

CHAPTER TWO

Applicable Programs, Policies, and Regulations

Numerous federal, state, and local regulations, laws, policies, and programs may affect stormwater and surface water management in unincorporated Pierce County. This chapter describes the federal, state, and Pierce County programs, policies, and regulations pertinent to the Nisqually River Basin Plan, and how the Plan will coordinate and be consistent with the other programs, policies, and plans.

2.1 FEDERAL REGULATIONS, POLICIES AND PROGRAMS

The *Nisqually River Basin Plan* is intended to ensure that Pierce County stormwater management efforts are consistent with the federal *Clean Water Act (CWA)*, *Endangered Species Act (ESA)*, and the *National Flood Insurance Program (NFIP)*.

2.1.1 Clean Water Act

Several regulations and programs under the CWA impact local stormwater management efforts. These programs and their impact on local stormwater management are summarized below.

National Pollutant Discharge Elimination System (NPDES)

In 1987, amendments to the CWA required the Environmental Protection Agency (EPA) to promulgate regulations for stormwater discharges. EPA defined certain industrial and municipal stormwater discharges as point source discharges subject to federal regulations under the National Pollutant Discharge Elimination System (NPDES) permit program. Based on the criteria specified in the federal regulations, Pierce County was required to obtain coverage for its municipal stormwater discharges.

EPA delegated responsibility for implementation of the NPDES permit program to the Washington State Department of Ecology (Ecology). Ecology issued the *Phase I Municipal Stormwater NPDES* and *State Waste Discharge General Permit* for the South Puget Sound *Water Quality Management Area* (which includes Pierce County) July 1995. On January 17, 2007 Ecology re-issued the Phase I municipal stormwater permit, which became effective on February 16, 2007. The permit covers stormwater discharges from the County-owned drainage systems throughout unincorporated Pierce County.

The municipal stormwater NPDES permit requires that permit holders control pollutants in stormwater to the maximum extent practicable, primarily by implementing a stormwater management program and to protect water quality.

Pierce County's basin plans are part of the County's Stormwater Management Program. Ecology approved updates to Pierce County's *Stormwater Management Program (SWMP)* in 2008. Required elements include:

- A program to control runoff from new development, redevelopment, and construction sites.
- Treatment and source control measures for existing commercial and residential areas.
- An operation and maintenance program for new and existing stormwater facilities.
- Practices for maintaining public streets and highways to reduce stormwater runoff impacts.
- A program to include water quality considerations in existing and proposed flood management projects.
- A program to reduce pollutants from pesticide and fertilizer use.
- A program to detect, remove, and prevent illicit discharges to the municipal separate storm sewer system.
- A program to reduce stormwater pollution from industrial facilities that discharge into the separate storm sewer system. An educational program for residents, businesses, industries, construction contractors, government employees, and others.
- A monitoring plan to determine the effectiveness of program activities.
- Reporting requirements.
- Coordination among jurisdictions sharing water bodies.

The permit requires adoption of a stormwater technical manual equivalent to the latest version of Ecology's *Stormwater Management Manual for Western Washington*, more extensive monitoring, more comprehensive inspections, and more detailed tracking and reporting of Stormwater Management Program (SWMP) implementation.

Recommendations in the basin plan must be consistent with the County's NPDES stormwater permit requirements and provisions of the Pierce County SWMP. The County's NPDES stormwater permit requires that the County address water quality when developing capital improvement projects for flood control. The NPDES permit also requires retrofitting to address stormwater quality in areas that developed without water quality controls. For example, existing basin flood control facilities and proposed flood control projects should be evaluated to consider whether water quality features should be incorporated. In addition, the basin plan should consider treatment and sources controls for residential and commercial drainage areas.

Section 303(d) List and Total Maximum Daily Loads (TMDL)

Section 303(a, b, and c) of the CWA requires that states establish standards to protect the quality of the waters of the United States. Ecology classified all major bodies of water in Washington based on their current or potential beneficial uses and established a set of water quality standards for each class. Section 303(d) of the CWA requires Ecology to prepare a list of water bodies that are not meeting, or will not meet, water quality standards after application of the required technology-based effluent limits.

If a water body is not in compliance with standards for a particular pollutant, and implementation of technology-based approaches are insufficient, the CWA requires that a “Total Maximum Daily Load” (TMDL) of the pollutant be calculated. The TMDL is the amount of the pollutant that a water body can assimilate without violating water quality standard for the pollutant. TMDLs are implemented through NPDES permits and “Best Management Practices.” After a TMDL has been established by Ecology and approved by EPA, Ecology must include the applicable TMDL requirements in the NPDES permits for discharges to that water body. Ecology has individual TMDLs in the current (2007) permit to Pierce County.

Ecology submitted its candidate Section 303(d) list for 2002/2004 to EPA in June 2005. In November 2005, EPA approved the list. Segments of the Mashel River and Ohop Creek, as well as Ohop Lake and Harts Lake, were listed as “polluted” water bodies that do not meet the standards and will require TMDLs (for additional information, see [Chapter Four](#)).

Ecology’s 303(d) list and TMDLs have implications for basin planning. TMDLs could require reduction of stormwater pollutant loads into water bodies that do not meet water quality standards. In the proposed NPDES permit, TMDLs with a completed *Detailed Implementation Plan* (DIP) will have DIP requirements built directly into permit requirements. Pierce County is performing supplemental monitoring in the Nisqually Basin and is participating in development of the DIP. Also, Pierce County is taking a leadership role in pet and domestic livestock waste management with the community of Eatonville. The basin plan should include recommendations that would improve discharges into water bodies with established or pending TMDLs.

