

WOODLAND AND WOODARD CREEK COMPREHENSIVE DRAINAGE BASIN PLAN

Prepared by:
Thurston County Department of Water and Waste Management
Storm and Surface Water Utility
Olympia, Washington

August, 1995

Funded by:
Washington State Department of Ecology
Flood Control Assistance Account Program
Thurston County
City of Lacey
City of Olympia

RESOLUTION NO. 10987

A RESOLUTION to adopt the Woodland and Woodard Creek Comprehensive Drainage Basin Plan, and the recommended level of service.

WHEREAS prevention of water quality and flooding problems, and preservation of habitat are important goals of the Thurston County Comprehensive Plan and the Puget Sound Water Quality Management Plan; and

WHEREAS the County entered into Interlocal Cooperation Agreements pursuant to RCW 39.34 regarding joint Storm and Surface Water Management within the Cities of Lacey, Olympia, and Tumwater to provide a means by which existing and potential pollution, erosion, and flood damage to property and aquatic resources could be more effectively managed; and

WHEREAS uncontrolled stormwater runoff in Woodland and Woodard Creeks is presently causing flooding, damage to shellfish beds and surface water contamination that may threaten public health and safety and damage natural habitat; and

WHEREAS growth will continue in the Woodland and Woodard Creek basins which can add to the existing flooding, water quality and habitat problems; and

WHEREAS actions to minimize these problems can result in significantly decreased flooding and improved water quality in the future; and

WHEREAS the Woodland and Woodard Creek Comprehensive Drainage Basin Plan contains policies and recommendations that can accomplish these goals over time and, therefore, serve the public health and safety;

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF THURSTON COUNTY that:

The Thurston County Board of Commissioners shall adopt the Woodland and Woodard Creek Comprehensive Drainage Basin Plan, and the recommended level of service; and that

Thurston County shall prioritize these recommendations in relation to all the other drainage basin recommendations for the Stormwater Utility area; and that

Thurston County shall implement these recommendations in prioritized order, to the extent that funding is available.

ADOPTED: August 7, 1995

ATTEST BY:

BOARD OF COUNTY COMMISSIONERS
Thurston County, Washington

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Clerk of the Board

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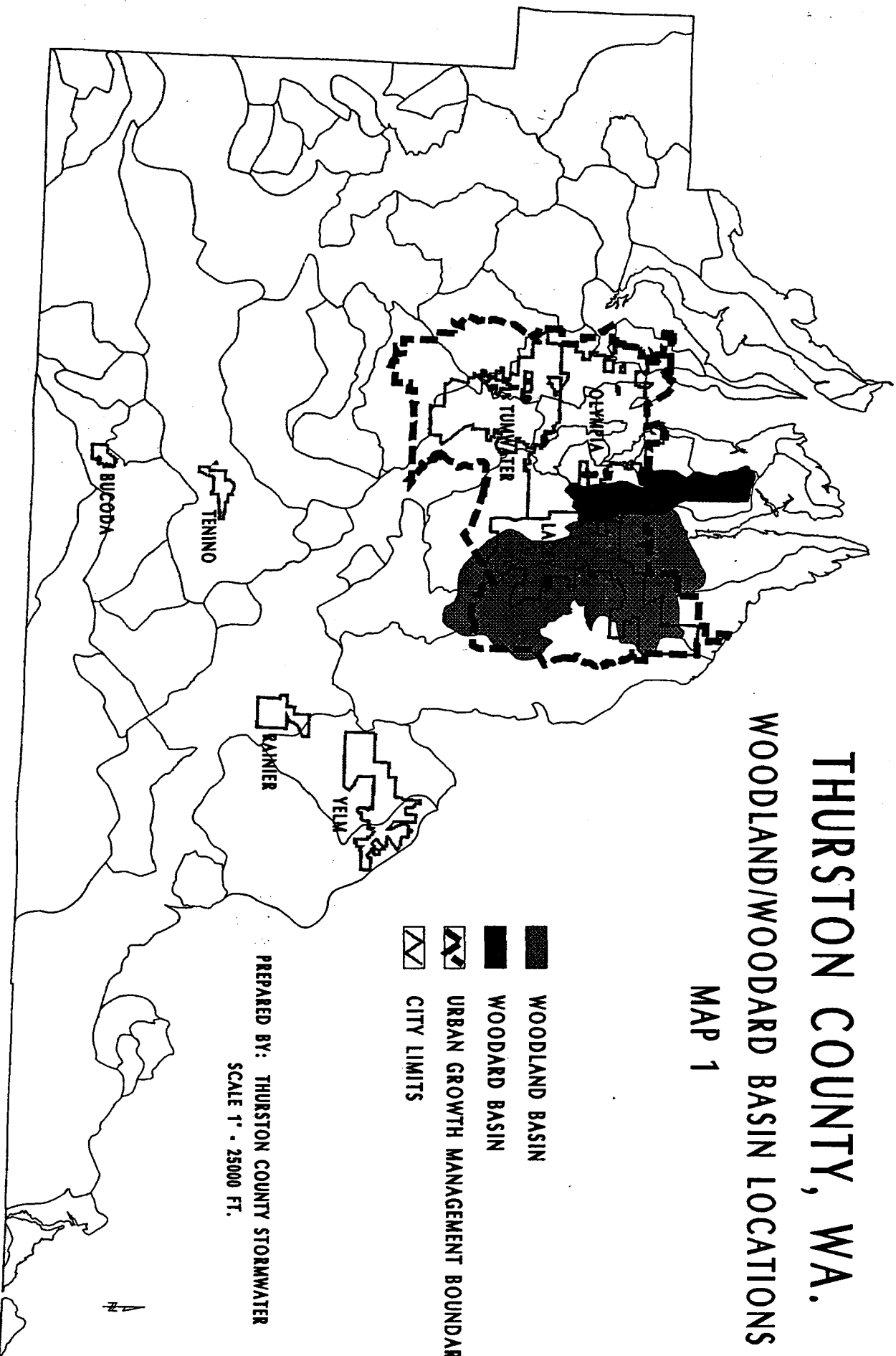
THURSTON COUNTY, WA.

