC 15.27.400 through 15.27.436. It is focused mainly on construction methods, but may include site design to minimize impacts to adjacent properties or resources, or to locate the proposed development in areas where depth and velocity of floodwaters during the base flood do not exceed the current standards for construction of human-occupied structures or safe access.” At present the Flood Hazard permit is issued through the Critical Area Code, which is a chapter of the zoning ordinance.

- The UAZO contains a floodplain overlay district that reinforces floodplain development requirements and requires a minimum Type 2 review.
- Minimum lot size in the Floodplain overlay zone-where the underlying zone is residential-is one acre, unless there is buildable area on the lot outside the floodplain. A similar requirement was incorporated into the most recent CAO update, see below.
- UAZO does not contain an open space, Ag, or other low intensity non-residential zoning designation.

Critical Areas Ordinance

Chapter 15.17 of the City of Yakima Code describes the City’s Critical Areas Ordinance. This ordinance is similar to Yakima County’s above and contains the standards for the City of Yakima’s Compliance with the NFIP. The most recent CAO update applies a one acre minimum lot size for subdivisions entirely within the floodplain. The update also requires new lots partially within the floodplain provide a usable building envelope outside the floodplain. Both of these updates apply to all zones.

Building Code

The building Code is separate from both the Critical Areas and Zoning Codes.

The City of Yakima has adopted the IBC and Appendices G and J, as well as the IRC.

The City of Yakima required elevation of residential structures at or above the BFE + 1 foot in both their building and Critical Areas Code, until their Critical Areas ordinance was updated in 2008. At that time Yakima reduced the elevation requirement in their Critical Areas Code for residences to at or above the BFE, but did not modify the standard in their building codes, which still apply.

Code Enforcement

The City of Yakima has a code compliance division under the Building Official. This division has authority over a broad range of ordinances for both the building and planning department. Ordinances to vest this authority under the Code Compliance Division are found in the Building Code and the Zoning Code (which includes the Critical Areas Code).

Flood Hazard Management Regulatory Tools Administered by City of Union Gap

Section 14.28.080 requires a development permit before construction or development begins within any area of special flood hazard. This is not a specific flood hazard permit. This permit is a Type I level review, the lowest level of review.

Critical Areas Ordinance and Zoning Code

The Union Gap critical areas development regulations provide limitations on the development of: geologically hazardous areas, wetlands, and stream corridors (UGC 17.19).

In the Critical Areas Regulations and the Zoning Code for Union Gap the decision maker (Development Administrator or Hearing Examiner For major projects) has a specific authority to condition project by reducing their scope, scale or intensity where they impact critical areas such as frequently flooded areas. Union Gap is the only jurisdiction which provides this type of conditioning authority.

The Union Gap Zoning Code and Comprehensive Plan do have open space zoning designations, and significant areas of Union Gap along stream corridors are zoned as Parks/open space.

Building Code

The City of Union Gap has adopted the IBC as well as the IRC but has not adopted Appendices G (floodplain construction standards) or J (grading). The current floodplain ordinance has not been modified to reflect the requirement for non-residential structures of a minimum floor elevation one foot above the BFE, as required by the IBC.

Code Enforcement

Union Gap has a code enforcement officer under the Planning and Building Administrator. This Administrator has authority over all building and planning department regulations.

Ordinances to vest this authority under the Building Official are found in the Union Gap Building Code.

Yakama Nation

Bureau of Indian Affairs oversight for Trust Lands

Tribal lands are owned by the Yakama Nation, but held in trust by the United States on behalf of the Nation. When projects need to be done on tribal lands, the Yakama Nation regulates water quality and hydraulic approval, and the arrangement for any easements needed would be under responsibility of the Bureau of Indian Affairs (BIA).

Flood Hazard Management Regulatory Tools Administered by Yakama Nation

The Yakama Nation has adopted zoning regulations in order to “encourage the most appropriate use of the land; to protect the social and economic stability of residential, agricultural, commercial, industrial, forest, reserved, and other areas within the reservation, and to assure orderly development of such areas, and; to obviate the menace to public safety resulting from the improper location of buildings and the uses with existing and proposed traffic movement on said highways; and to otherwise promote public health, safety, morals and general welfare...” (Amended Zoning Regulations of the Yakama Nation). These regulations help to reduce flood hazard by controlling where and how land can be developed.

The Nation does not have a Flood Hazard ordinance at this time. As noted above the Nation has adopted the International Building Codes and Appendices, with an automatic update. The Yakama Nation requires residential floor elevations at or above the BFE, as per the IRC code.

Implementation of the Yakama Nation zoning regulations is done through their Zoning Administration Department.

Yakama Nation Hydraulic Code/Water Code

Implementation of the Yakama Nation hydraulic and water codes is through their office of Water Code Administration.