Section 404 Discharge of Fill Materials (Wetland Permits)

Section 404 of the CWA regulates discharge of dredge or fill material in waters of the United States. For the purposes of Section 404, waters of the United States include wetlands adjacent to streams with flow greater than five (5) cubic feet per second and isolated wetlands greater than one acre that are hydraulically connected to regulated streams. Section 404 is administered by the U.S. Army Corps of Engineers (Corps). The Corps’ Seattle District is responsible for issuing Section 404 permits in Pierce County.

Projects potentially affecting regulated wetlands could require one of several types of Corps wetland permits. An individual permit is subject to a broader level of public and environmental review. Other activities can be authorized by letters-of-permission, nationwide permits, or

regional permits. Stormwater capital improvement projects that involve filling or work in small areas of wetlands may be permitted under one of a number of nationwide general permits.

The goal of wetlands protection is to avoid net loss of wetlands, and therefore enhancement of existing wetlands or creation of new wetlands generally is required to mitigate for projects that involve wetland fill. Some of the projects identified in Pierce County's *1991 Drainage Plan* have proven more costly to build than originally estimated because of mitigation requirements. In general, capital projects that adversely affect wetlands should be avoided.

The Section 404 regulations have a number of potential implications for basin planning. First, acquisition of wetlands can preserve their natural stormwater runoff and flood storage functions. Second, recommendations for storm drainage facilities should avoid wetlands if possible, and include the costs of compensatory mitigation for projects where wetland impacts are unavoidable. Third, basin plans can identify new programs or program revisions designed to protect existing wetlands or create wetlands. Fourth, basin plan recommendations can be prioritized, in part, upon the extent to which aquatic resource protection and enhancement can be achieved. Therefore, the actions recommended in the basin plan should avoid or minimize potential adverse impacts on wetlands.

2.1.2 National Flood Insurance Program (NFIP)

In 1968, the U.S. Congress initiated the *National Flood Insurance Program* (NFIP) (Chapter 44 in the Code of Federal Regulations) under the *National Flood Insurance Act* to relieve the burden of disaster relief on the national treasury and state and local tax bases). The NFIP is administered by the Federal Insurance Administration, which is part of the Federal Emergency Management Agency (FEMA).

The NFIP makes available affordable flood insurance to communities that adopt approved floodplain management regulations that meet or exceed FEMA standards. Communities that do not participate in the NFIP have limited eligibility for federal flood disaster relief and are not eligible for flood insurance. FEMA's Flood Insurance Rate Maps (FIRMs) form the basis for critical area zoning for flood hazards.

Pierce County participates in the NFIP. Flood hazard management regulations are codified in Title 18E.70 of the Pierce County Code and criteria, and procedures are laid out in Chapter Nine of the *Pierce County Stormwater Management and Site Development Manual*. Federally subsidized flood insurance is available to local residents.

To continue coverage, the County must remain in the NFIP and maintain minimum floodplain management regulations. FEMA requires a certification letter (typically in the form of Letter of Map Amendment or Letter of Map Revision) for any revisions to a FIRM. Certification activities include stream channel modifications, installation of culverts, and bridge construction.

As a reward for communities that do more than meet minimum NFIP requirements by taking actions to minimize flood losses and promote public awareness of flood hazards, FEMA created the Community Rating System (CRS). Community participation in the CRS is voluntary. The CRS offers reduced insurance rates based upon the class rating of a community. The CRS contains ten classes. “Class 1” gives the greatest insurance premium reduction. A “Class 10” community receives no premium reduction. Pierce County was the first county in the nation to earn a “Class 5” rating and has continued to strive for even better ratings. Pierce County currently holds a “Class 3” rating.

Basin plans serve as part of the flood hazard mitigation plan for Pierce County. Improvement projects associated with the basin plan should, if possible, reduce flood hazards and improve the County’s rating. Future flood hazard reductions could help to raise the County’s rating from “Class 3” to a better class.

To help meet the prerequisites for a better rating, the *Nisqually River Basin Plan* will be developed according to the CRS planning steps listed below:

- Organize – Use a steering committee of department staff.
- Involve the public – Engage people living and working in floodplains to identify problems, community goals, and alternatives that will solve problems.
- Coordinate with other local governments in the planning area, state and federal agencies, Indian tribes, and other Pierce County departments and programs.
- Assess the hazard(s).
- Assess the problem(s).
- Set goals.
- Review possible activities.
- Draft an action plan.
- Adopt the plan.
- Implement the plan, evaluate it periodically, and revise it as needed to keep it current and effective.

Future projects should meet Pierce County floodplain regulations and applicable provisions of the County’s Critical Areas Ordinance regarding flood hazards.

2.1.3 Endangered Species Act

The federal *Endangered Species Act* (ESA) directs the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries¹ to promulgate a list of endangered and threatened species and designate critical habitat for the listed species and makes it unlawful for any person to conduct activities which result in an unauthorized “take” of listed species. Listed species with the greatest potential to affect surface water management in Pierce County are the Chinook salmon (listed as threatened in March 1999) and the bull trout (listed as threatened in October 1999). Chinook salmon are an important species in the Nisqually basin. Bull trout are believed to have historically been present in the Nisqually watershed; however, no recent evidence has been found that they are still present in freshwater, despite extensive surveys. The Nisqually Estuary is listed as a forage area for the Puyallup watershed bull trout population, and one potential bull trout sighting in the Nisqually Estuary has been reported to the Nisqually Tribe. At the time of this writing, Steelhead have also been proposed for listing. [Chapter 4](#) describes the fish populations in the study area.