WOODLAND/WOODARD BASIN LOCATIONS

MAP 1

-  WOODLAND BASIN
-  WOODARD BASIN
-  URBAN GROWTH MANAGEMENT BOUNDARY
-  CITY LIMITS

PREPARED BY: THURSTON COUNTY STORMWATER
SCALE 1" = 25000 FT.



WOODLAND/WOODARD COMPREHENSIVE DRAINAGE BASIN PLAN

EXECUTIVE SUMMARY

The Woodland and Woodard Creek drainage basins encompass about 36 square miles of land that drains to Henderson Inlet, where shellfish harvesting has been restricted since the 1980s. The basins span almost all of the commercial and industrial development from the east side of Olympia to Hawks Prairie and Marvin Road in Lacey, and several residential subdivisions in Lacey and Thurston County. Thurston County's most explosive population growth in the 1970s and early 80s occurred in these basins.

Water resources in the basin have declined dramatically from impacts associated with rapid development. Roads, shopping developments and residential subdivisions discharge untreated stormwater runoff directly to the creeks and lakes in the basin. Intensive studies found that stormwater runoff contributes more contamination to shellfish beds in Henderson Inlet than any other source. Runoff from developed areas also generates the extreme flood flows that destroy fish habitat in Woodland and Woodard Creeks. Unmaintained and under-designed drainage systems produce frequent flooding in several residential neighborhoods.

The *Woodland and Woodard Creek Comprehensive Drainage Basin Plan* proposes many actions to correct existing problems in the basin and prevent future problems from occurring. The plan was developed over the past five years with extensive input from neighborhood groups and local agencies.

WHAT ARE THE PLAN'S BENEFITS?

Clean Water Streams, lakes and ground water in the basin are deteriorating. Henderson Inlet and Woodland Creek are designated as "water quality limited" under the federal Clean Water Act. Several wells in the Pattison Lake area have been abandoned due to contamination. Aquatic weeds have become a persistent problem in Long Lake. The plan's recommended actions would significantly reduce non-point source water pollution, which contributes the greatest load of pollutants to the basin's water bodies.

Reduced Flooding and Property Damage Many older neighborhoods in the basin experience frequent flooding from inadequate or broken drainage systems. Residents of areas such as Tanglewilde and Forest Glen must tolerate inconvenience, damaged property, or, worse, threats to their health when their roads, basements and septic drainfields flood. The plan's flooding recommendations would resolve many chronic flooding problems.

Reopened Shellfish Beds Commercial harvesting in most of the Henderson Inlet shellfish beds has been banned or restricted since the mid-1980s, mainly because of bacteria contained in stormwater runoff. Shellfish restrictions have cost Thurston County millions of dollars. The plan's stormwater recommendations could substantially reduce stormwater contamination of Henderson Inlet and support Thurston County's request that the state recertify the shellfish beds.