SUMMARY

Regulations that impact or control development in floodplains and other areas of flood hazard are found in many different sections of state and local codes. For local jurisdictions, the structure of development regulations may be different in each jurisdiction due to the different size, development patterns and types, and history of those governmental units. As a result of this diversity of permits, regulations, application and administrators the level of review varies by jurisdiction.

Ensuring that all regulations are applied in a consistent manner within and across jurisdictions, and improving or reducing permit decision timelines is a difficult task which will require changes to both the codes themselves and the mechanisms for code administration.

Consolidation of all the requirements for development in the floodplain into a single floodplain development permit checklist of separate floodplain permit - as opposed to issuance of a (building, zoning, shorelines, etc.) permit(s) or decision, or application form could greatly increase the consistency of the application of all relevant and necessary floodplain development standards, and also reduce permit time and duplication of effort.

The current method in adopted Yakima County CFHMPs for implementing regulatory recommendations has been to coordinate recommendations with required updates of comprehensive plans, ordinances, or CAO-SMP requirements. Requested changes to regulations may also be submitted or requested outside the required update schedule. The anticipated process for recommended changes is:

1. jurisdiction initiates-or FCZD proposes-one or more regulatory recommendation be considered;
2. jurisdiction considers recommendation(s); and,
3. jurisdiction decides to implement the recommendation(s); or,
4. jurisdiction decides to implement the amended recommendation(s); or
5. jurisdiction decides not to implement the recommendation(s).

Process numbers 4 and 5 should require adequate documentation of the consideration process, results and rationale for any modification or rejection of the recommendation(s).

Yakima County recently changed the comprehensive plan amendment schedule to accept applications biannually rather than yearly. The next required GMA compliance review and revision (if needed) of Yakima County Comprehensive Plan 2015 is on or before December 1, 2016, and thereafter every seven years (Yakima County cities have the same schedule for the required updates). The schedule for County GMA component updates is:

- Urban Area Boundary amendments will be considered every five years (maximum is every ten years); and,
- CAO and SMP regulations must be updated every seven years (next is 12-1-13).

NPDES Phase II Municipal Stormwater Permits

Clean Water Act and National Pollution Discharge Elimination System

In Washington State, the Department of Ecology has been delegated by EPA to determine appropriate water quality standards. The surface water quality standards are intended to protect the beneficial uses of waters of the state, such as swimming, fishing, aquatic life habitat, and agricultural, industrial, municipal and domestic water supplies using numeric criteria. State standards must be at least as protective of beneficial uses as federal standards. The standards specify how criteria are to be implemented and contain policies to protect degradation of high quality waters

As part of the Clean Water Act in 1972, Congress enacted the National Pollutant Discharge Elimination System (NPDES). The NPDES requires a permit for all discharges into the water via a discrete conveyance called a point source. The act also permitted the states to administer this act which was begun by the Department of Ecology in 1973. The permit

describes what the discharger must do to protect the receiving water, what types of monitoring and reporting the discharger must perform, and limits the pollutants that can be discharged. Point sources originally included wastewater treatment plants and industrial process waters, but have expanded through time to include stormwater runoff from construction sites, municipal storm sewers, and industrial sites.

In March of 2003, the County and the cities of Yakima, Union Gap, each individually submitted a notice of intent to apply for federal coverage under the NPDES Phase II municipal stormwater permit. The final permit was issued by Ecology in 2007. These permits may add additional Best Management Practices (BMPs) or maintenance requirements above current standards. The County and the cities of Yakima, Union Gap, and Sunnyside are co-permittees under a regional stormwater NPDES permit. The permit requires development of ordinances for illicit discharge, construction stormwater and post construction stormwater controls. The communities have adopted Stormwater ordinances compliant with Federal and State regulations on February 16, 2010.

Project Permitting Requirements

The permit requirements for the regulatory programs summarized in Tables 6-1 and 6-2 depend on project nature and location. In many cases more than one permit is required. Table 6-5 shows permits required for projects of various types and in various locations in the County.