Section 9 of the ESA prohibits “taking” of endangered species. To “take” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”. The regulation explains that “harm” may include “significant habitat modification where it actually kills or injures listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

If a proposed action is federally funded, or if it requires a permit from a federal agency, and if it could have an effect on a listed species, then Section 7 of the ESA requires the involved federal agency to consult with USFWS or NOAA Fisheries. After consultation, USFWS or NOAA Fisheries issues a biological opinion regarding the effects of the action. If USFWS or NOAA Fisheries finds that the action could jeopardize the continued existence of the species, the action cannot be permitted. If USFWS or NOAA Fisheries finds that the continued existence of the species is not jeopardized, then one of the agencies will issue an “Incidental Take Statement” and allow the action to proceed.

Section 4(d) of the ESA requires USFWS and NOAA Fisheries to adopt regulations as necessary to conserve the species listed as threatened. USFWS typically applies the Section 9 “take” prohibitions directly to threatened species. NOAA Fisheries typically promulgates so-called “4(d) rules” that identify specific activities that can be conducted without constituting an unlawful take of the threatened species.

Pierce County is committed to helping to preserve and restore fish habitat. The County has been implementing actions to preserve and restore fish habitat in coordination with King and Snohomish counties and on the Puyallup Tribe of Indians and other stakeholders. For example, the County has revised its road maintenance procedures to be consistent with NOAA Fisheries’

¹ NOAA Fisheries was previously called the National Marine Fisheries Service.

approved set of transportation maintenance procedures. Other early actions include culvert replacements to improve fish passage, and restoration and acquisition of key habitat.

The salmonid listings have a broad effect on storm drainage and surface water management plans. The basin plan may identify capital projects or programmatic measures that are designed to protect or restore habitat and improve water quality for listed species. Conversely, some potential stormwater management measures (e.g., bank stabilization, on-line detention) have the potential to adversely affect habitat. Potential habitat impacts need to be given full consideration during the evaluation of alternatives and development of recommended projects. In developing solutions, coordination with the various agencies working on fish habitat initiatives is needed to prevent overlap or duplication of effort.

Pierce County also serves as the “salmon lead entity coordinator” for WRIs 10/12 and participates with the Nisqually Lead Entity on regional salmon recovery.

2.2 STATE REGULATIONS, PLANS, AND PERMITS

Several state statutes and regulations impact Pierce County’s basin planning effort, as summarized below.

2.2.1 State Water Quality Standards

Washington Administrative Code (WAC), Chapters 173-201A and 173-200, affect the discharge of stormwater to surface water and groundwater, respectively, by establishing water quality standards for each of the different classes of water and articulating the federal anti-degradation policy. WAC 173-200 also calls for designation of special groundwater protection areas based on unique characteristics (e.g., aquifer recharge areas, wellhead protection areas, or sole source aquifers). Chapter 4 describes the water quality standards and how well the Nisqually Basin streams achieve the standards.

In July 2003, Washington adopted a new set of water quality standards to protect all life stages of temperature-sensitive fish, such as bull trout and Dolly Varden. A new indicator (enterococci) will be used to measure the amount of bacteria in marine waters that are not used for shellfish harvesting. New values for ammonia in waters without salmon species have been added.

Ecology has also classified fresh waters by actual use (such as fish habitat, swimming and water supply), rather than by class (AA, A, B, C and Lake classes), to make the standards less complicated to interpret and provide future flexibility as the uses of a waterbody evolve.

Storm drainage and surface water management planning considers ground and surface water quality standards, along with other factors, when developing specific capital improvement alternatives, such as a large regional infiltration basin. This is largely because the standards are

the foundation for other water quality programs such as NPDES permits, water clean-up plans (also known as TMDLs), and 401 Water Quality Certifications. Water quality standards also are used as benchmarks for developing recommendations for non-structural solutions. The basin plan also need to identify existing and potential water quality problems and recommend measures to address these problems and meet water quality standards.

2.2.2 Section 401 Water Quality Certification

Applicants for a federal permit or license, such as a Section 404 permit, could require a Section 401 Water Quality Certification (401 Certification) from Ecology; if in an area governed by a delegated tribe, it would come from EPA or the tribe. A 401 Certification must be obtained for any activity that would require a federal (Section 404 or Section 10) permit or approval and that might result in a discharge of dredge or fill material into water or non-isolated wetlands, or in excavation in water or non-isolated wetlands. The application for a 401 Certification would be part of the Joint Aquatic Resources Permit Application (JARPA) for a project.

A 401 Certification means that Ecology has determined that the proposed project would comply with state water quality standards and other aquatic resource protection requirements. The 401 Certification could cover both the construction and operation of a project.

The basin plan could result in recommended projects which require 401 Certification from Ecology. The 401 Certification process could include site-specific conditions covering the design, construction, or operation of a proposed project. Conceptual designs and cost estimates for basin plan projects will need to consider the 401 Certification process and any conditions that may be imposed.

2.2.3 Puget Sound Partnership

The *Puget Sound Water Quality Management Plan*, developed in 1991 and amended in 2000, requires all cities and counties in the Puget Sound basin to adopt stormwater programs that include minimum requirements for new development and redevelopment. These minimum requirements are stipulated in the *Puget Sound Water Quality Management Plan* and listed in Ecology's *Stormwater Management Manual for Western Washington* (Ecology, 2005).