Improved Salmon Habitat Historical accounts reveal that Woodland and Woodard Creeks used to be two of the most productive salmon streams in Thurston County. Salmon runs in both creeks have declined steadily. Recommended habitat and fish passage improvements would make the streams more hospitable to fish, and regional detention projects would help insure that future development does not cause new increases to damaging peak flows.

WHAT DOES THE PLAN RECOMMEND?

The plan recommends drainage system improvements to reduce flooding in several locations, including:

- Forest Glen subdivision
- Steilacoom Road and School Street
- Tanglewilde subdivision
- 15th Ave NE & Enterprise Dr
- 35th Ave SE/36th Ave SE/Ida Jane Dr
- Homann Dr SE
- Alder Dr SE
- 49th Ave SE & Lakemont Dr SE
- 12th Ave SE & Boone St

The plan recommends water quality treatment facilities for untreated stormwater runoff that drains directly into:

- Hicks Lake @ Ruddell Road
- Woodland Creek @ Martin Way
- College Creek @ Martin Way & I-5
- College Creek @ 2nd I-5 crossing
- Woodland Creek @ I-5
- Woodard Creek @ Martin Way
- Woodard Creek @ Pacific Ave

The plan recommends fish passage improvements for culverts at:

- Woodland Creek at Pleasant Glade Rd
- Woodland Creek at Martin Way
- Woodland Creek at I-5
- Woodard Creek at 36th Ave NE
- Woodard Creek at South Bay Rd
- Woodard Creek at Pacific Ave./I-5

The plan recommends regional stormwater detention facilities to reduce damaging peak stream flows at:

- 7 locations in sub-basins of Woodland Creek
- 2 locations in sub-basins of Woodard Creek

The plan recommends increased education on illegal dumping and clearing activities, and more volunteer opportunities to work on restoring the creeks. The plan also recommends increased monitoring of untreated stormwater discharges, new stormwater facilities, and critical fish habitat.

HOW MUCH WILL THE PLAN COST?

The plan costs could vary widely, depending on the effectiveness of the initial actions. The initial, top priority actions would address the worst flooding and water quality problems. Follow-up monitoring would determine their effectiveness. The second phase would address lower priority flooding and habitat problems. The final phase includes additional water quality and flooding measures that represent a worst-case scenario. Measures to prevent future impacts would be implemented as growth occurs, funded by future development.

Phase 1 estimated cost: \$8.9 million

Phase 2 estimated cost: \$4.4 million

Phase 3 estimated cost: \$11.2 million

Future growth estimated cost: \$3.6 million

WHO WILL PAY FOR THE PLAN?

Revenues could come from a combination of grants, loans, stormwater fees, and other sources. Decisions about funding reside with each jurisdiction. Adoption of the plan would not commit funds to any projects, and the plan would only be implemented to the extent that funding becomes available. The plan is intended to provide direction on where the problems are and how to solve them; not to be an instrument for appropriating funds. Creative implementation that emphasizes public-private partnerships, volunteer efforts, and opportunities for cost-saving efficiencies could reduce the plan's costs.

In order to illustrate the relative contributions of each area to the problems, the estimated costs for capital projects have been divided between the local jurisdictions and the Washington Department of Transportation according to the portion of land in each jurisdiction that contributes to each proposed project. Projects to prevent future problems have been allocated to future development. Most projects would occur in the urban growth area on the fringe of Lacey and Olympia, so future annexations will change the cost allocation. Non-structural recommendations have been allocated according to each jurisdiction's share of the total basin area. Funding for the initial phase would require:

<u>Lacey</u>	<u>Olympia</u>	<u>Thurston</u>	<u>WADOT</u>	<u>Future Growth</u>
\$3,436,267	\$2,254,552	\$2,622,792	\$591,538	\$3,559,121

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CHAPTER 1 - INTRODUCTION

1.1 PURPOSE

This plan was prepared in order to identify water resources problems related to urban and rural development in the Woodland and Woodard Creek basins and to find solutions to these problems. The plan evaluates structural improvements and nonstructural measures for two alternative "levels of service" which provide increased protection for water resources.

1.2 WHERE ARE WOODLAND AND WOODARD CREEKS?

Woodland and Woodard Creeks are the largest tributaries to the Henderson Inlet of Puget Sound in northern Thurston County, Washington, and they flow through northeast Olympia and central Lacey (see maps 1 - 3). Woodland and Woodard Creek basin boundaries lie generally near Marvin Road on the east and Libby Road on the west. The Woodland and Woodard Creek basins comprise 80% of the Henderson Inlet watershed.