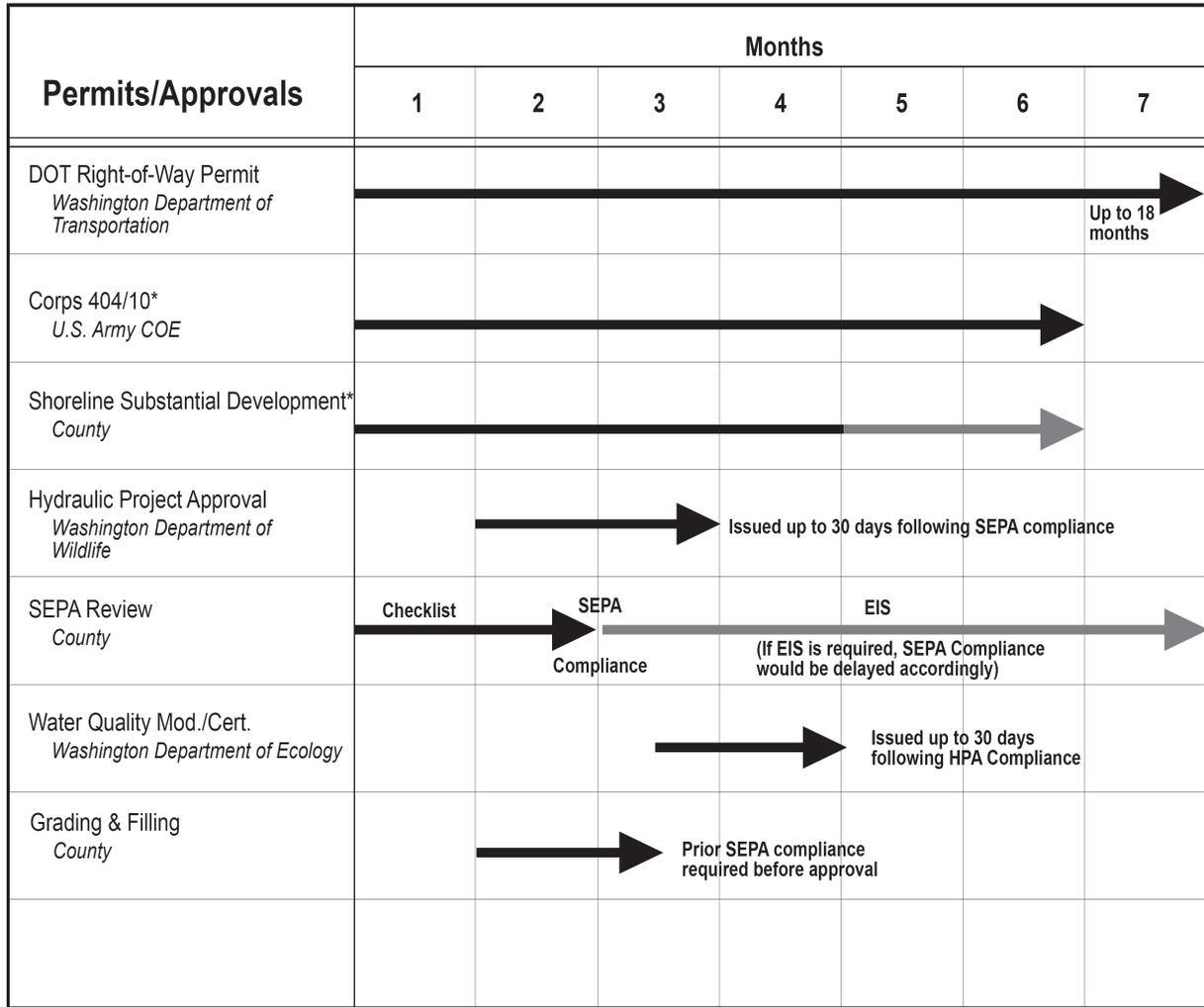
Permit requirements for locations in the cities would include similar items for their jurisdiction. The Yakama Nation includes compliance with their hydraulic and water codes. At least five permits are typically required for in-stream, shoreline, floodplain, and river engineering projects. The table also indicates that State Environmental Policy Act (SEPA) review is generally required for all the listed types of projects. SEPA review may consist of completing a checklist or an environmental impact statement (EIS) if the project is expected to have significant impact.

Many permit requirements depend on the project location in relation to the stream, shoreline jurisdiction, and floodplain boundary. Only work in and adjacent to the streams would require a COE 404 permit.

Figure 6-6 illustrates permit timing relationships. Some permits are issued following acquisition of other permits. The WSDOT right-of-way permit process, required whenever work is proposed within a state right-of-way, is listed first because it can have the longest processing time. The COE and Shorelines permit processes require procurement of most other required permits and approvals before issuance. SEPA compliance may be accomplished by preparing an environmental checklist, but if an EIS is found to be necessary, this can substantially delay procurement of all permits that require completion of the SEPA process.

The Hydraulic Project Approval (HPA) application can be submitted before the SEPA process is finished, but it will not be issued until SEPA review has been completed. Ecology will not issue the Water Quality Modification/Certification until the HPA has been issued.

The grading and filling permit requires SEPA compliance prior to issuance. Individual processing times may require up to two months for these permits.



*These are "umbrella" permit processes that require procurement of all other permits before they can be issued.

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| | Yakima County AHTANUM-WIDE HOLLOW WATERSHED CFHMP | FIGURE 6-6 TYPICAL PERMIT TIMING REQUIREMENTS |
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