The stormwater management program is to include an ordinance that addresses:

"... at a minimum: (1) the control of off-site water quality and quantity effects; (2) the use of best management practices for source control and treatment; (3) the effective treatment, using best management practices, of the storm size and frequency (design storm) as specified in the manual for proposed development; (4) the use of infiltration, with appropriate precautions, as the first consideration in stormwater management; (5) the protection of stream channels, fish, shellfish habitat, other aquatic habitat, and wetlands; (6) erosion and sedimentation control for new construction and redevelopment projects; and (7) local enforcement of these stormwater controls."

Pierce County's current stormwater management program is designed to address the *Puget Sound Water Quality Management Plan* requirements as well as the NPDES permit requirements described above. The NPDES permit also requires the adoption of Ecology's *Stormwater Management Manual for Western Washington*, or an equivalent. See [Section 2.1.1](#) for more information on the NPDES permit. The basin plan should be consistent with the *Puget Sound Water Quality Management Plan*.

In 2007, the Washington Legislature created a new state agency for the purpose of developing and overseeing the implementation of an "Action Agenda" to restore Puget Sound by 2020. The basin plans will be incorporated into the "Action Agenda" and the Nisqually River Basin Plan will be incorporated into the "Action Agenda" for the South Puget Sound Action Area.

2.2.4 The Growth Management Act and the Comprehensive Plan for Pierce County, Washington

Washington's *Growth Management Act* (GMA) directs local governments of fast-growing counties, cities, and towns to prepare and adopt comprehensive plans and implement regulations for managing their growth. Pierce County was required to prepare a comprehensive plan that meets the GMA precepts. The *Comprehensive Plan for Pierce County, Washington (County Comprehensive Plan)* became effective in December 1994. Development regulations to implement the *County Comprehensive Plan* were adopted in 1995. Pierce County reviews and updates the *Comprehensive Plan* on a regular basis.

Three GMA planning goals directly apply to storm drainage planning. They are as follows:

"Urban growth. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner."

"Environment. Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water."

"Public facilities and services. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time it is available for occupancy and use without decreasing service levels below locally established minimum standards."

The GMA compels storm drainage and surface water management services and facilities by requiring that: 1) frequently flooded areas (flood hazard areas) be identified and protected; 2) urban facilities be constructed in urban areas only; 3) a level of service standard be established for storm drainage facilities; and 4) capital improvements be identified to meet the adopted level of service given planned land use.

The basin plan should meet the overall GMA planning goals that apply to storm drainage planning. The GMA mandates that comprehensive plans be internally consistent (Revised Code of Washington (RCW) 36.70A.070) and that counties perform their activities and make capital budget decisions in conformity with their comprehensive plans (RCW 36.70A.120). Because basin plans recommend capital improvement projects and form the basis of the annual capital budget for the County Storm Drainage and Surface Water Management Utility, basin plan recommendations must be consistent with the *County Comprehensive Plan*. Basin plans also are used to formulate the longer-term (six-year) capital improvement plan, also known as the “Capital Facilities Element” of the *County Comprehensive Plan*. (The basin plan will include a supplemental environmental impact statement that evaluates the consistency of the plan’s recommendations with the *County Comprehensive Plan*). The basin plan will be coordinated with the County’s ongoing land use and GMA planning efforts.

Land use decisions can drive stormwater management infrastructure needs. Adopted land use/zoning and current development regulations will be used in the basin plan to model future hydrologic conditions and help determine the type, size, and location of facilities that will be needed to support planned growth. Critical area designations will be used to indicate potential sites for stormwater facilities, such as infiltration ponds (aquifer recharge areas) or natural stormwater detention sites (wetlands and riparian corridors). Conversely, surface water management recommendations can influence land use density and intensity choices, for instance by identifying stream reaches that must be protected from the adverse hydrologic effects of new development.

2.2.5 State Hydraulic Code

The Washington State Hydraulic Code (RCW 77.55) regulates any activity affecting the state’s fresh waters and salt waters in order to preserve fish and wildlife habitats. The Hydraulic Code is administered by the Washington State Department of Fish and Wildlife (WDFW).

The WDFW requires any person, organization, or government agency whose hydraulic project, which affects the bed or flow of a water of the state, to obtain a Hydraulic Project Approval (HPA) permit. An HPA permit is required for any form of work that would use, divert, obstruct, or change the natural flow or bed of state waters. The HPA permit typically specifies how construction projects are designed, managed, sequenced, and conducted to minimize adverse effects on fish and shellfish.

The basin plan may include projects that lie in or near state waters and therefore require an HPA. Conceptual design and cost estimates for these facilities should consider the permitting process and mitigating conditions likely to be imposed on the project via the HPA permit.

2.2.6 1998 Watershed Management Act

In 1998, the Legislature passed the *Watershed Management Act* (HB 2514). Also known as 2514 Watershed Planning and codified in RCW Chapter 90.82, the act provides the framework for locally-based watershed planning with the goal of giving local interests a voice and a forum for collaboration regarding water resource issues. The four planning focuses under the act are water quantity, water quality, habitat, and instream flows.

For watershed planning under the act, the Nisqually Watershed has been designated as *Watershed Resource Inventory Area* (WRIA) 11. WRIA 11 includes the entire Nisqually Watershed within Pierce, Thurston, and Lewis Counties.