Hicks, Pattison and Long Lakes feed into the headwaters of Woodland Creek. The creek flows north for 5.6 miles from Long Lake, through Lake Lois, and into the south end of Henderson Inlet. Groundwater feeds the lakes and provides base flow to Woodland Creek. Ground water also feeds wetlands immediately south of Interstate 5 near the Pacific Avenue interchange, which form the headwaters of Woodard Creek. Woodard Creek flows north for 7.5 miles and empties into Henderson Inlet on the west shore, at Woodard Bay (P. Powers, Washington Department of Fisheries, 1991).

Table 1-1 Woodard and Woodland Creek Basin Areas By Jurisdiction (1987)¹

BASIN	AREA - ACRES (% OF TOTAL BASIN)			
	County	Olympia	Lacey	TOTAL
Woodland Creek	13,432 (71%)	118 (01%)	5,436 (28%)	18,986
Woodard Creek	3,217 (72%)	1,122 (25%)	138 (03%)	4,477
TOTAL	16,649 (71%)	1,240 (05%)	5,566 (24%)	23,463

¹ Percentages used in 1987 to determine cost shares for the basin plan, which have changed since 1987 due to annexations. 1994 data were used to estimate cost share for projects recommended by the plan. From Thurston County Department of Water and Waste Management, 1994.

1.3 WHAT IS BASIN PLANNING?

Basin planning is a tool for protecting water resources by evaluating the entire range of activities that degrade those resources and proposing comprehensive solutions which consider all the interconnected impacts. The Woodland and Woodard Creek Basin Plan addresses flooding, water quality, and stream habitat. Comprehensive planning avoids the problems

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caused by the old approach of focussing on one aspect of water resource management such as hydropower generation or flood control.

1.4 GOALS AND OBJECTIVES

The Storm and Surface Water Technical Advisory Committee (TAC), comprised of stormwater managers from Olympia, Lacey, Tumwater and Thurston County, provided overall management for this plan. In 1990, the TAC developed the following common goals for all interjurisdictional basin planning efforts:

1.4.1 BASIN PLAN GOALS

- Preserve and/or enhance water quality, stream morphology, wetlands, groundwater, fisheries/wildlife habitat, and aesthetic amenities.
- Promote sustainable development within each basin (i.e. minimum impact on water resources and habitat).
- Promote public interest and involvement in water resource management.
- Establish short-term and long-term solutions to existing and future stormwater quality and quantity problems.
- Promote a regional approach for financing, ownership, and operation/maintenance of regional facilities and programs.

1.4.2 BASIN PLAN OBJECTIVES

As a result of completing a drainage basin plan the following will have been accomplished:

1. There will be a rational basis for making decisions about capital expenditures, financing options, land use regulation, source reductions, and stormwater facility location, design, and maintenance. Decision-making information and tools generated by the basin plan will include:
 - Data base on water quality, hydrology, and habitat.
 - Data base on existing and potential pollution sources.
 - Predictive model for testing effects of alternate decisions.
 - Prioritized list of structural and non-structural projects.
 - Recommended development controls (regulations/incentives).
 - Recommended program for continued monitoring of facility performance and resource conditions.
2. There will be active ongoing public involvement in stream restoration, enhancement, and education activities addressing problems identified in the plan.
3. The public will understand and support plan recommendations.

4. Responsible jurisdictions will have agreed on a common implementation and financing strategy for the drainage basin including:
 - Schedule for implementing recommended projects.
 - Revenue sources and methods of financing.
 - Cost allocations.
 - Responsibility for owning and operating capital facilities.
 - Enforcement of development controls and other regulations.
 - Ongoing coordination of plan implementation.
 - Ongoing coordination of public involvement and education activities.

The basin plan incorporates the goals and recommendations of the *Henderson Inlet Watershed Action Plan* (Thurston County Planning Department 1989). The Watershed Action Plan focusses on:

- continued educational efforts,
- developing an active monitoring program,
- protecting wetlands and streams and their natural water quality functions,
- minimizing impacts from stormwater,
- developing a septic system management program,
- and implementing best management practices for agricultural activities.

The plan also incorporates goals which fulfill the state's Flood Control Assistance Account Program requirements for a flood control management plan, as stipulated in the grant which helped fund the plan. These requirements include identifying the 100-year floodplain problem areas and factors contributing to flooding, and prioritizing proposed projects in order to achieve the greatest efficiency in flood control (Washington Administrative Code 173-145-040).

1.5 AUTHORITY OF THE BASIN PLAN

This basin plan derives its legal authority from a variety of state and local laws. This section summarizes these laws, and appendix F contains a more extensive description of related laws. State laws contained in the Revised Code of Washington (RCW) are cited below by the title, chapter, and, if needed, section numbers.

1.5.1 AUTHORIZING LEGISLATION

This section describes state and local legislation that authorizes the basin plan, either by direct authorization of basin planning, by setting policies that support basin planning, or by authorizing specific recommendations contained in the basin plan.

RCW 36.70 (Growth Management Act) The state Growth Management Act authorizes local jurisdictions to "review . . . drainage, flooding, and stormwater runoff in the area and

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nearby jurisdictions" and provide "guidance for corrective actions to mitigate or cleanse those discharges that pollute Puget Sound or waters entering Puget Sound" (RCW 36.70.330) through a mandatory comprehensive plan, intended to facilitate orderly development and address a broad spectrum of planning issues.

The Growth Management Act authorizes key aspects of the comprehensive plan to be "amplified and augmented in scope by progressively including more completely planned areas consisting of distinctive geographic areas or other types of districts having unified interests within the total area of the county" (RCW 36.70.340). A comprehensive drainage basin plan is such a plan.

The Act further authorizes basin planning through a comprehensive planning option to include "a conservation element for the conservation, development, and utilization of natural resources, including water and its hydraulic force, forests, watersheds, soils, rivers and other waters, harbors, fisheries, wildlife, and other natural resources," "a public services and facilities element showing general plans for sewage, refuse disposal, drainage and local utilities, and rights of way, easements and facilities for such service," and "a plan for financing a capital improvements program" (RCW 36.70.350). Specific recommendations in this basin plan are intended to be incorporated into the local jurisdictions' comprehensive plans.

RCW 36.89 This Washington State law mandates basin-wide planning and authorizes counties to form stormwater utilities and collect rates from residents. The law states that stormwater facilities "generally require planning and development over the entire drainage basins, and affect the prosperity, interests and welfare of all residents of such county."

To accomplish that purpose, the law provides that "a county may create utility local improvement districts for the purpose of levying and collecting special assessments on property specially benefitted by one or more storm water control facilities." Olympia, Lacey and Thurston County's stormwater utilities, which developed this plan jointly, were created under this authority.

Puget Sound Water Quality Management Plan The 1991 *Puget Sound Water Quality Management Plan* constitutes the official plan for Puget Sound under the Puget Sound Water Quality Act (RCW 90.70), and the Comprehensive Conservation and Management Plan for Puget Sound under Section 320 of the Federal Clean Water Act (PL100-4). The Puget Sound Water Quality Act requires local governments in the Puget Sound basin to "evaluate, and incorporate as applicable, subject to the availability of appropriated funds or other funding sources, the provisions of the plan, including any guidelines, standards, and timetables contained in the plan." The act further authorizes basin planning by empowering local governments to "adopt ordinances, rules, and regulations that are applicable on less

than a county-wide, city-wide, or town-wide basis." Several of this basin plan's recommendations implement Puget Sound Water Quality Management Plan mandates.

Washington Department of Ecology Stormwater Guidance Manual for the Puget Sound Basin

The Puget Sound Water Quality Management Plan directed the Department of Ecology (DOE) to set minimum stormwater management standards for local government and review local programs for consistency with the Plan and DOE's guidelines. DOE published these guidelines in 1992, which require local stormwater programs to include measures that address stormwater treatment and quantity control, maintenance, development regulations, and erosion control. This basin plan partially fulfills the DOE requirements.

Thurston County Comprehensive Plan The comprehensive plan for Thurston County, updated in 1988, contains policies regarding the natural environment in general and stormwater management specifically.

The Thurston County Comprehensive Plan (Ch. 2, Natural Environment, Objective B) sets the following policies in order to "ensure high quality surface and ground water, preservation of water resources and compatibility between land and water uses":

- Protect water quality, natural drainage, and habitat of streams, lakes, and wetlands.
- Require that development does not degrade fish-bearing streams and commercial shellfish areas, nor result in the loss of natural functions. Achieve this goal by avoiding excessive flows, protecting riparian habitat and streambank integrity, prohibiting pollution discharges, and avoiding water quality degradation.
- Restore degraded water quality when possible.
- Retain lakes, streams and wetlands and their corridors in their natural condition, by maintaining undisturbed natural buffers and prohibiting filling.
- Manage water resources for multiple uses, and give the natural system priority when conflicts arise.
- Protect ground water quality and prevent aquifer contamination through comprehensive management.