The Act creates a planning process that brings together citizens, local governments, tribes, and state and federal agencies to form planning units. Local planning units then develop plans for allocating water, protecting water quality, restoring fish habitat, and developing water resources policies and management for the watershed. The Nisqually watershed planning unit includes representatives of Pierce, Thurston, and Lewis Counties; the Cities of Olympia, Lacey, Yelm, Roy, and Eatonville; several water districts and commercial interests; and Ecology. The Nisqually Tribe has coordinated the planning effort.

In response to the Watershed Management Act, the Nisqually watershed planning unit has prepared a *Nisqually Watershed Management Plan* (Nisqually Tribe, 2003). The five central issues in this plan are growth and land use, groundwater resources and supply, water rights, instream flows, and water quality.

The Nisqually Watershed Management Plan under the Watershed Management Act has a broader focus than this Pierce County basin plan. The Nisqually Watershed Management Plan addresses water supply and encompasses the entire Nisqually Watershed in WRIA 11, while this Pierce County basin plan does not address water supply and applies to the unincorporated areas of Pierce County. The Nisqually Watershed Management Plan covers a broader range of water resources and land use and habitat issues, while this Pierce County basin plan is being developed to address stormwater, water quality problems, and fish and wildlife habitat issues.

The Nisqually Watershed Management Plan collected a great deal of hydrologic, land use, water quality, and habitat information that facilitated preparation of the Basin Characterization Report. The recommendations contained in the *Nisqually Watershed Management Plan* will be considered during development of the Nisqually River Basin Plan. The Basin Plan does not address water rights issues.

2.2.7 Substitute House Bill 323

In Substitute House Bill (SHB) 323, the Legislature directed Ecology in 1985 to create a comprehensive management plan for the Nisqually River. The plan was prepared by the Nisqually River Task Force, which consisted of federal, state, and local governments, business representatives, the Nisqually Indian Tribe, and interested citizens. This Task Force created the *1987 Nisqually River Management Plan (1987 NRMP)*, which is available at <http://www.nisquallyriver.org/plan.html>. The *1987 NRMP* was approved by the Legislature in June 1987.

The *1987 NRMP* provides recommended policies and implementation guidelines. The key issues in the *1987 NRMP* are public access, flood control, fish and wildlife protection and enhancement, maintenance of rural landscapes and economics, and balancing the rights of private landowners with statewide public interests. The plan's management areas consist of the core management zone, which is essentially the shoreline management zones, and the stewardship management zone, which is the viewshed corridor approximately $\frac{1}{4}$ to $\frac{3}{4}$ mile on each side of the river.

The *1987 NRMP* is coordinated by the Nisqually River Council. The Nisqually River Council is a coordination, advocacy, and educational organization with no independent authority of its own. The Nisqually River Council consists of 19 active members, including citizens and federal, state, and local governments. The *1987 NRMP* recommends policies and guidelines but does not identify specific projects or methods for their implementation. Pierce County has adopted or endorsed the *1987 NRMP* for those policies that affect County planning (PCC, Section 19A.20.030). Pierce County Resolution No. R92-104 directs "that relevant management policies (of the *Nisqually River Management Plan*) be integrated into the update of the comprehensive land use plan pursuant to the Growth Management Act and when preparing changes to land use and environmental regulations, and other related public programs."

The *1987 NRMP* must be considered during the Pierce County basin planning process. The capital improvement projects and other recommendations from the basin plan need to be consistent with the policies in the *1987 NRMP*. This basin plan could lead to future funding and implementation of several of the policies and goals relating to stormwater and water quality in the *1987 NRMP*.

2.2.8 Archaeological and Cultural Coordination

Environmental laws and review processes at the federal, state, and local levels require that consideration be given to protecting significant historic, archaeological, and traditional cultural sites from damage or loss during development. Environmental laws such as the National Historic Preservation Act and the State Environmental Policy Act (SEPA) require that impacts on cultural resources be considered during the public environmental review process. The Department of Archaeology and Historic Preservation (DAHP) works with agencies, tribes,

private citizens, and developers to identify and develop protection strategies to assure that Washington's cultural heritage is not lost.

Section 106 of the National Historic Preservation Act requires that all federal agencies consider cultural resources as part of all licensing, permitting, and funding decisions. For state and local projects under SEPA, DAHP is the sole agency with technical expertise in regard to cultural resources and provides formal opinions to local governments and other state agencies on a site's significance and the impact of proposed projects upon such sites. The Shoreline Management Act requires that development permits issued by local governments in areas with archaeological sites require a site inspection or evaluation by a professional archaeologist in coordination with affected Indian tribes.

Recommendations in the basin plan should avoid adverse impacts on archaeological, cultural, and historic sites. Development of capital improvement projects should be coordinated with DAHP and the Nisqually Tribe.

2.2.9 Forest Practices Act

Under the *Forest Practices Act* (FPA), the Washington State Department of Natural Resources (DNR) regulates most commercial forest practices on private and state forest land. Forest practices that may require a FPA permit from the DNR include harvesting timber, salvaging standing and down wood, constructing forest roads, installing and replacing culverts or bridges on forest roads, and applying forest chemicals with aircraft. A FPA permit can include stream and wetland buffer requirements. These buffers are smaller than what the Pierce County regulations would require. Since 2000, the FPA permits require compliance with the Timber, Fish and Wildlife Agreement, which is intended to prevent logging impacts on ESA-listed species.