The Comprehensive Plan's stormwater management element (Ch. 2, Utilities, Objective F) calls for a stormwater utility responsible for interjurisdictional coordination and promotion of development practices "which do not lead to surface water and ground water degradation or chronic flooding from storm water." Specific policies to achieve this goal include:

- Minimize runoff from new and existing development and avoid altering natural drainage systems.
- Minimize erosion and sedimentation from construction practices.
- Protect streams and other natural waterways.
- Retain wetlands and floodplains in their natural state.

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The basin plan partially implements several Comprehensive Plan policies.

The capital facilities element of the comprehensive plan (formerly called the public utilities element) authorizes all of the county's planned capital facilities for the next twenty years, and identifies funding for capital facilities for the next six years. Capital facilities needs are based on the population growth projection adopted by the county. The capital facilities recommended by the basin plan will be evaluated and prioritized against the county's other capital facilities needs, and incorporated into the comprehensive plan through annual updates reviewed and approved by the Board of County Commissioners. Capital facilities in Olympia and Lacey must also be included in the respective jurisdiction's comprehensive plan.

Thurston County intends to adopt new revisions to the Comprehensive Plan in 1995, in order to make the plan comply with state growth management requirements. Elements of the comprehensive plan revisions that apply to the Lacey and Olympia unincorporated Urban Growth Management Areas were adopted jointly by the county commission and city councils in 1994, and are described below.

Comprehensive Plan for Olympia and the Olympia Growth Area The Olympia Comprehensive Plan, updated in 1994, contains goals and policies for housing, the environment and stormwater (City of Olympia 1994). The goals and policies that support the basin plan are summarized below. An asterisk denotes the goals and policies for the unincorporated Olympia urban growth area, which were jointly adopted by the city and the county.

The Olympia Comprehensive plan sets the following policies in order to "preserve environmental quality*":

- LU 6.1 Establish regulations which ensure that development is accomplished in a manner that protects environmentally-critical areas.
- LU 6.3* Establish development densities and requirements for impervious surface coverage that limit stormwater generation to levels not likely to cause flooding, significant streambank erosion, or significant degradation of aquatic habitat or water quality.
- LU 6.4 Require clustering of development to promote ground and surface water protection . . .
- LU 6.6* Provide incentives for restoring degraded wetlands, stream corridors, and other important natural systems . . .

The plan sets the following policies in order to "protect and improve local and regional water resources*" and to "monitor progress toward sustainability":

- ENV 3.1* Support cooperative surface water and groundwater management efforts among the three cities (and) the County . . .

- ENV 3.3* Continue to cooperate with the other metropolitan jurisdictions in planning and implementing drainage basin plans . . .
- ENV 3.4* Ensure that stormwater runoff from new developments meets the quality and quantity control requirements contained within the Regional Drainage Design Manual.
- ENV 3.7 Regularly review the effectiveness and adequacy of ordinances and requirements which address such factors as erosion control, management of stormwater discharge, pollution source control activities, stream restoration work, and habitat protection measures . . .
- ENV 3.9* Protect areas with high potential for aquaculture activities . . .
- ENV 3.12* Protect fish-bearing waters from damage due to excessive flows, dredging, and water quality degradation due to siltation or other pollutants. Dominant flows and water levels should be maintained in streams.
- ENV 7.3 Support groundwater and surface water monitoring efforts to achieve surface water and groundwater protection goals.

The plan sets the following policies in order to "eliminate chronic flooding, surface and groundwater degradation, and habitat loss caused by stormwater,*" to "maintain an effective stormwater management program*" and to "meet the requirements of the Puget Sound Water Quality Management Plan*":

- PF 14.1 Existing and new development should minimize increases in total runoff quantity, should not increase peak stormwater runoff, and should avoid altering natural drainage systems so that flooding and water quality degradation result.
- PF 14.3* Land uses and activities should not result in polluted stormwater runoff that results in degraded surface or groundwater.
- PF 14.4* Streams and other natural waterways which convey runoff to major rivers or Puget Sound should be protected for their wildlife, fisheries and aesthetic values.
- PF 15.1* Local governments within the same drainage basins should . . . plan together for major regional stormwater facilities . . .

Lacey Comprehensive Plan The city of Lacey adopted the environment and land use elements of its comprehensive plan in 1994, to satisfy state growth management requirements. The land use element identifies "water quality and regional drainage basin planning" as important land use issues, and incorporates by reference several basin plans, ground water plans and watershed action plans. The issues analysis recognizes the need for the plan to "help provide coordination for implementation of these plans . . ." (City of Lacey and Thurston County 1994).

The plan's water resources goal is to "reduce impacts from flooding, encourage efficient stormwater management, and ensure the quality and quantity of groundwater resources are protected and preserved for all uses." The plan sets a policy of ensuring that land use is

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coordinated specifically with the *Woodland and Woodard Creek Comprehensive Drainage Basin Plan*, as well as with several other basin plans.