DNR regulations (WAC 222-16-050) have established four classes of forest practices. Class I forest practices are small-scale activities (e.g., cutting less than 5,000 board feet within a 12 month period, Christmas tree harvesting) that DNR has determined to have no direct potential for damaging a public resource. Class II practices are those that DNR has determined to have a "less than ordinary" potential to damage a public resource. Examples include harvest smaller than 40 acres, partial cutting of less than 40% of the live timber volume, and logging road construction outside of riparian or wetland areas. Class III practices include operations that are larger in scale and/or occur within riparian or wetland areas, and do not fall under the Classes I, II, or IV. "Class IV – Special" operations are those that DNR has determine to have potential for substantial impact on the environment. Examples include aerial application of pesticides; certain forest practices activities in critical habitat areas; and timber harvest, road building, and gravel mining on potentially unstable slopes. "Class IV-General" includes certain forest practices on lands that area being converted to urban or other non-timber uses.

A “conversion” forest practice converts timber land to a non-forestry use, such as residential, commercial, industrial, or agriculture. Land being converted to a use other than commercial timber production is considered a general forest practice, which requires a FPA permit and is subject to Pierce County’s SEPA review and development regulations. Pierce County Code Title 18H regulates forest practices under local government review. Title 18H provides procedures and review criteria for County approval of special conversion forest practices, general forest practices, and conversion option harvest plans.

The *Nisqually River Basin Plan* should identify and evaluate any foreseeable conversions of timber land to residential development within unincorporated areas of the Nisqually watershed. The basin plan also should analyze any potential stormwater and water quality problems within the County’s jurisdiction caused by logging within or outside of the timber lands.

2.3 PIERCE COUNTY REGULATIONS

Pierce County has adopted ordinances and regulations that should be considered in the basin planning process. The key County ordinances and programs are summarized below.

2.3.1 Critical Areas Ordinance

Pierce County’s *Critical Areas Ordinance* (Pierce County Code Title 18E) is intended to “protect critical areas of Pierce County from the impacts of development and protect development from the impacts of hazard areas” by establishing development standards for sites that contain or are adjacent to critical areas, such as wetlands, fish and wildlife habitat, and flood hazard areas. The ordinance includes standards for determining critical areas and identifies them on the County’s *Critical Areas Atlas* maps.

The basin plan could recommend projects that affect critical areas. Such project may require special permits or approvals, and may need to incorporate design features and construction practices that would mitigate impacts. Stormwater projects sited in critical areas or their buffers likely would have increased costs for permitting and mitigation. Therefore, critical areas should be considered when evaluating potential solutions to drainage, water quality, or fish habitat problems in the basin. Where possible, the basin plan should avoid recommendations that would adversely affect critical areas.

2.3.2 Land Use and Zoning Designations and Development Regulations

Land use activities in Pierce County are guided by the *County Comprehensive Plan*, community plans, zoning designations, and development regulations. Various Titles of the Pierce County Code establish development regulations for future projects. Development of individual stormwater facilities must be consistent with adopted County policies, zoning designations, and regulations.

Land use approvals generally include a zoning consistency review. Where applicable, Pierce County would conduct a review of potential projects relative to the site-specific zoning and the County development regulations.

Land use and zoning designations could affect the siting and design of future projects. The Pierce County Code lists specific uses allowed in each zone. Depending of the site's underlying zoning, a project may be permitted outright or could require a conditional use or variance. The basin plan should ensure that future projects would be located and designed to be consistent with the site-specific land use and zoning designations.

2.3.3 Pierce County Shoreline Master Program

The Washington *Shoreline Management Act* (SMA) establishes a broad policy for how shorelines of the state can be used, giving preference to uses that:

- Protect the quality of water and the natural environment.
- Depend on proximity to the shoreline (water-dependent uses).
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

Shorelines of the state include all marine waters; streams with a mean annual flow greater than 20 cubic feet per second; lakes 20 acres or larger; upland areas 200 feet landward from mean high water; associated wetlands and river deltas; and some or all of the 100-year floodplain, including all wetlands within the entire floodplain.

The SMA divides authority for compliance between local and state governments. Cities and counties are the primary regulators. Each city and county adopts a shoreline master program (SMP) and use regulations that are based on Ecology guidelines but are tailored to the needs of the community. Pierce County adopted its SMP in 1974 and the use regulations in 1975 (amended in 1992). The SMP provides policies and regulations addressing shoreline use and protection, and it establishes a permit system for administrating the program.

Some of the proposed projects contained in the Basin Plan may be located within a regulated shoreline area and therefore subject to the County shoreline policies and regulations. The basin plan should ensure that future projects would be located and designed to be consistent with the County SMP. Such projects may be subject to special requirements (e.g., setbacks or buffers), and site-specific mitigation measures could be imposed. If a proposed project is inconsistent with the shoreline designation, a variance or conditional use permit may be required. Future projects within regulated shorelines would undergo permitting review at time of implementation. Stormwater capital projects sited in designated shorelines could have increased costs for permitting and mitigation.

2.3.4 Pierce County SEPA Regulations

SEPA provides a way to identify possible environmental impacts that may result from governmental actions. These decisions may be related to issuing permits for private projects, constructing public facilities, or adopting regulations, policies, or plans. SEPA review is not a permit, but is a process that helps agency decision-makers, applicants, and the public understand how a proposal would affect the environment. This information can be used to change a proposal to reduce potential impacts or to condition or deny a proposal when adverse environmental impacts are identified.

SEPA applies to all levels of state and local government. Pierce County has adopted its own SEPA regulations in Title 18D of the Pierce County Code, which adopts most of the Ecology SEPA regulations. For most projects and programs proposed by the County under the basin plan, Pierce County would be the lead agency under SEPA and would be responsible for completing SEPA review under County SEPA policies and regulations.

Any proposal that requires a local agency to license, fund, or undertake a project, or the proposed adoption of a policy, plan, or program, could trigger environmental review under SEPA. A proposal with potential significant adverse environmental impacts could require an environmental impacts statement. Proposals without significant impacts likely would require a determination of non-significance and accompanying environmental checklist. SEPA review includes both preparing environmental documents and public review, the extent of which depends on the location, magnitude, and potential impacts of the proposal.

The basin plan itself will undergo SEPA review before its adoption, and a non-project or programmatic SEPA document will be prepared concurrently with the basin plan. Individual capital improvement projects prescribed in the basin plan would undergo SEPA review at the time they are designed and permitted. SEPA review could identify site-specific mitigation measures which could increase the costs of basin plan projects.

2.4 SUMMARY OF KEY REGULATIONS AND PROGRAMS

Table 2-1 lists the federal, state, and County regulations, programs, and policies that may affect the *Nisqually River Basin Plan*. The table summarizes how each regulation may affect the basin plan.

**TABLE 2-1
Federal, State and County Regulations and Programs
Relevant to the Nisqually Basin Plan**

Law or Regulation	Application to the Nisqually River Basin
Federal Laws	
Clean Water Act: Section 402 National Pollutant Discharge Elimination System (NPDES) Permit	Stormwater NPDES permit requires that the County address water quality when developing CIP for flood control. Permit also requires retrofitting to address stormwater quality in areas that developed without water quality controls. Basin plan recommendations must adhere with the County’s NPDES Permit and Stormwater Management Program (SWMP).
Clean Water Act: Section 303(d) Total Maximum Daily Load (TMDL) Listing	The basin plan should include recommendations to improve discharges into water bodies that do not meet water quality standards and that require TMDLs. TMDLs could require reduction of stormwater pollutant loads.
Clean Water Act: Section 404 Permit Requirements for Wetlands	The basin plan should avoid CIP or other actions that could adversely affect wetlands. If wetland impacts cannot be avoided, the project cost estimates should include wetland mitigation. The basin plan could identify projects that would acquire, protect, create, or enhance wetlands.
Endangered Species Act (ESA)	Basin plan recommendations should include projects and programs that would improve water quality and restore fish habitat, which would benefit endangered fish. Future projects should be located and designed to avoid impacts on ESA-listed species. Potential site-specific impacts on ESA-listed species should be coordinated with resource agencies.
National Flood Insurance Program	Basin plan recommendations should reduce flood hazards and maintain or improve the County’s rating under the Community Rating System. Future projects must meet County floodplain regulations and the provisions of the County Critical Areas Ordinance regarding flood hazards.
State Laws, Plans and Regulations	
Water Quality Standards	The basin plan should consider ground and surface water quality standards when developing CIP alternatives. The basin plan also should identify current and potential water quality problems, and then recommend measures to address problems and meet water quality standards.
401 Water Quality Certification	Individual projects could require a 401 certification from Ecology. A 401 certification could include site-specific mitigation measures, which should be included in project design and cost estimates.
Puget Sound Water Quality Management Plan	The basin plan recommendations should be consistent with the <i>Puget Sound Water Quality Management Plan</i> .
Growth Management Act (GMA) and <i>County Comprehensive Plan</i>	The basin plan recommendations must be consistent with the overall GMA planning goals and <i>County Comprehensive Plan</i> . To support planned growth and enhance critical areas, the basin plan was developed based on land use policies and designations in the <i>County Comprehensive Plan</i> .

**TABLE 2-1
Federal, State and County Regulations and Programs
Relevant to the Nisqually Basin Plan**

Law or Regulation	Application to the Nisqually River Basin
State Hydraulic Code	Many individual projects would require a HPA permit. The HPA could include mitigation measures, which should be included in cost estimates.
Watershed Management Act	The basin plan should evaluate the data collected and consider the recommendations for water quality and fish habitat protection that are contained in the <i>Nisqually Watershed Management Plan</i>
Substitute House Bill 323	The CIP and other recommendations under the County’s basin plan should be consistent with the stormwater and water quality policies in the <i>1987 Nisqually River Management Plan</i> .
Archaeological and Cultural Coordination	Recommendations in the basin plan should avoid adverse impacts on archaeological, cultural, and historic sites. Development of CIP projects should be coordinated with the Department of Archaeology and Historic Preservation (DAHP) and the Nisqually Tribe.
Forest Practices Act	The <i>Nisqually River Basin Plan</i> should identify and evaluate any foreseeable conversions of timber land to residential development within unincorporated areas of the Nisqually watershed. The basin plan also should analyze any potential stormwater and water quality problems related to logging under County jurisdiction in the Nisqually watershed.
Pierce County Regulations, Policies & Programs	
Critical Areas Ordinance	The basin plan should avoid recommendations that would adversely affect critical areas (e.g. wetlands, fish and wildlife habitat). If a project must be sited in a critical area, the cost estimate should include costs for mitigation and permitting.
Land Use and Zoning Designations and Development Regulations	Land use and zoning designations could affect the siting and design of future projects. The basin plan should ensure that future projects would be consistent with the underlying land use and zoning designations.
Pierce County Shoreline Master Program (SMP) and Washington Shoreline Management Act (SMA)	Future projects should be located and designed to be consistent with the County shoreline policies and regulations. Projects within designated shorelines could require permits and mitigation, which should be incorporated into the costs of individual projects.
Pierce County and Ecology SEPA Regulations	The basin plan itself would undergo SEPA review before its adoption, and a non-project or programmatic SEPA document would be prepared concurrently with the basin plan. Future projects would undergo SEPA review.