Drainage Design and Erosion Control Manual for the Thurston County and the Cities of Lacey, Olympia, and Tumwater, Washington The drainage design and erosion control ordinance, which has been adopted by Thurston County and the cities of Lacey, Olympia and Tumwater, grants the authority for basin plans to set higher standards for drainage design and erosion control than those contained in the manual.

1.6 OTHER PROGRAMS AND PLANS RELATED TO BASIN PLANNING

Other programs, both federal and state, have guidelines and requirements specific to the kinds of recommendations contained in this plan.

The National Pollutant Discharge Elimination System (NPDES) In 1987 the Federal Clean Water Act and associated NPDES program was amended to address stormwater discharges. Administered by the Washington Department of Ecology, NPDES requires permits for large and medium sized municipal storm sewer systems to discharge stormwater to receiving waters of the state. Permit conditions include prohibition of non-stormwater discharges into the stormwater system and controls to reduce discharge of pollutants to the maximum extent practicable. The local jurisdictions were not required to comply with the first phase of the NPDES program, but they will soon need to comply with Phase 2. Basin plans will probably become basic components of stormwater plans required by NPDES.

Washington Department of Fish and Wildlife Guidelines for the protection of streams and fish habitat have been developed by the Washington Department of Fish and Wildlife. Specific guidelines focusing on stormwater issues and fisheries protection were developed in 1990. The Department has the authority to issue Hydraulic Project Approvals (HPAs) under the Washington Hydraulic Code.

Grant and Loan Programs Various grant and loan programs require the completion of a basin plan or flood management plan before a jurisdiction is eligible for funding assistance, or they increase the eligibility rating of specific projects contained in adopted plans. The programs include the following:

- WDOE Flood Control Assistance Account Program (FCAAP)
- WDOE Centennial Clean Water Fund
- WDCD Public Works Trust Fund Loan Program
- WDOE State Revolving Loan Fund
- EPA Clean Water Act Section 319 Grants

The grant program requirements lend authority to the basin plan by enabling Thurston County to pursue additional outside funding sources for basin plan recommendations.

Critical Areas Ordinances Thurston County, Olympia and Lacey have all recently adopted revised Critical Areas Ordinances to comply with the Puget Sound Water Quality Management Plan and the state Growth Management Act. These regulation apply to developments within or near wetlands, unstable slopes, streams, floodplains, significant wildlife habitat areas, and special management areas. Basin plan recommendations for protecting certain critical areas may be implemented through Critical Areas Ordinances.

Shoreline Master Program Thurston County regulates development of certain shorelines through its Shoreline Master Program authorized under the Washington State Shoreline Management Act (RCW 90.58). The Shoreline Master Program is the local provision of the state law, applied to the marine shores of Henderson Inlet, Woodland Creek north of Draham Road, and Long, Pattison and Hicks lakes, including shorelines within Olympia and Lacey; other water bodies in the basin are too small for the SMP to apply. The Shoreline Master Program defines permitted uses and activities, and sets the permit requirements. Basin plans can make recommendations about protecting these shorelines, which may be implemented through the Shoreline Master Program.

CHAPTER 2 - COMMUNITY INVOLVEMENT PROGRAM

The scope of work for the grant which partially funded this basin plan established the following goals for the public involvement program:

- inform citizens on stormwater issues
- solicit public opinion on problems and solutions
- foster public support for developing and implementing the basin plan
- raise awareness of the need for basin planning and the effects of the plan on individuals and businesses
- involve the public in stream enhancement activities

The county employed a Public Involvement and Education (PIE) Coordinator to direct the public involvement program. The PIE Program for the Woodland and Woodard Creek basins began in February 1991 and concluded in December 1991. The program included basin-wide mailing of an educational brochure and survey, two public workshops on basin planning, two public forums to present the draft basin plan, meetings with community and special interest groups, public exhibits, and watershed enhancement activities.

2.1 PROJECT COORDINATION AND CITIZEN COMMITTEES

Basin planning for the Woodland and Woodard Creek basins was a regional process involving the staff of Lacey, Olympia, and Thurston County. Joint planning committees enabled the PIE Coordinator to educate other agency professionals regarding Woodland and Woodard stormwater planning issues, and prevented duplication of efforts with other agencies. Staff met regularly with:

- Education Technical Assistance Committee (ETAC)
- Technical Advisory Committee (TAC)
- Washington Departments of Ecology, Fisheries, and Wildlife
- Woodland/Woodard Task Force

Staff also gave presentations on the basin plan to the Lacey Utilities Committee, the Olympia Energy and Utilities Committee, and the Thurston County Planning Commission.