2.5 COUNTY LAND USE POLICIES

The GMA and 1991 GMA amendments require counties to prepare comprehensive plans that direct growth to occur in places of least impact to the environment. The *Pierce County Comprehensive Plan*, completed in 1994 and updated biannually, outlines growth and management policies and provides a framework for more focused planning. The overall goals of the plan include:

- Promoting economic development and allowing for housing choices and opportunities.
- Containing urban sprawl and preserving resources and rural lands as well as ecologically fragile areas by careful site and general planning.
- Allowing citizen and local input into the planning process.
- Coordinating regional and local planning efforts.

The comprehensive plan also includes policies related to natural resources, open space, environmentally sensitive areas and, to an extent, agriculture (as open space).

County policies are implemented in several ways. Some are implemented through regulations, including zoning and other codes. Others are implemented through services provided by the County, such as permitting, or through guidance from the SEPA process or actions in conjunction with SEPA. In addition, policies may guide public hearings, variance or rezone requests, and community planning efforts.

The critical areas element of the *County Comprehensive Plan* (PCC 19A.60) contains a number of policies relevant to fish habitat mitigation or protection. These policies provide direction for the County critical areas regulations, SEPA regulations, and other codes regulating land development. In addition, they guide County staff in the preparation of community and basin plans. Other policies in the *County Comprehensive Plan* may also have implications relevant to fish habitat. The key policies are summarized below.

- 19A.30.70: Classify lands that have been designated as having long-term commercial agricultural significance.
- 19A.30.080: Conserve and protect forest resource lands while allowing conversion and limited development under urban conditions.
- 19A.30.170: Designate and identify open space areas.
- 19A.40.030: Conserve rural resources.
- 19A.50.040: Encourage growth of readily-accessible, large planned employment center sites.
- 19A.60.010: Create and support an environmental quality commission to evaluate, review, and recommend programs for environmental enhancement affecting the County.

- 19A.60.020: Comply with air and water quality standards by the year 2000. Achieve no net loss of wetlands, and improve conditions so that wild fish runs can be restored to healthy, viable populations.
- 19A.60.030: Coordinate with other agencies and tribes to protect critical areas and address environmental issues.
- 19A.60.050: Identify, map, and manage water resources on a watershed basis through watershed action plans, groundwater resource inventories and protection programs. Identify actions that maintain surface water base flows, control flooding, and protect water quality. Develop performance standards and regulate land uses, which include constructing employment and community facilities outside of shorelines. Protect commercial and recreational shellfish areas. Maintain aquifer recharge quantity and quality. Establish performance standards for stormwater runoff and nonpoint source pollution that include water conservation measures, enhancing stormwater and erosion control standards, and minimizing areas of impervious surface cover. Continue and strengthen water quality education programs.
- 19A.60.060: Maintain and improve terrestrial and aquatic ecosystems to maintain viable populations of plants and animals. Conduct watershed analyses to identify watershed processes and ecosystem concerns that need to be addressed; and establish a County ecosystem restoration strategy with other agencies. Establish comprehensive ecosystem management programs to protect fish and wildlife resources within certain geographic areas of the County.
- 19A.60.070: Maintain and protect habitat areas for fish and wildlife. Identify, map, and place regulatory emphasis on critical fish and wildlife habitat areas. Maintain movement corridors by establishing buffers on aquatic resources. Assess the effectiveness of existing policies and regulations including shoreline regulations, clearing and erosion control requirements, stormwater drainage requirements, and critical habitat protection regulations. Pursue acquisition of critical areas and establish educational programs.
- 19A.60.080: Avoid endangerment of lives, property, and resources in geologic and flood hazard areas. Protect flood hazard areas as open space or with low-density development
- 19A.60.090: Provide for no net loss of wetlands. Identify, map, and protect wetland function. Mitigate for wetland losses. Educate the public and pursue acquisition of important wetland areas.
- 19A.60.130: Recognize that some critical areas have been legally altered and continue to be used for agriculture. Responsible use and maintenance of these areas may continue.
- 19A.80.30: Provide an efficient road network in order to provide mobility for people, goods, and services.

2.6 PIERCE COUNTY BASIN PLANNING PROGRAM

The *Pierce County Storm Drainage and Surface Water Master Plan* (James M. Montgomery 1991) served as the first capital improvement program (CIP) and program plan for the Pierce County Storm Drainage and Surface Water Management Utility. The Nisqually River basin was included as part of the rural study areas element of the 1991 plan. Hydrologic modeling was performed for Ohop Creek, Mashel River, Murray Creek, Tanwax Creek and Horn Creek as part of that planning effort; however, the 1991 plan did not include much detail regarding the physical attributes of the Nisqually basin or the drainage systems within it. The 1991 plan identified only one CIP project in the Nisqually Basin—vegetation removal from the inlet and outlet of Whitman Lake in the upper Tanwax subbasin. No other projects have been identified or completed.

In the late 1990s, the County evaluated its progress toward implementation of the 1991 plan. Based on that evaluation, the County decided to identify stormwater CIP needs by developing detailed basin plans rather than by revising the Countywide 1991 plan. The County then developed basin planning guidelines to ensure consistency among the basin plans. As discussed in [Chapter 1](#), the *Nisqually River Basin Plan* is being developed in accordance with the County's guidelines.