These groups' members included stormwater managers, public works directors, and water resource education specialists representing Lacey, Olympia, Thurston County, and WSU Cooperative Extension. The meetings were critical for coordinating activities between the jurisdictions and creating an integrated program. These meetings provided an opportunity to resolve schedule conflicts, prioritize projects, revise publicity materials, coordinate public activities, evaluate project successes and failures, and brainstorm new ideas.

Representatives of the Henderson Inlet Watershed Council and the Storm and Surface Water Advisory Board (SSWAB) provided citizen input for developing the public education

Community Involvement Program

activities, particularly regarding the public basin planning workshops. The Henderson Inlet Watershed Council consists of basin residents responsible for monitoring the implementation of the *Henderson Inlet Watershed Action Plan* (Thurston County Planning Department 1989). The plan includes specific recommendations for public education, basin planning, and stormwater management. SSWAB consists of north Thurston County residents appointed by the County Commissioners to advise the Thurston County Storm and Surface Water Program. The Henderson Watershed Council and SSWAB reviewed and commented on working drafts of the Woodland and Woodard Creek Basin Plan.

Thurston County convened the Woodland/Woodard Task Force in 1994 to provide oversight, review and approval for the final calibration of the basin hydrologic model, which was performed by a consultant, Aqua-Terra. The task force, comprised of members of the Henderson Inlet Watershed Council, the Storm and Surface Water Advisory Board, city of Olympia staff and Thurston County staff also reviewed and revised the final text, format, and recommendations of the plan.

2.2 PUBLIC INVOLVEMENT AND EDUCATION ACTIVITIES

2.2.1 BASIN PLANNING ACTIVITIES

Basin planning staff worked with the Henderson Inlet Watershed Committee and the SSWAB to present two public workshops in the spring of 1991, for basin residents to help develop the problem and solution sections of the basin plan. The citizen committees and staff held two public educational forums in the fall of 1991, to present the draft basin plan for review. The public comments expressed at these events are summarized in appendix A.

Every Woodard and Woodland basin landowner received a direct-mail brochure and survey on the basin plan. The brochure on basin planning explained the problems identified by the basin plan, publicized the basin planning workshops, and included a basin map showing different features of the stream system.

The survey was intended to: identify specific problem sites; determine the number of people in the basin experiencing stormwater-related problems; prioritize problem solutions; and help set the goals of the plan. Twelve thousand eight hundred residents received the survey and 599 people, or about 5%, responded. The survey results are included in appendix A.

A free-standing photo exhibit on Woodland and Woodard Creek basin planning was developed and displayed at many local events. Basin planning brochures and publicity for related community involvement projects were distributed at many of these events.

WSU Cooperative Extension presented a series of water quality training workshops for educators in April and May of 1991, attended by more than 30 area educators. Participants took a field trip to Woodland Creek to learn about stream habitat assessment. They were offered the opportunity to perform habitat assessments on Woodland and Woodard Creeks with their classes, to encourage local schools to participate in the basin planning process.

2.2.2 WOODLAND/WOODARD STREAM TEAM PROJECTS

Stream enhancement activities on Woodland and Woodard Creeks built on the regional Stream Team program coordinated by the City of Olympia. The Public Involvement Coordinator recruited and trained local volunteers to work on Woodland and Woodard Creeks. Volunteers attended free monthly training workshops on monitoring stream flows, revegetating stream banks, and assessing habitat. Stream Team "Captains" received additional training, and coordinated volunteer crews with local government agencies.

Stream Team projects in the Woodland and Woodard Creek basins included stream clean-ups, planting salmon eggs, stream bank revegetation, and storm drain stencilling. These projects brought together a core group of local citizens from a wide variety of professions into an experienced team committed to improving Woodland and Woodard Creeks. Note that stream projects will continue after plan completion.

2.2.3 MEDIA OUTREACH

All the public workshops were publicized in *The Olympian*, *Impact News Magazine*, *Green Pages* (SPEECH), *Lacey Life*, *Cityscape*, and the *Water Quality Quarterly*. Reporters and photographers from the newspapers attended some of the stream restoration projects and public workshops, but coverage was disappointing. The newspapers expressed interest in covering these events but failed to follow through. More aggressive pursuit of media coverage will be required to give these projects the attention they deserve. Articles and shorts about various public activities in the basin ran in agency newsletters and *Green Pages*.